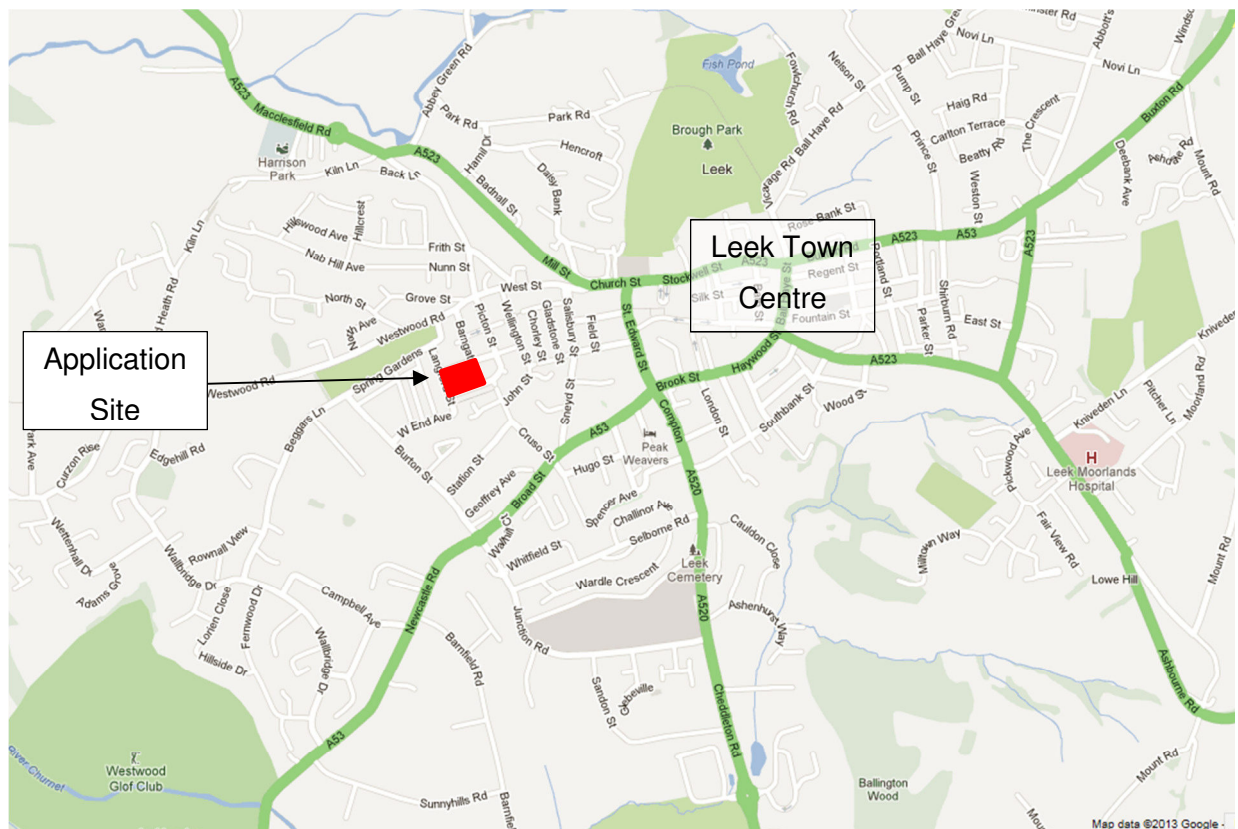


TECHNICAL NOTE NO 1 REV D

FORMER CDU/SLIMMA WORKS, BARNGATE STREET, LEEK PROPOSED RESIDENTIAL DEVELOPMENT

12186 – 08.05.13

- 1.1 SCP Ltd is instructed by Renew Land Developments Ltd to investigate and report upon the anticipated transport impacts associated with the proposed redevelopment of the former CDU/Slimma Works building on Barngate Street, Leek with 10 no. 3 bed and 10 no. 2 bed houses, 11 no. 1 bed and 1 no. 2 bed apartments and associated car parking and access. The Technical Note supports a joint planning application by Renew Land Developments Ltd and The Wrekin Housing Trust. All of the proposed units on site will be available for rent through The Wrekin Housing Trust and the apartments will be available for assisted living.
- 1.2 This Technical Note has been produced at the request of the planning officer to provide evidence to demonstrate that the site can be accommodated onto the local highway network in a safe manner. Based upon the scale of the proposals there would not normally be a requirement for any formal assessment of the transport issues associated with the development proposals.
- 1.3 The Former CDU/Slimma works is approximately 0.34 ha in area and has highways on all sides. The location of the application in relation to Leek is illustrated below:



- 1.4 The area immediately surrounding the site is illustrated below and it can be seen that the local highways are covered by traffic calming measures including junction tables. As illustrated on the plan below there are only limited locations around the site where parking is prohibited. The existing factory has pedestrian accesses off Langford Street, James Street and Barngate Street. The only vehicle access to the site is off Waterloo Street.



- 1.5 The plan also illustrates the existing traffic management regime around the site. Barngate Street is a one way street and allows traffic to pass in a northbound direction. The junction of James Street with Barngate Street is restricted in that vehicles travelling from James Street in an easterly direction are only permitted to turn left onto Barngate Street.
- 1.6 The existing land use has the potential to attract traffic associated with workers attending the site, goods in and out and commercial refuse collection. As there is no space within the site to allow larger vehicles to off load or pick up it is anticipated that this type of movement was facilitated on street. Equally, staff cars would also be anticipated to use on street parking.

- 1.7 The overall existing development on site is some 5,212 sqm. The use on the site has ceased however there is potential for the existing space be reused in full and as such there would be a traffic attraction associated with such use. The potential level of traffic associated with the full reuse of the site has been assessed using the nationally used TRICS database assuming a single industrial unit. The assessed trip rates are summarised below and are detailed at Appendix 1.

	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
TRIP RATE	0.355	0.075	0.036	0.275
TRIPS	17	4	2	14

- 1.8 The potential reuse of the site for employment would therefore be anticipated to attract 21 vph (total two-way) during the morning peak and 16 vph (total two-way) during the evening peak hour. On a daily basis the potential reuse of the site would be anticipated to attract around 160 vehicles per day (total two-way). Around 20% or around 30 vehicles would be anticipated to be goods vehicles.
- 1.9 The redevelopment proposals are illustrated at Appendix 2 and consist of 10 no. 3 bed and 10 no. 2 bed houses plus 11 no. 1 bed and 1 no. 2 bed apartments for assisted living. All of the proposed residential scheme will be affordable rented and the apartments will be assisted care units where car ownership will be extremely limited. 7 of the houses and all 12 apartments are to be served off Barngate Street and the remaining 13 houses are to be served off James Street.
- 1.10 Discussions have taken place with The Wrekin Housing Trust and the parking levels have been agreed to be 1 space per house plus 5 spaces (including 2 spaces for mobility impaired drivers) for the apartments. There will be 1 visitor space available. The scheme would therefore provide a total of 26 parking spaces. Additionally the development will provide secure parking spaces for 12 cycles. It is considered that the development would therefore provide sufficient parking to meet the demands of the potential residents.

- 1.11 The redevelopment proposal would be anticipated to generate traffic movements and we have utilised the TRICS database to assess the potential traffic generation associated with 20 houses and 12 apartments. As the apartments are for assisted living it is considered that the trip rates will be more akin to those from sheltered housing. The anticipated trip rates are summarised below and are detailed at Appendices 3 and 4.

Anticipated Traffic Movements		AM Peak		PM Peak	
		Arrivals	Departures	Arrivals	Departures
Housing	Trip Rate	0.170	0.389	0.351	0.223
	Movements	3	8	7	9
Apartments	Trip Rate	0.122	0.085	0.077	0.069
	Movements	1	1	1	1

- 1.12 The redevelopment proposal would therefore be anticipated to generate 13 vph (total two way) during the morning peak hour and 18 vph (total two way) during the evening peak hour. Therefore the development would be likely to have a neutral impact upon the local highway network at peak times. There would of course be a material reduction in HGV movement associated with the redevelopment which is considered to be a benefit to the local highway network.
- 1.13 The redevelopment proposal includes parking for 26 vehicles within the site whereas currently the employment use does not offer any on-site parking. It is therefore considered that the existing parking situation around the site would also be benefitted by the redevelopment proposals.
- 1.14 It is therefore considered that the proposals can be accommodated in a safe manner onto the local highway network and that the parking provision proposed would be suitable to cater for the demands of the proposals.
- 1.15 It is therefore considered that there can be no overriding highways objections to the proposals.

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APPENDIX 1

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : C - INDUSTRIAL UNIT

MULTI-MODAL VEHICLESSelected regions and areas:

02	SOUTH EAST	
	HF HERTFORDSHIRE	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	CW CORNWALL	2 days
	DC DORSET	1 days
	GS GLOUCESTERSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
06	WEST MIDLANDS	
	HE HEREFORDSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	GM GREATER MANCHESTER	1 days
	LC LANCASHIRE	1 days
10	WALES	
	CF CARDIFF	1 days
13	MUNSTER	
	WA WATERFORD	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: Gross floor area
 Actual Range: 1068 to 43325 (units: sqm)
 Range Selected by User: 1068 to 43325 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/04 to 14/10/10

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	4 days
Tuesday	3 days
Wednesday	2 days
Thursday	4 days
Friday	1 days

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

Selected survey types:

Manual count	14 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:

Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	4
Edge of Town	7

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:

Industrial Zone	7
Commercial Zone	1
Built-Up Zone	3
No Sub Category	3

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:

Not Known	1 days
B1	9 days
B2	3 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:

1,001 to 5,000	3 days
5,001 to 10,000	2 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	4 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	6 days
125,001 to 250,000	3 days
250,001 to 500,000	2 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	9 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	14 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	BR-02-C-01	MECH. ENGINEERS, BRISTOL	BRISTOL CITY
	NOVERS HILL		
	BEDMINSTER		
	BRISTOL		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	1100 sqm	
	Survey date: MONDAY	19/10/09	Survey Type: MANUAL
2	CF-02-C-01	PLASTICS COMPANY, CARDIFF	CARDIFF
	PARC-TY-GLAS		
	LLANISHEN		
	CARDIFF		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	1068 sqm	
	Survey date: TUESDAY	24/10/06	Survey Type: MANUAL
3	CH-02-C-01	BAKERY, NORTHWICH	CHESHIRE
	GADBROOK PARK		
	HIGH SHURLACH		
	NORTHWICH		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	15000 sqm	
	Survey date: THURSDAY	21/06/07	Survey Type: MANUAL
4	CW-02-C-01	FOOD DISTRIBUTION, CAMBORNE	CORNWALL
	WILSON WAY		
	POOL		
	CAMBORNE		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	10200 sqm	
	Survey date: FRIDAY	08/06/07	Survey Type: MANUAL
5	CW-02-C-02	LIGHTING COMPANY, BODMIN	CORNWALL
	NORMANDY WAY		
	BODMIN		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	17675 sqm	
	Survey date: WEDNESDAY	06/06/07	Survey Type: MANUAL
6	DC-02-C-07	NEW LOOK, WEYMOUTH	DORSET
	MERCERY ROAD		
	WEYMOUTH		
	Edge of Town		
	No Sub Category		
	Total Gross floor area:	5467 sqm	
	Survey date: MONDAY	07/07/08	Survey Type: MANUAL
7	DS-02-C-01	BAKERY, NEAR SHEFFIELD	DERBYSHIRE
	STUBLEY LANE		
	DRONFIELD		
	NEAR SHEFFIELD		
	Edge of Town		
	No Sub Category		
	Total Gross floor area:	23500 sqm	
	Survey date: THURSDAY	22/06/06	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	GM-02-C-02	BREWERY, MANCHESTER	GREATER MANCHESTER
		GREAT DUCIE STREET STRANGWAYS MANCHESTER Edge of Town Centre Built-Up Zone Total Gross floor area: 33470 sqm Survey date: TUESDAY 08/06/04	Survey Type: MANUAL
9	GS-02-C-01	HEALTH PRODUCTS, GLOUCESTER	GLOUCESTERSHIRE
		ST CATHERINE STREET GLOUCESTER Edge of Town Centre Built-Up Zone Total Gross floor area: 6604 sqm Survey date: WEDNESDAY 26/05/04	Survey Type: MANUAL
10	HE-02-C-01	METAL COATINGS, HEREFORD	HEREFORDSHIRE
		COLLEGE ROAD HEREFORD Edge of Town Commercial Zone Total Gross floor area: 1880 sqm Survey date: THURSDAY 14/10/10	Survey Type: MANUAL
11	HF-02-C-01	IND. UNIT, W. GARDEN CITY	HERTFORDSHIRE
		BRIDGE ROAD EAST WELWYN GARDEN CITY Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 1800 sqm Survey date: THURSDAY 17/07/08	Survey Type: MANUAL
12	LC-02-C-01	BREWERY, BLACKBURN	LANCASHIRE
		PENNY STREET BLACKBURN Edge of Town Centre Built-Up Zone Total Gross floor area: 34581 sqm Survey date: MONDAY 21/06/04	Survey Type: MANUAL
13	NF-02-C-02	GROCERY FACTORY, KINGS LYNN	NORFOLK
		HARDWICK ROAD KINGS LYNN Edge of Town Industrial Zone Total Gross floor area: 43325 sqm Survey date: MONDAY 19/09/05	Survey Type: MANUAL
14	WA-02-C-01	FOODS COMPANY, WATERFORD	WATERFORD
		MAYPARK LANE WATERFORD Edge of Town No Sub Category Total Gross floor area: 2800 sqm Survey date: TUESDAY 18/11/08	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.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

MULTI-MODAL VEHICLES**Calculation factor: 100 sqm****Estimated TRIP rate value per 5212 SQM shown in shaded columns****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 00:30												
00:30 - 01:00												
01:00 - 01:30												
01:30 - 02:00												
02:00 - 02:30												
02:30 - 03:00												
03:00 - 03:30												
03:30 - 04:00												
04:00 - 04:30												
04:30 - 05:00												
05:00 - 05:30												
05:30 - 06:00												
06:00 - 06:30												
06:30 - 07:00												
07:00 - 07:30	14	14176	0.087	4.517	14	14176	0.040	2.075	14	14176	0.127	6.592
07:30 - 08:00	14	14176	0.138	7.169	14	14176	0.024	1.261	14	14176	0.162	8.430
08:00 - 08:30	14	14176	0.212	11.056	14	14176	0.038	1.996	14	14176	0.250	13.052
08:30 - 09:00	14	14176	0.123	6.408	14	14176	0.037	1.943	14	14176	0.160	8.351
09:00 - 09:30	14	14176	0.074	3.860	14	14176	0.042	2.206	14	14176	0.116	6.066
09:30 - 10:00	14	14176	0.053	2.757	14	14176	0.035	1.812	14	14176	0.088	4.569
10:00 - 10:30	14	14176	0.041	2.127	14	14176	0.044	2.285	14	14176	0.085	4.412
10:30 - 11:00	14	14176	0.051	2.652	14	14176	0.041	2.153	14	14176	0.092	4.805
11:00 - 11:30	14	14176	0.034	1.786	14	14176	0.034	1.786	14	14176	0.068	3.572
11:30 - 12:00	14	14176	0.045	2.337	14	14176	0.044	2.285	14	14176	0.089	4.622
12:00 - 12:30	14	14176	0.043	2.258	14	14176	0.056	2.941	14	14176	0.099	5.199
12:30 - 13:00	14	14176	0.047	2.469	14	14176	0.054	2.810	14	14176	0.101	5.279
13:00 - 13:30	14	14176	0.092	4.806	14	14176	0.058	3.046	14	14176	0.150	7.852
13:30 - 14:00	14	14176	0.117	6.119	14	14176	0.069	3.571	14	14176	0.186	9.690
14:00 - 14:30	14	14176	0.062	3.230	14	14176	0.164	8.561	14	14176	0.226	11.791
14:30 - 15:00	14	14176	0.046	2.390	14	14176	0.058	3.020	14	14176	0.104	5.410
15:00 - 15:30	14	14176	0.049	2.547	14	14176	0.063	3.309	14	14176	0.112	5.856
15:30 - 16:00	14	14176	0.043	2.258	14	14176	0.070	3.650	14	14176	0.113	5.908
16:00 - 16:30	14	14176	0.032	1.681	14	14176	0.078	4.044	14	14176	0.110	5.725
16:30 - 17:00	14	14176	0.034	1.759	14	14176	0.149	7.773	14	14176	0.183	9.532
17:00 - 17:30	14	14176	0.023	1.182	14	14176	0.141	7.327	14	14176	0.164	8.509
17:30 - 18:00	14	14176	0.016	0.840	14	14176	0.134	6.959	14	14176	0.150	7.799
18:00 - 18:30	14	14176	0.020	1.050	14	14176	0.071	3.677	14	14176	0.091	4.727
18:30 - 19:00	14	14176	0.025	1.313	14	14176	0.044	2.311	14	14176	0.069	3.624
19:00 - 19:30												
19:30 - 20:00												
20:00 - 20:30												
20:30 - 21:00												
21:00 - 21:30												
21:30 - 22:00												
22:00 - 22:30												
22:30 - 23:00												
23:00 - 23:30												
23:30 - 24:00												
Total Rates:			1.507	78.571			1.588	82.801			3.095	161.372

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:	1068 - 43325 (units: sqm)
Survey date date range:	01/01/04 - 14/10/10
Number of weekdays (Monday-Friday):	14
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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.

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APPENDIX 2

Schedule of Accommodation

TYPE A	1b/2p apartment	45 sq.m.	9 No.
TYPE B	1b/2p apartment*	55 sq.m.	2 No.
TYPE C	2b/3p apartment	57 sq.m.	1 No.
TYPE D	2b/4p house	70 sq.m.	10 No.
TYPE E	3b/5p house	82 sq.m.	10 No.
T o t a l		2092 sq.m.	32 No.

* wheelchair apartment



PROJECT NO 1600 - 110
DRAWING TITLE SITE LAYOUT
* wheelchair apartment

PROJECT WATERLOO STREET
LEEK
SCALE 1:500@A3
DATE 01-13
DWN --
CHK --
REVISION/ISSUE xx@A3

PRELIMINARY

rev	date	description
A	04/13	LAYOUT AMENDED
B	04/13	FLAT ROOF AMENDED
C	04/13	FLAT ROOF AMENDED
D	04/13	PLOT 30 AMENDED TO TYPE D

winnington hall, winnington,
northwich, cheshire, CW8 4DU
Tel: (01606) 782 500
Fax: (01606) 782 510

barrie

newcombe

ASSOCIATES

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APPENDIX 3

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

MULTI-MODAL VEHICLES

Selected regions and areas:

04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	LE LEICESTERSHIRE	1 days
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
	ST STAFFORDSHIRE	1 days
	WM WEST MIDLANDS	3 days
	WO WORCESTERSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	3 days
08	NORTH WEST	
	CH CHESHIRE	2 days
	GM GREATER MANCHESTER	1 days
	LC LANCASHIRE	1 days
09	NORTH	
	CB CUMBRIA	2 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: 9 to 98 (units:)
Range Selected by User: 9 to 100 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/04 to 18/09/12

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	3 days
Tuesday	8 days
Wednesday	4 days
Thursday	3 days
Friday	3 days

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

Selected survey types:

Manual count	21 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:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	9
Edge of Town	10
Neighbourhood Centre (PPS6 Local Centre)	1

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	17
No Sub Category	4

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	20 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:

1,001 to 5,000	2 days
5,001 to 10,000	3 days
10,001 to 15,000	7 days
15,001 to 20,000	6 days
20,001 to 25,000	2 days
25,001 to 50,000	1 days

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	3 days
75,001 to 100,000	4 days
100,001 to 125,000	3 days
125,001 to 250,000	3 days
250,001 to 500,000	5 days
500,001 or More	1 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	8 days
1.1 to 1.5	11 days
1.6 to 2.0	1 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	21 days
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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	CA-03-A-04	DETACHED, PETERBOROUGH	CAMBRIDGESHIRE
	THORPE PARK ROAD		
	PETERBOROUGH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	9	
	Survey date: TUESDAY	18/10/11	Survey Type: MANUAL
2	CB-03-A-03	SEMI DETACHED, WORKINGTON	CUMBRIA
	HAWKSHEAD AVENUE		
	WORKINGTON		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	40	
	Survey date: THURSDAY	20/11/08	Survey Type: MANUAL
3	CB-03-A-04	SEMI DETACHED, WORKINGTON	CUMBRIA
	MOORCLOSE ROAD		
	SALTERBACK		
	WORKINGTON		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	82	
	Survey date: FRIDAY	24/04/09	Survey Type: MANUAL
4	CH-03-A-05	DETACHED, CREWE	CHESHIRE
	SYDNEY ROAD		
	SYDNEY		
	CREWE		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	17	
	Survey date: TUESDAY	14/10/08	Survey Type: MANUAL
5	CH-03-A-08	DETACHED, CHESTER	CHESHIRE
	WHITCHURCH ROAD		
	BOUGHTON HEATH		
	CHESTER		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	11	
	Survey date: TUESDAY	22/05/12	Survey Type: MANUAL
6	DS-03-A-01	SEMI D./ TERRACED, DRONFIELD	DERBYSHIRE
	THE AVENUE		
	HOLMESDALE		
	DRONFIELD		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total Number of dwellings:	20	
	Survey date: THURSDAY	22/06/06	Survey Type: MANUAL
7	GM-03-A-10	DETACHED/ SEMI, MANCHESTER	GREATER MANCHESTER
	BUTT HILL DRIVE		
	PRESTWICH		
	MANCHESTER		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	29	
	Survey date: WEDNESDAY	12/10/11	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	LC-03-A-22	BUNGALOWS, BLACKPOOL	LANCASHIRE
		CLIFTON DRIVE NORTH	
		BLACKPOOL	
		Edge of Town	
		Residential Zone	
		Total Number of dwellings:	98
		Survey date: TUESDAY	18/10/05
			Survey Type: MANUAL
9	LE-03-A-01	DETACHED, MELTON MOWBRAY	LEICESTERSHIRE
		REDWOOD AVENUE	
		MELTON MOWBRAY	
		Edge of Town	
		Residential Zone	
		Total Number of dwellings:	11
		Survey date: TUESDAY	03/05/05
			Survey Type: MANUAL
10	LN-03-A-03	SEMI DETACHED, LINCOLN	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
11	NY-03-A-01	MIXED HOUSES, NORTHALLERTON	NORTH YORKSHIRE
		GRAMMAR SCHOOL LANE	
		NORTHALLERTON	
		Suburban Area (PPS6 Out of Centre)	
		Residential Zone	
		Total Number of dwellings:	52
		Survey date: TUESDAY	25/09/07
			Survey Type: MANUAL
12	NY-03-A-03	PRIVATE HOUSING, BOROUGHBRI DGE	NORTH YORKSHIRE
		NEW ROW	
		BOROUGHBRI DGE	
		Edge of Town Centre	
		Residential Zone	
		Total Number of dwellings:	14
		Survey date: MONDAY	15/09/08
			Survey Type: MANUAL
13	NY-03-A-05	HOUSES AND FLATS, RIPON	NORTH YORKSHIRE
		BOROUGHBRI DGE ROAD	
		RIPON	
		Edge of Town	
		No Sub Category	
		Total Number of dwellings:	71
		Survey date: MONDAY	22/09/08
			Survey Type: MANUAL
14	SF-03-A-01	SEMI DETACHED, IPSWICH	SUFFOLK
		A1156 FELIXSTOWE ROAD	
		RACECOURSE	
		IPSWICH	
		Suburban Area (PPS6 Out of Centre)	
		Residential Zone	
		Total Number of dwellings:	77
		Survey date: WEDNESDAY	23/05/07
			Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15	SH-03-A-03	DETACHED, SHREWSBURY	SHROPSHIRE
	SOMERBY DRIVE		
	BICTON HEATH		
	SHREWSBURY		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	10	
	Survey date: FRIDAY	26/06/09	Survey Type: MANUAL
16	ST-03-A-05	TERRACED/ DETACHED, STOKE	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
17	WM-03-A-01	TERRACED, COVENTRY	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
18	WM-03-A-02	DETACHED/ SEMI D., STRBRIDGE	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
19	WM-03-A-03	MIXED HOUSING, COVENTRY	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
20	WO-03-A-01	DETACHED, BROMSGROVE	WORCESTERSHIRE
	MARLBOROUGH AVENUE		
	ASTON FIELDS		
	BROMSGROVE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	10	
	Survey date: THURSDAY	23/06/05	Survey Type: MANUAL
21	WO-03-A-02	SEMI DETACHED, REDDITCH	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.

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

MULTI-MODAL 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	21	39	0.072	21	39	0.265	21	39	0.337
08:00 - 09:00	21	39	0.170	21	39	0.389	21	39	0.559
09:00 - 10:00	21	39	0.200	21	39	0.225	21	39	0.425
10:00 - 11:00	21	39	0.185	21	39	0.230	21	39	0.415
11:00 - 12:00	21	39	0.216	21	39	0.195	21	39	0.411
12:00 - 13:00	21	39	0.221	21	39	0.168	21	39	0.389
13:00 - 14:00	21	39	0.178	21	39	0.184	21	39	0.362
14:00 - 15:00	21	39	0.207	21	39	0.220	21	39	0.427
15:00 - 16:00	21	39	0.272	21	39	0.246	21	39	0.518
16:00 - 17:00	21	39	0.346	21	39	0.188	21	39	0.534
17:00 - 18:00	21	39	0.351	21	39	0.223	21	39	0.574
18:00 - 19:00	21	39	0.280	21	39	0.183	21	39	0.463
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.698			2.716			5.414

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: 9 - 98 (units:)
 Survey date range: 01/01/04 - 18/09/12
 Number of weekdays (Monday-Friday): 21
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 1

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.

S|C|P

APPENDIX 4

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : F - SHELTERED ACCOMMODATION

MULTI-MODAL VEHICLES

Selected regions and areas:

02 SOUTH EAST		
ES	EAST SUSSEX	1 days
SC	SURREY	1 days
03 SOUTH WEST		
DC	DORSET	1 days
05 EAST MIDLANDS		
DS	DERBYSHIRE	1 days
LE	LEICESTERSHIRE	1 days
07 YORKSHIRE & NORTH LINCOLNSHIRE		
KH	KINGSTON UPON HULL	2 days
WY	WEST YORKSHIRE	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: 28 to 114 (units:)
Range Selected by User: 28 to 114 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/04 to 15/06/10

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	4 days
Wednesday	1 days
Thursday	2 days

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

Selected survey types:

Manual count	8 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:

Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	2
Edge of Town	2
Neighbourhood Centre (PPS6 Local Centre)	1

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:

Industrial Zone	1
Residential Zone	3
Built-Up Zone	2
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

8 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

25,001 to 50,000

6 days

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

Population within 5 miles:

100,001 to 125,000

2 days

125,001 to 250,000

1 days

250,001 to 500,000

4 days

500,001 or More

1 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

1 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

8 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	DC-03-F-02	SHELTERED HOUSING, POOLE	DORSET
		WILLOW PARK	
		POOLE	
		Suburban Area (PPS6 Out of Centre)	
		Built-Up Zone	
		Total Number of dwellings:	114
		Survey date: THURSDAY	17/07/08
2	DS-03-F-01	SHELTERED HOUSING, DERBY	DERBYSHIRE
		ST MICHAELS LANE	
		DERBY	
		Edge of Town Centre	
		Built-Up Zone	
		Total Number of dwellings:	40
		Survey date: THURSDAY	25/06/09
3	ES-03-F-01	SHELTERED HOU., EASTBOURNE	EAST SUSSEX
		STAR ROAD	
		OLD TOWN	
		EASTBOURNE	
		Neighbourhood Centre (PPS6 Local Centre)	
		No Sub Category	
		Total Number of dwellings:	29
		Survey date: MONDAY	30/11/09
4	KH-03-F-01	SHELTERED HOUSING, HULL	KINGSTON UPON HULL
		ELLIS STREET	
		KINGSTON-UPON-HULL	
		Edge of Town Centre	
		No Sub Category	
		Total Number of dwellings:	43
		Survey date: TUESDAY	15/09/09
5	KH-03-F-02	SHELTERED HOUSING, HULL	KINGSTON UPON HULL
		NORTHUMBERLAND AVE.	
		KINGSTON-UPON-HULL	
		Edge of Town Centre	
		Industrial Zone	
		Total Number of dwellings:	58
		Survey date: TUESDAY	15/09/09
6	LE-03-F-01	SHELTERED HOUSING, LEICESTER	LEICESTERSHIRE
		BELLAMY CLOSE	
		GLEN PARVA	
		LEICESTER	
		Edge of Town	
		Residential Zone	
		Total Number of dwellings:	33
		Survey date: WEDNESDAY	24/06/09
7	SC-03-F-01	SHELTERED ACC., GUILDFORD	SURREY
		COLLIER WAY	
		BUSHY HILL	
		GUILDFORD	
		Edge of Town	
		Residential Zone	
		Total Number of dwellings:	32
		Survey date: TUESDAY	08/07/08

LIST OF SITES relevant to selection parameters (Cont.)

8	WY-03-F-01	SHELTERED HOUSING, LEEDS	WEST YORKSHIRE
	NORTH GRANGE ROAD		
	HEADINGLEY		
	LEEDS		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	28	
	Survey date: TUESDAY	15/06/10	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.

TRIP RATE for Land Use 03 - RESIDENTIAL/F - SHELTERED ACCOMMODATION

MULTI-MODAL 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	8	47	0.040	8	47	0.034	8	47	0.074
08:00 - 09:00	8	47	0.122	8	47	0.085	8	47	0.207
09:00 - 10:00	8	47	0.125	8	47	0.122	8	47	0.247
10:00 - 11:00	8	47	0.122	8	47	0.164	8	47	0.286
11:00 - 12:00	8	47	0.114	8	47	0.111	8	47	0.225
12:00 - 13:00	8	47	0.149	8	47	0.130	8	47	0.279
13:00 - 14:00	8	47	0.077	8	47	0.103	8	47	0.180
14:00 - 15:00	8	47	0.085	8	47	0.069	8	47	0.154
15:00 - 16:00	8	47	0.077	8	47	0.095	8	47	0.172
16:00 - 17:00	8	47	0.050	8	47	0.074	8	47	0.124
17:00 - 18:00	8	47	0.077	8	47	0.069	8	47	0.146
18:00 - 19:00	8	47	0.072	8	47	0.050	8	47	0.122
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.110			1.106			2.216

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: 28 - 114 (units:)
 Survey date range: 01/01/04 - 15/06/10
 Number of weekdays (Monday-Friday): 8
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

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.