

APPENDIX 4

PICADY Output – High Street/Site Access Junction

Junctions 9							
PICADY 9 - Priority Intersection Module							
Version: 9.0.0.4211 [] © Copyright TRL Limited, 2017							
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk							
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution							

Filename: Site Access_High Street - Junction 2.j9
Path: Z:\projects\1967 Co-op High Street, Coedpoeth\Picady
Report generation date: 26/10/2017 13:56:43

- »2022 Base Flows, AM
- »2022 Base Flows, PM
- »2022 Assessment Flows, AM
- »2022 Assessment Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2022 Base Flows								
Stream B-AC	0.1	7.90	0.10	A	0.1	8.60	0.12	A
Stream C-AB	0.1	6.81	0.10	A	0.1	7.12	0.07	A
Stream C-A								
Stream A-B								
Stream A-C								
2022 Assessment Flows								
Stream B-AC	0.1	7.94	0.11	A	0.2	8.80	0.15	A
Stream C-AB	0.1	6.84	0.12	A	0.1	7.14	0.09	A
Stream C-A								
Stream A-B								
Stream A-C								

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Site Access-High Street
Location	Coedpoeth
Site number	
Date	25/10/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	1967
Enumerator	Croft Transport Solutions
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2022 Base Flows	AM	ONE HOUR	07:30	09:00	15
2022 Base Flows	PM	ONE HOUR	16:30	18:00	15
2022 Assessment Flows	AM	ONE HOUR	07:30	09:00	15
2022 Assessment Flows	PM	ONE HOUR	16:30	18:00	15

2022 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	High Street (S)		Major
B	Site Access		Minor
C	High Street (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			90.0	✓	1.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.75	14	28

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	483.475	0.088	0.223	0.140	0.318
1	B-C	625.506	0.096	0.242	-	-
1	C-B	626.083	0.243	0.243	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2022 Base Flows	AM	ONE HOUR	07:30	09:00	15

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	333.00	100.000
B		✓	46.00	100.000
C		✓	509.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0.000	4.000	329.000
	B	4.000	0.000	42.000
	C	460.000	49.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To			
		A	B	C
	A	0	0	0
	B	0	0	0
From	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A	0.10	7.90	0.1	A
C-AB	0.10	6.81	0.1	A
C-A				
A-B				
A-C				

2022 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.77	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2022 Base Flows	PM	ONE HOUR	16:30	18:00	15

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	423.00	100.000
B		✓	53.00	100.000
C		✓	440.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0.000	5.000	418.000
	B	6.000	0.000	47.000
	C	406.000	34.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To			
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A-C	0.12	8.60	0.1	A
C-AB	0.07	7.12	0.1	A
C-A				
A-B				
A-C				

2022 Assessment Flows, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.93	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2022 Assessment Flows	AM	ONE HOUR	07:30	09:00	15

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	330.00	100.000
B		✓	51.00	100.000
C		✓	511.00	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
From	A	0.000	4.000	326.000
	B	4.000	0.000	47.000
	C	454.000	57.000	0.000

Vehicle Mix

Heavy Vehicle proportion

	To			
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A-C	0.11	7.94	0.1	A
C-AB	0.12	6.84	0.1	A
C-A				
A-B				
A-C				

2022 Assessment Flows, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	0.95	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2022 Assessment Flows	PM	ONE HOUR	16:30	18:00	15

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	418.00	100.000
B		✓	63.00	100.000
C		✓	443.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A	B	C
	A	0.000	6.000	412.000
	B	7.000	0.000	56.000
	C	400.000	43.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
From		A	B	C
	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-A-C	0.15	8.80	0.2	A
C-AB	0.09	7.14	0.1	A
C-A				
A-B				
A-C				

APPENDIX 5

Co-operative Group Car Park Study

CO-OPERATIVE FOOD

CONVENIENCE STORE CAR PARKING STUDY

Parking Study Report

October 2014

Contents

1	INTRODUCTION.....	1
1.1	Introduction	1
1.2	Scope of Report.....	1
2	PLANNING POLICY.....	2
2.1	Introduction	2
2.2	National Planning Policy Framework	2
2.3	Historic Planning Appeal Information	3
3	CO-OPERATIVE CAR PARKING STUDY	6
3.1	Introduction	6
3.2	Methodology	6
3.3	Survey Results.....	8
3.4	Summary.....	12
4	CONCLUSIONS.....	14

PLANS

Plan 1	Chester Road, Kelsall
Plan 2	Fir Tree Lane, Dukinfield
Plan 3	Warrington Road, Platt Bridge, Wigan

Appendix 1	Planning Appeal Decisions
Appendix 2	Car Park Survey Data

1 INTRODUCTION

1.1 Introduction

1.1.1 Croft have been instructed by the Co-operative Food to advise on the usage and operation of a number of store car parks in the north-west of England as part of an ongoing study into the general use of convenience store car parks. This study will be used to assist future planning application for new Co-operative food stores.

1.2 Scope of Report

1.2.1 Following this introduction, Section 2 will summarise the national planning policy guidance regarding car parking as well as providing details on historic planning appeals which are of relevance to car parking and servicing for convenience stores.

1.2.2 Section 3 will then provide an analysis of car parking data collected at three Co-operative convenience food stores in the north-west of England. Whilst Section 4 will provide the conclusions of this report.

2 PLANNING POLICY

2.1 Introduction

2.1.1 The following section of this document will provide a summary of the national planning policy relating to car parking provision at new developments.

2.2 National Planning Policy Framework

2.2.1 With regard to car parking, the NPPF does not refer to maximum or minimum car parking standards for new development, and instead promotes a flexible approach to car parking provision having given consideration to the accessibility of a development by non-car modes, local car ownership and the need to reduce the use of high emission vehicles.

2.2.2 When determining planning applications the key consideration for local planning and highways authorities will be the impact on the local highway network. The policy test contained within paragraph 32 of the NPPF states that:-

- *All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment and that any plans or decisions should take into account the following;*
- *the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
- *safe and suitable access to the site can be achieved for all people; and*
- *improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.*

- 2.2.3 In summary there is a presumption within the NPPF that development should be permitted unless there are significant and overwhelming reasons for Authorities not to do so.

2.3 Historic Planning Appeal Information

- 2.3.1 As detailed above, the NPPF enables applicants/developers to provide car parking provision in line with their operational needs as long as it can be demonstrated that the impact on the local highway network would not be severe.
- 2.3.2 Convenience stores by nature serve a local area and have a significant level of non-car borne trips, they serve the top-up shopping needs of local residents as opposed to larger weekly shops at supermarkets.
- 2.3.3 Therefore the duration of stay is much lower than superstore/market customers i.e. 5-15 minutes for a top up shop. However, the parking ratio for A1 food retail contained in Local Authority Parking standards are set irrespective of the scale of the unit and they fail to differentiate between the convenience store and larger food stores, despite them having fundamental differences in terms of shopping habits of customers.
- 2.3.4 When deriving the likely traffic generation for convenience stores reference is commonly made to the TRICS database which is an industry accepted tool for this exercise, however, the TRICS database provides trip rates on an hourly basis throughout the day. Clearly this does not take into account the fact that the duration of stay of customers of a convenience store are much lower than supermarket/market customers as convenience store trips are generally used for top-up shopping.

2.3.5 The issue of duration of stay and car parking is discussed in the following allowed planning appeals for convenience stores;

- Change of use to form Class A1 retail unit and one reception unit for the existing use of the remaining property (car showroom). Harwood Road, Rishton (APP/R2330/A/11/2163436).
- External alterations to retail unit to provide convenience store off High Street in Teddington (APP/L5810/A/13/2206391).

2.3.6 Further details regarding the specific details of each appeal decision are contained below whilst both appeal decisions are contained within **Appendix 1**.

Harwood Road, Rishton (APP/R2330/A/11/2163436)

2.3.7 The main issue in this appeal was the effect of the proposed development on highway safety.

2.3.8 The Transport Statement submitted in support of the proposed development refers to an appeal decision (APP/C2741/A/05/1194933) for the approval of a convenience store in York. This decision includes reference to a survey of 10 Tesco Express and Sainsbury Local stores, which conclude that the duration of stay at the approved store is around 7 minutes, which over an hour equates to a single parking space having a capacity of 8.5 vehicles per hour.

2.3.9 This data which was accepted by the Inspector is extremely useful in demonstrating the low duration of stay and quick turnover of customers at convenience stores.

High Street, Teddington (APP/C2741/A/05/1194933).

2.3.10 The main issue of this appeal was again highway safety and the impact on the local highway network.

2.3.11 Within the appeal decision the inspector makes reference to the issue of duration of stay and states in paragraph 16 that;

“The council also appears to have assumed that each vehicle would occupy the space for an hour, when, in practice, each visitor is likely to stay less than 10 minutes.”

- 2.3.12 This appeal decision further demonstrates that determining whether a proposed convenience store car park has sufficient capacity to accommodate demand should be based on the duration of stay of convenience store customers.

3 THE CO-OPERATIVE FOOD CAR PARKING STUDY

3.1 Introduction

3.1.1 The following section of this report will discuss the current operation of a number of existing Co-Operative food store car parks which will be used to ascertain whether the parking patterns in the appeal decisions detailed in Section 2 of this report are relevant to the existing and proposed Co-operative food stores.

3.2 Methodology

3.2.1 Unlike larger food stores where there are peak periods of activity, such as at the weekend (when people tend to do their larger shops) Convenience stores experience more consistent patterns of trade across the week. Therefore undertaking survey work on a typical trading day will provide an accurate indication of the levels of trade and car parking demand at existing Co-operative food stores.

3.2.2 To establish the existing parking patterns, car parking beat and duration of stay surveys have been undertaken at the following stores on Friday 26th September 2014 between 0700 hours and 2300 hours;

- Site 1 – Chester Road, Kelsall (Location shown on Plan 1)
- Site 2 – Fir Tree Lane, Dukinfield (Location shown on Plan 2)
- Site 3 – Warrington Road, Platt Bridge, Wigan (Location shown on Plan 3)

3.2.3 These three sites have been chosen as they provide a broad selection of the type and size of stores that the Co-operative Food currently operate and propose to open in the future i.e. standalone stores in rural locations, stores in urban areas on highly trafficked routes and stores in precincts in suburban areas with shared car parking areas.

3.2.4 A summary of each of these three stores are provided below.

Chester Road – Kelsall

- 3.2.5 This store is a standalone unit which is located off Chester Road in the centre of the rural village of Kelsall.
- 3.2.6 The store has a gross external area of 333sqm and a total of 9 car parking spaces located to the rear of the store including 1 space for the mobility impaired. This parking provision equates to a car parking ratio of 1 space per 37sqm.
- 3.2.7 The unit is serviced via a dedicated service bay which is located off Chester Road at the front of the store. The northern side of Chester Road and both sides of Hollands Lane in the vicinity of the store are subject to 'No Waiting' parking restrictions at all times.

Fir Tree Lane – Dukinfield

- 3.2.8 The site is located within a suburban area of the town of Dukinfield in Greater Manchester.
- 3.2.9 This store is located within a precinct with 4 other units including two take-away units, a hairdresser salon and a tanning salon. The Forester public house is located to the east of the store on the opposite side of car park.
- 3.2.10 The store has a gross external area of 297 sqm. The existing car park for the precinct does not have any marked car parking spaces but on site observations indicate that there is car parking provision for up to 10 vehicles to be used by all customers of the precinct.
- 3.2.11 If it is assumed that all 10 parking spaces could be used by Co-Operative food store this would equate to a parking ratio of 1 space per 29.7sqm of floor space. In reality, at certain times of the day the actual car parking ratio for the convenience store would be lower as customers and staff of the other retail unit's will occupy some of the spaces.
- 3.2.12 The car park for the Forester public house is also accessed in this location. This car park has a total of 23 spaces and although it is separated from the precinct car park it is used by some customers of the Co-Operative store and wider precinct.

- 3.2.13 The Co-operative food store is serviced via the service yard located at the rear of the precinct which is accessed via a separate access off Fir Tree Lane.

Warrington Road – Platt Bridge, Wigan

- 3.2.14 The standalone store which is located adjacent to the A58 Warrington Road is in the Platt Bridge area of Wigan. The store is located within a local centre with some other facilities; the A58 Warrington Road is a key commuter route running between Wigan to the south and the A580 East Lancs Road to the north.
- 3.2.15 The store has a gross internal area of 279sqm and a total of 13 car parking spaces including 1 space for the mobility impaired which equates to a parking provision of 1 space per 21sqm of floor space.
- 3.2.16 Vehicular access into the car park is provided for off New Street. The unit is serviced within the car park but no customer parking spaces are required for delivery vehicles to service the store.

3.3 Survey Results

- 3.3.1 The following section of this study will summarise the results of the car parking surveys undertaken at each of the three stores before providing a summary of the overall findings.

Kelsall Parking Survey

- 3.3.2 The full Kelsall parking surveys are shown in full in **Appendix 2**, but the key findings of the surveys are provided below;
- The peak period for the car park was between the 1700 hours and 1800 hours when there were 56 arrivals and 53 departures, this equates to 10% of the daily traffic generated by the store.
 - At no point during the survey did the car park accumulation reach full occupation. The peak parking accumulation within the car park was that of 8 vehicles which

equates to a percentage occupancy of 89%. This occurred twice during the survey, between 0900 and 0915 hours and from 1215 hours to 1230 hours.

- The parking accumulation during peak period of 1700 to 1800 hours was between 3 and 4 vehicles which highlights the quick turnover of customers and low duration of stay of customers as they undertake top-up shopping.
- On-site observations indicated that during the morning of the survey the car park was occupied by people attending a funeral at the nearby Kelsall Methodist Church. This resulted in 2 car parking spaces being occupied for up to 95 minutes.
- Store staff parked within the car park during the survey period. One space was occupied for 540 minutes whilst other spaces were occupied for between 68 and 313 minutes at points through the day.
- The survey data indicates that between 0900 hours and 1400 hours four parking spaces were occupied by store staff at all other times of the survey between two and three car parking spaces were occupied by staff.
- The duration of stay of service vehicles was also included within the survey and there were a total of 4 deliveries. The duration of the deliveries ranged from 8 minutes to 75 minutes and they were undertaken within the service area.

3.3.3 Clearly the use of the car park for staff and church parking will result in higher durations of stay than if it was solely calculated for customers, therefore two mean average duration of stay have been derived.

3.3.4 For robustness if all staff and church parking as well as service vehicles (parked in service yard) are included within the calculations the mean average duration of stay at the Kelsall store is 11.2 minutes.

3.3.5 To derive duration of stay of customers to the Co-operative food store only any car parked within the car park for longer than 30 minutes has been excluded and this demonstrates that the mean average duration of stay of customer at the Kelsall store is 5.9 minutes.

Dukinfield Parking Survey

3.3.6 The full Dukinfield parking surveys are shown in full in **Appendix 2**, but the key finding of the surveys are provided below;

- The peak period for the car park was between 1600 hours 1700 hours when there were 84 arrivals and 76 departures.
- The peak parking accumulation within the car park was 16 vehicles which equates to percentage accumulation of 160% if just the 10 parking spaces are assumed. This occurred twice during the survey, between 1615 and 1630 hours and from 1700 hours to 1715 hours (6% of the total survey period).
- Given that the car park is currently informal with no markings the additional vehicles either parked ad-hoc within the car park or within the Forrester car park.
- Given that the car park is shared with the other uses within the precinct it is occupied by staff, deliveries and other visitors to the existing uses. For example Rentokil visited one of the units and occupied a car parking space for a total of 47 minutes.
- Store staff parked within the car park during the survey period. One space was occupied for 560 minutes whilst one other space was occupied for 118 minutes. The survey data indicates that throughout the day two spaces were occupied by store staff.

3.3.7 All Co-operative deliveries were undertaken within the service yard to the rear of the unit and were not included within the car park survey.

3.3.8 Clearly the use of the car park for staff and visitors of the neighbouring units will result in higher durations of stay than if it was solely calculated for customers, therefore two mean average duration of stay have been derived.

3.3.9 For robustness if all staff and visitors are included within the calculations the mean average duration of stay at the Dukinfield store is 8.9 minutes.

- 3.3.10 To derive duration of stay of customers to the Co-Operative food store only any car parked within the car park for longer than 30 minutes has been excluded and this demonstrates that the mean average duration of stay of customers in the car park is 5.6 minutes.

Platt Bridge Parking Survey

- 3.3.11 The full Platt Bridge parking surveys are shown in full in **Appendix 2**, but the key finding of the surveys are provided below;

- The peak period for the car park was between 1900 hours and 2000 hours when there were 90 arrivals and 90 departures. However, from 1600 hours to 2000 hours the profile of traffic in and out of the site is relatively flat with around 10% of the daily traffic occurring during each hourly period.
- It should be noted that around 20% of daily traffic to and from the store visits during the time period from 1800 hours to 2000 which accords with when customers will be driving past the site on their way back from work.
- At no point during the survey did the car park accumulation reach full occupation. The peak parking accumulation within the car park was that of 12 vehicles which equates to a percentage occupancy of 92%. This occurred once between 1900 and 1915 hours at the start of the peak period for arrivals and departures.
- Store staff parked within the car park during the survey period. One space was occupied for 540 minutes whilst other spaces were occupied for between 81 and 352 minutes at certain times of the day.
- The survey data indicates that throughout the day three spaces were occupied by store staff.
- The duration of stay of service vehicles was also included within the survey and there were a total of 4 deliveries including one security van delivery. The duration of the deliveries ranged from 4 minutes to 49 minutes and they were undertaken within the service area and did not impact on the operation of the car park.

- 3.3.12 For consistency with the other surveys the staff and service vehicles have been included within the calculations and the mean average duration of stay at the Platt Bridge store is 6.6 minutes.
- 3.3.13 To derive duration of stay of customers to the Co-Operative food store only any car parked within the car park for longer than 30 minutes has been excluded and this demonstrates that the mean average duration of stay of customer at the store is 5 minutes.

3.4 Summary

- 3.4.1 The findings of the surveys of the Co-operative food stores can be summarised as follows:
- The peak periods for all the three stores occurs in the evening. The Kelsall and Dukinfield peak periods are between 1600 and 1800 hours whilst the peak period at Platt Bridge is between 1900 hours and 2000. A large proportion of these trips to the store will be customers travelling back from work and are already on the highway network as opposed to new trips.
 - Both the Kelsall and Platt Bridge operate with spare capacity throughout the day even though the car parks are not used solely by Co-operative customers.
 - Dukinfield car park is shared with other units on the precinct and is currently used in an ad-hoc manner due to it not being marked out. This car park was shown to operate over capacity but only for two 15 minute periods in the afternoon and at all other times it operated within capacity.
 - All three car parks are used by staff of the store with duration of stays ranging from 560 minutes to 68 minutes. On average between two and three car parking spaces at the stores are occupied by staff.
 - The duration of stay of service vehicles ranges from 4 minutes to 75 minutes.

- The mean duration of stay of all vehicles using the car parks is 8.9 minutes whilst the mean duration of stay for Co-Operative food customers only is 5.5 minutes.

3.4.2 Therefore, even when including the other users of the car park at Kelsall and Dukinfield the average duration of stay is similar to the figures accepted by the Planning Inspectorate at the appeal decisions detailed in Section 2.

3.4.3 This data clearly demonstrates that the duration of stay within existing Co-operative car parks is similar to other convenience store operators such as Sainsbury Local and Tesco Express. The inclusion of the sites which includes other users will be beneficial for any potential sites where there will be shared car parking provision such as precinct or infill development within public house car parks.

4 CONCLUSIONS

4.1.1 Croft have been instructed by the Co-operative Food to advise on the usage of a number of store car parks in the north-west of England as part of an ongoing study into the general use of convenience store car parks.

4.1.2 The findings of this report can be summarised as follows;

- The NPPF does not refer to maximum or minimum car parking standards for new development. It promotes a flexible approach to car parking provision having given consideration to the accessibility of a development by non-car modes, local car ownership and the need to reduce the use of high emission vehicles.
- The NPPF enables applicants/developers to provide car parking provision in line with their operational needs as long as it can be demonstrated that the impact on the local highway network would not be severe.
- The low duration of stay of customers at convenience stores has been accepted by planning inspectors at appeal notably at York, Rishton and Teddington.
- These appeals were based on data which concluded that the duration of stay at convenience stores is around 7 minutes, which over an hour equates to a single parking space having a capacity of 8.5 vehicles per hour.
- To provide Co-Operative Food specific data, duration of stay surveys have been undertaken at 3 stores in the north-west of England. These stores have been selected as they provide a selection of the type of stores that the Co-operative Food operate at present.
- Although Co-operative food stores employ up to 20 staff on average, the survey results demonstrate that that only a limited number of spaces are taken by staff. This demonstrates that the vast majority of staff are local and travel to and from work by sustainable modes.

- The duration of stay surveys for the three existing Co-operative food stores have concluded that the average duration of stay for Co-Operative food customers is only 5.5 minutes which over an hour equates to a single parking space having a capacity of 10.9 vehicles per hour



CO-OPERATIVE ESTATES

KELSALL STORE CAR PARKING STUDY SITE LOCATION PLAN

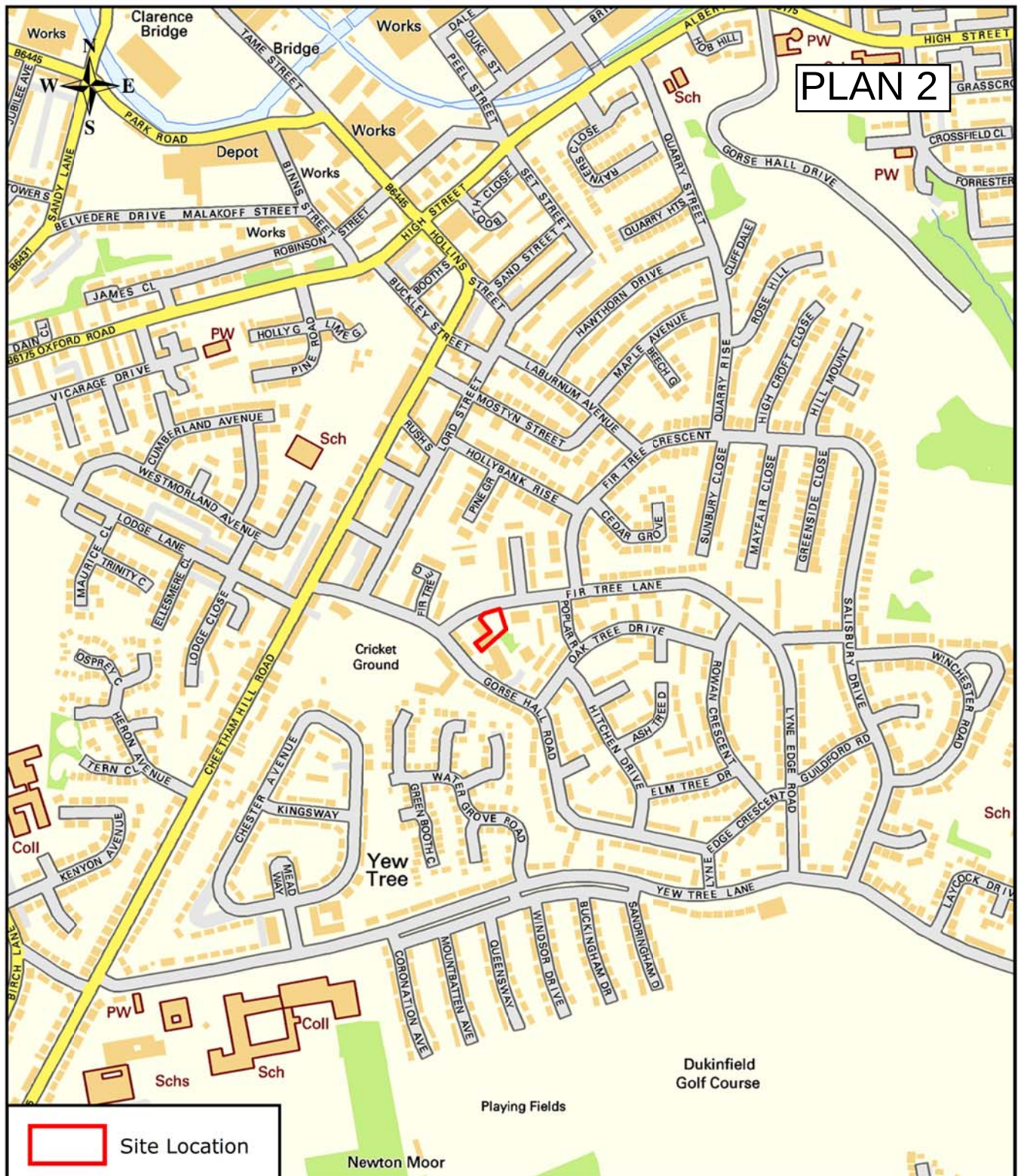
croft

Transport Solutions

Email: info@crofts.co.uk
Tel: 0161 667 3746
Web: www.crofts.co.uk

9 Jordan Street,
Manchester
M15 4PY

DRAWN:	DATE:	CHECKED:	DATE:	SCALE:	DRAWING NUMBER:	REVISION:
JC	04.08.14	PJW	04.08.14	N.T.S	0728-01	.



PLAN 2

CO-OPERATIVE ESTATES

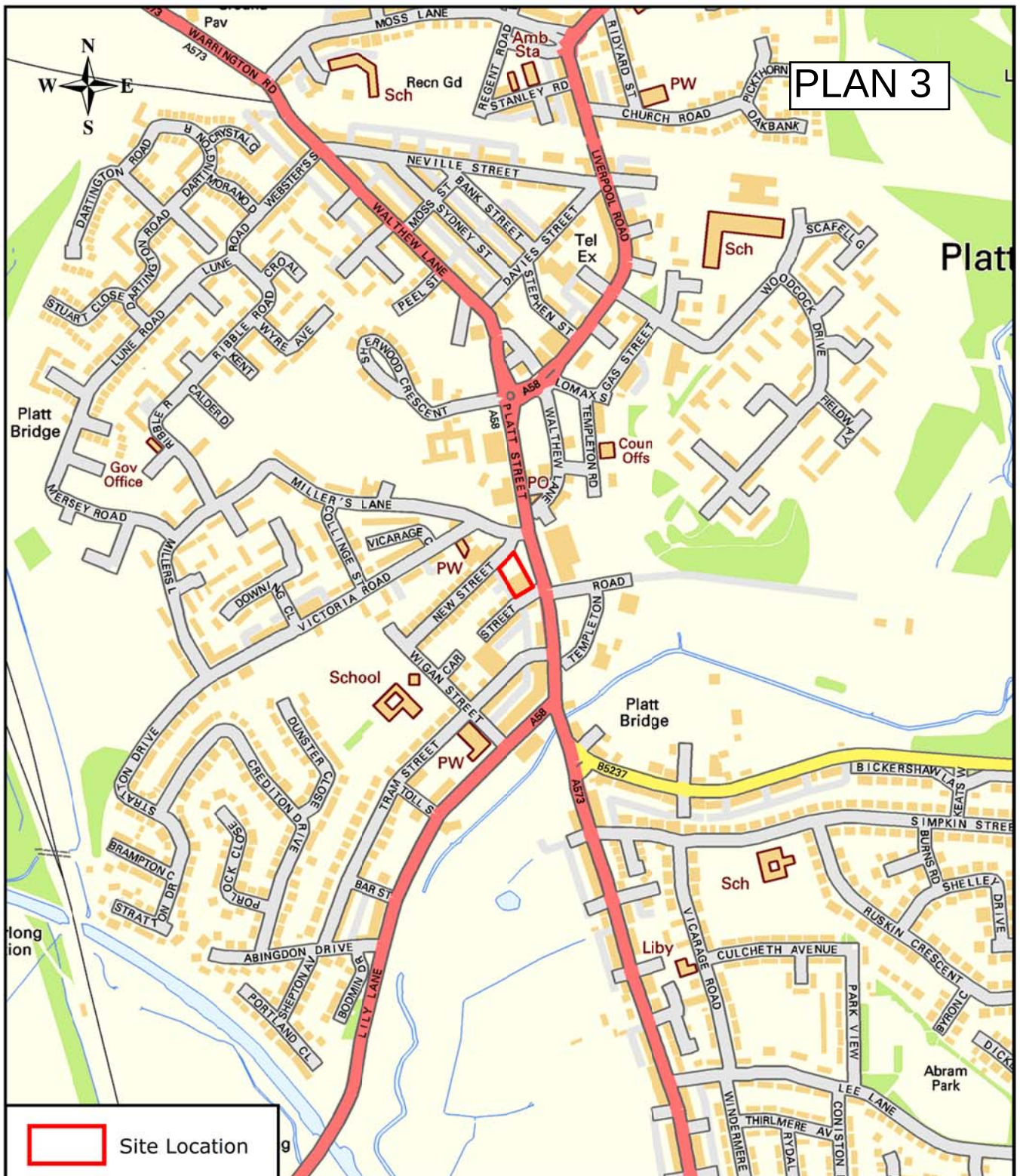
DUKINFIELD STORE CAR PARKING STUDY
SITE LOCATION PLAN

croft
Transport Solutions

Email: info@crofts.co.uk
Tel: 0161 667 3746
Web: www.crofts.co.uk

9 Jordan Street,
Manchester
M15 4PY

DRAWN:	DATE:	CHECKED:	DATE:	SCALE:	DRAWING NUMBER:	REVISION:
JC	04.08.14	PJW	04.08.14	N.T.S	0728-04	.



CO-OPERATIVE ESTATES

WIGAN STORE CAR PARKING STUDY SITE LOCATION PLAN

croft
Transport Solutions

Email: info@crofts.co.uk
Tel: 0161 667 3746
Web: www.crofts.co.uk

9 Jordan Street,
Manchester
M15 4PY

DRAWN:	DATE:	CHECKED:	DATE:	SCALE:	DRAWING NUMBER:	REVISION:
JC	04.08.14	PJW	04.08.14	N.T.S	0728-05	.

APPENDIX 6

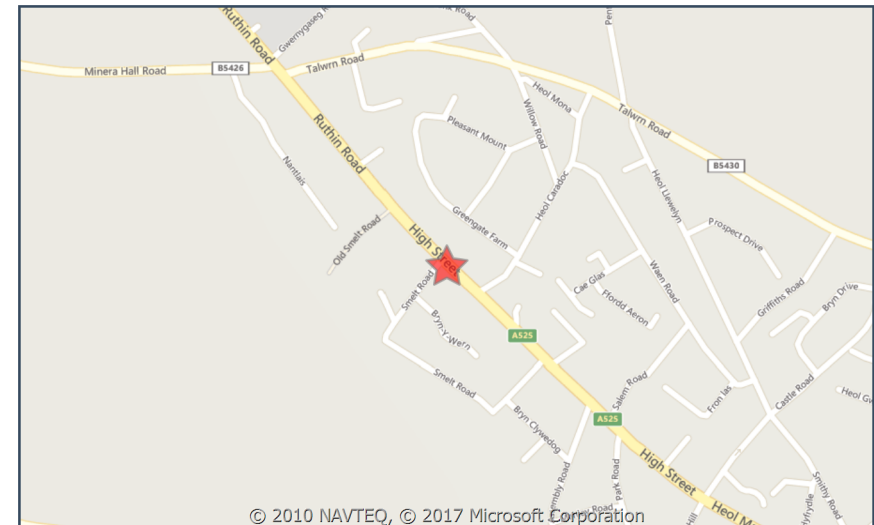
Accident Data



crashmap.co.uk

Crash Date: Saturday, December 27, 2014 **Time of Crash:** 2:49:00 PM **Crash Reference:** 201460R201977

Highest Injury Severity:	Slight	Road Number:	A525	Number of Casualties:	1
Highway Authority:	Wrexham			Number of Vehicles:	1
Local Authority:	Wrexham			OS Grid Reference:	328065 351490
Weather Description:	Snowing without high winds				
Road Surface Description:	Snow				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	Pedestrian phase at traffic signal junction				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	56 - 65	Vehicle is moving off	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Pedestrian	Male	6 - 10	In carriageway, crossing elsewhere	Crossing from driver's nearside - masked by parked or stationary vehicle

Accident Description:

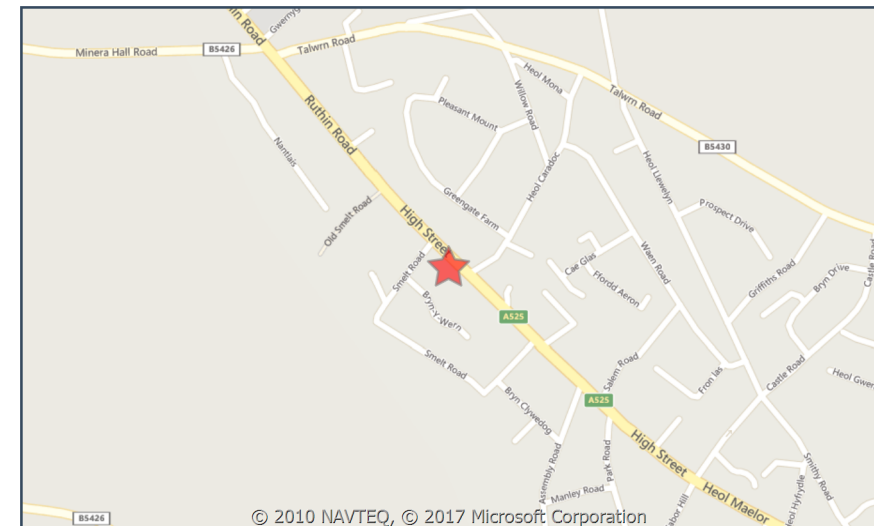
Accident description text currently unavailable for this highway authority / police force

For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



crashmap.co.uk

Crash Date:	Monday, February 06, 2012	Time of Crash:	11:50:00 AM	Crash Reference:	201260N019112
Highest Injury Severity:	Serious	Road Number:	A525	Number of Casualties:	1
Highway Authority:	Wrexham			Number of Vehicles:	2
Local Authority:	Wrexham			OS Grid Reference:	328080 351460
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Other junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Female	36 - 45	Vehicle is in the act of turning right	Front	Other	None	None
2	Motorcycle 50cc and under	-1	Male	16 - 20	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Serious	Driver or rider	Male	16 - 20	Unknown or other	Unknown or other

Accident Description:

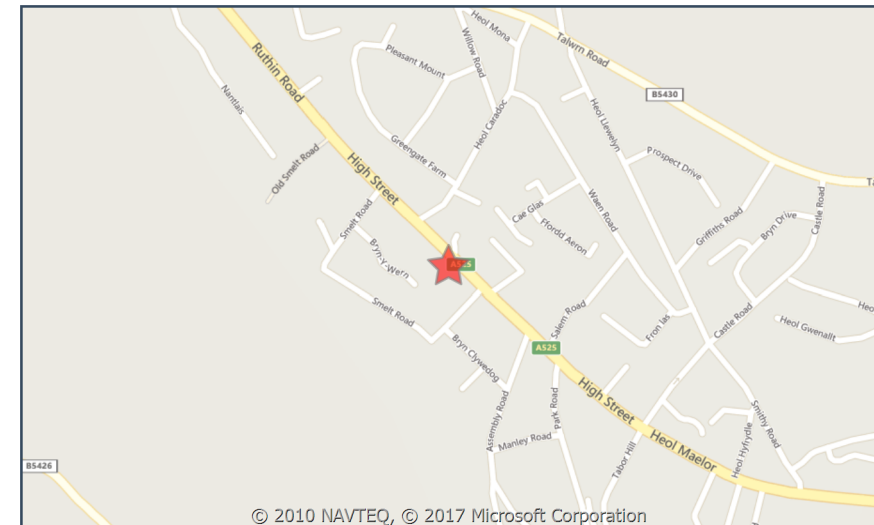
Accident description text currently unavailable for this highway authority / police force

For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



crashmap.co.uk

Crash Date:	Monday, January 09, 2012	Time of Crash:	8:30:00 PM	Crash Reference:	201260N004632
Highest Injury Severity:	Slight	Road Number:	A525	Number of Casualties:	1
Highway Authority:	Wrexham			Number of Vehicles:	1
Local Authority:	Wrexham			OS Grid Reference:	328160 351380
Weather Description:	Other				
Road Surface Description:	Wet or Damp				
Speed Limit:	30				
Light Conditions:	Darkness: street lights present and lit				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				



For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	56 - 65	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Pedestrian	Female	11 - 15	In carriageway, crossing elsewhere	Crossing from driver's nearside

Accident Description:

Accident description text currently unavailable for this highway authority / police force

For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



Croft Transport Solutions

Hill Quays, 9 Jordan Street, Manchester, M15 4PY

Tel: 0161 667 3746 Email: info@croftts.co.uk www.croftts.co.uk

Registered in England Number: 7373729