





APPENDIX F Not Used





APPENDIX G

Active Travel Zone Assessment



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Prepared on behalf of

Avanton Richmond Development Limited

Redevelopment of Homebase Manor Road, North Sheen

ATZ Assessment





1.1 Maps

1.1.1 Maps 1, 2 and 3 that are required to be produced as part of the ATZ assessment are included at the **ATZ Appendix** to the rear of this report.

Map 1

No destinations have been excluded as all are considered relevant to this mixed use development.

Map 2

Three serious incidents at the Manor Road/Sheen Road/Queen's Road junction. One involved a passenger on a bus being injured with no impact being made therefore this has been discounted. The remaining two both involved a car colliding with a motorbike. There is no obvious suggestion as to how to reduce the occurrence of this kind of incident. No incidents involved pedestrians therefore it is considered that the signal controlled pedestrian crossings already in place at the junction are sufficient in that regard

Map 3

The proximity of the site to high quality public transport opportunities will provide incentive to residents, staff and visitors to travel to/from the site by non-car modes.

The permeable streets in the vicinity will provide shorter distances to the site and therefore encourage residents, staff and visitors to walk to/from the site. The green spaces surrounding the site provide attractive routes for pedestrians.



This development is encouraging a car-free lifestyle by providing a site-wide travel plan, providing limited disabled only car parking, providing cycle parking, improving pedestrian routes within the site and connections to the surrounding network.

1.2 Walking of the Key Routes

- 1.2.1 As required and specified within the ATZ guidance, part of the assessment requires the key walking and cycling routes to and from the site to be walked and photographed. The routes are then compared to Healthy Streets indicators 3-10 specified within the 'Guide to Healthy Streets Indicators Manual' with suggestions made to state what can be done to improve them.
- 1.2.2 The scope of this assessment has been agreed with TfL. The correspondence with TfL is included within the **ATZ Appendix** and the routes are shown on 'Map 2', also at the **ATZ Appendix**.
 - 1) North on Manor Road to Manor Circus
 - 2) South on Manor Road to Holy Trinity Primary School
 - 3) South on Manor Road to Marshgate Primary School
 - 4) South on Manor Road to Seymour House Medical Practice via Townshend Terrace



Route 1 - North on Manor Road to Manor Circus

This route runs north from the site's main pedestrian entrance to Manor Circus roundabout junction.







Easy to Cross	Tactile paving and dropped crossings are to be provided across the site's vehicular access to aid pedestrians. It is not expected that this will be a highly trafficked access due to the limited parking provision within the site. A refuge island with tactile paving and dropped kerbs is present on Manor Road to aid pedestrian movements to the eastern flank of the road. Although Manor Road is a relatively busy road, the refuge island reduces the distance required to cross at one time. Furthermore, the activation of the level crossing to the south results in frequent lengthy periods where vehicles are stationary and therefore providing opportunities for pedestrians to cross. At the northern point of this route, on the approach to Manor Circus, zebra crossings are provided across Manor Road with the inclusion of a refuge island. Manor Circus roundabout junction is subject of a planned TfL improvement scheme that will provide signal controlled toucan crossings.	
Shade and Shelter	There are currently few opportunities for shade and shelter on this route with some trees and a bus shelter. However, this is to be improved as part of the development with trees being planted on the footway edge along the site frontage which will also provide some segregation from the road.	
Places to stop and rest	This is a short route of approximately 165m. On the eastern flank of Manor Road there is a part that links to Sainsbury's, within a 'pocket park' set away from the road, that incorporates bench with backs and armrests. On the western flank there is seating available under the protection the bus shelter. The site will incorporate landscaped areas including seating.	
Not too noisy	Although Manor Road is relatively busy it is not necessary to raise your voice to hold a conversation. The activation of the level crossing to the south results in frequent lengthy periods where vehicles are stationary and there are signs encouraging drivers to turn off their engines.	
People feel safe	The assessment of personal injury accidents does not suggest that there would be cause for concern regards safety when walking or cycling on this route. The speed limit of the road is 30mph and, as previously stated, vehicles are stationary for lengthy periods. The route is street-lit and there are railings along a section on the eastern flank. The route is well-kept and there are no signs of neglect. This will be further improved by the development with buildings overlooking the footway and improvements to the footway.	





Things to do and see Sainsbury's supermarket is located opposite the site and the development will add to frontage with commercial units in addition to the residential units. The site will also in landscaped areas and children's play areas. The central courtyard within the site community events.	
People feel relaxed	The route feels well maintained and clean. The carriageway and footways are well-kept and easy to navigate. Litter bins are provided at the bus shelter and within the landscaped area adjacent to Sainsbury's. As previously stated, the speed limit of the road is 30mph and vehicles are stationary for lengthy periods and drivers are encouraged to turn off their engines. As part of the development, improvements are to be made to the footway on the western flank of Manor Road and trees are to be planted on the footway edge which will also provide some segregation from the road.
Clean air	Measures are in place both city-wide and locally to decrease the need for car travel and to promote sustainable means. Drivers that are stationary due to the activation of the level crossing to the south are encouraged to turn off their engines by signs although further education of this could be promoted. The development is providing very limited car parking which will reduce vehicle usage associated with the site and therefore improve air quality.



Route 2 - South on Manor Road to Holy Trinity Primary School

This route runs south from the site's main pedestrian entrance to Holy Trinity Primary School via Manor Road and Carrington Road.







Easy to Cross	Towards the southern boundary of the site there is a refuge island with dropped kerbs on Manor Road to aid pedestrian movements to the eastern flank of the road. This would be improved with tactile paving. Although Manor Road is a relatively busy road, the refuge island reduces the distance required to cross at one time. The carriageway leading to Marylebone Gardens is raised to aid pedestrian movements. A stepped bridge is provided on the western flank of Manor Road to allow the railway line to be crossed when the level crossing is activated. The provision of ramps would improve this facility. Dropped kerbs are present at the junctions with Manor Park and Manor Gardens. Dropped kerbs are also present on Carrington Road at the junction with Kings Farm Avenue.	
Shade and Shelter	There are currently few opportunities for shade and shelter on this route however there are a number of established trees along Carrington Road. Further trees are to be planted on the footway edge along the site frontage which will also provide some segregation from the road. The section of Manor Road between the level crossing and Carrington Road provides no shade or shelter however this is due to the road being fronted by houses.	
Places to stop and rest	There are no formal places provided to stop and rest on this route however there are garded walls that provide informal opportunities. There are limited places seating could be provided at they would obstruct the footway and there are numerous driveways.	
Not too noisy	Although Manor Road is relatively busy it is not necessary to raise your voice to hold a conversation. The activation of the level crossing results in frequent lengthy periods where vehicles are stationary and there are signs encouraging drivers to turn off their engines. Carrington Road does not provide through access, but rather serves residential dwellings and the school. Its residential nature means the road is not busy and noisy. There are 'slow' carriageway markings and school warning signs to encourage slower speeds.	
People feel safe	An assessment of personal injury accidents does not suggest that there would be cause for concern regards safety when walking or cycling on this route. The speed limit of the roads is 30mph and, as previously stated, vehicles are stationary on Manor Road for lengthy periods. The route is street-lit, well-kept and there are no signs of neglect.	





Things to do and see As the route is along predominantly residential roads there are no shops etc to provide into However, gardens to the properties do provide variety to the route.		
People feel relaxed to navigate. A litter bin is provided on the wester crossing. As previously stated, the speed limit on Manor Road for lengthy periods and drive Carrington Road does not provide through account of the people feel relaxed.		The route feels well maintained and clean. The carriageway and footways are well-kept and easy to navigate. A litter bin is provided on the western flank of Manor Road to the south of the level crossing. As previously stated, the speed limit of the roads is 30mph and vehicles are stationary on Manor Road for lengthy periods and drivers are encouraged to turn off their engines. Carrington Road does not provide through access, but rather serves residential dwellings and the school. Its residential nature means the road is not busy and provides more vegetation.
	Clean air	Measures are in place both city-wide and locally to decrease the need for car travel and to promote sustainable means. Drivers that are stationary due to the activation of the level crossing on Manor Road are encouraged to turn off their engines by signs although further education of this could be promoted.



Route 3 - South on Manor Road to Marshgate Primary School

This route runs south from the site's main pedestrian entrance to Marshgate Primary School via Manor road and Sheen Road.







Easy to Cross	Towards the southern boundary of the site there is a refuge island with dropped kerbs on Manor Road to aid pedestrian movements to the eastern flank of the road. This would be improved with tactile paving. Although Manor Road is a relatively busy road, the refuge island reduces the distance required to cross at one time. The carriageway leading to Marylebone Gardens is raised to aid pedestrian movements. A stepped bridge is provided on the western flank of Manor Road to allow the railway line to be crossed when the level crossing is activated. The provision of ramps would improve this facility. Dropped kerbs are present at the junctions with Manor Park, Manor Gardens and Carrington Road. Signal controlled crossings are present on all arms of the Manor Road/Sheen Road/Queen's Road junction. Dropped kerbs are provided on the left turn branch of Queen's Road at this junction.
Shade and Shelter	There are currently few opportunities for shade and shelter on this route however there are established trees at the Manor Road/Sheen Road/Queen's Road junction and on the school frontage. There is also a bus shelter adjacent to the school. Further trees are to be planted on the footway edge along the site frontage which will also provide some segregation from the road. The section of Manor Road between the level crossing and Sheen Road provides no shade or shelter however this is due to the road being fronted by houses.
Places to stop and rest A bench with back rest and arms is provided beneath an established tree at the Road/Sheen Road/Queen's Road junction. Aside from this there are no formal place however there are garden walls that provide informal opportunities.	
Not too noisy	Although Manor Road is relatively busy it is not necessary to raise your voice to hold a conversation. The activation of the level crossing results in frequent lengthy periods where vehicles are stationary and there are signs encouraging drivers to turn off their engines. Sheen Road is also relatively busy but, again, it is not necessary to raise your voice to hold a conversation. There are school warning signs to encourage slower speeds.
People feel safe	An assessment of personal injury accidents does not suggest that there would be cause for concern regards safety when walking on this route as there are no recorded incidents involving pedestrians. However, there are a number of 'slight' incidents involving pedal cycles in the vicinity of the Manor Road/Sheen Road/Queen's Road junction. As on-road cycle lanes and advanced stop lines are already provided on two arms improvements are limited The route is street-lit, well-kept and there are no signs of neglect.





Things to do and see	Things to do and see As the route is along predominantly residential roads there are few shops etc to provide interest However, gardens to the properties do provide variety to the route.	
People feel relaxed	The route feels well maintained and clean. The carriageway and footways are well-kept and easy to navigate. Litter bins are provided on the western flank of Manor Road to the south of the level crossing and at the Manor Road/Sheen Road/Queen's Road junction. As previously stated, the speed limit of the roads is 30mph and vehicles are stationary on Manor Road for lengthy periods and drivers are encouraged to turn off their engines.	
Clean air	Measures are in place both city-wide and locally to decrease the need for car travel and to promote sustainable means. Drivers that are stationary due to the activation of the level crossing on Manor Road are encouraged to turn off their engines by signs although further education of this could be promoted.	



Route 4 - South on Manor Road to Seymour House Medical Practice via Townshend Terrace

This route runs south from the site's main pedestrian entrance to Seymour House Medical Practice via Manor Road, Manor Gardens, Townshend Terrace and Townshend Road.







Easy to Cross	A stepped bridge is provided on the western flank of Manor Road to allow the railway line to be crossed when the level crossing is activated. The provision of ramps would improve this facility. Dropped kerbs are present at the junction with Manor Park. On Townshend Terrace dropped kerbs are present at junctions with Adelaide Road, St Mary's Grove and Townshend Road. Townshend Terrace and Townshend Road are residential roads that are quiet and therefore provide opportunities to cross.	
Shade and Shelter	There are few opportunities for shade and shelter on this route however there are establis trees on Manor Gardens, Townshend Terrace/St Mary's Grove junction and on Townsh Road. Further trees are to be planted on the footway edge along the site frontage which will a provide some segregation from the road. The section of Manor Road between the level cross and Manor Gardens provides no shade or shelter however this is due to the road being from by houses.	
Places to stop and rest	There are no formal places provided to stop and rest on this route however there are garden walls that provide informal opportunities. There are limited places seating could be provided as they would obstruct the footway and there are numerous driveways.	
Not too noisy	Although Manor Road is relatively busy it is not necessary to raise your voice to hole conversation. The activation of the level crossing results in frequent lengthy periods who vehicles are stationary and there are signs encouraging drivers to turn off their engines. The residential nature of Townshend Terrace and Townshend Road means that the roads are busy and noisy	
People feel safe	An assessment of personal injury accidents does not suggest that there would be cause for concern regards safety when walking or cycling on this route as there are no recorded incidents involving pedestrians or pedal cycles. The route is street-lit, well-kept and there are no signs of neglect.	
Things to do and see	As the route is along predominantly residential roads there are no shops etc to provide interest. However, gardens to the properties do provide variety to the route.	



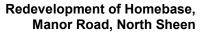


People feel relaxed	The route feels well maintained and clean. The carriageway and footways are well-kept and easy to navigate. A litter bin is provided on the western flank of Manor Road to the south of the level crossing. As previously stated, the speed limit of the roads is 30mph and vehicles are stationary on Manor Road for lengthy periods and drivers are encouraged to turn off their engines.
Clean air	Measures are in place both city-wide and locally to decrease the need for car travel and to promote sustainable means. Drivers that are stationary due to the activation of the level crossing on Manor Road are encouraged to turn off their engines by signs although further education of this could be promoted.

1.3 Summary

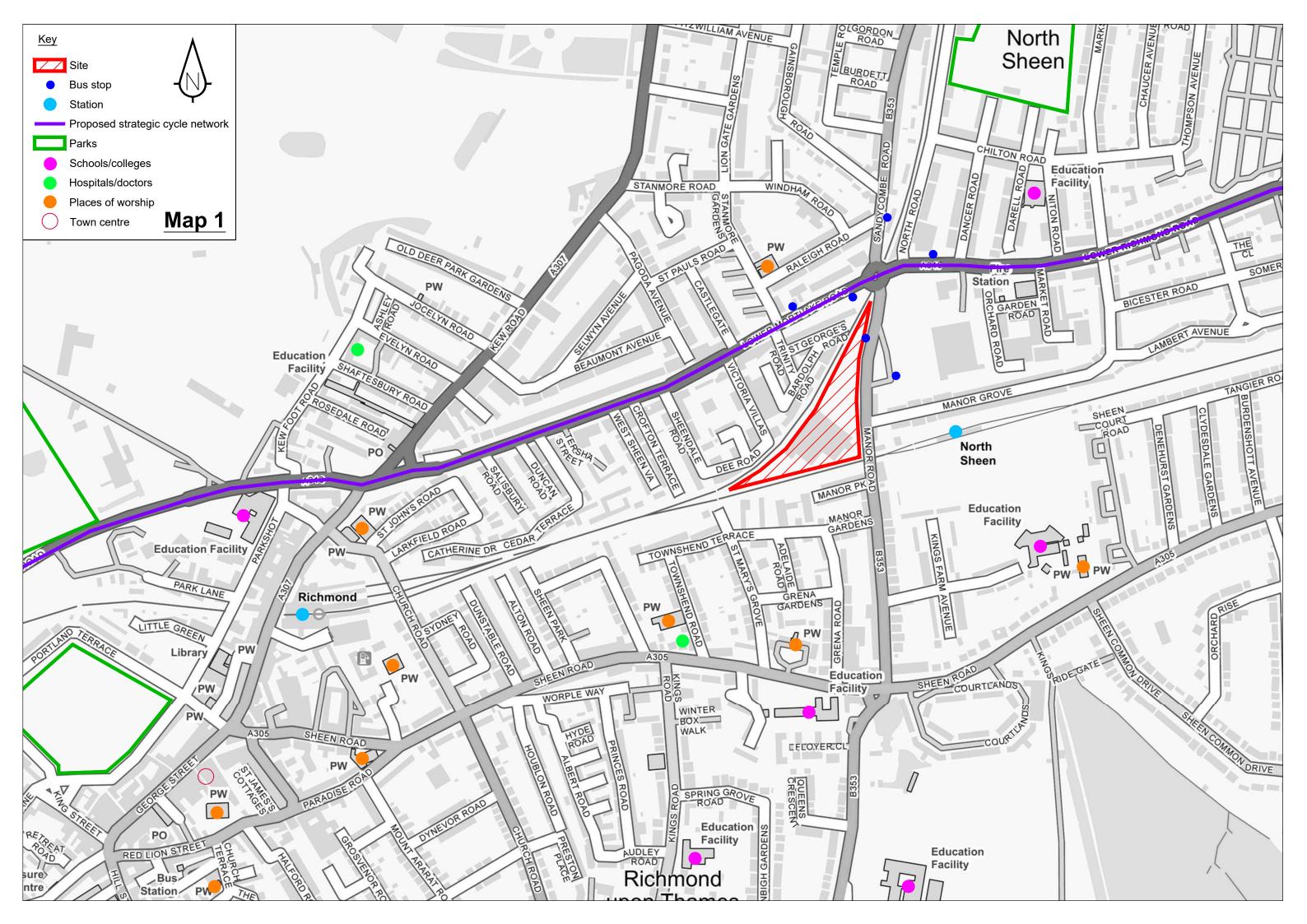
1.3.1 In summary, the routes assessed generally perform well in relation to the Healthy Streets indicators by providing safe places to cross, being well-maintained, not having an accident history of concern and having public and private areas of vegetation that provide interest and variety. In addition, the development will enhance the routes along the site frontage by providing improved footways, landscaping, places to rest and overlooking buildings.

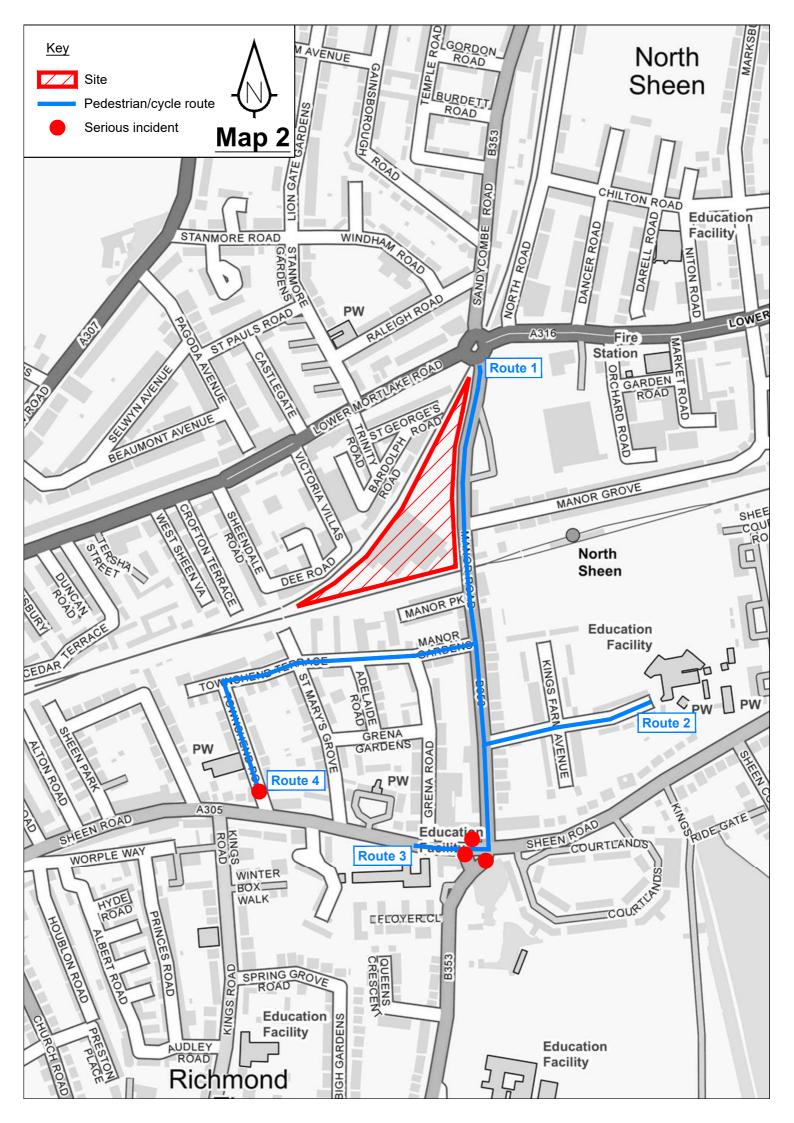
Images from Google Streetview, as well as photographs from our site visit, have been utilised in this report.

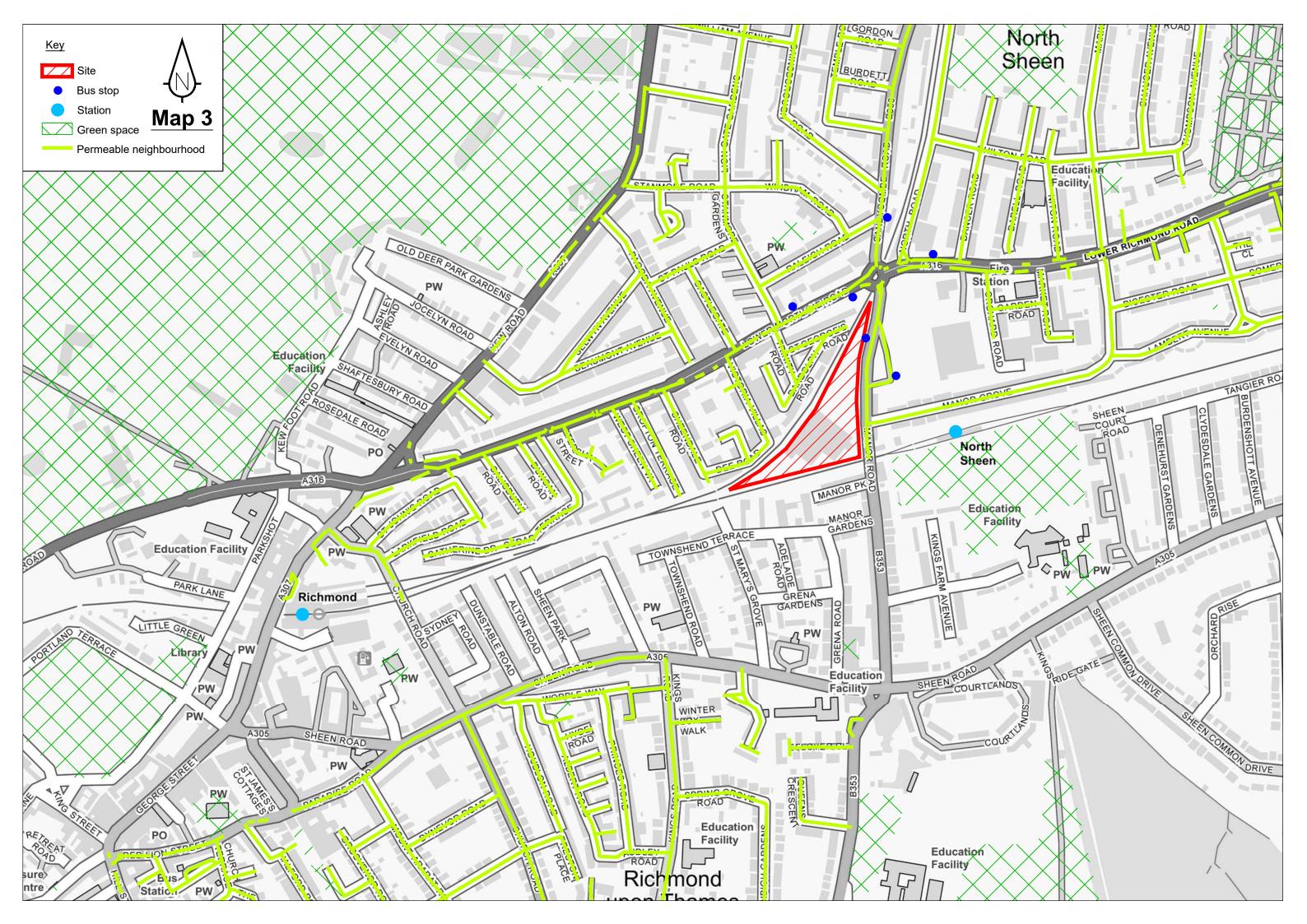




ATZ APPENDIX







RE: 84 Manor Road Homebase, LB Richmond – Stage 3 TfL's pre-application advice -

Subject: 10596/11205

Date: 31/10/2019 12:25

From: "Simpson Lucy" <LucySimpson@tfl.gov.uk>

To: "Karen Smith" < Karen. Smith@sandersonassociates.co.uk>

Hi Karen,

The updated TA should pick up on ATZs, but I am happy for the extent of this to be Manor Road up to Manor Circus and south of the level crossing, you should probably also include to the nearest primary school and doctors survey. However if the closest school/surgery is north of Manor Circus I am happy for you to exclude Manor Circus given the improvement scheme that will be implemented there in the future.

In terms of the bus standing area, we have been having a discussion regarding this and have thought of a potential option which may be workable. Could you investigate an option to provide bus standing along the site access road, parallel to the railway line, with provision for bus turning in the south west corner of the site. It may require some rejigging of the site and maybe loss of landscaping but it would allow you to completely free up the existing bus standing site?

Kind regards

Lucy

From: Karen Smith [mailto:Karen.Smith@sandersonassociates.co.uk]

Sent: 31 October 2019 11:09

To: Simpson Lucy

Subject: FW: 84 Manor Road Homebase, LB Richmond – Stage 3 TfL's pre-application advice - 10596/11205

Good Morning Lucy,

I would be grateful if you would confirm whether a full Active Travel Zone assessment is required as part of the updated TA for the Manor Road project.

If you recall we did include a "Healthy Streets" section in our original TA and it would be appreciated if you could confirm what exactly you want to see in the updated TA.





From: Spatial Planning [mailto:SpatialPlanning@tfl.gov.uk]

Sent: 23 October 2019 16:57

To: Karen Smith < Karen. Smith@sandersonassociates.co.uk >

Cc: 'Tom.Bennett@icglongbow.com' <Tom.Bennett@icglongbow.com>; 'Rachel.Crick@avisonyoung.com'

<Rachel.Crick@avisonyoung.com>; 'Emma.Gill@avisonyoung.com' <Emma.Gill@avisonyoung.com>;

'johnlynch@assael.co.uk' <johnlynch@assael.co.uk>; 'Luke.Butler@london.gov.uk'

<Luke.Butler@london.gov.uk>; Hamilton Ramel <RamelHamilton@tfl.gov.uk>; Edwards Adam

<Adam.Edwards@tfl.gov.uk>; Simpson Lucy <LucySimpson@tfl.gov.uk>; 'planning@london.gov.uk'

<planning@london.gov.uk>

Subject: 84 Manor Road Homebase, LB Richmond - Stage 3 TfL's pre-application advice

Dear Ms Smith

Following on from your recent pre-application meeting for the above site, please find Transport

about:blank 21/11/2019

for London's formal advice letter attached for your information. Should you have any questions about these comments, please contact Lucy Simpson.

Your views are important to us and in order to improve our service, we would appreciate it if you would complete and send back the enclosed feedback form ASAP.

Kind regards,

TfL Spatial Planning

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about:blank 21/11/2019





APPENDIX H

TRICS - Privately Owned Flats

Sanderson Associates (Consulting Engineers) Ltd Upbilee Way Wakefield Licence No: 109307

Calculation Reference: AUDIT-109307-181108-1127

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : C - FLATS PRIVATELY OWNED

MULTI-MODAL VEHICLES

Selected regions and areas:

01

GREATER LONDON		
BT	BRENT	1 days
HG	HARINGEY	1 days
HK	HACKNEY	1 days
IS	ISLINGTON	4 days
ΚI	KINGSTON	1 days
KN	KENSINGTON AND CHELSEA	2 days
SK	SOUTHWARK	2 days
WH	WANDSWORTH	1 days

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

Secondary Filtering 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 472 (units:) Range Selected by User: 9 to 493 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 03/07/18

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 2 days
Tuesday 1 days
Wednesday 5 days
Thursday 3 days
Friday 2 days

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

Selected survey types:

Manual count 13 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 undertaking using machines.

Selected Locations:

Edge of Town Centre 9
Suburban Area (PPS6 Out of Centre) 4

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:

Development Zone 2
Residential Zone 7
Built-Up Zone 3
No Sub Category 1

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.

Sanderson Associates (Consulting Engineers) Ltd Jubilee Way Wakefield Licence No: 109307

Secondary Filtering selection:

Use Class:

C3 13 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:

5,001 to 10,000	1 days
10,001 to 15,000	1 days
25,001 to 50,000	2 days
50,001 to 100,000	5 days
100,001 or More	4 days

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

Population within 5 miles:

125,001 to 250,000	1 days
250,001 to 500,000	1 days
500,001 or More	11 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	5 days
0.6 to 1.0	7 days
1.1 to 1.5	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:

Yes	2 days
No	11 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.

PTAL Rating:

1 days
2 days
7 days
3 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 BT-03-C-02 BLOCKS OF FLATS BRENT

ENGINEERS WAY WEMBLEY

Suburban Area (PPS6 Out of Centre)

Development Zone

Total Number of dwellings: 472

Survey date: WEDNESDAY 30/11/16 Survey Type: MANUAL

2 HG-03-C-02 BLOCK OF FLATS HARINGEY

HIGH ROAD WOOD GREEN WOODSIDE PARK

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 30

Survey date: WEDNESDAY 01/10/14 Survey Type: MANUAL

HK-03-C-03 BLOCK OF FLATS HACKNEY

GREEN LANES FINSBURY PARK MANOR HOUSE

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 10

Survey date: WEDNESDAY 24/09/14 Survey Type: MANUAL

4 IS-03-C-03 BLOCK OF FLATS ISLINGTON

FLORENCE STREET ISLINGTON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 9

Survey date: THURSDAY 21/11/13 Survey Type: MANUAL

5 IS-03-C-04 BLOCK OF FLATS ISLINGTON

CITY ROAD ISLINGTON

Edge of Town Centre Development Zone

Total Number of dwellings: 157

Survey date: THURSDAY 14/07/16 Survey Type: MANUAL

5 IS-03-C-05 BLOCK OF FLATS ISLINGTON

LEVER STREET FINSBURY

Edge of Town Centre Built-Up Zone

Total Number of dwellings: 15

Survey date: WEDNESDAY 29/06/16 Survey Type: MANUAL

7 IS-03-C-06 BLOCK OF FLATS ISLINGTON

CALEDONIAN ROAD

HOLLOWAY

Edge of Town Centre

Residential Zone

Total Number of dwellings: 14

Survey date: MONDAY 27/06/16 Survey Type: MANUAL

8 KI-03-C-02 BLOCK OF FLATS KINGSTON

SOPWITH WAY

KINGSTON UPON THAMES

Edge of Town Centre No Sub Category

Total Number of dwellings: 132

Survey date: MONDAY 14/06/10 Survey Type: MANUAL

Wakefield Sanderson Associates (Consulting Engineers) Ltd Jubilee Way Licence No: 109307

LIST OF SITES relevant to selection parameters (Cont.)

KN-03-C-02 KENSINGTON AND CHELSEA **BLOCK OF FLATS**

BECKFORD CLOSE SOUTH KENSINGTON

Edge of Town Centre Residential Zone

Total Number of dwellings: 294

Survey date: TUESDAY 15/06/10 Survey Type: MANUAL KN-03-C-03 **BLOCK OF FLATS** KENSINGTON AND CHELSEA

ALLEN STREET KENSINGTON

Edge of Town Centre Residential Zone

Total Number of dwellings: 72

> Survey date: FRIDAY 11/05/12 Survey Type: MANUAL SOUTHWARK

SK-03-C-01 **BLOCK OF FLATS** 11

PARK STREET **SOUTHWARK**

Edge of Town Centre

Built-Up Zone

Total Number of dwellings: 53

Survey date: FRIDAY 19/09/14 Survey Type: MANUAL

SOUTHWARK 12 SK-03-C-02 **BLOCK OF FLATS**

LAMB WALK **BERMONDSEY**

Edge of Town Centre

Built-Up Zone

Total Number of dwellings: 29

Survey date: THURSDAY 23/04/15 Survey Type: MANUAL

13 WH-03-C-01 **BLOCKS OF FLATS** WANDSWORTH

AMIES STREET **CLAPHAM JUNCTION**

Edge of Town Centre Residential Zone

Total Number of dwellings: 30

Survey date: WEDNESDAY 09/05/12 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
BT-03-C-01	PTAL Rating 3
EN-03-C-03	PTAL Rating 0
HO-03-C-03	PTAL Rating 2
HV-03-C-01	PTAL Rating 2
HV-03-C-02	PTAL Rating 2
KI-03-C-03	PTAL Rating 2
RD-03-C-03	PTAL Rating 1b

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	13	101	0.011	13	101	0.047	13	101	0.058
08:00 - 09:00	13	101	0.032	13	101	0.081	13	101	0.113
09:00 - 10:00	13	101	0.035	13	101	0.034	13	101	0.069
10:00 - 11:00	13	101	0.024	13	101	0.033	13	101	0.057
11:00 - 12:00	13	101	0.031	13	101	0.024	13	101	0.055
12:00 - 13:00	13	101	0.025	13	101	0.027	13	101	0.052
13:00 - 14:00	13	101	0.033	13	101	0.030	13	101	0.063
14:00 - 15:00	13	101	0.027	13	101	0.033	13	101	0.060
15:00 - 16:00	13	101	0.038	13	101	0.027	13	101	0.065
16:00 - 17:00	13	101	0.039	13	101	0.036	13	101	0.075
17:00 - 18:00	13	101	0.054	13	101	0.031	13	101	0.085
18:00 - 19:00	13	101	0.049	13	101	0.042	13	101	0.091
19:00 - 20:00	6	164	0.024	6	164	0.023	6	164	0.047
20:00 - 21:00	6	164	0.023	6	164	0.021	6	164	0.044
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.445			0.489			0.934

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.

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Parameter summary

Trip rate parameter range selected: 9 - 472 (units:) Survey date date range: 01/01/10 - 03/07/18

Number of weekdays (Monday-Friday): 1:
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 7

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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

 Licence No: 109307

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL CYCLISTS

BOLD print indicates peak (busiest) period

Calculation factor: 1 DWELLS

	ARRIVALS		I	DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	13	101	0.002	13	101	0.005	13	101	0.007
08:00 - 09:00	13	101	0.000	13	101	0.009	13	101	0.009
09:00 - 10:00	13	101	0.002	13	101	0.005	13	101	0.007
10:00 - 11:00	13	101	0.004	13	101	0.002	13	101	0.006
11:00 - 12:00	13	101	0.002	13	101	0.002	13	101	0.004
12:00 - 13:00	13	101	0.003	13	101	0.003	13	101	0.006
13:00 - 14:00	13	101	0.002	13	101	0.001	13	101	0.003
14:00 - 15:00	13	101	0.002	13	101	0.000	13	101	0.002
15:00 - 16:00	13	101	0.000	13	101	0.001	13	101	0.001
16:00 - 17:00	13	101	0.002	13	101	0.002	13	101	0.004
17:00 - 18:00	13	101	0.005	13	101	0.002	13	101	0.007
18:00 - 19:00	13	101	0.008	13	101	0.004	13	101	0.012
19:00 - 20:00	6	164	0.009	6	164	0.006	6	164	0.015
20:00 - 21:00	6	164	0.004	6	164	0.000	6	164	0.004
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.045			0.042			0.087

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL VEHICLE OCCUPANTS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	13	101	0.013	13	101	0.055	13	101	0.068
08:00 - 09:00	13	101	0.030	13	101	0.131	13	101	0.161
09:00 - 10:00	13	101	0.041	13	101	0.039	13	101	0.080
10:00 - 11:00	13	101	0.026	13	101	0.041	13	101	0.067
11:00 - 12:00	13	101	0.030	13	101	0.028	13	101	0.058
12:00 - 13:00	13	101	0.030	13	101	0.035	13	101	0.065
13:00 - 14:00	13	101	0.041	13	101	0.035	13	101	0.076
14:00 - 15:00	13	101	0.035	13	101	0.039	13	101	0.074
15:00 - 16:00	13	101	0.067	13	101	0.030	13	101	0.097
16:00 - 17:00	13	101	0.050	13	101	0.036	13	101	0.086
17:00 - 18:00	13	101	0.076	13	101	0.042	13	101	0.118
18:00 - 19:00	13	101	0.056	13	101	0.046	13	101	0.102
19:00 - 20:00	6	164	0.030	6	164	0.031	6	164	0.061
20:00 - 21:00	6	164	0.029	6	164	0.031	6	164	0.060
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.554			0.619			1.173

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL PEDESTRIANS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	13	101	0.030	13	101	0.060	13	101	0.090
08:00 - 09:00	13	101	0.031	13	101	0.137	13	101	0.168
09:00 - 10:00	13	101	0.030	13	101	0.060	13	101	0.090
10:00 - 11:00	13	101	0.042	13	101	0.068	13	101	0.110
11:00 - 12:00	13	101	0.081	13	101	0.052	13	101	0.133
12:00 - 13:00	13	101	0.073	13	101	0.055	13	101	0.128
13:00 - 14:00	13	101	0.052	13	101	0.084	13	101	0.136
14:00 - 15:00	13	101	0.061	13	101	0.068	13	101	0.129
15:00 - 16:00	13	101	0.087	13	101	0.059	13	101	0.146
16:00 - 17:00	13	101	0.102	13	101	0.071	13	101	0.173
17:00 - 18:00	13	101	0.099	13	101	0.078	13	101	0.177
18:00 - 19:00	13	101	0.083	13	101	0.044	13	101	0.127
19:00 - 20:00	6	164	0.070	6	164	0.032	6	164	0.102
20:00 - 21:00	6	164	0.059	6	164	0.038	6	164	0.097
21:00 - 22:00				•					
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.900			0.906			1.806

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.

- 02 DECIDENTIAL /C FLATC DRIVATELY OWNED

Wakefield

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	13	101	0.007	13	101	0.121	13	101	0.128
08:00 - 09:00	13	101	0.020	13	101	0.185	13	101	0.205
09:00 - 10:00	13	101	0.018	13	101	0.074	13	101	0.092
10:00 - 11:00	13	101	0.018	13	101	0.053	13	101	0.071
11:00 - 12:00	13	101	0.029	13	101	0.047	13	101	0.076
12:00 - 13:00	13	101	0.032	13	101	0.055	13	101	0.087
13:00 - 14:00	13	101	0.047	13	101	0.039	13	101	0.086
14:00 - 15:00	13	101	0.049	13	101	0.041	13	101	0.090
15:00 - 16:00	13	101	0.045	13	101	0.028	13	101	0.073
16:00 - 17:00	13	101	0.068	13	101	0.045	13	101	0.113
17:00 - 18:00	13	101	0.106	13	101	0.043	13	101	0.149
18:00 - 19:00	13	101	0.115	13	101	0.038	13	101	0.153
19:00 - 20:00	6	164	0.090	6	164	0.027	6	164	0.117
20:00 - 21:00	6	164	0.047	6	164	0.021	6	164	0.068
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.691			0.817			1.508

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.

 Licence No: 109307

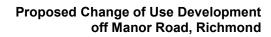
TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI -MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	13	101	0.051	13	101	0.241	13	101	0.292
08:00 - 09:00	13	101	0.080	13	101	0.462	13	101	0.542
09:00 - 10:00	13	101	0.091	13	101	0.178	13	101	0.269
10:00 - 11:00	13	101	0.090	13	101	0.164	13	101	0.254
11:00 - 12:00	13	101	0.142	13	101	0.130	13	101	0.272
12:00 - 13:00	13	101	0.137	13	101	0.147	13	101	0.284
13:00 - 14:00	13	101	0.142	13	101	0.159	13	101	0.301
14:00 - 15:00	13	101	0.146	13	101	0.148	13	101	0.294
15:00 - 16:00	13	101	0.198	13	101	0.118	13	101	0.316
16:00 - 17:00	13	101	0.222	13	101	0.154	13	101	0.376
17:00 - 18:00	13	101	0.285	13	101	0.164	13	101	0.449
18:00 - 19:00	13	101	0.262	13	101	0.131	13	101	0.393
19:00 - 20:00	6	164	0.199	6	164	0.095	6	164	0.294
20:00 - 21:00	6	164	0.139	6	164	0.090	6	164	0.229
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.184			2.381			4.565

Wakefield

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.





APPENDIX I

TRICS - Affordable Flats

Sanderson Associates (Consulting Engineers) Ltd Upbilee Way Wakefield Licence No: 109307

Calculation Reference: AUDIT-109307-181108-1106

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL VEHICLES

Selected regions and areas:
01 GREATER LONDON

GREATER LONDON
HG HARINGEY 1 days
IS ISLINGTON 2 days

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

Secondary Filtering 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: 36 to 247 (units:) Range Selected by User: 15 to 339 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 27/06/16

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
Thursday 1 days
Friday 1 days

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

Selected survey types:

Manual count 3 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 undertaking using machines.

Selected Locations:

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

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 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.

Secondary Filtering selection:

Use Class:

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®.

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Sanderson Associates (Consulting Engineers) Ltd Jubilee Way Wakefield Licence No: 109307

Secondary Filtering selection (Cont.):

Population within 1 mile: 50,001 to 100,000 1 days 100,001 or More 2 days

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

Population within 5 miles:

500,001 or More 3 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 2 days 0.6 to 1.0 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 3 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.

PTAL Rating:

1 days 4 Good 1 days 5 Very Good 6a Excellent 1 days

This data displays the number of selected surveys with PTAL Ratings.

Sanderson Associates (Consulting Engineers) Ltd Upbilee Way Wakefield Licence No: 109307

LIST OF SITES relevant to selection parameters

1 HG-03-D-03 BLOCKS OF FLATS

HARINGEY

COMMERCE ROAD WOOD GREEN

WOODSIDE PARK Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 90

Survey date: FRIDAY 26/09/14 Survey Type: MANUAL

IS-03-D-03 BLOCK OF FLATS ISLINGTON

HAWES STREET ISLINGTON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 36

Survey date: THURSDAY 21/11/13 Survey Type: MANUAL

3 IS-03-D-04 BLOCKS OF FLATS ISLINGTON

LIVERPOOL ROAD

HIGHBURY

Edge of Town Centre Residential Zone

Total Number of dwellings: 247

Survey date: MONDAY 27/06/16 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
BT-03-D-01	PTAL Rating 2

Sanderson Associates (Consulting Engineers) Ltd Jubilee Way Wakefield Licence No: 109307

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS MULTI-MODAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	124	0.035	3	124	0.048	3	124	0.083
08:00 - 09:00	3	124	0.027	3	124	0.078	3	124	0.105
09:00 - 10:00	3	124	0.024	3	124	0.048	3	124	0.072
10:00 - 11:00	3	124	0.029	3	124	0.024	3	124	0.053
11:00 - 12:00	3	124	0.032	3	124	0.043	3	124	0.075
12:00 - 13:00	3	124	0.038	3	124	0.046	3	124	0.084
13:00 - 14:00	3	124	0.027	3	124	0.024	3	124	0.051
14:00 - 15:00	3	124	0.021	3	124	0.019	3	124	0.040
15:00 - 16:00	3	124	0.043	3	124	0.029	3	124	0.072
16:00 - 17:00	3	124	0.054	3	124	0.048	3	124	0.102
17:00 - 18:00	3	124	0.054	3	124	0.038	3	124	0.092
18:00 - 19:00	3	124	0.072	3	124	0.040	3	124	0.112
19:00 - 20:00	1	247	0.077	1	247	0.053	1	247	0.130
20:00 - 21:00	1	247	0.040	1	247	0.020	1	247	0.060
21:00 - 22:00				•					
22:00 - 23:00									
23:00 - 24:00									
								1.131	

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.

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Parameter summary

Trip rate parameter range selected: 36 - 247 (units:)
Survey date date range: 01/01/10 - 27/06/16

Number of weekdays (Monday-Friday): 3
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

 Licence No: 109307

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS MULTI - MODAL CYCLISTS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	,		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	124	0.003	3	124	0.005	3	124	0.008
08:00 - 09:00	3	124	0.003	3	124	0.000	3	124	0.003
09:00 - 10:00	3	124	0.000	3	124	0.005	3	124	0.005
10:00 - 11:00	3	124	0.005	3	124	0.003	3	124	0.008
11:00 - 12:00	3	124	0.000	3	124	0.008	3	124	0.008
12:00 - 13:00	3	124	0.000	3	124	0.003	3	124	0.003
13:00 - 14:00	3	124	0.000	3	124	0.003	3	124	0.003
14:00 - 15:00	3	124	0.021	3	124	0.019	3	124	0.040
15:00 - 16:00	3	124	0.003	3	124	0.005	3	124	0.008
16:00 - 17:00	3	124	0.011	3	124	0.008	3	124	0.019
17:00 - 18:00	3	124	0.003	3	124	0.005	3	124	0.008
18:00 - 19:00	3	124	0.008	3	124	0.005	3	124	0.013
19:00 - 20:00	1	247	0.000	1	247	0.000	1	247	0.000
20:00 - 21:00	1	247	0.004	1	247	0.012	1	247	0.016
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.061			0.081			0.142

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.

 Licence No: 109307

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS MULTI - MODAL VEHICLE OCCUPANTS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	124	0.035	3	124	0.043	3	124	0.078	
08:00 - 09:00	3	124	0.027	3	124	0.097	3	124	0.124	
09:00 - 10:00	3	124	0.029	3	124	0.067	3	124	0.096	
10:00 - 11:00	3	124	0.029	3	124	0.021	3	124	0.050	
11:00 - 12:00	3	124	0.032	3	124	0.046	3	124	0.078	
12:00 - 13:00	3	124	0.043	3	124	0.046	3	124	0.089	
13:00 - 14:00	3	124	0.027	3	124	0.024	3	124	0.051	
14:00 - 15:00	3	124	0.029	3	124	0.019	3	124	0.048	
15:00 - 16:00	3	124	0.062	3	124	0.027	3	124	0.089	
16:00 - 17:00	3	124	0.067	3	124	0.059	3	124	0.126	
17:00 - 18:00	3	124	0.056	3	124	0.056	3	124	0.112	
18:00 - 19:00	3	124	0.083	3	124	0.048	3	124	0.131	
19:00 - 20:00	1	247	0.101	1	247	0.049	1	247	0.150	
20:00 - 21:00	1	247	0.045	1	247	0.032	1	247	0.077	
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates: 0.665 0.634							1.299			

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS MULTI - MODAL PEDESTRIANS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	,		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	124	0.024	3	124	0.080	3	124	0.104
08:00 - 09:00	3	124	0.059	3	124	0.284	3	124	0.343
09:00 - 10:00	3	124	0.134	3	124	0.166	3	124	0.300
10:00 - 11:00	3	124	0.075	3	124	0.094	3	124	0.169
11:00 - 12:00	3	124	0.091	3	124	0.139	3	124	0.230
12:00 - 13:00	3	124	0.121	3	124	0.137	3	124	0.258
13:00 - 14:00	3	124	0.118	3	124	0.086	3	124	0.204
14:00 - 15:00	3	124	0.121	3	124	0.131	3	124	0.252
15:00 - 16:00	3	124	0.359	3	124	0.228	3	124	0.587
16:00 - 17:00	3	124	0.263	3	124	0.121	3	124	0.384
17:00 - 18:00	3	124	0.123	3	124	0.088	3	124	0.211
18:00 - 19:00	3	124	0.150	3	124	0.121	3	124	0.271
19:00 - 20:00	1	247	0.166	1	247	0.186	1	247	0.352
20:00 - 21:00	1	247	0.085	1	247	0.040	1	247	0.125
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.889			1.901			3.790

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS MULTI - MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

		ARRIVALS		I	DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	124	0.013	3	124	0.088	3	124	0.101
08:00 - 09:00	3	124	0.000	3	124	0.177	3	124	0.177
09:00 - 10:00	3	124	0.008	3	124	0.072	3	124	0.080
10:00 - 11:00	3	124	0.008	3	124	0.046	3	124	0.054
11:00 - 12:00	3	124	0.024	3	124	0.035	3	124	0.059
12:00 - 13:00	3	124	0.046	3	124	0.056	3	124	0.102
13:00 - 14:00	3	124	0.043	3	124	0.056	3	124	0.099
14:00 - 15:00	3	124	0.035	3	124	0.043	3	124	0.078
15:00 - 16:00	3	124	0.097	3	124	0.024	3	124	0.121
16:00 - 17:00	3	124	0.091	3	124	0.027	3	124	0.118
17:00 - 18:00	3	124	0.091	3	124	0.027	3	124	0.118
18:00 - 19:00	3	124	0.134	3	124	0.011	3	124	0.145
19:00 - 20:00	1	247	0.097	1	247	0.036	1	247	0.133
20:00 - 21:00	1	247	0.077	1	247	0.008	1	247	0.085
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.764			0.706			1.470

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.

 Licence No: 109307

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	124	0.075	3	124	0.217	3	124	0.292	
08:00 - 09:00	3	124	0.088	3	124	0.558	3	124	0.646	
09:00 - 10:00	3	124	0.172	3	124	0.311	3	124	0.483	
10:00 - 11:00	3	124	0.118	3	124	0.164	3	124	0.282	
11:00 - 12:00	3	124	0.147	3	124	0.228	3	124	0.375	
12:00 - 13:00	3	124	0.209	3	124	0.241	3	124	0.450	
13:00 - 14:00	3	124	0.188	3	124	0.169	3	124	0.357	
14:00 - 15:00	3	124	0.206	3	124	0.212	3	124	0.418	
15:00 - 16:00	3	124	0.520	3	124	0.284	3	124	0.804	
16:00 - 17:00	3	124	0.432	3	124	0.214	3	124	0.646	
17:00 - 18:00	3	124	0.273	3	124	0.177	3	124	0.450	
18:00 - 19:00	3	124	0.375	3	124	0.185	3	124	0.560	
19:00 - 20:00	1	247	0.364	1	247	0.271	1	247	0.635	
20:00 - 21:00	1	247	0.211	1	247	0.093	1	247	0.304	
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates: 3.378 3.324							6.702			

Wakefield

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.





APPENDIX J

2011 Census: Method of Travel to Work data

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official labour market statistics



QS701EW - Method of travel to work Edit query

View data Change format

QS701EW - Method of travel to work i

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Population All usual residents aged 16 to 74

Units Persons

Date 2011

Rural Urban i Total

Method of Travel to Work $f i$	msoa2011:E02000787 : Richmond upon Thames 004	ualad09:Richmond upon Thames	country:England
All categories: Method of travel to work	8,010	137,779	38,881,374
Work mainly at or from home	470	8,870	1,349,568
Underground, metro, light rail, tram	1,271	10,605	1,027,625
Train	1,054	21,768	1,343,684
Bus, minibus or coach	439	7,531	1,886,539
Taxi	12	237	131,465
Motorcycle, scooter or moped	97	1,654	206,550
Driving a car or van	1,578	32,271	14,345,882
Passenger in a car or van	68	1,341	1,264,553
Bicycle	347	6,062	742,675
On foot	506	8,138	2,701,453
Other method of travel to work	45	727	162,727

Warnings and notes:

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies





APPENDIX K

TRICS - Advanced Filtering

Calculation Reference: AUDIT-109307-180802-0824

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : C - FLATS PRIVATELY OWNED

MULTI-MODAL VEHICLES

Selected regions and areas:

01 GREATER LONDON

BT BRENT 1 days
IS ISLINGTON 1 days
SK SOUTHWARK 1 days

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

Secondary Filtering 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: 29 to 472 (units:) Range Selected by User: 25 to 493 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 30/11/16

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:

Wednesday 1 days Thursday 2 days

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

Selected survey types:

Manual count 3 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 undertaking using machines.

Selected Locations:

Edge of Town Centre 2
Suburban Area (PPS6 Out of 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:

Development Zone 2
Built-Up Zone 1

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.

Secondary Filtering selection:

Use Class:

C3 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®.

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Secondary Filtering selection (Cont.):

Population within 1 mile:

25,001 to 50,000 1 days 100,001 or More 2 days

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

Population within 5 miles:

500,001 or More 3 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 2 days 0.6 to 1.0 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.

<u>Travel Plan:</u> Yes 2 days No 1 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.

PTAL Rating:

5 Very Good 1 days 6a Excellent 1 days 6b (High) Excellent 1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 BT-03-C-02 BLOCKS OF FLATS BRENT

ENGINEERS WAY WEMBLEY

Suburban Area (PPS6 Out of Centre)

Development Zone

Total Number of dwellings: 472

Survey date: WEDNESDAY 30/11/16 Survey Type: MANUAL

IS-03-C-04 BLOCK OF FLATS ISLINGTON

CITY ROAD ISLINGTON

Edge of Town Centre Development Zone

Total Number of dwellings: 157

Survey date: THURSDAY 14/07/16 Survey Type: MANUAL

SK-03-C-02 BLOCK OF FLATS SOUTHWARK

LAMB WALK BERMONDSEY

Edge of Town Centre Built-Up Zone

Total Number of dwellings: 29

Survey date: THURSDAY 23/04/15 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
HG-03-C-02	Parking ratio
KI-03-C-02	Parking ratio
KN-03-C-02	Parking ratio
KN-03-C-03	Parking ratio
SK-03-C-01	Parking ratio
WH-03-C-01	Parking ratio

 Licence No: 109307

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL VEHICLES

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.005	3	219	0.011	3	219	0.016
08:00 - 09:00	3	219	0.011	3	219	0.015	3	219	0.026
09:00 - 10:00	3	219	0.009	3	219	0.014	3	219	0.023
10:00 - 11:00	3	219	0.011	3	219	0.014	3	219	0.025
11:00 - 12:00	3	219	0.012	3	219	0.009	3	219	0.021
12:00 - 13:00	3	219	0.006	3	219	0.011	3	219	0.017
13:00 - 14:00	3	219	0.021	3	219	0.021	3	219	0.042
14:00 - 15:00	3	219	0.012	3	219	0.009	3	219	0.021
15:00 - 16:00	3	219	0.003	3	219	0.005	3	219	0.008
16:00 - 17:00	3	219	0.018	3	219	0.020	3	219	0.038
17:00 - 18:00	3	219	0.023	3	219	0.011	3	219	0.034
18:00 - 19:00	3	219	0.014	3	219	0.006	3	219	0.020
19:00 - 20:00	3	219	0.005	3	219	0.009	3	219	0.014
20:00 - 21:00	3	219	0.009	3	219	0.014	3	219	0.023
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.159			0.169			0.328

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.

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Parameter summary

Trip rate parameter range selected: 29 - 472 (units:) Survey date date range: 01/01/10 - 30/11/16

Number of weekdays (Monday-Friday): 3
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 6

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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Sanderson Associates (Consulting Engineers) Ltd
Jubilee Way

Nay Wakefield

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL TAXIS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.005	3	219	0.005	3	219	0.010
08:00 - 09:00	3	219	0.006	3	219	0.006	3	219	0.012
09:00 - 10:00	3	219	0.002	3	219	0.002	3	219	0.004
10:00 - 11:00	3	219	0.003	3	219	0.003	3	219	0.006
11:00 - 12:00	3	219	0.005	3	219	0.005	3	219	0.010
12:00 - 13:00	3	219	0.002	3	219	0.002	3	219	0.004
13:00 - 14:00	3	219	0.006	3	219	0.006	3	219	0.012
14:00 - 15:00	3	219	0.003	3	219	0.003	3	219	0.006
15:00 - 16:00	3	219	0.000	3	219	0.000	3	219	0.000
16:00 - 17:00	3	219	0.005	3	219	0.005	3	219	0.010
17:00 - 18:00	3	219	0.002	3	219	0.002	3	219	0.004
18:00 - 19:00	3	219	0.005	3	219	0.005	3	219	0.010
19:00 - 20:00	3	219	0.002	3	219	0.002	3	219	0.004
20:00 - 21:00	3	219	0.006	3	219	0.006	3	219	0.012
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.052			0.052			0.104

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL OGVS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	6	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.000	3	219	0.000	3	219	0.000	
08:00 - 09:00	3	219	0.000	3	219	0.000	3	219	0.000	
09:00 - 10:00	3	219	0.000	3	219	0.000	3	219	0.000	
10:00 - 11:00	3	219	0.000	3	219	0.000	3	219	0.000	
11:00 - 12:00	3	219	0.000	3	219	0.000	3	219	0.000	
12:00 - 13:00	3	219	0.000	3	219	0.000	3	219	0.000	
13:00 - 14:00	3	219	0.000	3	219	0.000	3	219	0.000	
14:00 - 15:00	3	219	0.002	3	219	0.002	3	219	0.004	
15:00 - 16:00	3	219	0.000	3	219	0.000	3	219	0.000	
16:00 - 17:00	3	219	0.000	3	219	0.000	3	219	0.000	
17:00 - 18:00	3	219	0.000	3	219	0.000	3	219	0.000	
18:00 - 19:00	3	219	0.000	3	219	0.000	3	219	0.000	
19:00 - 20:00	3	219	0.000	3	219	0.000	3	219	0.000	
20:00 - 21:00	3	219	0.000	3	219	0.000	3	219	0.000	
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.002			0.002			0.004	

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL CYCLISTS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	;		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.002	3	219	0.006	3	219	0.008
08:00 - 09:00	3	219	0.000	3	219	0.003	3	219	0.003
09:00 - 10:00	3	219	0.000	3	219	0.000	3	219	0.000
10:00 - 11:00	3	219	0.000	3	219	0.000	3	219	0.000
11:00 - 12:00	3	219	0.000	3	219	0.000	3	219	0.000
12:00 - 13:00	3	219	0.002	3	219	0.003	3	219	0.005
13:00 - 14:00	3	219	0.000	3	219	0.000	3	219	0.000
14:00 - 15:00	3	219	0.000	3	219	0.000	3	219	0.000
15:00 - 16:00	3	219	0.000	3	219	0.000	3	219	0.000
16:00 - 17:00	3	219	0.000	3	219	0.000	3	219	0.000
17:00 - 18:00	3	219	0.005	3	219	0.000	3	219	0.005
18:00 - 19:00	3	219	0.002	3	219	0.000	3	219	0.002
19:00 - 20:00	3	219	0.002	3	219	0.003	3	219	0.005
20:00 - 21:00	3	219	0.003	3	219	0.000	3	219	0.003
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.016			0.015			0.031

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.

Sanderson Associates (Consulting Engineers) Ltd

Jubilee Way Wakefield

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL VEHICLE OCCUPANTS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	;		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.002	3	219	0.012	3	219	0.014
08:00 - 09:00	3	219	0.009	3	219	0.017	3	219	0.026
09:00 - 10:00	3	219	0.011	3	219	0.018	3	219	0.029
10:00 - 11:00	3	219	0.012	3	219	0.018	3	219	0.030
11:00 - 12:00	3	219	0.011	3	219	0.012	3	219	0.023
12:00 - 13:00	3	219	0.008	3	219	0.012	3	219	0.020
13:00 - 14:00	3	219	0.026	3	219	0.023	3	219	0.049
14:00 - 15:00	3	219	0.015	3	219	0.009	3	219	0.024
15:00 - 16:00	3	219	0.003	3	219	0.006	3	219	0.009
16:00 - 17:00	3	219	0.023	3	219	0.018	3	219	0.041
17:00 - 18:00	3	219	0.029	3	219	0.012	3	219	0.041
18:00 - 19:00	3	219	0.014	3	219	0.008	3	219	0.022
19:00 - 20:00	3	219	0.003	3	219	0.015	3	219	0.018
20:00 - 21:00	3	219	0.012	3	219	0.023	3	219	0.035
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.178			0.203			0.381

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	;		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.035	3	219	0.070	3	219	0.105
08:00 - 09:00	3	219	0.023	3	219	0.090	3	219	0.113
09:00 - 10:00	3	219	0.015	3	219	0.041	3	219	0.056
10:00 - 11:00	3	219	0.044	3	219	0.046	3	219	0.090
11:00 - 12:00	3	219	0.099	3	219	0.059	3	219	0.158
12:00 - 13:00	3	219	0.058	3	219	0.065	3	219	0.123
13:00 - 14:00	3	219	0.036	3	219	0.088	3	219	0.124
14:00 - 15:00	3	219	0.055	3	219	0.073	3	219	0.128
15:00 - 16:00	3	219	0.058	3	219	0.061	3	219	0.119
16:00 - 17:00	3	219	0.105	3	219	0.078	3	219	0.183
17:00 - 18:00	3	219	0.067	3	219	0.047	3	219	0.114
18:00 - 19:00	3	219	0.046	3	219	0.033	3	219	0.079
19:00 - 20:00	3	219	0.062	3	219	0.033	3	219	0.095
20:00 - 21:00	3	219	0.050	3	219	0.027	3	219	0.077
21:00 - 22:00									
22:00 - 23:00	<u> </u>								
23:00 - 24:00									
Total Rates:			0.753			0.811			1.564

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.

Wav Wakefield

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL BUS/TRAM PASSENGERS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	6	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.003	3	219	0.046	3	219	0.049	
08:00 - 09:00	3	219	0.006	3	219	0.074	3	219	0.080	
09:00 - 10:00	3	219	0.009	3	219	0.032	3	219	0.041	
10:00 - 11:00	3	219	0.015	3	219	0.030	3	219	0.045	
11:00 - 12:00	3	219	0.014	3	219	0.026	3	219	0.040	
12:00 - 13:00	3	219	0.018	3	219	0.029	3	219	0.047	
13:00 - 14:00	3	219	0.027	3	219	0.024	3	219	0.051	
14:00 - 15:00	3	219	0.026	3	219	0.021	3	219	0.047	
15:00 - 16:00	3	219	0.030	3	219	0.020	3	219	0.050	
16:00 - 17:00	3	219	0.038	3	219	0.023	3	219	0.061	
17:00 - 18:00	3	219	0.058	3	219	0.030	3	219	0.088	
18:00 - 19:00	3	219	0.068	3	219	0.027	3	219	0.095	
19:00 - 20:00	3	219	0.027	3	219	0.018	3	219	0.045	
20:00 - 21:00	3	219	0.018	3	219	0.017	3	219	0.035	
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.357			0.417			0.774	

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.

Sanderson Associates (Consulting Engineers) Ltd Ju

Jubilee Way Wakefield

Licence No: 109307

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL TOTAL RAIL PASSENGERS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.006	3	219	0.067	3	219	0.073	
08:00 - 09:00	3	219	0.009	3	219	0.103	3	219	0.112	
09:00 - 10:00	3	219	0.015	3	219	0.046	3	219	0.061	
10:00 - 11:00	3	219	0.017	3	219	0.038	3	219	0.055	
11:00 - 12:00	3	219	0.021	3	219	0.035	3	219	0.056	
12:00 - 13:00	3	219	0.015	3	219	0.033	3	219	0.048	
13:00 - 14:00	3	219	0.024	3	219	0.024	3	219	0.048	
14:00 - 15:00	3	219	0.036	3	219	0.024	3	219	0.060	
15:00 - 16:00	3	219	0.023	3	219	0.023	3	219	0.046	
16:00 - 17:00	3	219	0.026	3	219	0.026	3	219	0.052	
17:00 - 18:00	3	219	0.064	3	219	0.033	3	219	0.097	
18:00 - 19:00	3	219	0.040	3	219	0.027	3	219	0.067	
19:00 - 20:00	3	219	0.052	3	219	0.017	3	219	0.069	
20:00 - 21:00	3	219	0.029	3	219	0.015	3	219	0.044	
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.377			0.511			0.888	

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.

Sanderson Associates (Consulting Engineers) Ltd

Jubilee Way

Wakefield

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS		I	DEPARTURES	5		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.009	3	219	0.112	3	219	0.121	
08:00 - 09:00	3	219	0.015	3	219	0.178	3	219	0.193	
09:00 - 10:00	3	219	0.024	3	219	0.078	3	219	0.102	
10:00 - 11:00	3	219	0.032	3	219	0.068	3	219	0.100	
11:00 - 12:00	3	219	0.035	3	219	0.061	3	219	0.096	
12:00 - 13:00	3	219	0.033	3	219	0.062	3	219	0.095	
13:00 - 14:00	3	219	0.052	3	219	0.049	3	219	0.101	
14:00 - 15:00	3	219	0.062	3	219	0.046	3	219	0.108	
15:00 - 16:00	3	219	0.053	3	219	0.043	3	219	0.096	
16:00 - 17:00	3	219	0.064	3	219	0.049	3	219	0.113	
17:00 - 18:00	3	219	0.122	3	219	0.064	3	219	0.186	
18:00 - 19:00	3	219	0.108	3	219	0.055	3	219	0.163	
19:00 - 20:00	3	219	0.079	3	219	0.035	3	219	0.114	
20:00 - 21:00	3	219	0.047	3	219	0.032	3	219	0.079	
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:		•	0.735			0.932			1.667	

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	6		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.047	3	219	0.201	3	219	0.248
08:00 - 09:00	3	219	0.047	3	219	0.287	3	219	0.334
09:00 - 10:00	3	219	0.050	3	219	0.137	3	219	0.187
10:00 - 11:00	3	219	0.088	3	219	0.132	3	219	0.220
11:00 - 12:00	3	219	0.144	3	219	0.132	3	219	0.276
12:00 - 13:00	3	219	0.100	3	219	0.143	3	219	0.243
13:00 - 14:00	3	219	0.114	3	219	0.160	3	219	0.274
14:00 - 15:00	3	219	0.132	3	219	0.128	3	219	0.260
15:00 - 16:00	3	219	0.114	3	219	0.109	3	219	0.223
16:00 - 17:00	3	219	0.191	3	219	0.144	3	219	0.335
17:00 - 18:00	3	219	0.222	3	219	0.123	3	219	0.345
18:00 - 19:00	3	219	0.169	3	219	0.096	3	219	0.265
19:00 - 20:00	3	219	0.146	3	219	0.087	3	219	0.233
20:00 - 21:00	3	219	0.112	3	219	0.082	3	219	0.194
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.676			1.961			3.637

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

Calculation factor: 1 DWELLS

MULTI-MODAL CARS

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	;	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.000	3	219	0.006	3	219	0.006
08:00 - 09:00	3	219	0.003	3	219	0.008	3	219	0.011
09:00 - 10:00	3	219	0.005	3	219	0.009	3	219	0.014
10:00 - 11:00	3	219	0.008	3	219	0.011	3	219	0.019
11:00 - 12:00	3	219	0.003	3	219	0.003	3	219	0.006
12:00 - 13:00	3	219	0.003	3	219	0.006	3	219	0.009
13:00 - 14:00	3	219	0.012	3	219	0.009	3	219	0.021
14:00 - 15:00	3	219	0.005	3	219	0.003	3	219	0.008
15:00 - 16:00	3	219	0.002	3	219	0.003	3	219	0.005
16:00 - 17:00	3	219	0.006	3	219	0.008	3	219	0.014
17:00 - 18:00	3	219	0.021	3	219	0.008	3	219	0.029
18:00 - 19:00	3	219	0.009	3	219	0.002	3	219	0.011
19:00 - 20:00	3	219	0.003	3	219	0.006	3	219	0.009
20:00 - 21:00	3	219	0.003	3	219	0.008	3	219	0.011
21:00 - 22:00									
22:00 - 23:00	·						·		
23:00 - 24:00									
Total Rates:			0.083			0.090			0.173

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL LGVS

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	6	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.000	3	219	0.000	3	219	0.000	
08:00 - 09:00	3	219	0.002	3	219	0.002	3	219	0.004	
09:00 - 10:00	3	219	0.003	3	219	0.003	3	219	0.006	
10:00 - 11:00	3	219	0.000	3	219	0.000	3	219	0.000	
11:00 - 12:00	3	219	0.005	3	219	0.002	3	219	0.007	
12:00 - 13:00	3	219	0.002	3	219	0.003	3	219	0.005	
13:00 - 14:00	3	219	0.003	3	219	0.006	3	219	0.009	
14:00 - 15:00	3	219	0.002	3	219	0.000	3	219	0.002	
15:00 - 16:00	3	219	0.002	3	219	0.002	3	219	0.004	
16:00 - 17:00	3	219	0.006	3	219	0.006	3	219	0.012	
17:00 - 18:00	3	219	0.000	3	219	0.002	3	219	0.002	
18:00 - 19:00	3	219	0.000	3	219	0.000	3	219	0.000	
19:00 - 20:00	3	219	0.000	3	219	0.000	3	219	0.000	
20:00 - 21:00	3	219	0.000	3	219	0.000	3	219	0.000	
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.025			0.026			0.051	

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL MOTOR CYCLES

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS		I	DEPARTURES	5		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.000	3	219	0.000	3	219	0.000	
08:00 - 09:00	3	219	0.000	3	219	0.000	3	219	0.000	
09:00 - 10:00	3	219	0.000	3	219	0.000	3	219	0.000	
10:00 - 11:00	3	219	0.000	3	219	0.000	3	219	0.000	
11:00 - 12:00	3	219	0.000	3	219	0.000	3	219	0.000	
12:00 - 13:00	3	219	0.000	3	219	0.000	3	219	0.000	
13:00 - 14:00	3	219	0.000	3	219	0.000	3	219	0.000	
14:00 - 15:00	3	219	0.002	3	219	0.002	3	219	0.004	
15:00 - 16:00	3	219	0.000	3	219	0.000	3	219	0.000	
16:00 - 17:00	3	219	0.002	3	219	0.002	3	219	0.004	
17:00 - 18:00	3	219	0.000	3	219	0.000	3	219	0.000	
18:00 - 19:00	3	219	0.000	3	219	0.000	3	219	0.000	
19:00 - 20:00	3	219	0.000	3	219	0.002	3	219	0.002	
20:00 - 21:00	3	219	0.000	3	219	0.000	3	219	0.000	
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.004			0.006			0.010	

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL Underground Passengers

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	S		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.006	3	219	0.052	3	219	0.058
08:00 - 09:00	3	219	0.009	3	219	0.084	3	219	0.093
09:00 - 10:00	3	219	0.012	3	219	0.033	3	219	0.045
10:00 - 11:00	3	219	0.011	3	219	0.033	3	219	0.044
11:00 - 12:00	3	219	0.017	3	219	0.032	3	219	0.049
12:00 - 13:00	3	219	0.014	3	219	0.024	3	219	0.038
13:00 - 14:00	3	219	0.021	3	219	0.021	3	219	0.042
14:00 - 15:00	3	219	0.026	3	219	0.024	3	219	0.050
15:00 - 16:00	3	219	0.020	3	219	0.023	3	219	0.043
16:00 - 17:00	3	219	0.026	3	219	0.026	3	219	0.052
17:00 - 18:00	3	219	0.049	3	219	0.030	3	219	0.079
18:00 - 19:00	3	219	0.035	3	219	0.024	3	219	0.059
19:00 - 20:00	3	219	0.043	3	219	0.011	3	219	0.054
20:00 - 21:00	3	219	0.027	3	219	0.015	3	219	0.042
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.316			0.432			0.748

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL DLR Passengers

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.000	3	219	0.000	3	219	0.000
08:00 - 09:00	3	219	0.000	3	219	0.002	3	219	0.002
09:00 - 10:00	3	219	0.000	3	219	0.003	3	219	0.003
10:00 - 11:00	3	219	0.000	3	219	0.000	3	219	0.000
11:00 - 12:00	3	219	0.000	3	219	0.000	3	219	0.000
12:00 - 13:00	3	219	0.000	3	219	0.000	3	219	0.000
13:00 - 14:00	3	219	0.000	3	219	0.002	3	219	0.002
14:00 - 15:00	3	219	0.000	3	219	0.000	3	219	0.000
15:00 - 16:00	3	219	0.000	3	219	0.000	3	219	0.000
16:00 - 17:00	3	219	0.000	3	219	0.000	3	219	0.000
17:00 - 18:00	3	219	0.006	3	219	0.000	3	219	0.006
18:00 - 19:00	3	219	0.000	3	219	0.000	3	219	0.000
19:00 - 20:00	3	219	0.000	3	219	0.000	3	219	0.000
20:00 - 21:00	3	219	0.000	3	219	0.000	3	219	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.007			0.013

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL Overground Passengers

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	S		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.000	3	219	0.014	3	219	0.014
08:00 - 09:00	3	219	0.000	3	219	0.018	3	219	0.018
09:00 - 10:00	3	219	0.003	3	219	0.008	3	219	0.011
10:00 - 11:00	3	219	0.005	3	219	0.002	3	219	0.007
11:00 - 12:00	3	219	0.003	3	219	0.003	3	219	0.006
12:00 - 13:00	3	219	0.002	3	219	0.009	3	219	0.011
13:00 - 14:00	3	219	0.003	3	219	0.002	3	219	0.005
14:00 - 15:00	3	219	0.011	3	219	0.000	3	219	0.011
15:00 - 16:00	3	219	0.003	3	219	0.000	3	219	0.003
16:00 - 17:00	3	219	0.000	3	219	0.000	3	219	0.000
17:00 - 18:00	3	219	0.008	3	219	0.003	3	219	0.011
18:00 - 19:00	3	219	0.005	3	219	0.003	3	219	0.008
19:00 - 20:00	3	219	0.008	3	219	0.006	3	219	0.014
20:00 - 21:00	3	219	0.000	3	219	0.000	3	219	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.051			0.068			0.119

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL National Rail Passengers

Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.000	3	219	0.002	3	219	0.002
08:00 - 09:00	3	219	0.000	3	219	0.000	3	219	0.000
09:00 - 10:00	3	219	0.000	3	219	0.002	3	219	0.002
10:00 - 11:00	3	219	0.002	3	219	0.003	3	219	0.005
11:00 - 12:00	3	219	0.002	3	219	0.000	3	219	0.002
12:00 - 13:00	3	219	0.000	3	219	0.000	3	219	0.000
13:00 - 14:00	3	219	0.000	3	219	0.000	3	219	0.000
14:00 - 15:00	3	219	0.000	3	219	0.000	3	219	0.000
15:00 - 16:00	3	219	0.000	3	219	0.000	3	219	0.000
16:00 - 17:00	3	219	0.000	3	219	0.000	3	219	0.000
17:00 - 18:00	3	219	0.002	3	219	0.000	3	219	0.002
18:00 - 19:00	3	219	0.000	3	219	0.000	3	219	0.000
19:00 - 20:00	3	219	0.002	3	219	0.000	3	219	0.002
20:00 - 21:00	3	219	0.002	3	219	0.000	3	219	0.002
21:00 - 22:00									
22:00 - 23:00								<u> </u>	
23:00 - 24:00									
Total Rates:			0.010			0.007			0.017

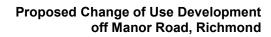
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

 Licence No: 109307

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI - MODAL Bus Passengers
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	3	219	0.003	3	219	0.046	3	219	0.049
08:00 - 09:00	3	219	0.006	3	219	0.074	3	219	0.080
09:00 - 10:00	3	219	0.009	3	219	0.032	3	219	0.041
10:00 - 11:00	3	219	0.015	3	219	0.030	3	219	0.045
11:00 - 12:00	3	219	0.014	3	219	0.026	3	219	0.040
12:00 - 13:00	3	219	0.018	3	219	0.029	3	219	0.047
13:00 - 14:00	3	219	0.027	3	219	0.024	3	219	0.051
14:00 - 15:00	3	219	0.026	3	219	0.021	3	219	0.047
15:00 - 16:00	3	219	0.030	3	219	0.020	3	219	0.050
16:00 - 17:00	3	219	0.038	3	219	0.023	3	219	0.061
17:00 - 18:00	3	219	0.058	3	219	0.030	3	219	0.088
18:00 - 19:00	3	219	0.068	3	219	0.027	3	219	0.095
19:00 - 20:00	3	219	0.027	3	219	0.018	3	219	0.045
20:00 - 21:00	3	219	0.018	3	219	0.017	3	219	0.035
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.357			0.417			0.774

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.





APPENDIX L

TRICS - Commercial

Sanderson Associates (Consulting Engineers) Ltd Jubilee Way Wakefield Licence No: 109307

Calculation Reference: AUDIT-109307-180719-0709

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL

: I - SHOPPING CENTRE - LOCAL SHOPS Category

MULTI-MODAL VEHICLES

Selected regions and areas:

0.3SOUTH WEST GLOUCESTERSHIRE GS 1 days EAST MIDLANDS 05 LE LEICESTERSHIRE 1 days WEST MIDLANDS 06 **SHROPSHIRE** SH 1 days 80 NORTH WEST CH **CHESHIRE** 2 days 09 NORTH TV TEES VALLEY 2 days

TW TYNE & WEAR 1 days **SCOTLAND**

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CITY OF EDINBURGH ΕB 1 days

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

Secondary Filtering 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: 260 to 1840 (units: sqm) Range Selected by User: 240 to 2500 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 28/10/14

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

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

<u>Selected survey types:</u>

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 undertaking using machines.

Selected Locations.

Suburban Area (PPS6 Out of Centre) 2 2 Edge of Town Neighbourhood Centre (PPS6 Local Centre) 5

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

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.

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Sanderson Associates (Consulting Engineers) Ltd Upbilee Way Wakefield Licence No: 109307

Secondary Filtering selection:

Use Class:

A1 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:

5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	3 days
50,001 to 100,000	1 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	3 days
125,001 to 250,000	2 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:

0.6 to 1.0	3 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.

Petrol filling station:

Included in the survey count 0 days Excluded from count or no filling station 9 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

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.

PTAL Rating:

No PTAL Present 9 days

This data displays the number of selected surveys with PTAL Ratings.

Sanderson Associates (Consulting Engineers) Ltd Ubilee Way Wakefield

LIST OF SITES relevant to selection parameters

CH-01-I-02 LOCAL SHOPS **CHESHIRE**

CHRISTLETON ROAD **BOUGHTON HEATH**

CHESTER

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 260 sqm

Survey date: TUESDAY 15/05/12

Survey Type: MANUAL CH-01-I-03 LOCAL SHOPS **CHESHI RE**

MILL LANE **BACHE CHESTER**

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 365 sqm

Survey date: THURSDAY 17/05/12 Survey Type: MANUAL CITY OF EDINBURGH

EB-01-I-01 LOCAL SHOPS **COLINTON ROAD**

CRAIGLOCKHART EDINBURGH

Suburban Area (PPS6 Out of Centre)

Residential Zone

825 sqm Total Gross floor area:

Survey date: THURSDAY 28/10/10 Survey Type: MANUAL **GLOUCESTERSHIRE**

GS-01-I-01 LOCAL SHOPS

SALISBURY AVENUE WARDEN HILL CHELTENHAM

Suburban Area (PPS6 Out of Centre)

Residential Zone

525 sqm Total Gross floor area:

Survey date: MONDAY 26/04/10 Survey Type: MANUAL

LE-01-I-02 LOCAL SHOPS **LEI CESTERSHIRE**

RYDER ROAD

LEICESTER Edge of Town Residential Zone

550 sqm Total Gross floor area:

Survey date: TUESDAY 28/10/14 Survey Type: MANUAL SHROPSHI RE

SH-01-I-02 LOCAL SHOPS

WREKIN DRIVE **DONNINGTON TELFORD** Edge of Town Residential Zone Total Gross floor area:

900 sqm

Survey date: THURSDAY 24/10/13 Survey Type: MANUAL

TV-01-I-03 TEES VALLEY LOCAL SHOPS

ACKLAM ROAD **ACKLAM**

MIDDLESBROUGH

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 1840 sqm

Survey date: FRIDAY 04/10/13 Survey Type: MANUAL TEES VALLEY

TV-01-I-04 LOCAL SHOPS CARGO FLEET LANE

ORMESBY

MIDDLESBROUGH

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 585 sqm

Survey date: MONDAY 07/10/13 Survey Type: MANUAL TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved

Thursday 19/07/18 Page 4 Wakefield Licence No: 109307

LIST OF SITES relevant to selection parameters (Cont.)

TW-01-I-02 LOCAL SHOPS TYNE & WEAR

DURHAM ROAD BARNES PARK **SUNDERLAND**

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 540 sqm

Survey date: WEDNESDAY 21/11/12 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.

Licence No: 109307

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS MULTI - MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	,		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	1.296	1	540	1.296	1	540	2.592
07:00 - 08:00	9	710	5.102	9	710	4.491	9	710	9.593
08:00 - 09:00	9	710	5.180	9	710	4.773	9	710	9.953
09:00 - 10:00	9	710	6.385	9	710	5.681	9	710	12.066
10:00 - 11:00	9	710	5.743	9	710	5.274	9	710	11.017
11:00 - 12:00	9	710	6.682	9	710	6.792	9	710	13.474
12:00 - 13:00	9	710	8.404	9	710	7.966	9	710	16.370
13:00 - 14:00	9	710	7.308	9	710	7.199	9	710	14.507
14:00 - 15:00	9	710	6.119	9	710	6.510	9	710	12.629
15:00 - 16:00	9	710	5.696	9	710	6.025	9	710	11.721
16:00 - 17:00	9	710	6.041	9	710	5.790	9	710	11.831
17:00 - 18:00	9	710	6.369	9	710	6.933	9	710	13.302
18:00 - 19:00	9	710	6.620	9	710	7.105	9	710	13.725
19:00 - 20:00	7	824	6.054	7	824	6.036	7	824	12.090
20:00 - 21:00	7	824	4.458	7	824	4.909	7	824	9.367
21:00 - 22:00	6	823	3.846	6	823	4.433	6	823	8.279
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			91.303			91.213			182.516

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.

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Parameter summary

Trip rate parameter range selected: 260 - 1840 (units: sqm) Survey date date range: 01/01/10 - 28/10/14

Number of weekdays (Monday-Friday): 9
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 1
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 show. 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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TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS MULTI - MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	,		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	0.185	1	540	0.000	1	540	0.185
07:00 - 08:00	9	710	0.235	9	710	0.156	9	710	0.391
08:00 - 09:00	9	710	0.235	9	710	0.235	9	710	0.470
09:00 - 10:00	9	710	0.188	9	710	0.188	9	710	0.376
10:00 - 11:00	9	710	0.172	9	710	0.141	9	710	0.313
11:00 - 12:00	9	710	0.188	9	710	0.188	9	710	0.376
12:00 - 13:00	9	710	0.125	9	710	0.156	9	710	0.281
13:00 - 14:00	9	710	0.156	9	710	0.172	9	710	0.328
14:00 - 15:00	9	710	0.156	9	710	0.203	9	710	0.359
15:00 - 16:00	9	710	0.391	9	710	0.329	9	710	0.720
16:00 - 17:00	9	710	0.407	9	710	0.360	9	710	0.767
17:00 - 18:00	9	710	0.125	9	710	0.203	9	710	0.328
18:00 - 19:00	9	710	0.313	9	710	0.266	9	710	0.579
19:00 - 20:00	7	824	0.191	7	824	0.208	7	824	0.399
20:00 - 21:00	7	824	0.017	7	824	0.069	7	824	0.086
21:00 - 22:00	6	823	0.202	6	823	0.162	6	823	0.364
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.286			3.036			6.322

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.

Sanderson Associates (Consulting Engineers) Ltd Jubilee Way Wakefield

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Parameter summary

260 - 1840 (units: sqm) Trip rate parameter range selected: 01/01/10 - 28/10/14 Survey date date range:

Number of weekdays (Monday-Friday): 9 Number of Saturdays: 0 Number of Sundays: 0 Surveys automatically removed from selection: 1 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 show. 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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TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS MULTI - MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		Į.	DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	1.481	1	540	1.481	1	540	2.962
07:00 - 08:00	9	710	6.150	9	710	5.336	9	710	11.486
08:00 - 09:00	9	710	6.808	9	710	6.088	9	710	12.896
09:00 - 10:00	9	710	7.872	9	710	6.886	9	710	14.758
10:00 - 11:00	9	710	7.465	9	710	6.761	9	710	14.226
11:00 - 12:00	9	710	8.513	9	710	8.685	9	710	17.198
12:00 - 13:00	9	710	10.579	9	710	10.203	9	710	20.782
13:00 - 14:00	9	710	8.998	9	710	9.202	9	710	18.200
14:00 - 15:00	9	710	7.887	9	710	8.513	9	710	16.400
15:00 - 16:00	9	710	7.512	9	710	8.044	9	710	15.556
16:00 - 17:00	9	710	7.903	9	710	7.606	9	710	15.509
17:00 - 18:00	9	710	8.576	9	710	9.609	9	710	18.185
18:00 - 19:00	9	710	9.484	9	710	9.969	9	710	19.453
19:00 - 20:00	7	824	8.604	7	824	8.656	7	824	17.260
20:00 - 21:00	7	824	5.984	7	824	6.366	7	824	12.350
21:00 - 22:00	6	823	5.040	6	823	5.304	6	823	10.344
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		·	118.856			118.709			237.565

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.

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Parameter summary

Trip rate parameter range selected: 260 - 1840 (units: sqm) Survey date date range: 01/01/10 - 28/10/14

Number of weekdays (Monday-Friday): 9
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 1
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 show. 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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TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS MULTI - MODAL PEDESTRI ANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	4.259	1	540	3.333	1	540	7.592
07:00 - 08:00	9	710	3.552	9	710	2.754	9	710	6.306
08:00 - 09:00	9	710	8.419	9	710	8.858	9	710	17.277
09:00 - 10:00	9	710	7.293	9	710	6.401	9	710	13.694
10:00 - 11:00	9	710	6.964	9	710	6.745	9	710	13.709
11:00 - 12:00	9	710	6.776	9	710	6.729	9	710	13.505
12:00 - 13:00	9	710	8.701	9	710	7.997	9	710	16.698
13:00 - 14:00	9	710	7.324	9	710	7.371	9	710	14.695
14:00 - 15:00	9	710	6.463	9	710	6.682	9	710	13.145
15:00 - 16:00	9	710	10.391	9	710	10.704	9	710	21.095
16:00 - 17:00	9	710	5.822	9	710	6.009	9	710	11.831
17:00 - 18:00	9	710	4.413	9	710	5.196	9	710	9.609
18:00 - 19:00	9	710	4.085	9	710	4.413	9	710	8.498
19:00 - 20:00	7	824	3.435	7	824	3.712	7	824	7.147
20:00 - 21:00	7	824	2.827	7	824	3.140	7	824	5.967
21:00 - 22:00	6	823	2.611	6	823	2.996	6	823	5.607
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		·	93.335			93.040			186.375

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.

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Parameter summary

Trip rate parameter range selected: 260 - 1840 (units: sqm) Survey date date range: 01/01/10 - 28/10/14

Number of weekdays (Monday-Friday): 9
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 1
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 show. 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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TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS MULTI - MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	0.741	1	540	1.111	1	540	1.852
07:00 - 08:00	9	710	0.219	9	710	0.188	9	710	0.407
08:00 - 09:00	9	710	0.203	9	710	0.376	9	710	0.579
09:00 - 10:00	9	710	0.156	9	710	0.141	9	710	0.297
10:00 - 11:00	9	710	0.203	9	710	0.172	9	710	0.375
11:00 - 12:00	9	710	0.360	9	710	0.516	9	710	0.876
12:00 - 13:00	9	710	0.407	9	710	0.313	9	710	0.720
13:00 - 14:00	9	710	0.532	9	710	0.250	9	710	0.782
14:00 - 15:00	9	710	0.266	9	710	0.282	9	710	0.548
15:00 - 16:00	9	710	0.469	9	710	0.203	9	710	0.672
16:00 - 17:00	9	710	0.282	9	710	0.219	9	710	0.501
17:00 - 18:00	9	710	0.219	9	710	0.156	9	710	0.375
18:00 - 19:00	9	710	0.156	9	710	0.188	9	710	0.344
19:00 - 20:00	7	824	0.243	7	824	0.156	7	824	0.399
20:00 - 21:00	7	824	0.104	7	824	0.121	7	824	0.225
21:00 - 22:00	6	823	0.263	6	823	0.283	6	823	0.546
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		·	4.823			4.675			9.498

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.

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Parameter summary

Trip rate parameter range selected: 260 - 1840 (units: sqm) Survey date date range: 01/01/10 - 28/10/14

Number of weekdays (Monday-Friday): 9
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 1
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 show. 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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TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS MULTI - MODAL TOTAL PEOPLE

Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		I	DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	6.667	1	540	5.926	1	540	12.593
07:00 - 08:00	9	710	10.156	9	710	8.435	9	710	18.591
08:00 - 09:00	9	710	15.665	9	710	15.556	9	710	31.221
09:00 - 10:00	9	710	15.509	9	710	13.615	9	710	29.124
10:00 - 11:00	9	710	14.804	9	710	13.818	9	710	28.622
11:00 - 12:00	9	710	15.837	9	710	16.119	9	710	31.956
12:00 - 13:00	9	710	19.812	9	710	18.670	9	710	38.482
13:00 - 14:00	9	710	17.011	9	710	16.995	9	710	34.006
14:00 - 15:00	9	710	14.773	9	710	15.681	9	710	30.454
15:00 - 16:00	9	710	18.764	9	710	19.280	9	710	38.044
16:00 - 17:00	9	710	14.413	9	710	14.194	9	710	28.607
17:00 - 18:00	9	710	13.333	9	710	15.164	9	710	28.497
18:00 - 19:00	9	710	14.038	9	710	14.836	9	710	28.874
19:00 - 20:00	7	824	12.472	7	824	12.732	7	824	25.204
20:00 - 21:00	7	824	8.933	7	824	9.696	7	824	18.629
21:00 - 22:00	6	823	8.117	6	823	8.745	6	823	16.862
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			220.304			219.462			439.766

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.

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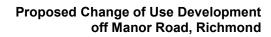
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Parameter summary

Trip rate parameter range selected: 260 - 1840 (units: sqm) Survey date date range: 01/01/10 - 28/10/14

Number of weekdays (Monday-Friday): 9
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 1
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

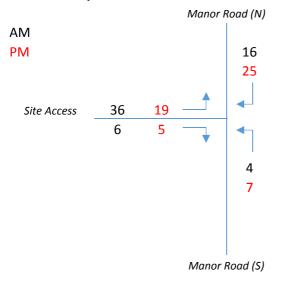


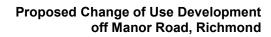


APPENDIX M

Development Traffic Flows

Total Development Traffic





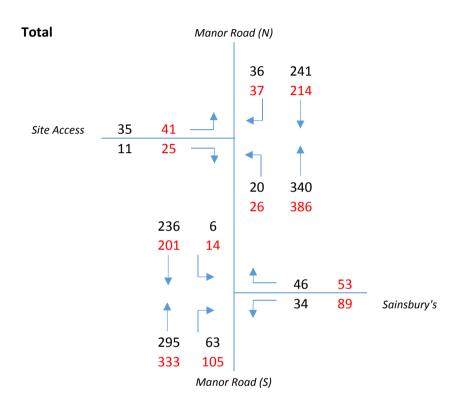


APPENDIX N

Base Traffic Flows

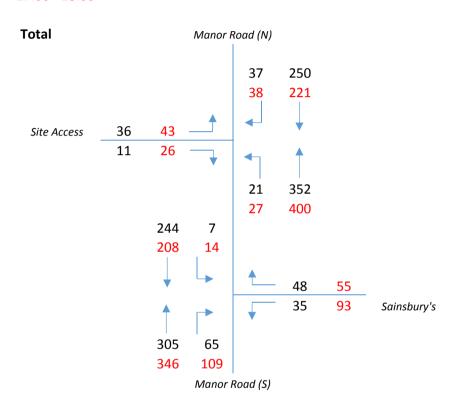
2024 Base Flows

1.0526 AM 08:30 - 09:30 1.0519 PM 17:00 - 18:00



2029 Base Flows

1.0898 AM 08:30 - 09:30 1.0900 PM 17:00 - 18:00







APPENDIX O

Junctions 9 Output - Site Access



Junctions 9

PICADY 9 - Priority Intersection Module

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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 - Manor Road.j9

Path: J:\11000\11500\11566_ManorRoadRichmondFai\engineering\Traffic_Programs\Junctions 9

Report generation date: 16/07/2020 10:20:36

»2018 Base, AM

»2018 Base, PM

»2024 Base, AM

»2024 Base, PM

»2029 Base, AM

»2029 Base, PM

»2024 Base + Dev, AM

»2024 Base + Dev, PM

»2029 Base + Dev, AM

»2029 Base + Dev, PM

Summary of junction performance

		A	M				P	M		
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
				:	2018	Base				
Stream B-AC	D1	0.1	8.55	0.10	А	D2	0.2	8.90	0.15	А
Stream C-B	וט	0.1	7.88	0.08	Α	D2	0.1	8.44	0.08	Α
					2024	Base				
Stream B-AC	D3	0.2	15.89	0.18	С	D4	0.2	16.23	0.19	С
Stream C-B	DS	0.2	14.65	0.14	В	D4	0.2	15.09	0.15	С
		2029 Base								
Stream B-AC	D5	0.2	16.11	0.19	С	D6	0.4	20.45	0.30	С
Stream C-B	סט	0.2	14.84	0.14	В	D6	0.2	15.31	0.15	С
				202	4 Ba	se + De	ev			
Stream B-AC	D9	0.4	13.30	0.26	В	D10	0.3	14.43	0.24	В
Stream C-B	D9	0.2	12.89	0.17	В	סוט	0.2	12.84	0.20	В
				202	9 Ba	se + De	ev			
Stream B-AC	D11	0.4	13.56	0.27	В	D12	0.5	19.32	0.35	С
Stream C-B	ווט	0.2	13.11	0.18	В	טוע	0.3	13.09	0.20	В

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	(untitled)
Location	
Site number	
Date	13/12/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SANDERSONASSOC\carly.hoyle
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	Veh	Veh	perHour	S	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2018 Base	AM	ONE HOUR	08:15	09:45	15	✓		
D2	2018 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D3	2024 Base	AM	ONE HOUR	08:15	09:45	15	✓		
D4	2024 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D5	2029 Base	AM	ONE HOUR	08:15	09:45	15	✓		
D6	2029 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D7	Development	AM	ONE HOUR	08:15	09:45	15			
D8	Development	PM	ONE HOUR	16:45	18:15	15			
D9	2024 Base + Dev	AM	ONE HOUR	08:15	09:45	15	✓	Simple	D3+D7
D10	2024 Base + Dev	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D4+D8
D11	2029 Base + Dev	AM	ONE HOUR	08:15	09:45	15	✓	Simple	D5+D7
D12	2029 Base + Dev	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D6+D8

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A 1	✓	100.000	100.000

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2018 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
ĺ	1	untitled	T-Junction	Two-way		1.11	Α

Junction Network Options

Driving side	Lighting	
Left	Normal/unknown	

Arms

Arms

Arm	Name	Description	Arm type
Α	Manor Road (S)		Major
В	Site Access		Minor
С	Mano Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Mano Road (N)	6.80		✓	3.25	69.0		-

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 - Site Access	One lane	4.60	34	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

-			-		
Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	584	0.103	0.259	0.163	0.371
B-C	746	0.110	0.279	-	-
С-В	684	0.256	0.256	-	-

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	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Base	AM	ONE HOUR	08:15	09:45	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	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (S)		ONE HOUR	✓	342	100.000
B - Site Access		ONE HOUR	✓	43	100.000
C - Mano Road (N)		ONE HOUR	✓	263	100.000

Origin-Destination Data

Demand (Veh/hr)

	То							
	A - Manor Road (S) B - Sit		B - Site Access	C - Mano Road (N)				
F	A - Manor Road (S)	0	19	323				
From	B - Site Access	10	0	33				
	C - Mano Road (N)	229	34	0				

Vehicle Mix

Heavy Vehicle Percentages

	То							
		A - Manor Road (S) B - Sit		C - Mano Road (N)				
F	A - Manor Road (S)	0	5	7				
From	B - Site Access	10	0	27				
	C - Mano Road (N)	3	18	0				

Results

Results Summary for whole modelled period

			<u> </u>			
Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.10	8.55	0.1	А	39	59
C-A					210	315
С-В	0.08	7.88	0.1	А	31	47
A-B					17	26
A-C					296	445

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	502	0.065	32	0.0	0.1	7.660	А
C-A	172	43			172				
С-В	26	6	522	0.049	25	0.0	0.1	7.245	А
A-B	14	4			14				
A-C	243	61			243				



08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	10	488	0.079	39	0.1	0.1	8.010	А
C-A	206	51			206				
С-В	31	8	510	0.060	31	0.1	0.1	7.500	A
A-B	17	4			17				
A-C	290	73			290				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	47	12	469	0.101	47	0.1	0.1	8.544	A
C-A	252	63			252				
С-В	37	9	494	0.076	37	0.1	0.1	7.875	A
A-B	21	5			21				
A-C	356	89			356				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	47	12	468	0.101	47	0.1	0.1	8.547	А
C-A	252	63			252				
С-В	37	9	494	0.076	37	0.1	0.1	7.877	A
A-B	21	5			21				
A-C	356	89			356				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	10	488	0.079	39	0.1	0.1	8.016	Α
C-A	206	51			206				
С-В	31	8	510	0.060	31	0.1	0.1	7.505	Α
A-B	17	4			17				
A-C	290	73			290				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	502	0.065	32	0.1	0.1	7.672	А
C-A	172	43			172				
С-В	26	6	522	0.049	26	0.1	0.1	7.252	А
A-B	14	4			14				
A-C	243	61			243				

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2018 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	type Major road direction Use circulating lanes		Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.38	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2018 Base	PM	ONE HOUR	16:45	18:15	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	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (S)		ONE HOUR	✓	392	100.000
B - Site Access		ONE HOUR	✓	63	100.000
C - Mano Road (N)		ONE HOUR	✓	238	100.000

Origin-Destination Data

Demand (Veh/hr)

		То		
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)
F	A - Manor Road (S)	0	25	367
From	B - Site Access	24	0	39
	C - Mano Road (N)	203	35	0

Vehicle Mix

Heavy Vehicle Percentages

	То								
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)					
	A - Manor Road (S)	0	0	2					
From	B - Site Access	4	0	18					
	C - Mano Road (N)	4	23	0					



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.15	8.90	0.2	А	58	87
C-A					186	279
С-В	0.08	8.44	0.1	А	32	48
A-B					23	34
A-C					337	505

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	47	12	515	0.092	47	0.0	0.1	7.679	А
C-A	153	38			153				
С-В	26	7	494	0.053	26	0.0	0.1	7.691	A
A-B	19	5			19				
A-C	276	69			276				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	57	14	498	0.114	57	0.1	0.1	8.151	A
C-A	182	46			182				
С-В	31	8	482	0.065	31	0.1	0.1	7.990	А
A-B	22	6			22				
A-C	330	82			330				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	69	17	474	0.146	69	0.1	0.2	8.893	А
C-A	224	56			224				
С-В	39	10	465	0.083	38	0.1	0.1	8.438	А
A-B	28	7			28				
A-C	404	101			404				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	69	17	474	0.146	69	0.2	0.2	8.900	А
C-A	224	56			224				
С-В	39	10	465	0.083	39	0.1	0.1	8.439	A
A-B	28	7			28				
A-C	404	101			404				

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17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	57	14	498	0.114	57	0.2	0.1	8.163	А
C-A	182	46			182				
С-В	31	8	482	0.065	32	0.1	0.1	7.995	А
A-B	22	6			22				
A-C	330	82			330				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	47	12	515	0.092	48	0.1	0.1	7.697	А
C-A	153	38			153				
С-В	26	7	494	0.053	26	0.1	0.1	7.700	A
A-B	19	5			19				
A-C	276	69			276				



2024 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
I	1	untitled	T-Junction	Two-way		3.09	А

Junction Network Options

Driving side				
Left	Normal/unknown			

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Base	AM	ONE HOUR	08:15	09:45	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	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (S)		ONE HOUR	✓	360	100.000
B - Site Access		ONE HOUR	✓	46	100.000
C - Mano Road (N)		ONE HOUR	✓	277	100.000

Origin-Destination Data

Demand (Veh/hr)

		То						
		A - Manor Road (S) B - Site Access		C - Mano Road (N)				
F	A - Manor Road (S)	0	20	340				
From	B - Site Access	11	0	35				
	C - Mano Road (N)	241	36	0				

Vehicle Mix

Heavy Vehicle Percentages

		То						
		A - Manor Road (S) B - Site Access		C - Mano Road (N)				
	A - Manor Road (S)	0	100	7				
From	B - Site Access	100	0	100				
	C - Mano Road (N)	3	100	0				



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.18	15.89	0.2	С	42	63
C-A					221	332
С-В	0.14	14.65	0.2	В	33	50
A-B					18	28
A-C					312	468

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	301	0.115	34	0.0	0.1	13.472	В
C-A	181	45			181				
С-В	27	7	303	0.089	27	0.0	0.1	12.997	В
A-B	15	4			15				
A-C	256	64			256				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	41	10	291	0.142	41	0.1	0.2	14.407	В
C-A	217	54			217				
С-В	32	8	296	0.109	32	0.1	0.1	13.662	В
A-B	18	4			18				
A-C	306	76			306				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	51	13	277	0.183	50	0.2	0.2	15.856	С
C-A	265	66			265				
С-В	40	10	285	0.139	39	0.1	0.2	14.632	В
A-B	22	6			22				
A-C	374	94			374				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	51	13	277	0.183	51	0.2	0.2	15.888	С
C-A	265	66			265				
С-В	40	10	285	0.139	40	0.2	0.2	14.649	В
A-B	22	6			22				
A-C	374	94			374				

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09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	41	10	291	0.142	42	0.2	0.2	14.450	В
C-A	217	54			217				
С-В	32	8	296	0.109	33	0.2	0.1	13.681	В
A-B	18	4			18				
A-C	306	76			306				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	301	0.115	35	0.2	0.1	13.541	В
C-A	181	45			181				
С-В	27	7	303	0.089	27	0.1	0.1	13.043	В
A-B	15	4			15				
A-C	256	64			256				



2024 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.13	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm) Finish time (HH:mm)		Time segment length (min)	Run automatically
D4	2024 Base	PM	ONE HOUR	16:45	18:15	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	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)	
A - Manor Road (S)		ONE HOUR	✓	412	100.000	
B - Site Access		ONE HOUR	✓	46	100.000	
C - Mano Road (N)		ONE HOUR	✓	251	100.000	

Origin-Destination Data

Demand (Veh/hr)

		То									
		A - Manor Road (S) B - Site Access		C - Mano Road (N)							
F	A - Manor Road (S)	0	26	386							
From	B - Site Access	11	0	35							
	C - Mano Road (N)	214	37	0							

Vehicle Mix

Heavy Vehicle Percentages

	То									
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)						
	A - Manor Road (S)	0	100	2						
From	B - Site Access	100	0	100						
	C - Mano Road (N)	4	100	0						



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	lax Delay (s) Max Queue (Veh) Max LOS Av		Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.19	16.23	0.2	С	42	63
C-A					196	295
С-В	0.15	15.09	0.2	С	34	51
A-B					24	36
A-C					354	531

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	298	0.116	34	0.0	0.1	13.639	В
C-A	161	40			161				
С-В	28	7	299	0.093	27	0.0	0.1	13.234	В
A-B	20	5			20				
A-C	291	73			291				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	41	10	287	0.144	41	0.1	0.2	14.631	В
C-A	192	48			192				
С-В	33	8	291	0.114	33	0.1	0.1	13.967	В
A-B	23	6			23				
A-C	347	87			347				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	51	13	272	0.186	50	0.2	0.2	16.194	С
C-A	236	59			236				
С-В	41	10	279	0.146	41	0.1	0.2	15.070	С
A-B	29	7			29				
A-C	425	106			425				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	51	13	272	0.186	51	0.2	0.2	16.229	С
C-A	236	59			236				
С-В	41	10	279	0.146	41	0.2	0.2	15.091	С
A-B	29	7			29				
A-C	425	106			425				

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17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	41	10	287	0.144	42	0.2	0.2	14.680	В
C-A	192	48			192				
С-В	33	8	291	0.114	33	0.2	0.1	13.995	В
A-B	23	6			23				
A-C	347	87			347				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	297	0.116	35	0.2	0.1	13.713	В
C-A	161	40			161				
С-В	28	7	299	0.093	28	0.1	0.1	13.283	В
A-B	20	5			20				
A-C	291	73			291				



2029 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.10	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029 Base	AM	ONE HOUR	08:15	09:45	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	m Profile type Use O-D		Average Demand (Veh/hr)	Scaling Factor (%)	
A - Manor Road (S)		ONE HOUR	✓	373	100.000	
B - Site Access		ONE HOUR	✓	47	100.000	
C - Mano Road (N)		ONE HOUR	✓	287	100.000	

Origin-Destination Data

Demand (Veh/hr)

		То									
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)							
F	A - Manor Road (S)	0	21	352							
From	B - Site Access	11	0	36							
	C - Mano Road (N)	250	37	0							

Vehicle Mix

Heavy Vehicle Percentages

	То									
		A - Manor Road (S) B - Site Access		C - Mano Road (N)						
F	A - Manor Road (S)	0 100		7						
From	B - Site Access	100	0	100						
	C - Mano Road (N)	3	100	0						



Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.19	16.11	0.2	С	43	65
C-A					229	344
С-В	0.14	14.84	0.2	В	34	51
A-B					19	29
A-C					323	485

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	300	0.118	35	0.0	0.1	13.573	В
C-A	188	47			188				
С-В	28	7	302	0.092	27	0.0	0.1	13.101	В
A-B	16	4			16				
A-C	265	66			265				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service			
B-AC	42	11	289	0.146	42	0.1	0.2	14.542	В			
C-A	225	56			225							
С-В	33	8	294	0.113	33	0.1	0.1	13.792	В			
A-B	19	5			19							
A-C	316	79			316							

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	52	13	275	0.188	52	0.2	0.2	16.072	С
C-A	275	69			275				
С-В	41	10	283	0.144	41	0.1	0.2	14.824	В
A-B	23	6			23				
A-C	388	97			388				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	52	13	275	0.188	52	0.2	0.2	16.107	С
C-A	275	69			275				
С-В	41	10	283	0.144	41	0.2	0.2	14.841	В
A-B	23	6			23				
A-C	388	97			388				

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09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	42	11	289	0.146	42	0.2	0.2	14.591	В
C-A	225	56			225				
С-В	33	8	294	0.113	33	0.2	0.1	13.818	В
A-B	19	5			19				
A-C	316	79			316				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	300	0.118	36	0.2	0.1	13.640	В
C-A	188	47			188				
С-В	28	7	302	0.092	28	0.1	0.1	13.150	В
A-B	16	4			16				
A-C	265	66			265				



2029 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
ĺ	1	untitled	T-Junction	Two-way		4.40	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029 Base	PM	ONE HOUR	16:45	18:15	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 ar		Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)	
A - Manor Road (S)		ONE HOUR	✓	427	100.000	
B - Site Access		ONE HOUR	✓	69	100.000	
C - Mano Road (N)		ONE HOUR	✓	259	100.000	

Origin-Destination Data

Demand (Veh/hr)

		То									
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)							
F	A - Manor Road (S)	0	27	400							
From	B - Site Access	26	0	43							
	C - Mano Road (N)	221	38	0							

Vehicle Mix

		То									
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)							
F	A - Manor Road (S)	0	100	2							
From	B - Site Access	100	0	100							
	C - Mano Road (N)	4	100	0							



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.30	20.45	0.4	С	63	95
C-A					203	304
С-В	0.15	15.31	0.2	С	35	52
A-B					25	37
A-C					367	551

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	52	13	280	0.186	51	0.0	0.2	15.675	С
C-A	166	42			166				
С-В	29	7	298	0.096	28	0.0	0.1	13.345	В
A-B	20	5			20				
A-C	301	75			301				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	62	16	268	0.231	62	0.2	0.3	17.407	С
C-A	199	50			199				
С-В	34	9	289	0.118	34	0.1	0.1	14.119	В
A-B	24	6			24				
A-C	360	90			360				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	76	19	252	0.301	75	0.3	0.4	20.337	С
C-A	243	61			243				
С-В	42	10	277	0.151	42	0.1	0.2	15.288	С
A-B	30	7			30				
A-C	440	110			440				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	76	19	252	0.302	76	0.4	0.4	20.447	С
C-A	243	61			243				
С-В	42	10	277	0.151	42	0.2	0.2	15.309	С
A-B	30	7			30				
A-C	440	110			440				



17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	62	16	268	0.231	62	0.4	0.3	17.543	С
C-A	199	50			199				
С-В	34	9	289	0.118	34	0.2	0.1	14.148	В
A-B	24	6			24				
A-C	360	90			360				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	52	13	280	0.186	52	0.3	0.2	15.843	С
C-A	166	42			166				
С-В	29	7	298	0.096	29	0.1	0.1	13.396	В
A-B	20	5			20				
A-C	301	75			301				



2024 Base + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.33	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D9	2024 Base + Dev	AM	ONE HOUR	08:15	09:45	15	✓	Simple	D3+D7

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		Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)	
A - Manor Road (S)		ONE HOUR	✓	364	100.000	
B - Site Access		ONE HOUR	✓	88	100.000	
C - Mano Road (N)		ONE HOUR	✓	293	100.000	

Origin-Destination Data

Demand (Veh/hr)

	То								
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)					
F	A - Manor Road (S)	0	24	340					
From	B - Site Access	17	0	71					
	C - Mano Road (N)	241	52	0					

Vehicle Mix

		То								
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)						
F	A - Manor Road (S)	0	83	7						
From	B - Site Access	65	0	49						
	C - Mano Road (N)	3	69	0						



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.26	13.30	0.4	В	81	121
C-A					221	332
С-В	0.17	12.89	0.2	В	48	72
A-B					22	33
A-C					312	468

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	66	17	399	0.166	65	0.0	0.2	10.778	В
C-A	181	45			181				
С-В	39	10	358	0.109	39	0.0	0.1	11.257	В
A-B	18	5			18				
A-C	256	64			256				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	79	20	386	0.205	79	0.2	0.3	11.731	В
C-A	217	54			217				
С-В	47	12	349	0.134	47	0.1	0.2	11.900	В
A-B	22	5			22				
A-C	306	76			306				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	97	24	368	0.264	97	0.3	0.4	13.260	В
C-A	265	66			265				
С-В	57	14	337	0.170	57	0.2	0.2	12.869	В
A-B	26	7			26				
A-C	374	94			374				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	97	24	368	0.264	97	0.4	0.4	13.300	В
C-A	265	66			265				
С-В	57	14	337	0.170	57	0.2	0.2	12.887	В
A-B	26	7			26				
A-C	374	94			374				



09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	79	20	386	0.205	79	0.4	0.3	11.772	В
C-A	217	54			217				
С-В	47	12	349	0.134	47	0.2	0.2	11.927	В
A-B	22	5			22				
A-C	306	76			306				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	66	17	399	0.166	66	0.3	0.2	10.846	В
C-A	181	45			181				
С-В	39	10	358	0.109	39	0.2	0.1	11.302	В
A-B	18	5			18				
A-C	256	64			256				



2024 Base + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.31	А

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D10	2024 Base + Dev	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D4+D8

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	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (S)		ONE HOUR	✓	419	100.000
B - Site Access		ONE HOUR	✓	70	100.000
C - Mano Road (N)		ONE HOUR	✓	276	100.000

Origin-Destination Data

Demand (Veh/hr)

	То								
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)					
F	A - Manor Road (S)	0	33	386					
From	B - Site Access	16	0	54					
	C - Mano Road (N)	214	62	0					

Vehicle Mix

		То									
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)							
F	A - Manor Road (S)	0	79	2							
From	B - Site Access	69	0	65							
	C - Mano Road (N)	4	60	0							



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.24	14.43	0.3	В	64	96
C-A					196	295
С-В	0.20	12.84	0.2	В	57	85
A-B					30	45
A-C					354	531

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	53	13	358	0.147	52	0.0	0.2	11.740	В
C-A	161	40			161				
С-В	47	12	374	0.125	46	0.0	0.1	10.967	В
A-B	25	6			25				
A-C	291	73			291				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	63	16	345	0.182	63	0.2	0.2	12.748	В
C-A	192	48			192				
С-В	56	14	363	0.153	56	0.1	0.2	11.696	В
A-B	30	7			30				
A-C	347	87			347				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	77	19	327	0.236	77	0.2	0.3	14.387	В
C-A	236	59			236				
С-В	68	17	349	0.196	68	0.2	0.2	12.820	В
A-B	36	9			36				
A-C	425	106			425				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	77	19	327	0.236	77	0.3	0.3	14.430	В
C-A	236	59			236				
С-В	68	17	349	0.196	68	0.2	0.2	12.843	В
A-B	36	9			36				
A-C	425	106			425				



17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	63	16	345	0.182	63	0.3	0.2	12.800	В
C-A	192	48			192				
С-В	56	14	363	0.153	56	0.2	0.2	11.725	В
A-B	30	7			30				
A-C	347	87			347				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	53	13	358	0.147	53	0.2	0.2	11.813	В
C-A	161	40			161				
С-В	47	12	374	0.125	47	0.2	0.1	11.015	В
A-B	25	6			25				
A-C	291	73			291				



2029 Base + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.35	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	2029 Base + Dev	AM	ONE HOUR	08:15	09:45	15	✓	Simple	D5+D7

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	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (S)		ONE HOUR	✓	377	100.000
B - Site Access		ONE HOUR	✓	89	100.000
C - Mano Road (N)		ONE HOUR	✓	303	100.000

Origin-Destination Data

Demand (Veh/hr)

	То								
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)					
	A - Manor Road (S)	0	25	352					
From	B - Site Access	17	0	72					
	C - Mano Road (N)	250	53	0					

Vehicle Mix

		То								
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)						
F	A - Manor Road (S)	0	84	7						
From	B - Site Access	65	0	50						
	C - Mano Road (N)	3	70	0						



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.27	13.56	0.4	В	82	123
C-A					229	344
С-В	0.18	13.11	0.2	В	49	73
A-B					23	34
A-C					323	485

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	17	396	0.169	66	0.0	0.2	10.905	В
C-A	188	47			188				
С-В	40	10	355	0.112	39	0.0	0.1	11.405	В
A-B	19	5			19				
A-C	265	66			265				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service		
B-AC	80	20	382	0.209	80	0.2	0.3	11.894	В		
C-A	225	56			225						
С-В	48	12	346	0.138	48	0.1	0.2	12.064	В		
A-B	22	6			22						
A-C	316	79			316						

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	98	24	363	0.270	98	0.3	0.4	13.500	В
C-A	275	69			275				
С-В	58	15	333	0.175	58	0.2	0.2	13.099	В
A-B	28	7			28				
A-C	388	97			388				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	98	24	363	0.270	98	0.4	0.4	13.561	В
C-A	275	69			275				
С-В	58	15	333	0.175	58	0.2	0.2	13.108	В
A-B	28	7			28				
A-C	388	97			388				



09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	80	20	382	0.209	80	0.4	0.3	11.946	В
C-A	225	56			225				
С-В	48	12	346	0.138	48	0.2	0.2	12.092	В
A-B	22	6			22				
A-C	316	79			316				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	17	395	0.169	67	0.3	0.2	10.976	В
C-A	188	47			188				
С-В	40	10	355	0.112	40	0.2	0.1	11.431	В
A-B	19	5			19				
A-C	265	66			265				



2029 Base + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.63	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	2029 Base + Dev	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D6+D8

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	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (S)		ONE HOUR	✓	434	100.000
B - Site Access		ONE HOUR	✓	93	100.000
C - Mano Road (N)		ONE HOUR	✓	284	100.000

Origin-Destination Data

Demand (Veh/hr)

	То							
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)				
F	A - Manor Road (S)	0	34	400				
From	B - Site Access	31	0	62				
	C - Mano Road (N)	221	63	0				

Vehicle Mix

		То							
		A - Manor Road (S)	B - Site Access	C - Mano Road (N)					
F	A - Manor Road (S)	0	79	2					
From	B - Site Access	84	0	69					
	C - Mano Road (N)	4	60	0					



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.35	19.32	0.5	С	85	128
C-A					203	304
С-В	0.20	13.09	0.3	В	58	87
A-B					31	47
A-C					367	551

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	18	322	0.217	69	0.0	0.3	14.169	В
C-A	166	42			166				
С-В	47	12	370	0.128	47	0.0	0.1	11.107	В
A-B	26	6			26				
A-C	301	75			301				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	84	21	308	0.271	83	0.3	0.4	15.983	С
C-A	199	50			199				
С-В	57	14	359	0.158	56	0.1	0.2	11.877	В
A-B	31	8			31				
A-C	360	90			360				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	26	289	0.355	102	0.4	0.5	19.186	С
C-A	243	61			243				
С-В	69	17	344	0.201	69	0.2	0.2	13.070	В
A-B	37	9			37				
A-C	440	110			440				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	26	289	0.355	102	0.5	0.5	19.319	С
C-A	243	61			243				
С-В	69	17	344	0.201	69	0.2	0.3	13.093	В
A-B	37	9			37				
A-C	440	110			440				



17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	84	21	308	0.271	84	0.5	0.4	16.137	С
C-A	199	50			199				
С-В	57	14	359	0.158	57	0.3	0.2	11.910	В
A-B	31	8			31				
A-C	360	90			360				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	18	322	0.218	70	0.4	0.3	14.343	В
C-A	166	42			166				
С-В	47	12	370	0.128	48	0.2	0.1	11.158	В
A-B	26	6			26				
A-C	301	75			301				





APPENDIX P

Junctions 9 Output – Sainsbury's junction



Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462 © Copyright TRL Limited, 2019

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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: Sainsbuy's - Manor Road.j9

 $\textbf{Path: } J: \ 11000\ 11500\ 11566_ManorRoadRichmondFai\ engineering\ Traffic_Programs\ Junctions\ 9$

Report generation date: 16/07/2020 10:40:44

»2018 Base, AM

»2018 Base, PM

»2024 Base, AM

»2024 Base, PM

»2029 Base, AM

»2029 Base, PM

»2024 Base + Dev, AM

»2024 Base + Dev, PM

»2029 Base + Dev, AM

»2029 Base + Dev, PM

Summary of junction performance

	AM						P	M		
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2018									
Stream B-C		0.1	7.66	0.07	А		0.2	8.43	0.18	Α
Stream B-A	D1	0.2	12.53	0.14	В	D2	0.2	14.56	0.18	В
Stream C-AB		0.1	6.32	0.10	А		0.2	6.71	0.17	Α
					2024	Base				
Stream B-C		0.1	7.72	0.07	А		0.2	8.49	0.19	Α
Stream B-A	D3	0.2	12.70	0.15	В	D4	0.2	14.59	0.19	В
Stream C-AB		0.1	6.37	0.11	А		0.2	6.73	0.18	Α
					2029	Base				
Stream B-C		0.1	7.79	0.08	А		0.2	8.63	0.20	Α
Stream B-A	D5	0.2	12.98	0.16	В	D6	0.2	14.99	0.20	В
Stream C-AB		0.1	6.43	0.11	А		0.2	6.82	0.19	Α
				202	24 Ba	se + De	ev			
Stream B-C		0.1	7.74	0.07	А		0.2	8.52	0.19	Α
Stream B-A	D9	0.2	12.79	0.15	В	D10	0.2	14.71	0.19	В
Stream C-AB		0.1	6.39	0.11	А		0.2	6.75	0.18	Α
	2029 Base + Dev									
Stream B-C		0.1	7.82	0.08	А		0.2	8.66	0.20	Α
Stream B-A	D11	0.2	13.07	0.16	В	D12	0.2	15.11	0.20	С
Stream C-AB		0.1	6.45	0.11	А		0.2	6.84	0.19	Α

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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	(untitled)
Location	
Site number	
Date	13/12/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SANDERSONASSOC\carly.hoyle
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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2018 Base	AM	ONE HOUR	08:15	09:45	15	✓		
D2	2018 Base	PM	ONE HOUR	16:45	18:15	15	✓		
D3	2024 Base	AM	ONE HOUR	08:15	09:45	15	✓	Simple	D13*1.0526
D4	2024 Base	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D14*1.0519
D5	2029 Base	AM	ONE HOUR	08:15	09:45	15	✓	Simple	D13*1.0898
D6	2029 Base	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D14*1.0900
D7	Development	AM	ONE HOUR	08:15	09:45	15			
D8	Development	PM	ONE HOUR	16:45	18:15	15			
D9	2024 Base + Dev	AM	ONE HOUR	08:15	09:45	15	✓	Simple	D3+D7
D10	2024 Base + Dev	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D4+D8
D11	2029 Base + Dev	AM	ONE HOUR	08:15	09:45	15	✓	Simple	D5+D7
D12	2029 Base + Dev	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D6+D8
D13	2018 Base (-Existing site)	AM	ONE HOUR	08:15	09:45	15			
D14	2018 Base (-Existing site)	PM	ONE HOUR	16:45	18:15	15			

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000



2018 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 2024 Base + Dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.76	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type	
Α	Manor Road (N)		Major	
В	Sainsbury's		Minor	
C Manor Road (S)			Major	

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Manor Road (S)	6.40		✓	3.25	130.0	✓	11.00

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

Minor Arm Geometry

ſ	Arm	Minor arm type	Lane Width (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
I	B - Sainsbury's	Two lanes	2.80	2.80	32	19

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	487	0.087	0.220	0.139	0.315
B-C	623	0.094	0.237	-	-
С-В	723	0.275	0.275	-	-

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	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Base	AM	ONE HOUR	08:15	09:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)	
A - Manor Road (N)		ONE HOUR	✓	239	100.000	
B - Sainsbury's		ONE HOUR	✓	76	100.000	
C - Manor Road (S)		ONE HOUR	✓	358	100.000	

Origin-Destination Data

Demand (Veh/hr)

		То							
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)					
F	A - Manor Road (N)	0	6	233					
From	B - Sainsbury's	44	0	32					
	C - Manor Road (S)	298	60	0					

Vehicle Mix

Heavy Vehicle Percentages

		То								
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)						
	A - Manor Road (N)	0	0	7						
From	B - Sainsbury's	7	0	6						
	C - Manor Road (S)	2	2	0						

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
в-с	0.07	7.66	0.1	А	29	44
B-A	0.14	12.53	0.2	В	40	61
C-AB	0.10	6.32	0.1	А	55	83
C-A					273	410
A-B					6	8
A-C					214	321



Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	24	6	532	0.045	24	0.0	0.0	7.085	А
B-A	33	8	374	0.089	33	0.0	0.1	10.538	В
C-AB	45	11	659	0.069	45	0.0	0.1	5.856	А
C-A	224	56			224				
A-B	5	1			5				
A-C	175	44			175				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	29	7	521	0.055	29	0.0	0.1	7.315	A
B-A	40	10	358	0.111	39	0.1	0.1	11.301	В
C-AB	54	13	649	0.083	54	0.1	0.1	6.046	A
C-A	268	67			268				
A-B	5	1			5				
A-C	209	52			209				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	35	9	505	0.070	35	0.1	0.1	7.656	A
B-A	48	12	336	0.144	48	0.1	0.2	12.513	В
C-AB	66	17	635	0.104	66	0.1	0.1	6.323	A
C-A	328	82			328				
A-B	7	2			7				
A-C	257	64			257				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	35	9	505	0.070	35	0.1	0.1	7.658	Α
B-A	48	12	336	0.144	48	0.2	0.2	12.529	В
C-AB	66	17	635	0.104	66	0.1	0.1	6.323	А
C-A	328	82			328				
A-B	7	2			7				
A-C	257	64			257				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	29	7	521	0.055	29	0.1	0.1	7.321	А
B-A	40	10	358	0.111	40	0.2	0.1	11.323	В
C-AB	54	13	649	0.083	54	0.1	0.1	6.048	А
C-A	268	67			268				
A-B	5	1			5				
A-C	209	52			209				



09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	24	6	532	0.045	24	0.1	0.0	7.094	А
B-A	33	8	374	0.089	33	0.1	0.1	10.574	В
C-AB	45	11	659	0.069	45	0.1	0.1	5.864	А
C-A	224	56			224				
A-B	5	1			5				
A-C	175	44			175				



2018 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 2024 Base + Dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	nction Name Junction type Major roa		Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.72	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

	ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
I	D2	2018 Base	PM	ONE HOUR	16:45	18:15	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	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)	
A - Manor Road (N)		ONE HOUR	✓	227	100.000	
B - Sainsbury's		ONE HOUR	✓	135	100.000	
C - Manor Road (S)		ONE HOUR	✓	442	100.000	

Origin-Destination Data

Demand (Veh/hr)

	То									
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)						
F	A - Manor Road (N)	0	13	214						
From	B - Sainsbury's	50	0	85						
	C - Manor Road (S)	342	100	0						

Vehicle Mix

	То									
		A - Manor Road (N)	A - Manor Road (N) B - Sainsbury's C -							
	A - Manor Road (N)	0	8	2						
From	B - Sainsbury's	14	0	4						
	C - Manor Road (S)	2	1	0						



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
в-с	0.18	8.43	0.2	А	78	117
B-A	0.18	14.56	0.2	В	46	69
C-AB	0.17	6.71	0.2	А	92	138
C-A					314	471
A-B					12	18
A-C					196	295

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	64	16	548	0.117	63	0.0	0.1	7.422	А
B-A	38	9	342	0.110	37	0.0	0.1	11.789	В
C-AB	75	19	669	0.113	75	0.0	0.1	6.057	А
C-A	257	64			257				
A-B	10	2			10				
A-C	161	40			161				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service		
B-C	76	19	537	0.142	76	0.1	0.2	7.818	А		
B-A	45	11	325	0.138	45	0.1	0.2	12.827	В		
C-AB	90	22	659	0.136	90	0.1	0.2	6.318	А		
C-A	307	77			307						
A-B	12	3			12						
A-C	192	48			192						

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	94	23	521	0.180	93	0.2	0.2	8.423	A
B-A	55	14	302	0.182	55	0.2	0.2	14.528	В
C-AB	110	28	647	0.170	110	0.2	0.2	6.706	A
C-A	377	94			377				
A-B	14	4			14				
A-C	236	59			236				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	94	23	520	0.180	94	0.2	0.2	8.433	A
B-A	55	14	302	0.182	55	0.2	0.2	14.559	В
C-AB	110	28	647	0.170	110	0.2	0.2	6.709	A
C-A	377	94			377				
A-B	14	4			14				
A-C	236	59			236				



17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	76	19	536	0.142	77	0.2	0.2	7.832	A
B-A	45	11	325	0.138	45	0.2	0.2	12.867	В
C-AB	90	22	659	0.136	90	0.2	0.2	6.327	A
C-A	307	77			307				
A-B	12	3			12				
A-C	192	48			192				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	64	16	548	0.117	64	0.2	0.1	7.448	A
B-A	38	9	342	0.110	38	0.2	0.1	11.847	В
C-AB	75	19	669	0.113	75	0.2	0.1	6.071	A
C-A	257	64			257				
A-B	10	2			10				
A-C	161	40			161				



2024 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 2024 Base + Dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.85	А

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D3	2024 Base	AM	ONE HOUR	08:15	09:45	15	✓	Simple	D13*1.0526

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 arn		Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (N)		ONE HOUR	✓	242	100.000
B - Sainsbury's		ONE HOUR	✓	80	100.000
C - Manor Road (S)		ONE HOUR	✓	358	100.000

Origin-Destination Data

Demand (Veh/hr)

	То								
		A - Manor Road (N) B - Sainsbu		C - Manor Road (S)					
	A - Manor Road (N)	0	6	236					
From	B - Sainsbury's	46	0	34					
	C - Manor Road (S)	295	63	0					

Vehicle Mix

	То								
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)					
	A - Manor Road (N)	0	0	7					
From	B - Sainsbury's	7	0	6					
	C - Manor Road (S)	2	2	0					



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
в-с	0.07	7.72	0.1	А	31	46
B-A	0.15	12.70	0.2	В	42	64
C-AB	0.11	6.37	0.1	А	58	87
C-A					270	406
A-B					6	9
A-C					216	325

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	25	6	531	0.048	25	0.0	0.0	7.120	А
B-A	35	9	373	0.093	34	0.0	0.1	10.618	В
C-AB	48	12	659	0.072	47	0.0	0.1	5.885	А
C-A	222	55			222				
A-B	5	1			5				
A-C	178	44			178				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	30	8	519	0.058	30	0.0	0.1	7.359	A
B-A	42	10	357	0.117	42	0.1	0.1	11.413	В
C-AB	57	14	648	0.088	57	0.1	0.1	6.083	A
C-A	265	66			265				
A-B	6	1			6				
A-C	212	53			212				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	37	9	504	0.074	37	0.1	0.1	7.716	А
B-A	51	13	335	0.152	51	0.1	0.2	12.682	В
C-AB	70	17	634	0.110	69	0.1	0.1	6.373	А
C-A	325	81			325				
A-B	7	2			7				
A-C	260	65			260				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	37	9	503	0.074	37	0.1	0.1	7.719	A
B-A	51	13	334	0.152	51	0.2	0.2	12.698	В
C-AB	70	17	634	0.110	70	0.1	0.1	6.373	А
C-A	325	81			325				
A-B	7	2			7				
A-C	260	65			260				



09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	30	8	519	0.058	30	0.1	0.1	7.365	А
B-A	42	10	357	0.117	42	0.2	0.1	11.435	В
C-AB	57	14	648	0.088	57	0.1	0.1	6.088	А
C-A	265	66			265				
A-B	6	1			6				
A-C	212	53			212				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	25	6	531	0.048	25	0.1	0.1	7.129	А
B-A	35	9	373	0.093	35	0.1	0.1	10.656	В
C-AB	48	12	659	0.072	48	0.1	0.1	5.893	A
C-A	222	55			222				
A-B	5	1			5				
A-C	178	44			178				



2024 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 2024 Base + Dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.91	А

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D4	2024 Base	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D14*1.0519

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	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (N)		ONE HOUR	✓	215	100.000
B - Sainsbury's		ONE HOUR	√	142	100.000
C - Manor Road (S)		ONE HOUR	✓	439	100.000

Origin-Destination Data

Demand (Veh/hr)

	То								
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)					
	A - Manor Road (N)	0	14	201					
From	B - Sainsbury's	53	0	89					
	C - Manor Road (S)	333	105	0					

Vehicle Mix

		То										
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)								
	A - Manor Road (N)	0	8	2								
From	B - Sainsbury's	14	0	4								
	C - Manor Road (S)	2	1	0								



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
в-с	0.19	8.49	0.2	А	82	123
B-A	0.19	14.59	0.2	В	48	72
C-AB	0.18	6.73	0.2	А	97	145
C-A					306	459
A-B					13	19
A-C					184	277

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	67	17	549	0.123	67	0.0	0.1	7.451	A
B-A	40	10	344	0.115	39	0.0	0.1	11.802	В
C-AB	79	20	671	0.118	79	0.0	0.1	6.070	A
C-A	251	63			251				
A-B	10	3			10				
A-C	151	38			151				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	80	20	538	0.149	80	0.1	0.2	7.856	A
B-A	47	12	327	0.144	47	0.1	0.2	12.846	В
C-AB	95	24	662	0.143	94	0.1	0.2	6.335	A
C-A	300	75			300				
A-B	12	3			12				
A-C	181	45			181				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	98	25	523	0.188	98	0.2	0.2	8.479	А
B-A	58	14	305	0.190	58	0.2	0.2	14.558	В
C-AB	116	29	650	0.178	116	0.2	0.2	6.730	A
C-A	367	92			367				
A-B	15	4			15				
A-C	221	55			221				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	98	25	522	0.188	98	0.2	0.2	8.490	A
B-A	58	14	305	0.190	58	0.2	0.2	14.590	В
C-AB	116	29	650	0.178	116	0.2	0.2	6.733	A
C-A	367	92			367				
A-B	15	4			15				
A-C	221	55			221				



17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	80	20	538	0.149	81	0.2	0.2	7.871	А
B-A	47	12	327	0.145	48	0.2	0.2	12.886	В
C-AB	95	24	662	0.143	95	0.2	0.2	6.345	А
C-A	300	75			300				
A-B	12	3			12				
A-C	181	45			181				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	67	17	549	0.123	67	0.2	0.1	7.474	A
B-A	40	10	343	0.115	40	0.2	0.1	11.859	В
C-AB	79	20	671	0.118	79	0.2	0.1	6.085	A
C-A	251	63			251				
A-B	10	3			10				
A-C	151	38			151				



2029 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 2024 Base + Dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.88	Α

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

IC	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D!	2029 Base	AM	ONE HOUR	08:15	09:45	15	✓	Simple	D13*1.0898

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	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (N)		ONE HOUR	✓	251	100.000
B - Sainsbury's		ONE HOUR	✓	83	100.000
C - Manor Road (S)		ONE HOUR	✓	371	100.000

Origin-Destination Data

Demand (Veh/hr)

		То								
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)						
	A - Manor Road (N)	0	7	244						
From	B - Sainsbury's	48	0	35						
	C - Manor Road (S)	305	65	0						

Vehicle Mix

		То								
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)						
	A - Manor Road (N)	0	0	7						
From	B - Sainsbury's	7	0	6						
	C - Manor Road (S)	2	2	0						



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
в-с	0.08	7.79	0.1	А	32	48
B-A	0.16	12.98	0.2	В	44	66
C-AB	0.11	6.43	0.1	А	60	90
C-A					280	420
A-B					6	9
A-C					224	336

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	26	7	529	0.050	26	0.0	0.1	7.157	A
B-A	36	9	370	0.098	36	0.0	0.1	10.750	В
C-AB	49	12	657	0.075	49	0.0	0.1	5.919	A
C-A	230	57			230				
A-B	5	1			5				
A-C	184	46			184				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	31	8	517	0.061	31	0.1	0.1	7.412	A
B-A	43	11	353	0.122	43	0.1	0.1	11.594	В
C-AB	59	15	646	0.091	59	0.1	0.1	6.127	A
C-A	274	69			274				
A-B	6	1			6				
A-C	219	55			219				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	38	10	500	0.077	38	0.1	0.1	7.790	А
B-A	53	13	330	0.160	53	0.1	0.2	12.959	В
C-AB	72	18	632	0.114	72	0.1	0.1	6.429	A
C-A	336	84			336				
A-B	7	2			7				
A-C	269	67			269				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	38	10	500	0.077	38	0.1	0.1	7.793	A
B-A	53	13	330	0.160	53	0.2	0.2	12.978	В
C-AB	72	18	632	0.114	72	0.1	0.1	6.432	A
C-A	336	84			336				
A-B	7	2			7				
A-C	269	67			269				



09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	31	8	517	0.061	31	0.1	0.1	7.419	A
B-A	43	11	353	0.122	43	0.2	0.1	11.622	В
C-AB	59	15	646	0.091	59	0.1	0.1	6.132	A
C-A	274	69			274				
A-B	6	1			6				
A-C	219	55			219				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	26	7	529	0.050	26	0.1	0.1	7.167	А
B-A	36	9	370	0.098	36	0.1	0.1	10.788	В
C-AB	49	12	657	0.075	49	0.1	0.1	5.928	A
C-A	230	57			230				
A-B	5	1			5				
A-C	184	46			184				



2029 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 2024 Base + Dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.96	А

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ı	D	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
C)6	2029 Base	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D14*1.0900

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 ar		Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (N)		ONE HOUR	✓	222	100.000
B - Sainsbury's		ONE HOUR	✓	147	100.000
C - Manor Road (S)		ONE HOUR	✓	455	100.000

Origin-Destination Data

Demand (Veh/hr)

	То								
		A - Manor Road (N) B - Sainsbury		C - Manor Road (S)					
	A - Manor Road (N)	0	14	208					
From	B - Sainsbury's	55	0	93					
	C - Manor Road (S)	346	109	0					

Vehicle Mix

		То									
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)							
	A - Manor Road (N)	0	8	2							
From	B - Sainsbury's	14	0	4							
	C - Manor Road (S)	2	1	0							



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
в-с	0.20	8.63	0.2	А	85	128
B-A	0.20	14.99	0.2	В	50	75
C-AB	0.19	6.82	0.2	А	100	150
C-A					317	476
A-B					13	20
A-C					191	287

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	70	17	547	0.127	69	0.0	0.1	7.517	А
B-A	41	10	341	0.120	40	0.0	0.1	11.974	В
C-AB	82	21	670	0.123	82	0.0	0.1	6.117	А
C-A	260	65			260				
A-B	11	3			11				
A-C	157	39			157				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	83	21	536	0.155	83	0.1	0.2	7.950	A
B-A	49	12	324	0.151	49	0.1	0.2	13.094	В
C-AB	98	24	661	0.148	98	0.1	0.2	6.396	A
C-A	311	78			311				
A-B	13	3			13				
A-C	187	47			187				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	102	26	519	0.196	102	0.2	0.2	8.617	А
B-A	60	15	300	0.200	60	0.2	0.2	14.949	В
C-AB	120	30	648	0.185	120	0.2	0.2	6.812	А
C-A	380	95			380				
A-B	16	4			16				
A-C	229	57			229				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	102	26	519	0.196	102	0.2	0.2	8.627	A
B-A	60	15	300	0.200	60	0.2	0.2	14.988	В
C-AB	120	30	648	0.185	120	0.2	0.2	6.817	A
C-A	380	95			380				
A-B	16	4			16				
A-C	229	57			229				



17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	83	21	536	0.156	84	0.2	0.2	7.966	А
B-A	49	12	323	0.151	49	0.2	0.2	13.142	В
C-AB	98	24	661	0.148	98	0.2	0.2	6.403	А
C-A	311	78			311				
A-B	13	3			13				
A-C	187	47			187				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	70	17	547	0.127	70	0.2	0.1	7.548	A
B-A	41	10	340	0.121	41	0.2	0.1	12.038	В
C-AB	82	21	670	0.123	82	0.2	0.1	6.131	A
C-A	260	65			260				
A-B	11	3			11				
A-C	157	39			157				



2024 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 2024 Base + Dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.84	А

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D9	2024 Base + Dev	AM	ONE HOUR	08:15	09:45	15	✓	Simple	D3+D7

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		Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (N)		ONE HOUR	✓	248	100.000
B - Sainsbury's		ONE HOUR	✓	80	100.000
C - Manor Road (S)		ONE HOUR	✓	362	100.000

Origin-Destination Data

Demand (Veh/hr)

		То								
		A - Manor Road (N) B - Sainsbu		C - Manor Road (S)						
	A - Manor Road (N)	0	6	242						
From	B - Sainsbury's	46	0	34						
	C - Manor Road (S)	299	63	0						

Vehicle Mix

		То								
		A - Manor Road (N) B - Sainsbury's		C - Manor Road (S)						
	A - Manor Road (N)	0	0	7						
From	B - Sainsbury's	7	0	6						
	C - Manor Road (S)	2	2	0						



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
в-с	0.07	7.74	0.1	А	31	46
B-A	0.15	12.79	0.2	В	42	64
C-AB	0.11	6.39	0.1	А	58	87
C-A					274	411
A-B					6	9
A-C					222	333

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	25	6	530	0.048	25	0.0	0.0	7.129	А
B-A	35	9	372	0.094	34	0.0	0.1	10.659	В
C-AB	48	12	657	0.072	47	0.0	0.1	5.897	А
C-A	225	56			225				
A-B	5	1			5				
A-C	182	46			182				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	30	8	518	0.058	30	0.0	0.1	7.377	A
B-A	42	10	355	0.117	42	0.1	0.1	11.470	В
C-AB	57	14	647	0.088	57	0.1	0.1	6.098	A
C-A	269	67			269				
A-B	6	1			6				
A-C	217	54			217				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	37	9	502	0.074	37	0.1	0.1	7.741	A
B-A	51	13	333	0.153	51	0.1	0.2	12.767	В
C-AB	70	17	633	0.110	69	0.1	0.1	6.391	A
C-A	329	82			329				
A-B	7	2			7				
A-C	266	67			266				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	37	9	502	0.074	37	0.1	0.1	7.744	A
B-A	51	13	333	0.153	51	0.2	0.2	12.786	В
C-AB	70	17	633	0.110	70	0.1	0.1	6.393	A
C-A	329	82			329				
A-B	7	2			7				
A-C	266	67			266				



09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	30	8	518	0.058	30	0.1	0.1	7.381	А
B-A	42	10	355	0.117	42	0.2	0.1	11.495	В
C-AB	57	14	647	0.088	57	0.1	0.1	6.101	А
C-A	269	67			269				
A-B	6	1			6				
A-C	217	54			217				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	25	6	530	0.048	25	0.1	0.1	7.140	А
B-A	35	9	372	0.094	35	0.1	0.1	10.698	В
C-AB	48	12	657	0.072	48	0.1	0.1	5.903	A
C-A	225	56			225				
A-B	5	1			5				
A-C	182	46			182				



2024 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 2024 Base + Dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

ĺ	Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
ĺ	1	untitled	T-Junction	Two-way		2.88	Α

Junction Network Options

Driving side			
Left	Normal/unknown		

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D10	2024 Base + Dev	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D4+D8

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	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (N)		ONE HOUR	✓	220	100.000
B - Sainsbury's		ONE HOUR	✓	142	100.000
C - Manor Road (S)		ONE HOUR	✓	446	100.000

Origin-Destination Data

Demand (Veh/hr)

		То								
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)						
	A - Manor Road (N)	0	14	206						
From	B - Sainsbury's	53	0	89						
	C - Manor Road (S)	340	105	0						

Vehicle Mix

		То		
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)
	A - Manor Road (N)	0	8	2
From	B - Sainsbury's	14	0	3
	C - Manor Road (S)	2	1	0



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	
в-с	0.19	8.52	0.2	А	82	123	
B-A	0.19	14.71	0.2	В	48	72	
C-AB	0.18	6.75	0.2	А	97	145	
C-A					312	469	
A-B					13	19	
A-C					189	283	

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	67	17	549	0.123	67	0.0	0.1	7.465	А
B-A	40	10	342	0.116	39	0.0	0.1	11.853	В
C-AB	79	20	670	0.118	79	0.0	0.1	6.081	A
C-A	256	64			256				
A-B	10	3			10				
A-C	155	39			155				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	80	20	537	0.150	80	0.1	0.2	7.875	A
B-A	47	12	326	0.145	47	0.1	0.2	12.922	В
C-AB	95	24	661	0.143	94	0.1	0.2	6.349	A
C-A	306	77			306				
A-B	12	3			12				
A-C	185	46			185				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	98	25	521	0.189	98	0.2	0.2	8.507	А
B-A	58	14	303	0.191	58	0.2	0.2	14.674	В
C-AB	116	29	649	0.178	116	0.2	0.2	6.749	A
C-A	375	94			375				
A-B	15	4			15				
A-C	227	57			227				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	98	25	521	0.189	98	0.2	0.2	8.517	Α
B-A	58	14	303	0.191	58	0.2	0.2	14.709	В
C-AB	116	29	649	0.178	116	0.2	0.2	6.752	A
C-A	375	94			375				
A-B	15	4			15				
A-C	227	57			227				



17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	80	20	537	0.150	81	0.2	0.2	7.892	А
B-A	47	12	325	0.145	48	0.2	0.2	12.964	В
C-AB	95	24	661	0.143	95	0.2	0.2	6.358	А
C-A	306	77			306				
A-B	12	3			12				
A-C	185	46			185				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	67	17	548	0.123	67	0.2	0.1	7.488	А
B-A	40	10	342	0.116	40	0.2	0.1	11.913	В
C-AB	79	20	670	0.118	79	0.2	0.1	6.093	A
C-A	256	64			256				
A-B	10	3			10				
A-C	155	39			155				



2029 Base + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 2024 Base + Dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.87	А

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	2029 Base + Dev	AM	ONE HOUR	08:15	09:45	15	✓	Simple	D5+D7

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	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (N)		ONE HOUR	✓	257	100.000
B - Sainsbury's		ONE HOUR	✓	83	100.000
C - Manor Road (S)		ONE HOUR	✓	375	100.000

Origin-Destination Data

Demand (Veh/hr)

		То								
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)						
	A - Manor Road (N)	0	7	250						
From	B - Sainsbury's	48	0	35						
	C - Manor Road (S)	309	65	0						

Vehicle Mix

		То									
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)							
	A - Manor Road (N)	0	0	7							
From	B - Sainsbury's	7	0	6							
	C - Manor Road (S)	2	2	0							



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
в-с	0.08	7.82	0.1	А	32	48
B-A	0.16	13.07	0.2	В	44	66
C-AB	0.11	6.45	0.1	А	60	90
C-A					284	426
A-B					6	9
A-C					230	344

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	26	7	528	0.050	26	0.0	0.1	7.172	А
B-A	36	9	369	0.098	36	0.0	0.1	10.793	В
C-AB	49	12	656	0.075	49	0.0	0.1	5.931	А
C-A	233	58			233				
A-B	5	1			5				
A-C	188	47			188				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	31	8	516	0.061	31	0.1	0.1	7.431	A
B-A	43	11	352	0.123	43	0.1	0.1	11.653	В
C-AB	59	15	645	0.091	59	0.1	0.1	6.142	A
C-A	278	69			278				
A-B	6	1			6				
A-C	225	56			225				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	38	10	499	0.077	38	0.1	0.1	7.816	А
B-A	53	13	328	0.161	53	0.1	0.2	13.050	В
C-AB	72	18	630	0.114	72	0.1	0.1	6.450	A
C-A	340	85			340				
A-B	7	2			7				
A-C	275	69			275				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	38	10	499	0.077	38	0.1	0.1	7.819	A
B-A	53	13	328	0.161	53	0.2	0.2	13.069	В
C-AB	72	18	630	0.114	72	0.1	0.1	6.453	A
C-A	340	85			340				
A-B	7	2			7				
A-C	275	69			275				



09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	31	8	516	0.061	31	0.1	0.1	7.439	A
B-A	43	11	352	0.123	43	0.2	0.1	11.679	В
C-AB	59	15	645	0.091	59	0.1	0.1	6.147	A
C-A	278	69			278				
A-B	6	1			6				
A-C	225	56			225				

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	26	7	527	0.050	26	0.1	0.1	7.185	А
B-A	36	9	369	0.098	36	0.1	0.1	10.831	В
C-AB	49	12	656	0.075	49	0.1	0.1	5.940	A
C-A	233	58			233				
A-B	5	1			5				
A-C	188	47			188				



2029 Base + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D9 - 2024 Base + Dev, AM	Demand Set relationships are chained. This may slow down the file.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.93	А

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	2029 Base + Dev	PM	ONE HOUR	16:45	18:15	15	✓	Simple	D6+D8

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 ar		Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Manor Road (N)		ONE HOUR	✓	227	100.000
B - Sainsbury's		ONE HOUR	✓	147	100.000
C - Manor Road (S)		ONE HOUR	✓	462	100.000

Origin-Destination Data

Demand (Veh/hr)

	То								
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)					
	A - Manor Road (N)	0	14	213					
From	B - Sainsbury's	55	0	93					
	C - Manor Road (S)	353	109	0					

Vehicle Mix

		То			
		A - Manor Road (N)	B - Sainsbury's	C - Manor Road (S)	
	A - Manor Road (N)	0	8	2	
From	B - Sainsbury's	14	0	4	
	C - Manor Road (S)	2	1	0	



Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
в-с	0.20	8.66	0.2	A	85	128
B-A	0.20	15.11	0.2	С	50	75
C-AB	0.19	6.84	0.2	А	100	150
C-A					323	485
A-B					13	20
A-C					196	293

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	70	17	547	0.128	69	0.0	0.1	7.531	A
B-A	41	10	339	0.121	40	0.0	0.1	12.029	В
C-AB	82	21	669	0.123	82	0.0	0.1	6.127	А
C-A	265	66			265				
A-B	11	3			11				
A-C	161	40			161				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	83	21	535	0.156	83	0.1	0.2	7.969	A
B-A	49	12	322	0.152	49	0.1	0.2	13.172	В
C-AB	98	24	659	0.149	98	0.1	0.2	6.410	A
C-A	317	79			317				
A-B	13	3			13				
A-C	192	48			192				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	102	26	518	0.197	102	0.2	0.2	8.642	А
B-A	60	15	298	0.201	60	0.2	0.2	15.075	С
C-AB	120	30	646	0.186	120	0.2	0.2	6.831	A
C-A	388	97			388				
A-B	16	4			16				
A-C	235	59			235				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	102	26	518	0.197	102	0.2	0.2	8.656	Α
B-A	60	15	298	0.201	60	0.2	0.2	15.114	С
C-AB	120	30	646	0.186	120	0.2	0.2	6.836	A
C-A	388	97			388				
A-B	16	4			16				
A-C	235	59			235				

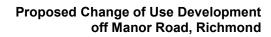


17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
в-с	83	21	535	0.156	84	0.2	0.2	7.987	А
B-A	49	12	322	0.152	49	0.2	0.2	13.218	В
C-AB	98	24	659	0.149	98	0.2	0.2	6.417	А
C-A	317	79			317				
A-B	13	3			13				
A-C	192	48			192				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
В-С	70	17	546	0.128	70	0.2	0.1	7.559	А
B-A	41	10	339	0.121	41	0.2	0.1	12.095	В
C-AB	82	21	669	0.123	82	0.2	0.1	6.142	A
C-A	265	66			265				
A-B	11	3			11				
A-C	161	40			161				

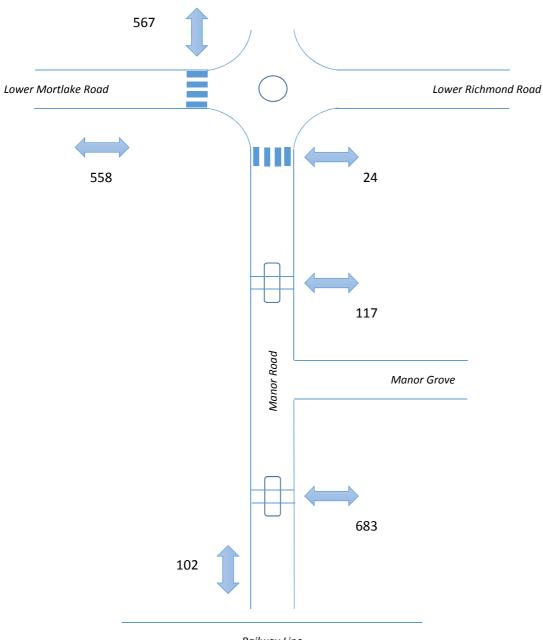




APPENDIX Q

Pedestrian Distribution

Daily Pedestrian Movements



Railway Line





APPENDIX R

2011 Census: Origin / Destination statistics for bus travel

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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population All usual residents aged 16 and over in employment the week before the census

6

6

6

6

231

3%

3%

3%

3%

100%

units Persons date 2011

E02000602 : Kingston upon Thames 005

E02000788: Richmond upon Thames 005

E02000798: Richmond upon Thames 015

E02000801: Richmond upon Thames 018

Total

method of travel to work Bus, minibus or coach

	usual	
	residence E02000787 :	
place of work : 2011 super output area -	Richmond	
middle layer	upon Thames	
	004	%
E02000791 : Richmond upon Thames 008	41	18%
E02000797 : Richmond upon Thames 014	22	10%
E02000606 : Kingston upon Thames 009	19	8%
E02000384 : Hammersmith and Fulham 013	16	7%
E02006792 : Hounslow 029	14	6%
E02000784 : Richmond upon Thames 001	10	4%
E02000787 : Richmond upon Thames 004	10	4%
E02000804 : Richmond upon Thames 021	10	4%
E02000372 : Hammersmith and Fulham 001	8	3%
E02000932 : Wandsworth 010	8	3%
E02000268 : Ealing 031	8	3%
E02000387 : Hammersmith and Fulham 016	7	3%
E02000531 : Hounslow 006	7	3%
E02000539 : Hounslow 014	7	3%
E02000785 : Richmond upon Thames 002	7	3%
E02000789 : Richmond upon Thames 006	7	3%
E02000938 : Wandsworth 016	6	3%