

Technical Note – Transportation

- 1.1 Mayer Brown has been commissioned by MH Architects on behalf of Arun District Council (ADC) to produce this Technical Note (TN) in relation to ADC's proposed residential development of the site known as Land North of 52-67 Greenfields on the Wick Estate in Littlehampton.
- 1.2 The development proposals comprise eight new dwellings, and as such the scale of the proposed development falls well below the requirement threshold for the production of a formal Transport Assessment (TA) or Transport Statement (TS) recommended by the Department for Transport (DfT) in their *Guidance on Transport Assessment* document (March 2007).
- 1.3 Therefore, this TN has been produced for submission with the planning application to summarise the transportation aspects related to the site and includes:
- a brief overview of the local area and highway network
 - an analysis of the road traffic accident history of the local highway network
 - an examination of the non-car accessibility of the site and the local area
 - an overview of the development proposals including the proposed access, parking and servicing arrangements
 - a summary of the traffic impact of the proposed development

Site Location and Existing Conditions

- 1.4 The development site is located off Greenfields on the northern edge of the Wick Estate in Littlehampton. The estate is located approximately 1.6km to the northwest of the centre of Littlehampton and is bounded by the A259 Worthing Road bypass to the north and west, the A284 Wick Street to the east and further residential dwellings to the south.
- 1.5 The main vehicular access route to this part of the Wick Estate is from the A284 Wick Street. The vehicular access to the site is then achieved via Courtwick Road and Greenfields.
- 1.6 Greenfields is circa 6m wide allowing adequate width for two way vehicle operation.
- 1.7 The site currently consists of an open area of tarmac/concrete that is currently used as an unmarked parking area. It is estimated that this area could accommodate 38 standard parking bays. There is currently no parking or loading restrictions in operation.

- 1.8 A plan showing the location of the site in relation to the local highway network is provided below:

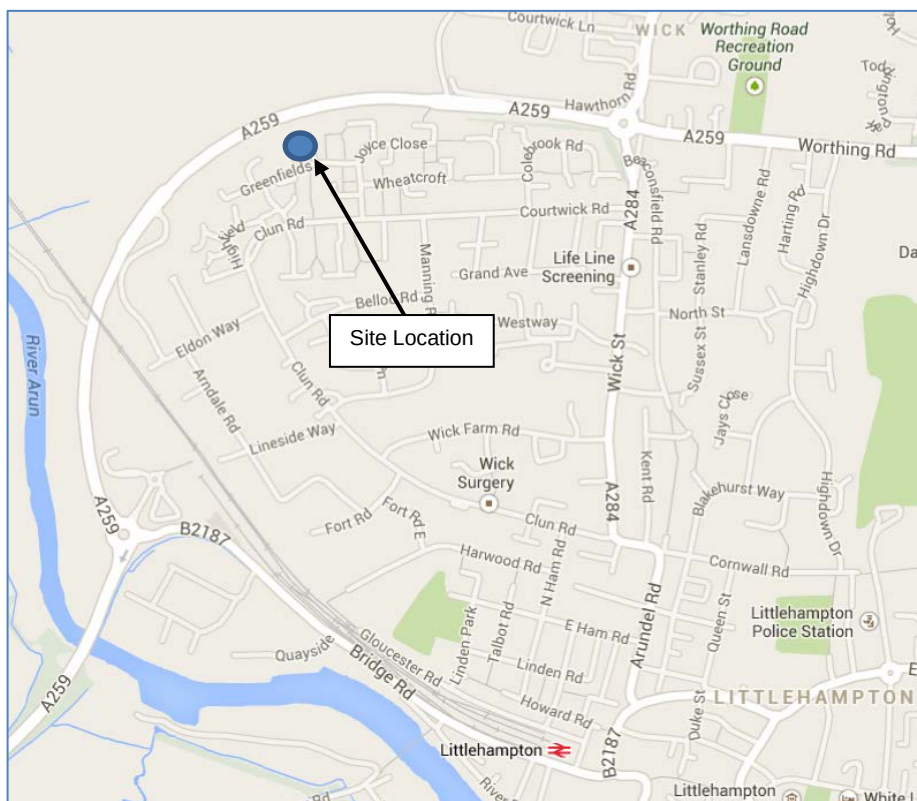


Figure 1.1: Site Location Plan

- 1.9 Local facilities that are easily accessible from the site include playgrounds/play areas approximately 220m to the southwest of the site, local shops on Wick Street approximately 655m to the east of the site (including a post office, off licence, news agent, bakery and barber shop), a large Morrisons supermarket approximately 560m to the east of the site and the Wickbourne Community School and Flora McDonald Junior School approximately 640m to the southwest of the site.

Road Traffic Accident History

- 1.10 The road traffic accident records for the past 5 years on the local highway network, including Courtwick Road and the Courtwick Road/Wick Street junction has been obtained from Sussex Police.
- 1.11 The accident data shows that there have been a total of 12 slight severity accidents in the area over the past 5 years and that no serious or fatal accidents have occurred. This is an average of 2.4 accidents per year which is considered relatively low taking into account the large area assessed. Six of these accidents are located evenly spread out along Courtwick Road, four are located at the Courtwick Road/Wick Street junction and two are located on Wick Street to the north and south of the Courtwick Road/Wick Street junction respectively. A summary of the accident data is provided at Appendix A.
- 1.12 Of the accidents on Courtwick Road, three were caused by child pedestrians unexpectedly or carelessly running out into the road between parked cars (2 of 3). These occurred at different locations along Courtwick Road and vehicle speeds are not highlighted as a factor in these cases. Of the other accidents, one was caused by driver error which resulted in the owner of the vehicle crashing on their own driveway, one was caused by a cyclist failing to look or give way at a minor road junction and one involved a mobility scooter. There is therefore nothing to suggest any inherent existing safety problems on Courtwick Road.
- 1.13 Of the accidents at the Courtwick Road / Wick Street junction, two were caused during turning manoeuvres at the junction by drivers who either failed to look properly or misjudged the speed/path of other vehicles, one was caused by an overtaking manoeuvre and one was caused by a cyclist emerging from an alleyway failing to stop or look properly and riding into the side of a vehicle. These accidents were mainly caused by driver/rider errors and there is no evidence to suggest any existing safety problems due to the layout of the Courtwick Road / Wick Street junction.
- 1.14 Of the other two accidents recorded on Wick Street, one was caused by a misjudged overtaking manoeuvre and the other was caused by the driver of a parked car opening their car door in front of the path of a cyclist.
- 1.15 The proposed development will generate low levels of additional vehicle movements (see paragraph 1.32) and hence will have no material impact on the road safety of the area.

Accessibility

Bus Accessibility

1.16 The closest bus stops to the site are the Elspring Mead stops located approximately 165m to the south on Courtwick Road. There are two other bus stops located within easy walking distance (defined as 640m or an 8 minute walk at 80m/min):

- The Crossways
- Wickbourne Swan

1.17 The above stops provide access to the number 12 bus service and the number 700 coach service. Details of these services are summarised in the following table:

Bus #	Route	Weekday Peak Frequency		Weekend Peak Frequency	
		AM	PM	Sat	Sun
12	Littlehampton, o/s Tesco - Littlehampton, adj The Crossways - Littlehampton, Anchor Springs - Littlehampton, o/s Swimming Centre - Rustington, Shops - Angmering, Sainsburys	1 per hour	1 per hour	1 per hour	1 per hour
700	Brighton, Old Steine - Brighton, Churchill Square - Hove, Town Hall - Portslade-by-Sea, opp Station Road - Shoreham-by-Sea, opp High Street - South Lancing, opp Three Horseshoes - Worthing, Marine Parade - West Worthing, Wallace Avenue - Goring by Sea, opp Aldsworth Avenue - Ferring, War Memorial - East Preston, adj Arun Court - Rustington, Shops - Littlehampton, Anchor Springs - Yapton, opp Rollaston Park - Yapton, Sparks Corner - Flansham, adj Alfriston Close - Flansham, o/s Health Centre - Bognor Regis, High Street - North Bersted, adj Shops - Chichester, Bus Station - Chichester, Cathedral - Littlehampton, opp Selwyn Avenue - Arundel, River-bank - Arundel, Jarvis Road - Chichester, Cathedral - Broadbridge, The White Swan - Southbourne, opp St John's Church - Emsworth, The Square - Havant, Bus Station - Hilsea, Hilsea Lido - North End, North End Junction - Guildhall, City Centre South - Portsea, The Hard Interchange - Southsea, Southsea Shops - Southsea, Clarence Pier - Durrington, Lamb Inn - Tarring, Thomas-A-Becket - Broadwater, adj Church - Worthing, Marine Parade - South Lancing, adj Three Horseshoes - Shoreham-by-Sea, adj High Street - Portslade-by-Sea, adj Station Road - Hove, Town Hall - Brighton, Churchill Square - Brighton, Old Steine south	1 per hour	2 per hour	2 per hour	1 per hour

Table 1.1: Accessible Bus Services

- 1.18 Table 1.1 identifies that the site is accessible by two frequent bus/coach services that provide access throughout Littlehampton, Rustington and Angmering as well as to destinations further afield including Brighton, Worthing and Chichester.

[Rail Accessibility](#)

- 1.19 Littlehampton Railway Station is located approximately 1.6km to the south of the site. The station is operated by Southern Railways and typically provides two trains per hour to London Victoria, one train per hour to Portsmouth and Southsea and one train per hour to Bognor Regis.
- 1.20 The station can be accessed from the site via the number 700 bus or by bicycle (64 cycle storage spaces are provided at the station).

[Cycle Accessibility](#)

- 1.21 The roads within the Wick Estate are residential in nature and lend themselves to cycle use.
- 1.22 The South Coast Cycle Route runs through Littlehampton approximately 1.5km to the south of the site and provides a safe and convenient cycle route to Shoreham to the east and Bognor Regis to the west.
- 1.23 A shared cycle/foot path is conveniently located adjacent to the site and runs along the northern border of the Wick Estate. This shared route provides access to crossing points over the A259 to the north and the Wick Roundabout, and heads towards Toddington to the east.

[Pedestrian Accessibility](#)

- 1.24 In general the footways within the Wick Estate and the local area are in good condition and well lit, allowing easy pedestrian movement.
- 1.25 As mentioned above, the shared route bordering the north of the site provides access to pedestrian crossing islands over the A259. The shared route is well lit and also provides easy access to two signalised toucan crossings over the A259 and A284 located near the Wick Roundabout, allowing easy access to the Morrisons supermarket located to the north of the A259.

Development Proposals

- 1.26 The proposals comprise re-developing the site to accommodate eight 2-bedroom houses, and associated gardens with a new formalised parking containing 21 parking bays, including 2 disabled parking bays. In addition, 15 new parking bays will be located on areas of open ground to the south of the site. A plan showing proposed site layout is shown below:



Figure 1.2: Development Site Layout

- 1.27 West Sussex County Council (WSCC) has produced a car parking demand calculator for residential developments. Using data for the Ham, River and Wick & Toddington wards, WSCC's calculator indicates that proposed residential development's parking demand will require 7 of the 36 new parking bays proposed.
- 1.28 The site will be accessed by the existing 4m wide access into the site off Greenfields. An access route for pedestrians and cyclists to the shared cycle route bordering the north of the site will be provided.
- 1.29 Track plot MBSK140501-3 clearly demonstrates that a refuse vehicle can safely access the site to wait within a 25m carry distance of the proposed refuse storage area, as recommended in Manual for Streets, turn around and leave the site in a forward gear. Track plot MBSK140512-1 shows that a fire tender can access the proposed fire appliance route.

- 1.30 Each house will be provided with a garden shed that can be used for cycle storage. In addition cycle parking stands for two visitor cycles will be provided.

Traffic Impact

- 1.31 In order to establish the traffic attraction potential of the proposed residential development, reference has been made to the TRICS database. This database contains numerous surveys of different land uses around the country. The selection of comparison sites interrogated in the database was robustly based on the 'Houses - Privately Owned' category and the weekday AM and PM peak hours on the highway network.
- 1.32 The full TRICS outputs are included in Appendix B and the results of the assessment for the proposed 8-dwelling residential development are summarised below:

Use	AM Peak Hour (0800-0900)		PM Peak Hour (1700-1800)		Daily (24hrs)	
	Arr	Dep	Arr	Dep	Arr	Dep
Residential (8 Dwellings)	2	3	3	2	21	21

Table 1.2: TRICS Assessment Results

- 1.33 The results of the TRICS assessment shown above clearly indicate that the proposed development will have a negligible impact on the local highway network during both the peak hour periods and as a whole over a 24 hour period.

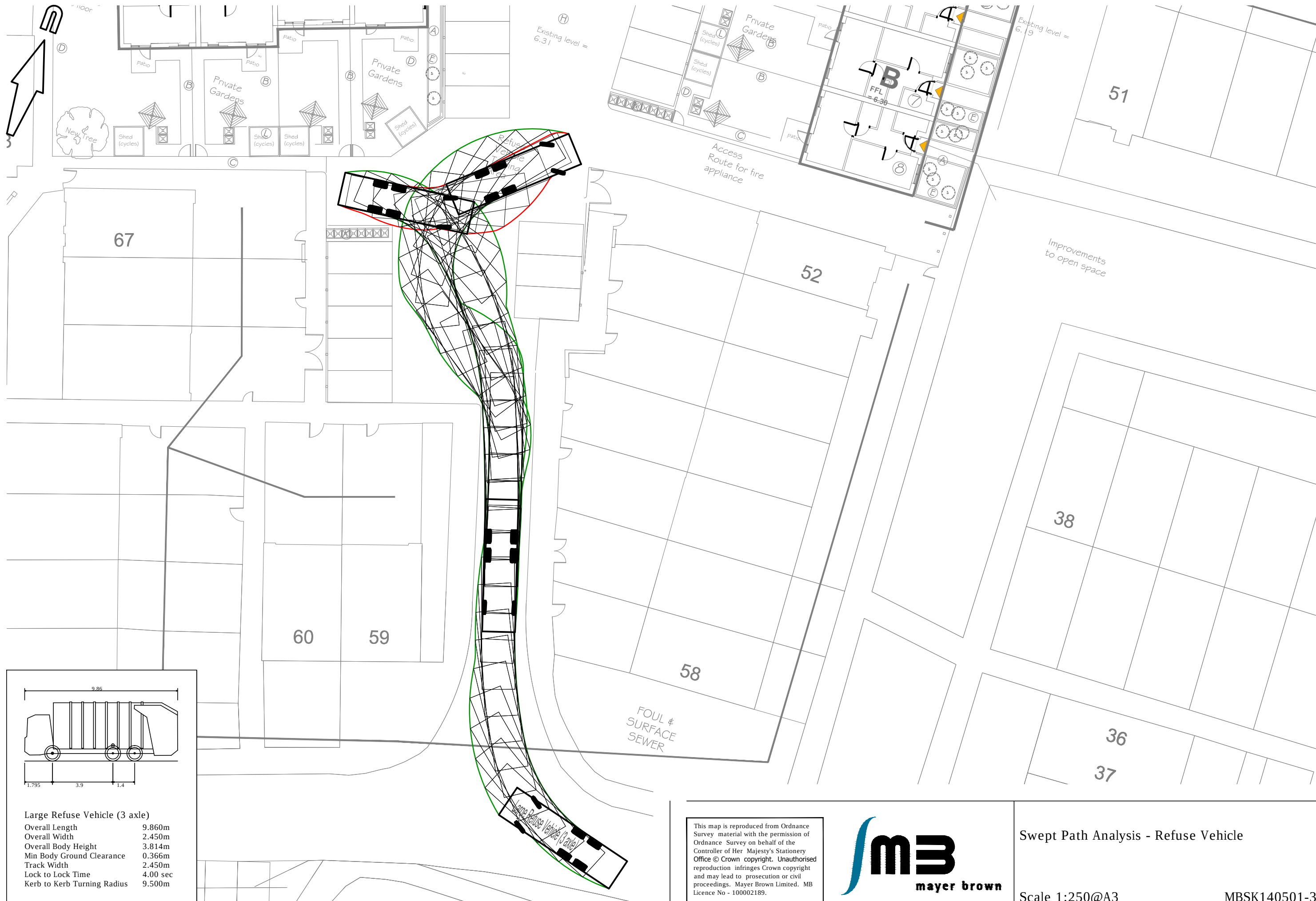
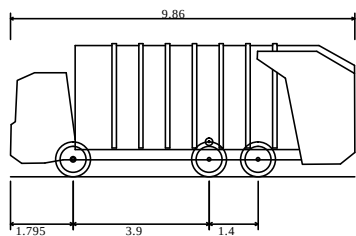
Summary and Conclusions

- 1.34 This TN has been produced to summarise the transportation aspects related to the site and concludes that:

- The site is located in a sustainable residential location with numerous shop and facilities within easy walking distance
- The development proposals will have no material impact on the road safety of the area
- The site is accessible by public transport and is easily accessible by cyclists and pedestrians
- The site layout allows sufficient room for refuse and service vehicles to negotiate the site
- The proposals will have no material impact on the operation of the local highway network

Author: John Gilby (Senior Transport Planner)

Date: 30th April 2014



Large Refuse Vehicle (3 axle)	
Overall Length	9.860m
Overall Width	2.450m
Overall Body Height	3.814m
Min Body Ground Clearance	0.366m
Track Width	2.450m
Lock to Lock Time	4.00 sec
Kerb to Kerb Turning Radius	9.500m

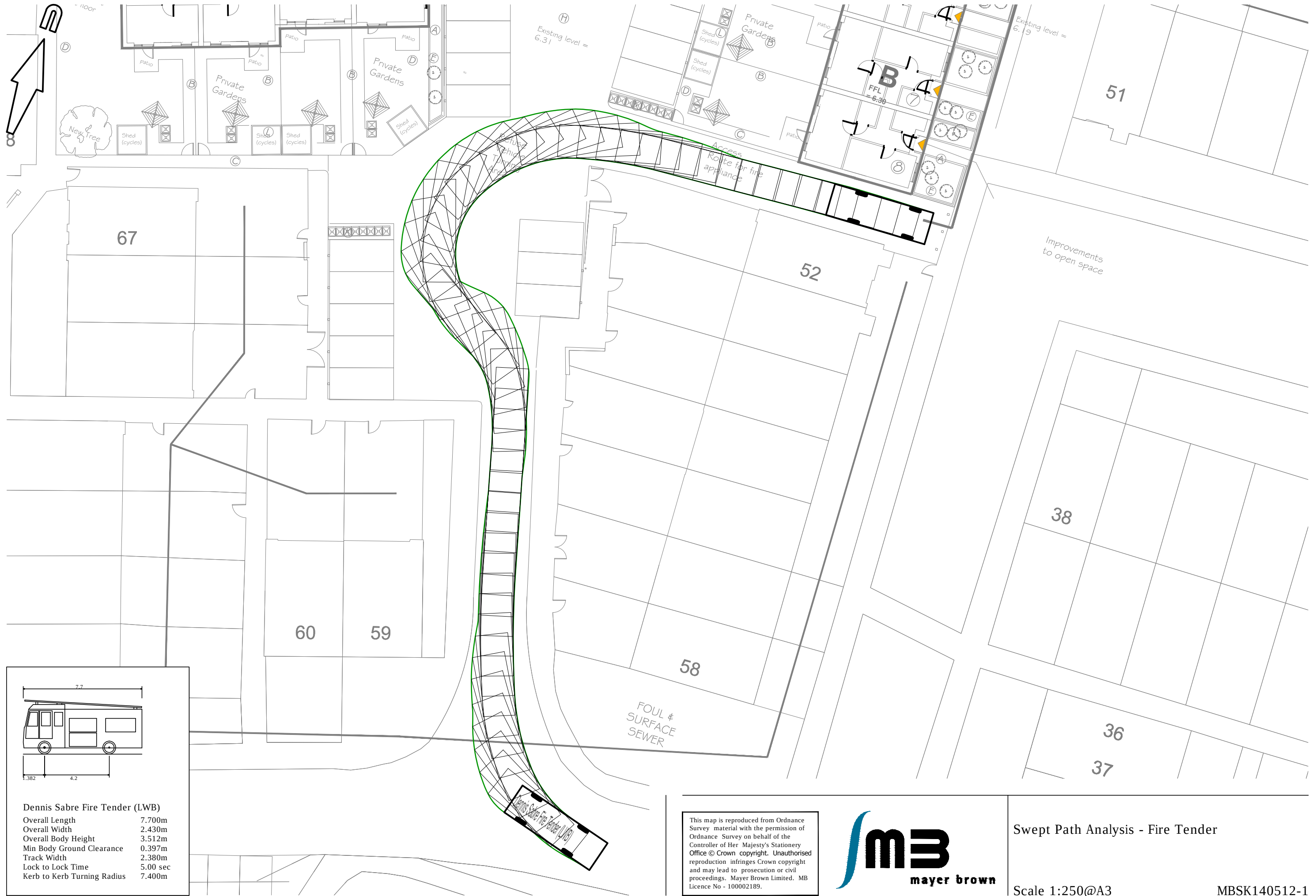
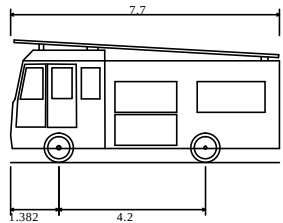
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Swept Path Analysis - Refuse Vehicle

Scale 1:250@A3

MBSK140501-3



Dennis Sabre Fire Tender (LWB)

Overall Length	7.700m
Overall Width	2.430m
Overall Body Height	3.512m
Min Body Ground Clearance	0.397m
Track Width	2.380m
Lock to Lock Time	5.00 sec
Kerb to Kerb Turning Radius	7.400m

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Swept Path Analysis - Fire Tender

Scale 1:250@A3

MBSK140512-1

APPENDIX A: Accident Statistics

Wick – Littlehampton – Mayer Brown

Collision report 01/01/2009 – 31/12/2013

Date produced
04 February 2014

Sussex Safer Roads
P A R T N E R S H I P

Safer Roads
Safer Communities
Sharing the Responsibility

Produced by Sussex Safer Roads Partnership on behalf of Sussex Police

Data regarding personal injury collisions is recorded by Sussex Police in accordance with the DfT Stats 19 requirements. The data is subsequently used by Sussex Safer Roads Partnership for monitoring and planning. While every effort is made to ensure that this data is accurate, it is subject to change should further information become available.

This data may not be fully validated and while every effort is made to ensure its accuracy any statistics provided may not match those published elsewhere.

Sussex Safer Roads Partnership does not hold collision data either where there are no recorded casualties or the incident has not been reported to Sussex Police.

For further information:

web: www.sussexsaferroads.gov.uk

email: data@sussexsaferroads.gov.uk

Colour coding by SEVERITY

- ▲ Fatal (0)
- Serious (0)
- Slight (12)



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Sussex Safer Roads
P A R T N E R S H I P

Collision data
Wick - Littlehampton - Mayer Brown
01/01/2009 - 31/12/2013

SCALE	1 : 4000
DATE	04/02/2014
DRAWING No.	
DRAWN BY	

Details of Personal Injury Accidents for Period - 01/01/2009 to 31/12/2013 (60) months

Selection:
Selected using Manual Selection

Notes:

		Vehicles								Casualties		
Police Ref.	Day	Location Description	Veh No /	Type /	Age /	Manv /	Dir /	Class	Sex /	Age /	Sev	
Road No.	Date											
2nd Road No.	Time											
Grid Ref.	D/L											
	R.S.C											
	Weather											
	Speed											
	Account of											
	Accident											
Causation Factor:												

0909113

R1: U

E 502,208

N 103,260

Friday

12/04/2009

0827 hrs

Dry

Fine without high winds

30 mph

U COURTWICK ROAD 30m South of U JOYCE CLOSE

Veh 1 Car

46

Go/head

N to S

Ped F 6

Slight

Causation Factor:

1st: Failed to look properly

2nd:

3rd:

4th:

5th:

6th:

Participant:

Casualty 001

Confidence:

Very Likely

6 YEAR OLD FEMALE RAN ACCROSS COURTWICK ROAD AND WAS HIT BY SILVER CITROEN C3, MINOR FACIAL INJURIES. MOTHER PRESENT AT SCENE STATED WAS NOT DRIVERS FAULT BUT THAT DAUGHTER JUST RAN OUT.

1005705

R1: A 284

R2: U

E 502,662

N 103,269

Monday

08/30/2010

2045 hrs

Dry

Fine without high winds

30 mph

A284 WICK STREET of U COURTWICK ROAD

Veh 2 Goods < 3.5t

31

Go/head

S to N

Dri M 31

Slight

Veh 1 Car

56

Turning right

W to S

Dri F 56

Slight

Causation Factor:

1st: Junction restart

2nd: Failed to judge other persons path or speed

3rd:

4th:

5th:

6th:

Participant:

Vehicle 001

Vehicle 001

Confidence:

Possible

Very Likely

VEHICLE 2 NORTH IN WICK STREET TOWARDS ABOVE JUNCTION. VEHICLE 1 WAITING TO TURN RIGHT OUT OF WICK STREET TO TRAVEL SOUTH. VEHICLE 1 TURNS RIGHT IN FRONT OF VEHICLE 2. COLLISION ENSUES.

1102949

R1: A 284

R2: U

E 502,665

N 103,250

Wednesday

05/11/2011

2207 hrs

Dry

Fine without high winds

30 mph

A284 WICK STREET of U0 COURTWICK ROAD

Veh 2 Car

49

Turning right

N to W

Veh 1 M/C > 125 cc

17

O/take s/veh o/side

N to S

Dri M 17

Slight

Details of Personal Injury Accidents for Period - 01/01/2009 to 31/12/2013 (60) months

Selection:

Selected using Manual Selection

Notes:

Police Ref.	Day	Location Description	Vehicles						Casualties			
			Veh No	Type	Age	Manv	Dir	Class	Sex	Age	Sev	
Road No.	Date											
2nd Road No.	Time											
Grid Ref.	D/L											
	R.S.C											
	Weather											
	Speed											
	Account of Accident											
Causation Factor:												

Causation Factor:

1st: Inexperienced or learner driver/rider
2nd: Failed to judge other persons path or speed
3rd: Loss of control
4th:
5th:
6th:

Participant:

Vehicle 001
Vehicle 001
Vehicle 001

Confidence:

Very Likely
Very Likely

VEHICLE 1 TRAVELLING SOUTHBOUND BEHIND VEHICLE 2. VEHICLE 2 HAS SLOWED DOWN AND INDICATED TO TURN RIGHT INTO WICK PARADE. AS VEHICLE 2 HAS TURNED RIGHT VEHICLE 1 HAS BEGUN AN OVERTAKE AND COLLIDED WITH THE REAR OFFSIDE PASSENGER DOOR AND COME TO REST IN A BUSH AT THE ENTRANCE TO WICK PARADE.

1103662	Tuesday	A284 WICK STREET of C0										
	06/14/2011	COURTWICK ROAD	Veh 2	Car	17	Turning right	N	to W	RSP	M	18	Slight
R1: A 284	1505 hrs		Veh 2	Car	17	Turning right	N	to W	FSP	M	18	Slight
R2: C 9			Veh 2	Car	17	Turning right	N	to W	Dri	M	17	Slight
E 502,664	Dry		Veh 1	Car	44	Turning right	W	to S				
N 103,274	Fine without high winds											
	30 mph											

Causation Factor:

1st: Failed to look properly
2nd: Disobeyed Give Way or Stop sign or markings
3rd:
4th:
5th:
6th:

Participant:

Vehicle 001
Vehicle 001

Confidence:

Possible
Possible

V2 WAS ENTERING COURTWICK ROAD FROM WICK STREET WHEN V1 PULLED OUT OF COURTWICK ROAD AND COLLIDED WITH REAR OFFSIDE DOOR OF V2 CAUSING DAMAGE. BOTH PARTIES EXCHANGED DETAILS AT THE SCENE.

1102912	Tuesday	U COURTWICK ROAD 65m West of U										
	05/10/2011	GREENFIELDS	Veh 1	Car	51	Go/head	E	to W	Ped	F	7	Slight
R1: U	1825 hrs											
E 501,994	Dry											
N 103,232	Fine without high winds											
	30 mph											

Causation Factor:

1st: Crossed road masked by stationary veh
2nd: Careless/Reckless/In a hurry
3rd: Careless/Reckless/In a hurry
4th:
5th:
6th:

Participant:

Casualty 001
Casualty 001
Casualty 001

Confidence:

Very Likely
Very Likely

VEHICLE 1 TRAVELLING WESTBOUND - CHILD RAN OUT FROM INBETWEEN PARKED VEHICLES AND STRUCK OFFSIDE OF VEHICLE 1.

Details of Personal Injury Accidents for Period - 01/01/2009 to 31/12/2013 (60) months

Selection:
Selected using Manual Selection

Notes:

Police Ref.	Day	Location Description	Vehicles						Casualties		
			Veh No /	Type /	Age /	Manv /	Dir /	Class	Sex /	Age /	Sev
Road No.	Date										
2nd Road No.	Time										
Grid Ref.	D/L										
	R.S.C										
	Weather										
	Speed										
	Account of Accident										
Causation Factor:											

1106557

Wednesday

U of A284 WICK STREET

10/12/2011

1720 hrs

R1: U

R2: A 284

E 502,649

N 103,378

Dry

Fine without high winds

30 mph

Veh 2

Car

68

Starting

S

to N

Veh 1

Pedal cycle

58

Go/head

W

to E

Dri

M

58

Slight

Causation Factor:

Participant:

Confidence:

1st: Failed to look properly

2nd: Junction overshoot

3rd:

4th:

5th:

6th:

Vehicle 001

Vehicle 001

Very Likely

Very Likely

VEHICLE 1 IS A PEDAL CYCLE, VEHICLE 2 IS A SILVER FORD MONDEO. V1 HAS APPEARED FROM AN ALLWAY AND HAS RIDDEN INTO THE SIDE OF V2 CAUSING DAMAGE TO THE REAR PASSENGER DOOR (-400). V1 MALE RIDER SUSTAINED SOME INJURY BUT REFUSED AMBULANCE AT THE INTIAL T

IME AND ROAD OFF DAZED.

1200247

Saturday

C0 COURTWICK ROAD of U JOYCE

01/14/2012

1529 hrs

R1: C

R2: U

E 502,136

N 103,236

Dry

Fine without high winds

30 mph

Veh 1

Car

39

Go/head

E

to W

Ped

M

7

Slight

Causation Factor:

Participant:

Confidence:

1st: Crossed road masked by stationary veh

2nd:

3rd:

4th:

5th:

6th:

Casualty 001

Very Likely

V1 HEADING WEST ALONG COURTWICK ROAD. YOUNG CHILD, MALE PEDESTRIAN, ON SOUTH SIDE OF ROAD AT LOCATION SHOWN. AS V1 APPROACHED THIS POINT, MALE PEDESTRIAN RAN INTO ROAD, BETWEEN PARKED CARS, INTO THE PATH OF V1, CAUSING IMPACT.

1201771

Monday

U COURTWICK ROAD of U

04/02/2012

1037 hrs

R1: U

R2: U

E 502,486

N 103,256

Dry

Fine without high winds

30 mph

Veh 1

Car

55

Go/head

E

to W

Dri

F

55

Slight

Selected using Manual Selection

Causation Factor:		Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 001	Very Likely
2nd:	Following too close	Vehicle 001	Possible
3rd:	Dazzling sun	Vehicle 001	
4th:			
5th:			
6th:			

V1 TRAVELLING SOUTH BEHIND 2 CARS WHICH WERE TRAVELLING SLOWLY. V1 OVERTOOK V3 , PULLED BACK ONTO SOUTHBOUND CARRIAGEWAY COLLIDING WITH REAR OF VEHICLE 2. NO CONTACT MADE WITH V3.

Details of Personal Injury Accidents for Period - 01/01/2009 to 31/12/2013 (60) months

Selection:
Selected using Manual Selection

Notes:

		Vehicles								Casualties		
Police Ref.	Day	Location Description	Veh No /	Type /	Age /	Manv /	Dir /	Class	Sex /	Age /	Sev	
Road No.	Date											
2nd Road No.	Time											
Grid Ref.	D/L											
	R.S.C											
	Weather											
	Speed											
	Account of											
	Accident											
Causation Factor:												

1302875
R1: A 264

E 502,657
N 103,194

Friday
06/07/2013
0955 hrs

Dry

Fine without high winds
30 mph

A264 WICK STREET
LITTLEHAMPTON 78m South of U
COURTWICK ROAD

Veh 2
Veh 1

Pedal cycle
Car

69
70

Go/head
Parked

S to N
0 to 0

Dri M 69 Slight

Causation Factor:	Participant:	Confidence:
1st: Failed to look properly	Vehicle 001	Possible
2nd: Vehicle door opened or closed negligently	Vehicle 001	Very Likely
3rd:		
4th:		
5th:		
6th:		
AS V2 ON PEDAL CYCLE WAS TRAVELLING NORTH, V1 WHICH WAS STATIONARY AND PARKED OPENDED HIS DRIVERS DOOR KNOCKING HIM OFF.		

1307078
R1: U

E 502,607
N 103,277

Thursday
12/26/2013
1045 hrs
Daylight:street lights present
Wet/Damp

Fine without high winds
30 mph

U COURTWICK ROAD WICK 50M
WEST OF A284 WICK STREET
OUTSIDE AT JUNCTION

Veh 1
Veh 2

Car

65
90

Go/head
Go/head

S to N
E to S

Dri M 90 Slight

Causation Factor:	Participant:	Confidence:
1st: Failed to look properly	Vehicle 1	Possible
2nd: Poor turn or manoeuvre	Vehicle 1	Possible
3rd:		
4th:		
5th:		
6th:		
V1 TRAVELLING EAST ON COURTWICK ROAD WHEN DRIVER FAILED TO SEE MOTABILITY SCOOTER IN ROADWAY. V1 COLLIDED INTO REAR OF SCOOTER CAUSING OCUPANT TO FALL OUT AND SUSTAIN MINOR INJURY.		

APPENDIX B: TRICS Assessment

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
 VEHICLES

Selected regions and areas:

05	EAST MIDLANDS	
	LN LINCOLNSHIRE	2 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
	ST STAFFORDSHIRE	1 days
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	3 days
	WO WORCESTERSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Filtering Stage 2 selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of dwellings
 Actual Range: 6 to 150 (units:)
 Range Selected by User: 6 to 150 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/05 to 22/09/12

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	3 days
Wednesday	2 days
Thursday	1 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	9 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	6
Edge of Town	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	7
No Sub Category	2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Filtering Stage 3 selection:

Use Class:

C3

9 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

10,001 to 15,000

2 days

15,001 to 20,000

2 days

20,001 to 25,000

3 days

25,001 to 50,000

2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

75,001 to 100,000

2 days

100,001 to 125,000

2 days

125,001 to 250,000

1 days

250,001 to 500,000

4 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.5 or Less

1 days

0.6 to 1.0

2 days

1.1 to 1.5

6 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No

9 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

LIST OF SITES relevant to selection parameters

1	LN-03-A-01	MIXED HOUSES	LINCOLNSHIRE
	BRANT ROAD		
	BRACEBRIDGE		
	LINCOLN		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	150	
	Survey date: TUESDAY	15/05/07	Survey Type: MANUAL
2	LN-03-A-03	SEMI DETACHED	LINCOLNSHIRE
	ROOKERY LANE		
	BOULTHAM		
	LINCOLN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	22	
	Survey date: TUESDAY	18/09/12	Survey Type: MANUAL
3	SH-03-A-04	TERRACED	SHROPSHIRE
	ST MICHAEL'S STREET		
	SHREWSBURY		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Number of dwellings:	108	
	Survey date: THURSDAY	11/06/09	Survey Type: MANUAL
4	ST-03-A-05	TERRACED & DETACHED	STAFFORDSHIRE
	WATERMEET GROVE		
	ETRURIA		
	STOKE-ON-TRENT		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	14	
	Survey date: WEDNESDAY	26/11/08	Survey Type: MANUAL
5	WK-03-A-01	TERRACED / SEMI / DET.	WARWICKSHIRE
	ARLINGTON AVENUE		
	LEAMINGTON SPA		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	6	
	Survey date: FRIDAY	21/10/11	Survey Type: MANUAL
6	WM-03-A-01	TERRACED	WEST MIDLANDS
	FOLESHILL ROAD		
	FOLESHILL		
	COVENTRY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	79	
	Survey date: FRIDAY	03/02/06	Survey Type: MANUAL
7	WM-03-A-02	DETACHED & SEMI DET.	WEST MIDLANDS
	HEATH STREET		
	STOURBRIDGE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	12	
	Survey date: WEDNESDAY	26/04/06	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	WM-03-A-03	MIXED HOUSING	WEST MIDLANDS
	BASELEY WAY		
	ROWLEYS GREEN		
	COVENTRY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	84	
	Survey date: MONDAY	24/09/07	Survey Type: MANUAL
9	WO-03-A-02	SEMI DETACHED	WORCESTERSHIRE
	MEADOWHILL ROAD		
	REDDITCH		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	48	
	Survey date: TUESDAY	02/05/06	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
LE-03-A-01	Detached
WO-03-A-01	Detached
WO-03-A-03	Detached

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	58	0.065	9	58	0.329	9	58	0.394
08:00 - 09:00	9	58	0.205	9	58	0.415	9	58	0.620
09:00 - 10:00	9	58	0.203	9	58	0.237	9	58	0.440
10:00 - 11:00	9	58	0.155	9	58	0.220	9	58	0.375
11:00 - 12:00	9	58	0.210	9	58	0.166	9	58	0.376
12:00 - 13:00	9	58	0.210	9	58	0.166	9	58	0.376
13:00 - 14:00	9	58	0.172	9	58	0.157	9	58	0.329
14:00 - 15:00	9	58	0.185	9	58	0.197	9	58	0.382
15:00 - 16:00	9	58	0.273	9	58	0.260	9	58	0.533
16:00 - 17:00	9	58	0.291	9	58	0.178	9	58	0.469
17:00 - 18:00	9	58	0.396	9	58	0.249	9	58	0.645
18:00 - 19:00	9	58	0.268	9	58	0.185	9	58	0.453
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.633			2.759			5.392	

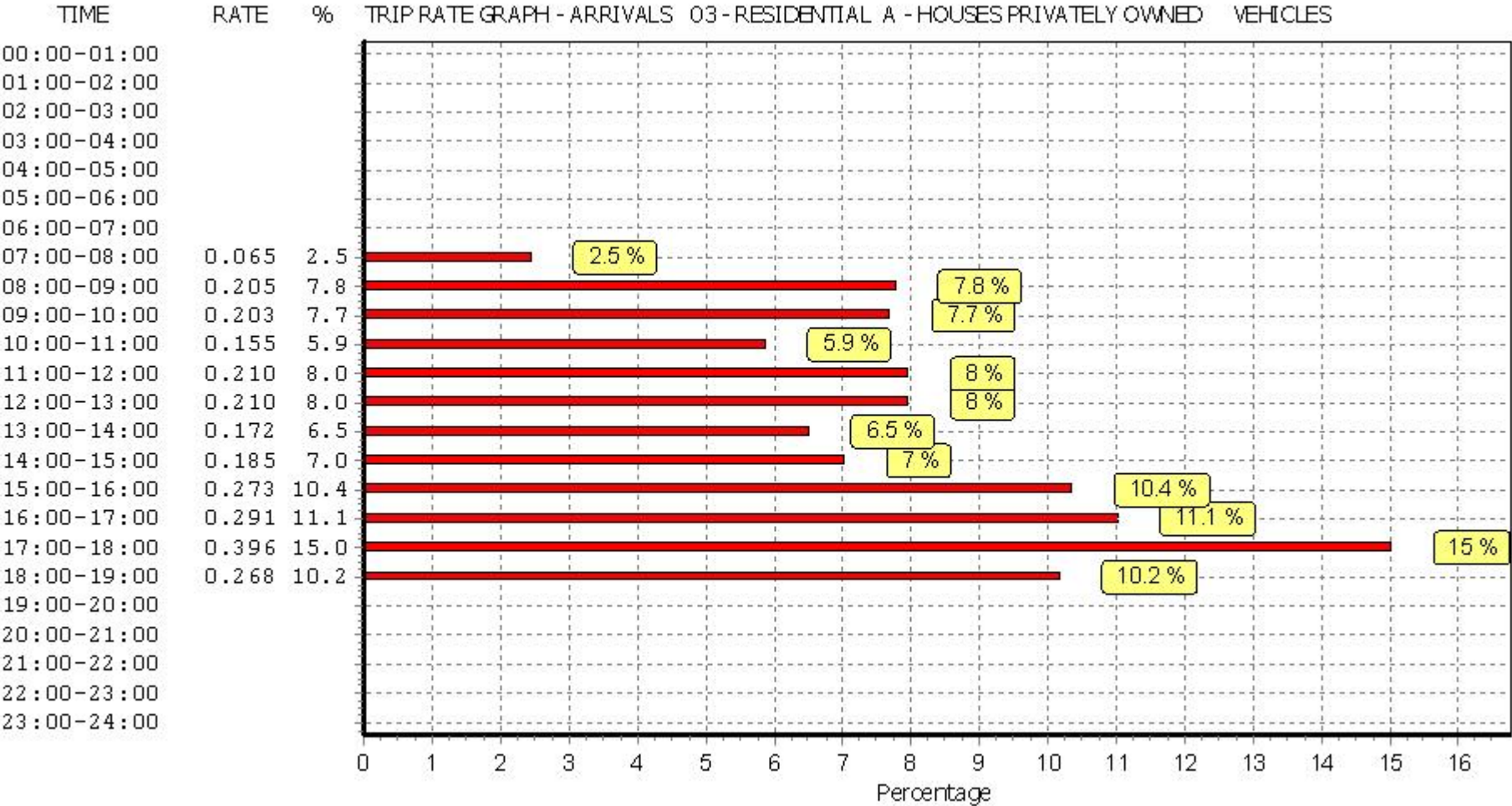
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

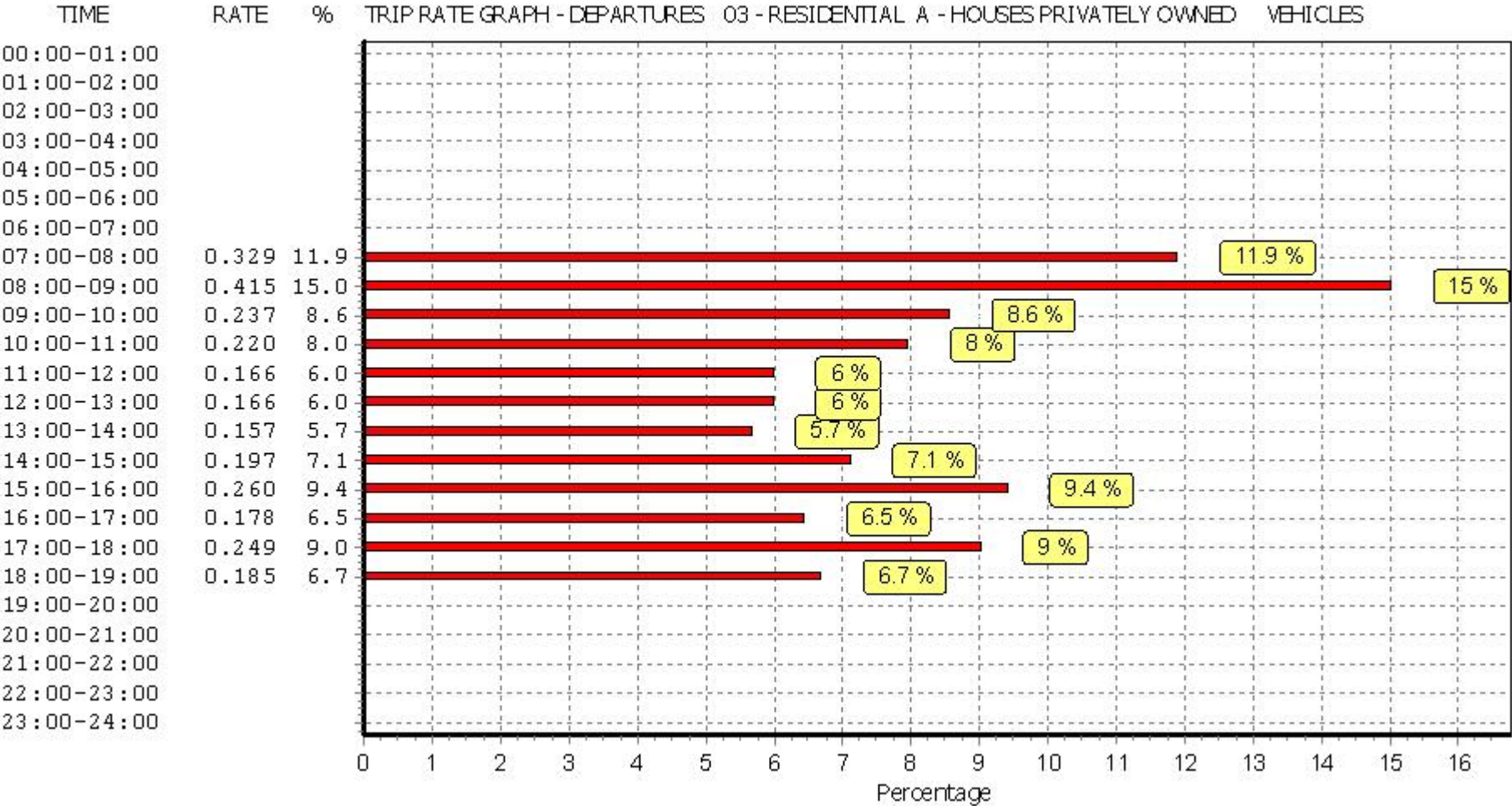
Parameter summary

Trip rate parameter range selected: 6 - 150 (units:)
 Survey date range: 01/01/05 - 22/09/12
 Number of weekdays (Monday-Friday): 9
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 3

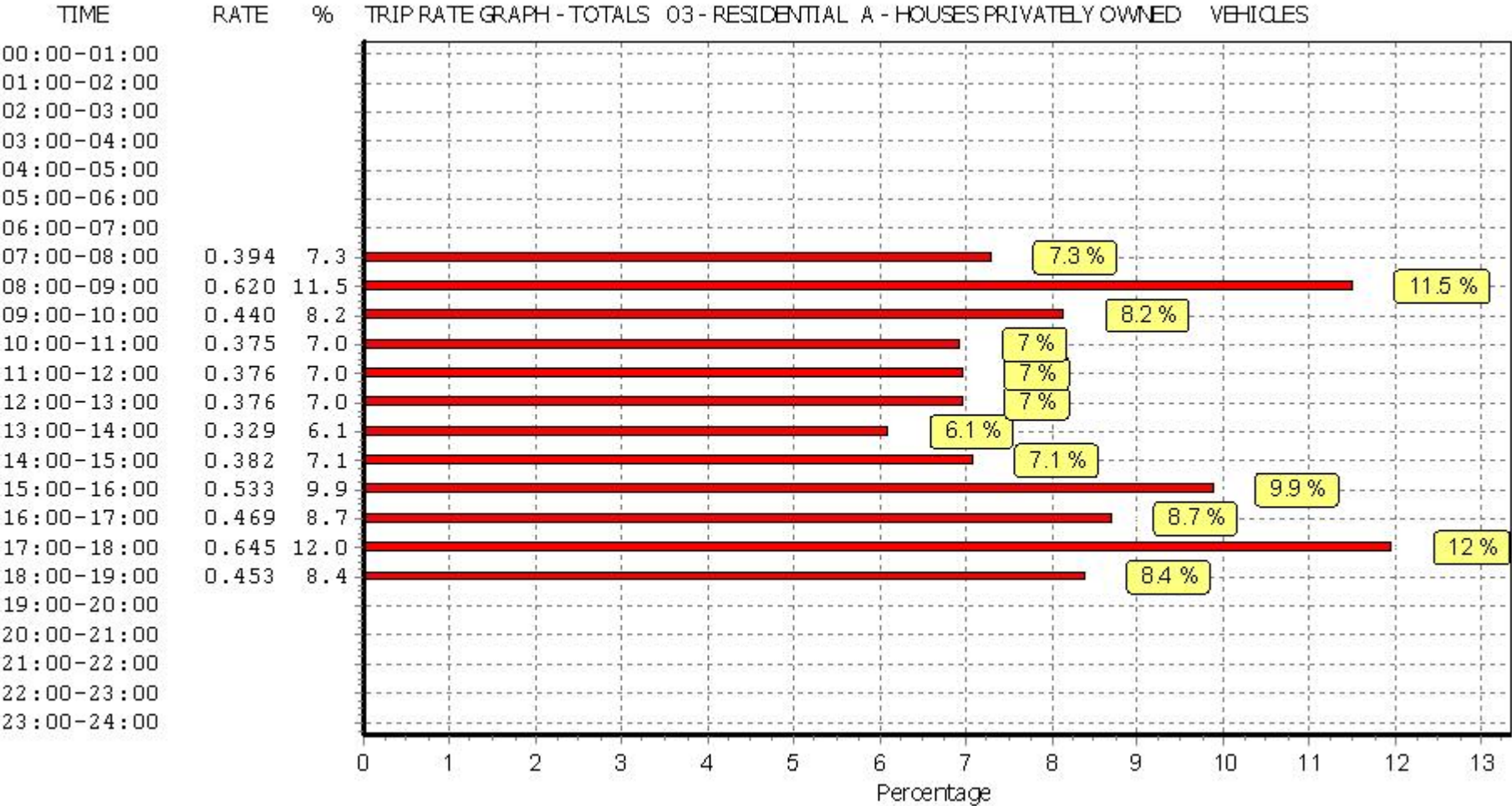
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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