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TPS DEZ Developments Ltd

Proposed Mixed-Use Development, 100 Booker Avenue, Liverpool

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Transport Statement

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Contents Page

1. INTRODUCTION 1
   1.1 Preamble 1
   1.2 Report Structure 1
2. POLICY CONTEXT 3
   2.1 Preamble 3
   2.2 National Planning Policy Framework (2012) 3
   2.3 Liverpool Unitary Development Plan Policies 4
   2.4 Ensuring Choice of Travel Supplementary Planning Document 6
   2.5 Compliance with Policy 6
3. EXISTING TRANSPORT CONDITIONS 7
   3.1 Preamble 7
   3.2 Site Location and Description 7
   3.3 Existing Highway Network 7
   3.4 Sustainable Transport Options 8
   3.5 Personal Injury Accident Review 12
4. DEVELOPMENT PROPOSALS 14
   4.1 Preamble 14
   4.2 Development Proposals 14
   4.3 Proposed Access Arrangements 14
   4.4 Proposed Car Parking Arrangements 15
   4.5 Proposed Cycle Parking Arrangements 15
   4.6 Proposed Delivery and Serving Arrangements 16
5. TRIP GENERATION ASSESSMENT 17
   5.1 Preamble 17
   5.2 Approach 17
   5.3 Extant Planning Permission 17
   5.4 Proposed Development 19
   5.5 Comparison of Two-way Vehicular Trips 20
6. SUMMARY AND CONCLUSION 22

Appendix Contents

APPENDIX B – PROPOSED SITE LAYOUT

APPENDIX C – AUTOTRACK ASSESSMENTS

APPENDIX D – TRICS OUTPUTS (PETROL FILLING STATION – WITH RETAIL)

APPENDIX E – TRICS OUTPUTS (CONVENIENCE STORE)

APPENDIX F – TRICS OUTPUTS (RESIDENTIAL)

1. Introduction

1.1 Preamble

1.1.1 WYG has been appointed by TPS DEZ Developments Ltd (the 'Applicant') to prepare a Transport Statement (TS) to accompany a detailed planning application for the proposed redevelopment of a former petrol filling station (PFS) site at 100 Booker Avenue, Liverpool, (the 'Site').

1.1.2 The proposals are for a mixed used development comprising a single-storey retail unit (A1 Use Class) of approximately 372 sq.m and two residential dwellings (C3 Use Class) located at the junction of Booker Avenue and Greenhill Road, Liverpool.

1.1.3 Given the scale of the development and in accordance with current Department for Transport (DfT) guidance, a Transport Statement has been prepared to consider the development in highways and transportation terms.

1.1.4 The methodology used in this assessment adopts the guidance set out in the DfT document 'Guidance for Transport Assessment (2007)'.

1.1.5 The TS provides information on the transportation aspects of the development proposals and forms supplementary information to assist with the determination of the planning application.

1.2 Report Structure

1.2.1 The TS describes the key transport issues associate with the Site and demonstrates how the proposals will achieve a sustainable development which will not have an adverse impact upon the surrounding highway network.

1.2.2 The report is structured as follows;

- **Section 2** outlines the local and national policy context relevant to the development proposals.
- **Section 3** describes the existing site conditions, including the existing development, local highway network, sustainable transport options and personal injury accident history.
- **Section 4** provides details of the proposed development, including access arrangements, parking provision and servicing arrangements.

- **Section 5** provides an estimate and comparison of the likely traffic generation associated with the existing lawful extant use (PFS) and the development proposals.

1.2.3 The TS will conclude in **Section 6**, that the proposals will not have an adverse impact upon the adjoining highway network and that there are no transportation or highways reasons why the proposed development should not be approved.

2. Policy Context

2.1 Preamble

2.1.1 This chapter of the TS reviews and analyses the relevant current and emerging transport planning policy and policy guidance documents in the context of the proposed development at the Site.

2.1.2 The policies reviewed within this chapter demonstrate the ways in which the proposed development at the Site is consistent with policy objectives at a national and local level. The relevant policies considered are as follows:

- Government's National Planning Policy Framework (NPPF) (March 2012)
- Liverpool Unitary Development Plan Policies (2002)
- Ensuring Choice of Travel Supplementary Planning Document

2.2 National Planning Policy Framework (2012)

2.2.1 The Department for Communities and Local Government published its National Planning Policy Framework (NPPF) in 2012. The NPPF replaces all previous Planning Policy Guidance (PPG) Notes and Planning Policy Statements (PPS) with a single document. This is in line with the Government's 'Localism' reforms, to reduce the role of central guidance and rationalise planning policies nationally.

2.2.2 Local authorities are expected to grant permission, using the NPPF as policy, where the Local Plan is absent, silent, indeterminate or where relevant policies are out of date, unless the adverse effects of granting planning permission significantly and demonstrably outweigh the benefits of the scheme.

2.2.3 At the heart of NPPF is:

"a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking" (paragraph 14).

2.2.4 Further to this the NPPF states in paragraph 15 that policies in:

"Local Plans should follow the approach of the presumption in favour of sustainable development so that it is clear that development which is sustainable can be approved without delay. All plans

should be based upon and reflect the presumption in favour of sustainable development, with clear policies that will guide how the presumption should be applied locally".

2.2.5 NPPF states that development planning should:

- *"...give "people a real choice about how they travel" (paragraph 29)*
- *"ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised" (paragraph 34)*
- *"developments should be located and designed where practical to give priority to pedestrians and cycle movements, and have access to high quality public transport facilities" (paragraph 35).*

2.2.6 NPPF sets out a test for the acceptability of planning applications in terms of highway impact it says that: *"Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe" (Paragraph 32).*

2.2.7 It is therefore clear from the NPPF that development:

- Should be capable of being accessed satisfactorily with safe and suitable access provided for all.
- Should be sustainable, with preference given to accessibility by sustainable modes of transport.
- Should not be prevented unless the impacts of the development are severe.

2.2.8 It will be demonstrated in subsequent sections of this TS that that the Site can be accessed safely and by sustainable modes of travel. Furthermore the change in use at the Site will not have an adverse or severe impact upon the adjoining highway network and will result in a significant reduction in vehicular trips when compared against the former extant use at the Site.

2.3 Liverpool Unitary Development Plan Policies

2.3.1 Liverpool's current local plan, The City of Liverpool Unitary Development Plan was adopted in 2002, this forms the statuary basis in which current planning decisions are made by LCC. At the time of writing LCC are in the process of working on a new plan to replace it and have advanced to the preparation of their Core Strategy Development Plan Submission Draft Document. Once adopted, it will provide a framework for development up until 2031.

2.3.2 Liverpool UDP was adopted in November 2002. The UDP provides guidance on a wide range of land use issues which provide the basis upon which development planning decisions are made by LCC. The transport policies relevant to the proposed development have been extracted from the UDP and are detailed below:

"Policy T12

All new developments including changes of use, which generate a demand for car parking will be required to make provision for car parking on site, to meet the minimum operational needs of the development. Additional space for non operational car parking will be permitted up to a maximum standard. This will be determined by:

- *the nature and type of use;*
- *whether off-site car parking would result in a danger to highway and pedestrian safety;*
- *whether the locality in which the proposed development is located is served by public car parking facilities;*
- *whether off-site parking would result in demonstrable harm to residential amenity; and*
- *the relative accessibility of the development site by public transport services."*

2.3.3 Car and cycle parking provision at the proposed development has been planned in accordance with the maximum standards set out in the LCC *"Ensuring Choice of Travel Supplementary Planning Document"*, the councils adopted parking standards.

"Policy T13

Car parking for the disabled should be provided in accordance with the following specific standards:

i. a minimum of 6% of the first hundred parking spaces in a development should be reserved for Orange Badge holders. Thereafter, the number of spaces will be negotiable;

ii. parking bays should be wide enough to facilitate the easy transfer of a wheelchair to and from a car;

iii. disabled parking bays should be clearly marked as such and be located close to the point of access to and from the development served;"

2.3.4 The number of disabled car parking spaces at the Site will adhere to these standards and will be located within close proximity to the store access.

2.4 Ensuring Choice of Travel Supplementary Planning Document

2.4.1 This Supplementary Planning Document (SPD) has been developed in order to provide consistent guidance to developers on access and transport requirements for new development across the Merseyside area.

2.4.2 The Minimum Accessibility Standard Assessment in the document has been undertaken and the Site either meets or exceeds the standards of accessibility stated in the SPD. This will be described in further detail in the subsequent section of the TS.

2.4.3 The parking provision at the Site will accord with guidance with specified in the SPD.

2.5 Compliance with Policy

2.5.1 Subsequent sections of this report describe the development proposals and surrounding existing facilities such as local services, public transport services and cycle ways. In particular, the Site is accessible by a range of sustainable transport modes. Furthermore, there will be sufficient car parking provision provided on-site which will negate the need for on-street parking. This demonstrates that the development proposals comply with the guidelines and policies detailed above

3. Existing Transport Conditions

3.1 Preamble

3.1.1 This chapter of the TS describes the existing, or 'baseline', transport conditions currently prevailing at the Site and in the immediate surrounding area.

3.1.2 It is important that baseline conditions are accurately established so that the context of the proposed development at the Site, and its potential impact on the surrounding transport and highway networks, can be fully understood.

3.1.3 Baseline studies have been informed by a site audit undertaken on the 31st March 2014 and a desk-based research exercise carried out in March and April 2014.

3.2 Site Location and Description

3.2.1 The Site benefits from a previous planning consent for a former petrol filling station and convenience store.

3.2.2 The Site is located at the south-western corner of the junction of Booker Avenue and Greenhill Road, approximately 7km from Liverpool City Centre. It is bound by existing residential property to the east, a parade of shops to the south, Booker Avenue to the north and Greenhill Road to the east.

3.2.3 The location of the Site in a local context is shown in **Plan 1.**

3.3 Existing Highway Network

3.3.1 Booker Avenue is a circa 9 metre wide local distributor road that runs in an east - west alignment between the A561 to the west and the A562 to the east. Both the A561 and A562 provide main arterial routes into Liverpool City Centre.

3.3.2 In the vicinity of the Site, there are footways on both sides which are separated from the carriageway by wide grass verges. The Greenhills Public House is located on the north western side of the cross roads. With the exception of The Greenhills public House, both sides of Booker Avenue are fronted by existing residential properties which have off street parking and direct driveway

access onto the highway. There is street lighting provided and Booker Avenue is subject to a 20mph speed limit past the Site accesses. Approximately 25m east of proposed retail store car park access, Booker Avenue becomes subject to a 30mph speed limit.

3.3.3 Greenhill Road is a circa 6.5 metre wide road which is mainly residential in nature and runs north to south between Booker Avenue and Brodie Avenue. In the vicinity of the Site, it has footways on both sides with the footway on the eastern edge being separated from the carriageway by a grass verge. On the western side it is fronted by a small parade of shops with bollards present to prevent parking on the footway. On the eastern side of the carriageway it is fronted by existing residential properties which have off road parking and direct driveway access onto the highway. There are bollards present to restricting parking on the grass verge, however a grasscrete strip is provided, presumably to provide parking for the parade of shops. In the vicinity of the Site, Greenhill Road is subject to a 30mph speed limit and has street lighting provided.

3.3.4 The Booker Avenue / Greenhill Road junction is a four arm priority crossroads arrangement, with Booker Avenue forming the major route and Greenhill Road the minor arms. There are Traffic Regulation Orders in the forms of double yellow lines at the junction allowing visibility to be maintained. To the east of this junction, Booker Avenue joins the B5180 Mather Avenue via a signalised crossroads arrangement that also includes advance stop lines for cyclists. To the west, Booker Avenue joins Brodie Avenue, again via a signalised crossroads arrangement that also has advance stop lines for cyclists.

3.4 Sustainable Transport Options

3.4.1 Whilst superseded by the NPPF, the former PPG13 - Transport set out useful guidance related to walking and cycling catchments, it states:

"Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres" (Paragraph 74) and;

"Cycling also has potential to substitute for short car trips, particularly those under 5 kilometres, and to form part of a longer journey by public transport" (Paragraph 77)

Walking

3.4.2 The Chartered Institution of Highways and Transportation (CIHT) in their document 'Providing for Journeys on Foot' state that *"walking accounts for over a quarter of all journeys and four fifths of journeys of less than one mile" (paragraph 1.12, page 11).*

3.4.3 The Site is well located in terms of local amenities and services, in addition to the parade of shops situated immediately to the south, there is a post box located immediately opposite the Site and Booker Avenue Infant School is located 150m to the west. Further to this, a convenience store is located to the north of the Site adjacent to the Greenhills public house.

3.4.4 The proposed convenience store is expected to predominantly serve residents in the local vicinity; therefore it is ideally located, close to existing residential areas to encourage trips by foot.

3.4.5 The Site is well connected to the network of existing footways in the surrounding areas. The streets all have footways and street lighting provided. To assist with the safe crossing of pupils to and from Booker Infant School a school crossing patrol is in operation.

Cycling

3.4.6 An extract from the Travelwise Mersyside cycle map for Liverpool is presented in **Figure 3.1** overleaf.

Figure 3.1 Local Cycle Routes

Key:

- On-road cycle route (both sides of road)
- On-road cycle route (one side only)
- Suggested cycle route
- On-road signed cycle route
- Traffic-free cycle route (good surface)
- Advanced stop line

3.4.7 **Figure 3.1** shows that Booker Avenue has been designated as an 'on-road signed cycle route'. It links Aigburgh to the west with Woolton to the east and provides access to the employment, retail and leisure opportunities located there. In addition to this signed route, there are a number of other roads close to the Site which are designated as a 'suggested cycle route'.

Bus

3.4.8 A 400 metre walk distance is generally considered to be a reasonable walk distance between development and bus stops. This distance is quoted in the 'Institution for Highways and Transportation - Guidelines for the Planning of Public Transport for Development'.

3.4.9 The nearest bus stops to the Site are located on both sides of Mather Avenue approximately 350m east of the proposed development. Both have modern shelters, full timetable information and have raised kerbs installed to assist boarding and alighting movements. The existing bus services that use these stops are summarised in **Table 3.1** below.

Table 3.1: Summary of Bus Services Accessible from Mather Avenue

Service No.	Service Description	Approximate One-way Frequency			
		Monday to Friday (daytime)	Monday to Friday (evening)	Saturday	Sunday
86	Liverpool City Centre - Allerton Road - Liverpool South Park Way or Garston Speke Road	10 per hour	4 per hour	10 per hour	4 per hour
86A	Liverpool City Centre- Allerton Road - Liverpool South Park Way - Garston Speke Road - Liverpool John Lennon Airport	5 per hour	4 per hour	5 per hour	4 per hour

3.4.10 **Table 3.1** demonstrates that the Site is located within a reasonable walking distance to a high frequency bus route, these stops provide services to destinations including Liverpool City Centre, Liverpool South Park Way and Liverpool John Lennon Airport. These have a typical one-way frequency of 15 services per hour or 1 every 4 minutes. Therefore the Site can be considered to be highly accessible by bus.

Rail

3.4.11 The nearest train station to the Site is West Allerton station which is located approximately 400m to the west of the Site. This is less than the c. 800 metre walk distance that is generally considered to be a reasonable walk distance between development and rail services as set out in the 'Institution for Highways and Transportation - Guidelines for the Planning of Public Transport for Development'.

3.4.12 West Allerton station has a typical two-way daytime frequency of 2 train services per hour and offers services to destinations including Warrington Central, Liverpool Lime Street and Manchester Oxford Road. The Site is therefore highly accessible by rail.

Liverpool City Council's 'Minimum Accessibility Standard Assessment'

3.4.13 The LCC Minimum Accessibility Standard assessment included in the LCC '*Ensuring a Choice of Travel SPD'* has been completed. The SPD has been has been developed in partnership with the Merseyside Local Authorities and Merseytravel in order to provide consistent guidance to developers on access and transport requirement of new developments across the wider Merseyside area.

3.4.14 As set out in Section 1 of this TS, the proposals are for a mixed use site comprising 372 sq.m of A1 food retail and 2 residential units. Each aspect of the development has been considered separately in the assessment. The A1 food retail store falls into the 'medium' size category requiring the completion of the assessment; the 2 residential units fall into the 'minor' category and do not require the assessment to be undertaken.

3.4.15 A copy of the completed assessment is included in **Appendix A** with **Table 3.2** below summarising the Site and comparing it to the minimum scores stated in the SPD.

Table 3.2 Summary of Minimum Accessibility Assessment

Site / SPD Score	Min Score for Walking	Min Score for Cycling	Min Score for Public Transport	Min Score for Vehicle Access
SPD Minimum Score	2	3	3	1
Proposed Development	4	4	5	2

3.4.16 **Table 3.2** shows that the Site exceeds the minimum standards of accessibility set out in the 'Ensuring Choice of Travel SPD' in relation to accessibility for walking, cycling, public transport and vehicle access. This demonstrates the Site can be considered to be highly accessible and therefore in accordance with NPPF.

3.5 Personal Injury Accident Review

3.5.1 An overview of the most recently available 3 year personal injury accident history within 300m of the Site access has been obtained from the Crashmap.co.uk website. The data shows that just two accidents have occurred over the 3 year period, of these, one was classified as slight and one as

serious, with the serious accident involving a pedal cyclist. There were no reported accidents involving children, pedestrians or motorcyclists.

3.5.2 It can be concluded, that given the low occurrence of recorded personal injury accidents over the three year period, that there are no highway safety issues in the vicinity of the Site.

4. Development Proposals

4.1 Preamble

4.1.1 This chapter of the TS sets out the development proposals for the Site, including the proposed access arrangements, level of on-site parking provision and servicing arrangements.

4.2 Development Proposals

4.2.1 The proposals are for a new mixed used development comprising the following:

- Single-storey retail unit (A1 Use Class) of approximately 372 sq.m (4,000 sq.ft) with 13 car parking spaces;
- Two residential dwellings (C3 Use Class) with 4 car parking spaces.

4.2.2 A proposed Site plan has been prepared by Denning Male Polisano Chartered Architects and is provided in **Appendix B.**

4.3 Proposed Access Arrangements

4.3.1 The Site currently has three access and egress points associated with the former PFS, two on Booker Avenue and one on Greenhill Road. Following the delivery of the scheme the access on Greenhill Road will be closed off and made good as a new footway and will be used as the main service area for the retail unit. The remaining two access points on Booker Avenue will remain as existing, with the western access being used to access the residential car park and the eastern access (which will be moved a short distance to the east) used to access the retail unit.

4.3.2 In terms of lateral visibility, guidance specified in Manual for Streets (MfS) states that for a 20mph and 30mph road the required lateral visibility is 2.4m x 25m and 2.4m x 43m respectively. It can be considered; that given Booker Avenue is a long straight road with wide grass verges, the lateral visibility at the access junctions is more than acceptable given it comfortably exceeds this guidance.

4.4 Proposed Car Parking Arrangements

A1 Food Retail Store

4.4.1 It is proposed that there will be 13 car parking spaces dedicated for the retail unit; these will include one 'Blue Badge' disabled / wheelchair accessible space and 1 'parent and child' space as shown in the site layout plan attached in **Appendix B.**

4.4.2 An AutoTrack swept path assessment for the proposed car park layout has been undertaken and attached in **Appendix C** and this shows no operational issues are apparent.

4.4.3 The LCC 'Ensuring Choice of Travel SPD' provides guidance on the maximum vehicle parking standards which are acceptable for different development types. On page 35 it prescribes that for a food retail store outside of the city centre or a district centre, a maximum of 1 car parking space per 14 Sq.m could be provided. This equates to a maximum of 27 car parking spaces which could have been provided at the Site. However, due to the small scale nature of the development and to encourage trips by sustainable modes of travel, it has been deemed more appropriate to provide a lower number of car parking spaces at the Site. This would meet the operational requirements at the Site given its proposed local catchment.

Residential Units

4.4.4 The site layout Plan in **Appendix B** shows 4 car parking spaces will be provided for the residential development. This is accords with guidance in the LCC Ensuring Choice of Travel SPD.

4.4.5 An AutoTrack Assessment has again been undertaken and is attached in **Appendix C** and shows no operational issues in respect of the car park layout.

4.5 Proposed Cycle Parking Arrangements

4.5.1 Guidance in the LCC 'Ensuring Choice of Travel SPD' states that for a food retail store a minimum of 1 cycle space per 200 sq.m should be provided, this equates to 2 spaces for a store of this size. However, the Applicant is keen to encourage trips by sustainable modes so is proposing that 6 spaces be provided. These will be in the form of 3 Sheffield Cycle Stands which will allow for both the wheel and frame of a bike to be locked securely.

4.5.2 In line with LCC guidance the two residential units will have no cycle parking provided.

4.6 Proposed Delivery and Serving Arrangements

4.6.1 It is expected that the proposed development at the Site will generate low levels of delivery and servicing activity once it is operational. It is proposed that the servicing of the Site will take place on-street from the previous Greenhill Road access. No Traffic Regulation Orders are in place and this mirrors the current servicing operations for the existing parade of shops. Further to this, the convenience store located to the north of the Site is similarly serviced on-street.

5. Trip Generation Assessment

5.1 Preamble

5.1.1 This chapter of the TS provides an estimate and comparison of the likely traffic generation associated with the existing lawful extant use (PFS) and the development proposals.

5.2 Approach

5.2.1 In order to establish the multimodal trip generation associated with the previous use and the future uses at the Site, the national industry standard Trip Rate Information Computer System (TRICS) database has been utilised. TRICS uses empirical data from similar developments to produce a trip rate which can be applied to a site with similar characteristics.

5.2.2 Accordingly with the above, what follows has been subdivided into two separate subsections:

- Extant planning permission,
- Expected Future Two-way Trips, and
- Comparison of two-way vehicular trips

5.3 Extant Planning Permission

Site Selection

5.3.1 The existing Site has an area of approximately 0.17 ha, however in order to provide a more robust assessment this has been decreased to 0.12 ha.

5.3.2 In order to select survey sites with similar characteristics to those of the proposed development, the following key criteria were used in the TRICS survey site filtering process:

- Land Use: 13 – Petrol Filling Stations;
- Category: B – Petrol Filling Stations with Retail;
- Regions: South East, South West, East Anglia, East Midlands, West Midlands, Yorkshire & North Lincolnshire, North West, North, Wales and Scotland only;
- Site Area Range Selection: 0.059 to 0.30 Hectare only;
- Weekday surveys only; and
- Location – Edge of Town and Suburban Area only.

5.3.3 Following the above criteria, a total of seven survey sites from the TRICS database were selected as suitable. The Full TRICS outputs are provided in **Appendix D** and include details of the site selection parameters, site reports and weekday trip rates.

Resultant Trip Generation

5.3.4 The TRICS assessment identified 17:00hrs and 18:00hrs as being the peak hour for all modes. A summary of the results showing the arrivals, departures, total two-way trips and the resultant modal split is presented in **Table 5.1** below.

Table 5.1: Multimodal Peak Hour Trip Generation and Modal Split - Extant Permission (Based on Site Area of 0.12 ha)

Mode	Land Use Peak Hour (17:00-18:00)			
	Arrivals	Departures	2-Way Trips	Mode Split
Vehicle	60	60	120	90%
Pedal Cycle	1	1	1	1%
Pedestrian	6	5	11	8%
Public Transport	1	1	1	1%
Total	**67**	**66**	**134**	**100%**

Note: Arithmetic errors due to rounding

5.3.5 The above table shows that a PFS with a site area of 0.12 ha would generate 120 two-way vehicular movements during the peak hour. This represents a robust estimate of the likely extant threshold in which proposed development can be assessed. I.e. if the development proposals generate the same or a lower number of trips then it can be considered to be within the Sites existing lawful extant.

5.3.6 The table shows that 90% of trips made would be vehicle based trips with sustainable modes accounting for the remaining 10%.

5.4 Proposed Development

Site Selection

5.4.1 The development proposals comprise a food retail store of approximately 372 sq/m and 2 residential dwellings.

5.4.2 The following key criteria were used in the TRICS survey site filtering process:

- Land Uses: 01 – Retail & 03 - Residential;
- Categories: O – Convenience & A – Houses Privately Owned;
- Regions: South East, South West, East Anglia, East Midlands, West Midlands, Yorkshire & North Lincolnshire, North West, North, Wales and Scotland only;
- Retail GFA Area Range Selection: 100 sq.m - 750 sq.m
- Residential Range Selection: 6 – 15 units
- Weekday surveys only; and
- Location – Edge of Town and Suburban Area only;
- On-site Parking – only retail sites with on-site parking was included.

5.4.3 Following the above criteria, a total of four survey sites from the TRICS database were selected as suitable for the retail store and 13 for the residential units. The TRICS outputs which provide details of the site selection parameters, site reports and weekday trip rates are attached in **Appendix E and F.**

Resultant Trip Generation

5.4.4 The TRICS assessment identified the peak hour as being between 18:00hrs and 19:00hrs. A summary of the results showing the arrivals, departures, total two-way trips and the resultant modal split is presented in **Table 5.2** overleaf.

Table 5.2: Multimodal Peak Hour Trip Generation and Modal Split – As Proposed (372 sq.m A1 food retail & 2 C3 Residential Dwelling

Mode	Land Use Peak Hour (18:00-19:00)			
	Arrivals	Departures	2-Way Trips	Mode Split
Vehicle	47	51	98	64%
Pedal Cycle	1	2	3	2%
Pedestrian	25	27	51	33%
Public Transport	1	0	1	1%
Total	**74**	**79**	**154**	**100%**

Note: Arithmetic errors due to rounding

5.4.5 The above table shows that during its peak hour of operation the proposed development is expected to generate 98 two-way vehicular trips, this equates to less than 2 vehicle movements per minute.

5.4.6 In terms of sustainable modes, the proposals will generate 51 pedestrian trips, 3 pedal cycle trips and 1 public transport trip. This contributes to a combined modal share of 36% during the Sites peak hour of operation.

5.5 Comparison of Two-way Vehicular Trips

5.5.1 **Table 5.3** overleaf provides the results of a net comparison between the previous extant use at the site and the development proposals.

Table 5.3: Vehicular Trip Comparison

	Assumed Network Peak Hour (17:00 – 18:00)			Peak Hour from TRICS (18:00 – 17:00)		
	Arrivals	Departures	2-Way Trips	Arrivals	Departures	2-Way Trips
PFS with Retail (extant permission)	60	60	120	60	60	120
Proposed Development (Convenience Store + Residential)	42	39	81	47	51	98
Net Change	-18	-21	-39	-13	-9	-22

5.5.2 **Table 5.3** shows that the total number of two-way vehicle trips is expected to be 39 trips lower during the network peak hour and 21 lower during the Sites operational peak hour. This demonstrates that the proposals will result in a net reduction of vehicular trips when compared against the number of vehicular trips associated with the extant use at the Site. As such, the proposals accord with the current local and national policy requirements.

6. Summary and Conclusion

6.1.1 WYG has been appointed by TPS DEZ Developments Ltd (the 'Applicant') to prepare a Transport Statement to accompany a detailed planning application for the proposed redevelopment of a former petrol filling station (PFS) site at 100 Booker Avenue, Liverpool, (the 'Site').

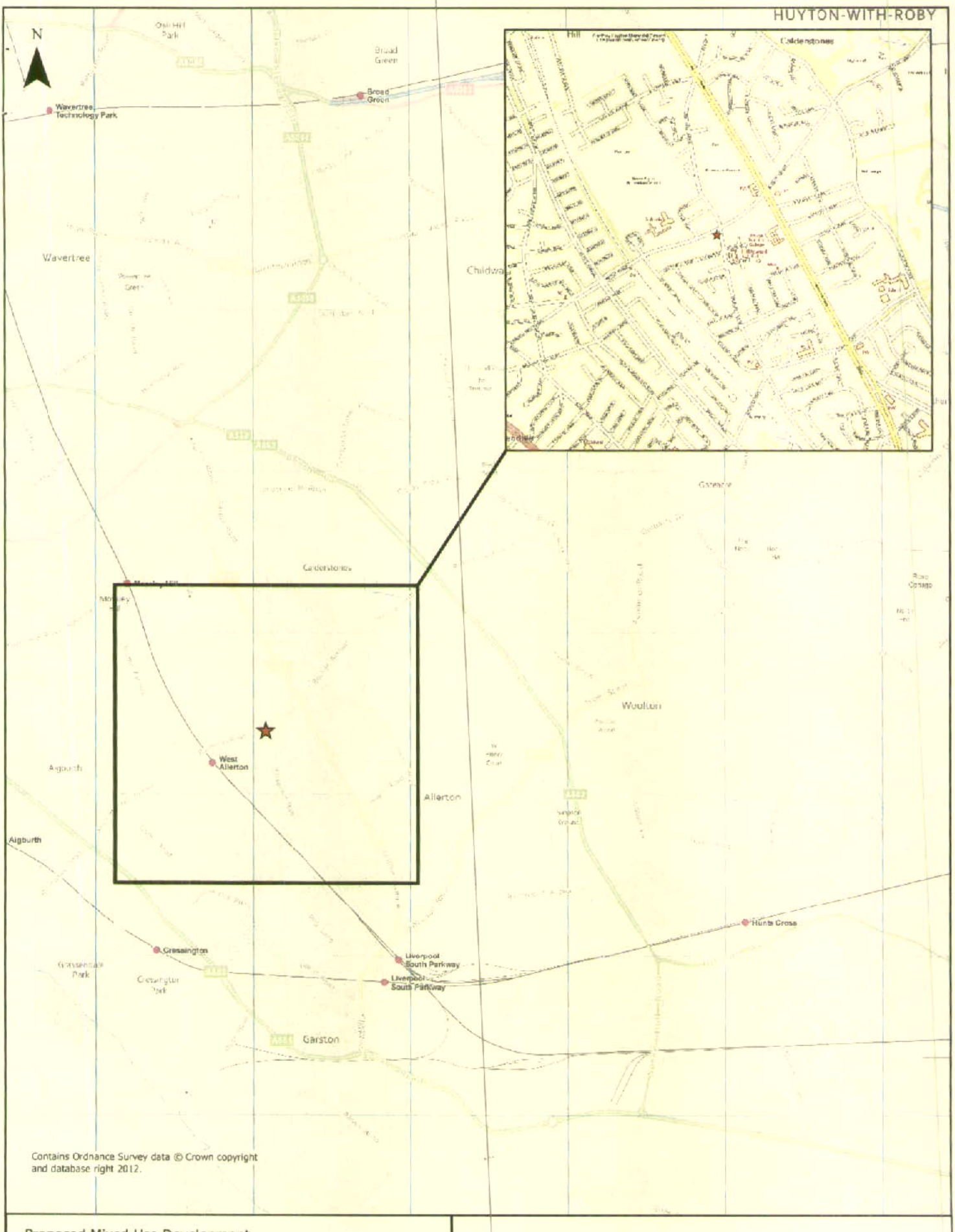
6.1.2 The proposals are for a new mixed used development comprising a single-storey retail unit (A1 Use Class) of approximately 372 sq.m (4,000 sq.ft) and 2 residential dwellings (C3 Use Class).

6.1.3 From the analysis presented in this TS the following conclusions can be drawn:

- The Site is accessible by a range of sustainable transport modes; this includes walking, cycling, and regular bus and rail services.
- The Site exceeds the requirements of the Minimum Accessibility Standard Assessment contained in the LCC '*Ensuring a Choice of Travel Supplementary Planning Document*'.
- The personal injury accident records at the Site demonstrate that there are no existing highway safety issues which will be exacerbated by the proposals.
- Safe access to the Site can be achieved via the two existing site access and egress points on Booker Avenue.
- The parking provision at the Site will accord with the requirements of LCC car parking standards.
- The change in use at the Site will not have an adverse impact upon the adjoining highway network and will actually lead to a significant reduction in vehicular trips when compared against the trips which would be associated with the former extant use at the Site.

6.1.4 In consideration of the above, it can be concluded that there are no transportation or highways reasons why the proposed development should not be approved.

Plans



Proposed Mixed Use Development, Booker Avenue, Liverpool

Plan 1: Site Location

Scale @ A4 1:30,000 | A086135

© WYG Group Ltd.

Legend

★ Site

Appendices

Appendix A – Liverpool City Council 'Minimum Accessibility Standard Assessment'

Minimum Scores

3.11 The minimum standard scores which are detailed have been developed through open and transparent testing by partner authorities and stakeholders on Merseyside. The scores have been tried and tested by transport and development professionals on real life developments.

Table 3.1: Minimum Levels of Accessibility: Minimum Scores for 'Medium' 'Large' and 'Major' Developments

Development Type	Location (see key below)	Development Size	Minimum score for walking	Minimum score for cycling	Minimum score for public transport	Minimum score for vehicle access
A1 Retail D2 Assembly & Leisure	Urban Centre	Major & Large	2	5	5	3
		Medium	2	3	3	2
	Other Urban	Major & Large	4	5	6	2
		Medium	4	3	4	1
A3 Restaurants & Cafes A4 Drinking Establishments A5 Hot Food Takeaway	Urban Centre	All	1	4	4	3
	Other Urban	All	4	5	4	1
A2 Financial and Professional Services	Urban Centre	Major & Large	2	5	5	3
		Medium	2	4	5	2
	Other Urban	Major & Large	4	5	6	1 or 3 [2]
		Medium	4	4	4	1
B1 Business (including educational sites)	Urban Centre	Major & Large	2	5	5	3
		Medium	2	4	5	2
	Other Urban	Major & Large	4	5	6	1 or 3 [2]
		Medium	4	4	4	1
B2 Industrial Uses	Urban Centre	Major & Large	n/a	n/a	n/a	n/a
		Medium	2	4	4	1
	Other Urban	Major & Large	2	3	5	1 or 3[2]
		Medium	2	2	4	1
B8 Storage and distribution	Urban Centre	Major & Large	n/a	n/a	n/a	n/a
		Medium	2	4	4	1

Development Type	Location (see key below)	Development Size	Minimum score for walking	Minimum score for cycling	Minimum score for public transport	Minimum score for vehicle access
	Other Urban	Major & Large	2	3	5	1 or 3[2]
		Medium	2	2	4	1
C1 Hotels	Urban Centre	Major & Large	2	5	5	3
		Medium	2	3	5	3
	Other Urban	Major & Large	4	5	5	1
		Medium	4	3	4	1
C3 Dwelling Houses (For flats with no 'internal circulation', issues, i.e. no car park, reduce walking and cycling target by 1.)	Urban Centre	Major & Large	4	4	5	3
		Medium	2	3	5	3
	Other Urban	Major & Large	4	5	5	1
		Medium	4	3	5	1
C2 and D1 Residential and non-residential institutions (medical centres, museums and galleries, public halls and meeting places)	Urban Centre	All	2	5	5	3
	Other Urban	All	4	5	6	1

Notes:

(1) Urban Centres = Urban Centres in Liverpool are the City Centre (as defined by the Liverpool Vision City Centre boundary in Appendix F), and District Centres as shown on the UDP/LDF proposals map.

Other Urban = The areas that are not in the City / District Centres.

(2) In locations outside of the main centres, if reduced parking standards can not be applied with on-street parking controls (score 3), then the maximum parking level may be sought (score 1)

Minimum Accessibility Standard Assessment

Minimum Accessibility Standard Assessment

Proposal:

Address: Completed By:				
Access Diagram				
Has a diagram been submitted which shows how people move to and through the development and how this links to the surrounding roads, footpaths and sight lines? (This can be included within the Design and Access Statement, see Section 2.25.) If a diagram has not been submitted your application may not be processed.				**Yes / No**
Access on Foot			**Points**	**Score**
Safety	Is there safe pedestrian access to and within the site, and for pedestrians passing the site (2m minimum width footpath on both sides of the road)? If no your application must address safe pedestrian access.			Yes / No
Location	Housing Development: Is the development within 500m of a district or local centre (see Accessibility Map 1 in Appendix F) Other development: Is the density of existing local housing (i.e. within 800m) more than 50 houses per hectare (see Accessibility Map 4 in Appendix F)	Yes	2	2
		No	0	
Internal Layout	Does 'circulation' and access inside the sites reflect direct, safe and easy to use pedestrian routes for all; with priority given to pedestrians when they have to cross roads or cycle routes?	Yes	1	1
		No	0	
External Layout	Are there barriers between site and local facilities or housing which restrict pedestrian access? (see Merseyside Code of Practice on Access and Mobility)e.g. • No dropped kerbs at crossings or on desire lines; • Steep gradients; • A lack of a formal crossing where there is heavy traffic; • Security concerns, e.g. lack of lighting.	There are barriers	-2	1
		There are no barriers	1	
Other	The development links to identified recreational walking network (see Accessibility Map 1). If no, please provide reasons why not.			Yes / No
			Total (B)	4

Summary	Box A: Minimum Standard (from Table 3.1)	2	**Comments or action needed to correct any shortfall**
	Box B: Actual Score	4	

Access by Cycle				**Points**	**Score**
Safety	Are there safety issues for cyclists either turning into or out of the site or a road junctions within 400m of the site (e.g. dangerous right turns for cyclists due to the level of traffic)? If yes, you must address safety issues in your application.				Yes / **No**
Cycle Parking	Does the development meet cycle parking standards, in a secure location with natural surveillance, or where appropriate contribute to communal cycle parking facilities? If no, you must address cycle parking standards and cycle parking facilities.				**Yes** / No
Location	Housing Development: Is the development within 1 mile of a district or local centre (see Accessibility Map 1) Other Development: Is the density of local housing (e.g. within 1 mile) more than 50 houses per hectare (see Accessibility Map 4 in Appendix F)		**Yes**	2	2
			No	0	
Internal layout	Does 'circulation' and access inside the site reflect direct and safe cycle routes; with priority given to cyclists where they meet motor vehicles?		**Yes**	1	1
			No	0	
External Access	The development is within 400m of an existing or proposed cycle route (see Accessibility Map 1 in Appendix F) and / or proposes to create a link to a cycle route, or develop a route?			1	1
	The development is not within 400m of an existing or proposed cycle route (see Accessibility Map 1 in Appendix F)			-1	
Other	Development includes shower facilities and lockers for cyclists		Yes	1	
			No	0	0
				Total (B)	4
Summary	Box A: **Minimum Standard** (From Table 3.1)	3	**Comments or action needed to correct any shortfall**		

	Box B: **Actual Score**	4	

Access by Public Transport			**Points**	**Score**
Location and access to public transport	Is the site within a 200m safe and convenient walking distance of a bus stop, and/or within 400m of a rail station? (See Accessibility Map 2 in Appendix F).	Yes	2	2
		No	0	
	Are there barriers on direct and safe pedestrian routes to bus stops or rail stations i.e. • A lack of dropped kerbs; • Pavements less than 2m wide; • A lack of formal crossings where there is heavy traffic; or • Bus access kerbs.	There are barriers	0	1
		There are no barriers	1	
Frequency	High (four or more bus services or trains an hour)		2	2
	Medium (two or three bus services or trains an hour)		1	
	Low (less than two bus services or trains an hour)		0	
Other	The proposal contributes to bus priority measures serving the site		1	
	The proposal contributes to bus stops, bus interchange or bus or rail stations in the vicinity and/or provides bus stops or bus interchange in the site		1	
	The proposal contributes to an existing or new bus service		1	
			Total (B):	5

Summary	Box A: **Minimum Standard** (from Table 3.1)	3	**Comments or action needed to correct any shortfall**
	Box B: **Total Score**	5	

Vehicle Access and Parking		**Points**	**Score**
Vehicle access and circulation	Is there safe access to and from the road? If no, you must address safety issues.		Yes / No
	Can the site be adequately serviced? If no, you must address service issues.		Yes / No
	Is the safety and convenience of other users (pedestrians, cyclists and public transport) affected by the proposal? If yes, you must address safety issues.		Yes / No
	Has access for the emergency services been provided? If no, you must provide emergency service provision.		Yes / No
	For development which generates significant freight movements, is the site easily accessed from the road or rail freight route networks (i.e. minimising the impact of traffic on local roads and neighbourhoods) (see Accessibility Map 3 in Appendix F)? If no, please provide an explanation.		Yes / No n/a
Parking	The off-street parking provided is more than advised in Section 4 for that development type. If yes, parking provision must be reassessed.		Yes / No

	The off-street parking provided is as advised in Section 4 for that development type	1	Yes / No
	The off-street parking provided is less than 75% of the amount advised in Section 4 for that development type (or shares parking provision with another development)	2	Yes / No 2
	For development in controlled parking zones:		Yes / No
	• Is it a car free development?	1	Yes / No
	• Supports the control or removal of on-street parking spaces (inc provision of disabled spaces), or contributes to other identified measures in the local parking strategy (including car clubs)	1	Yes / No
		Total (B):	2

Summary	Box A: **Minimum Standard** (From Table 3.1)	2	**Comments or action needed to correct any shortfall. If conditions are appropriate for the reduced level of parking (see section 4), but this has not been provided, please explain why.**

Appendix B – Proposed Site Layout

ILL ROAD

Altered position of existing crossover.

Existing tree.

sting crossover.

Totem

Existing tree to be removed.

1 2 3 4 5 6 7 8 9 10 11

Tarmac

cycles

Hedging abutting the boundary fence.

1800 high close boarded fence.

Bollards at 1400ctrs.

Entrance

Bollards at 1400ctrs.

Existing TPO trees.

ATM

Low level planting

1 2 3 4 12 13 Mother and child bay

Bins.

1800 high close boarded fence.

A1 RETAIL UNIT

SALES AREA

WC WC Kitchen Kitchen Dining Dining Living Living

ADMIN + STORES

1200 wide deliveries door

Yard for Deliveries, Bins and Plant

Existing Brick Wall

1800 high close boarded fence.

Existing Brick Wall

Existing Retail Shop

Existing Retail

GENERAL NOTES

All dimensions must be checked on site
All setting out to be checked on site
All levels must be checked on site and their datum confirmed
This drawing must be read in conjunction with the relevant specification clauses
This drawing must not be used for land transfer purposes

©Denning Male Polisano

DRAWING NOTES

P- refers to Preliminary Drawing
T- refers to Tender Drawing
C- refers to Construction Drawing

REVISION		DATE
P1	PLANNING ISSUE	07/02/14
P2	House altered + minor amendments	19/03/14
P3	minor amendments	

N

0 1 2 3 4 5m.

CLIENT
TPS-DPZ Development

PROJECT TITLE
Booker Avenue
Liverpool

DRAWING TITLE
SITE PLAN

DATE
Feb 14

SCALE
1:200

DRAWING No.
129-10

Denning Male Polisano
Chartered Architects

Ferneberga House
Alexandra Road
Farnborough
Hampshire GU14 6DQ

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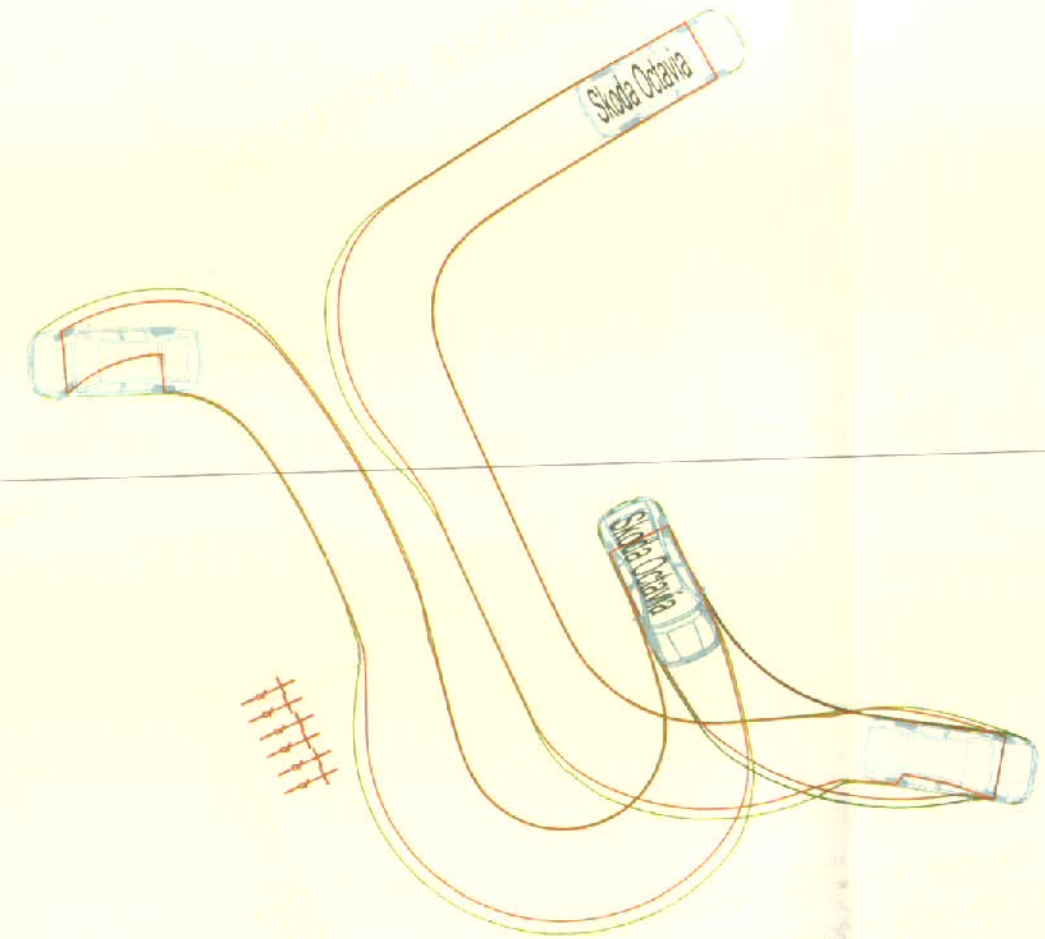
Appendix C – AutoTrack Assessments

DO NOT SCALE: CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ANY OMISSIONS OR ERRORS

Vehicle Used

Skoda Octavia	
Overall Length	4.572m
Overall Width	1.769m
Overall Body Height	1.468m
Min Body Ground Clearance	0.249m
Max Track Width	1.713m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	5.100m



REV	DESCRIPTION	BY	CHK	APP	DATE

TPZ DEZ Developments Ltd

QUAY WEST at MediaCity UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com

Project:

Booker Avenue,
Liverpool

Drawing Title:

Retail Unit Car Park (Bay 1)
Auto Tracking Analysis

Scale @ A3	Drawn Date	Checked Date	Approved Date
1:200	SH 30.03.2014	AB 30.03.2014	AB 30.03.2014

Project No.	Office	Type	Drawing No.	Revision
A086135	Man	T	A086135-SK002	--

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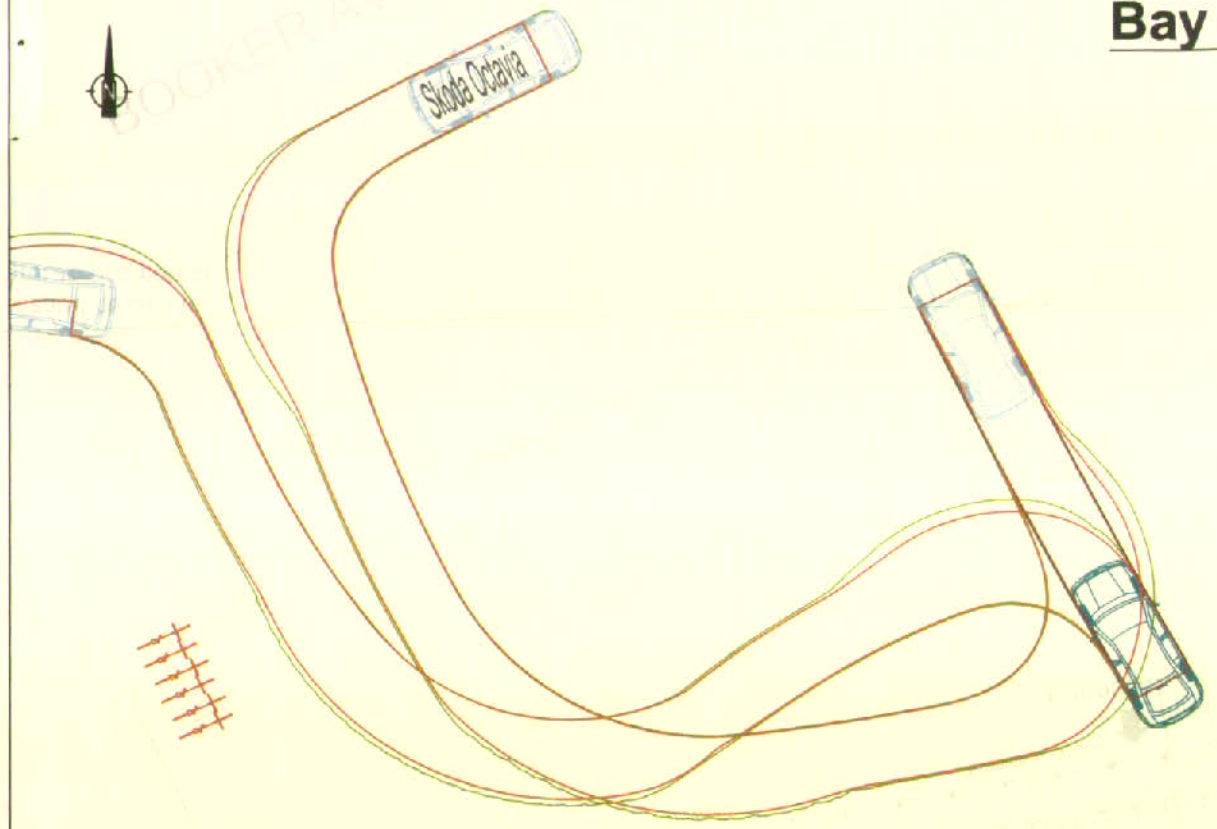
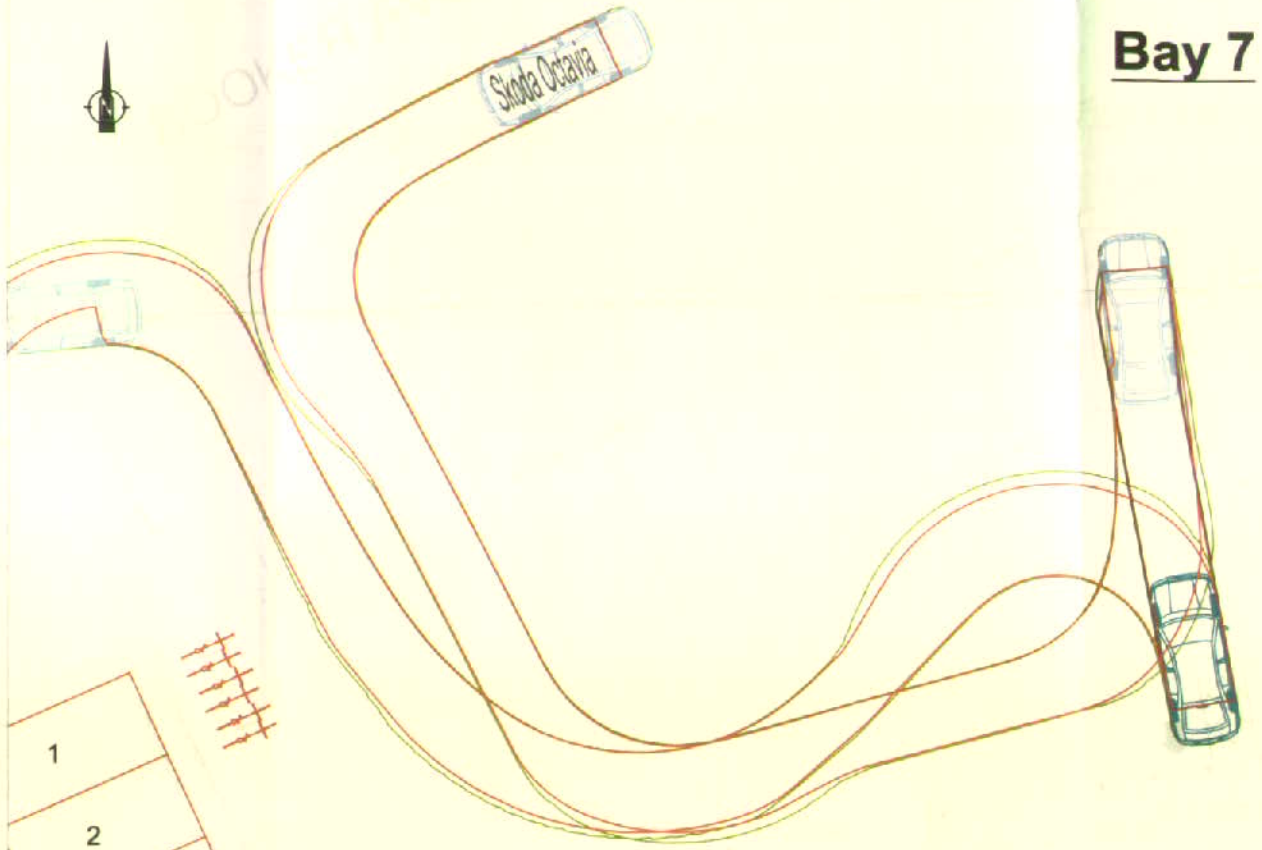
DO NOT SCALE: CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ANY OMISSIONS OR ERRORS

Bay 6



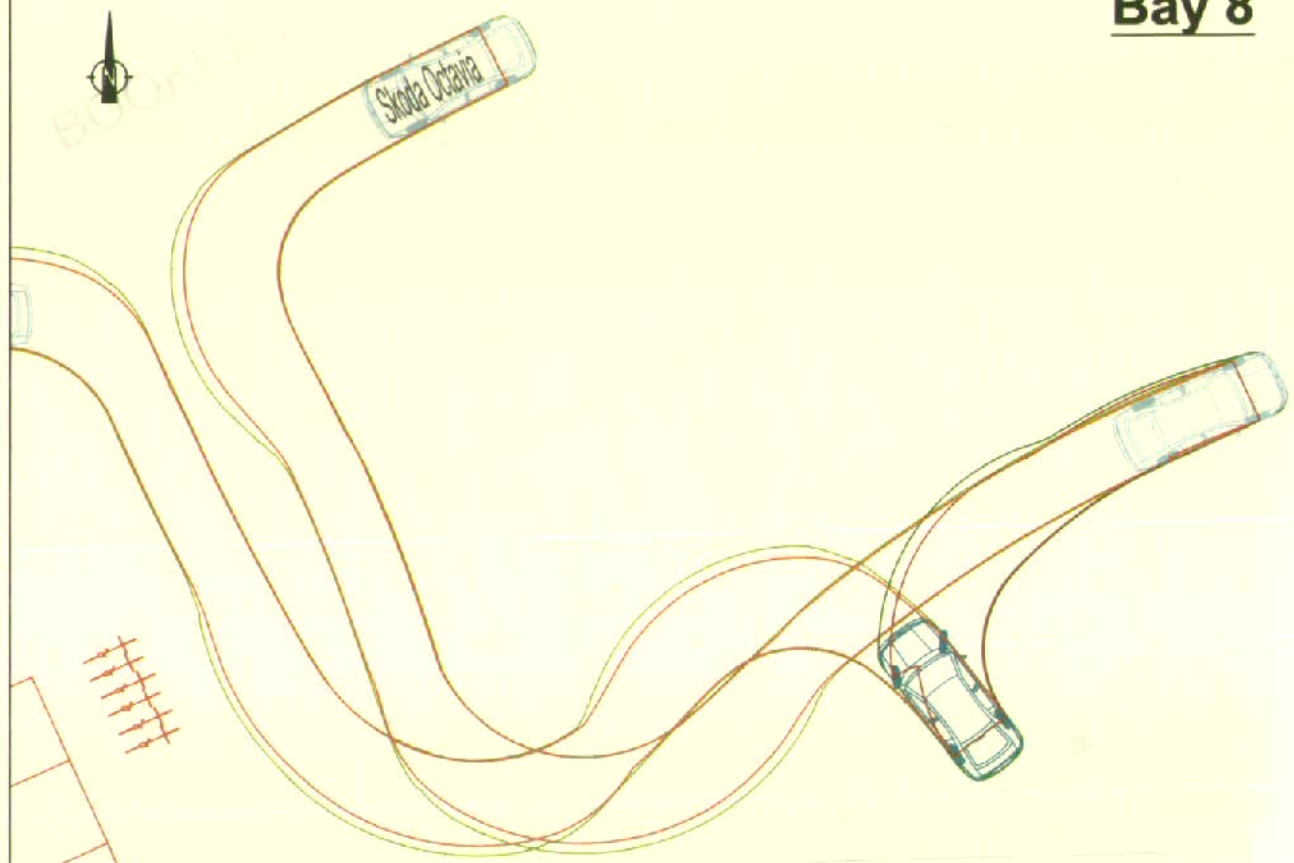
Bay 7



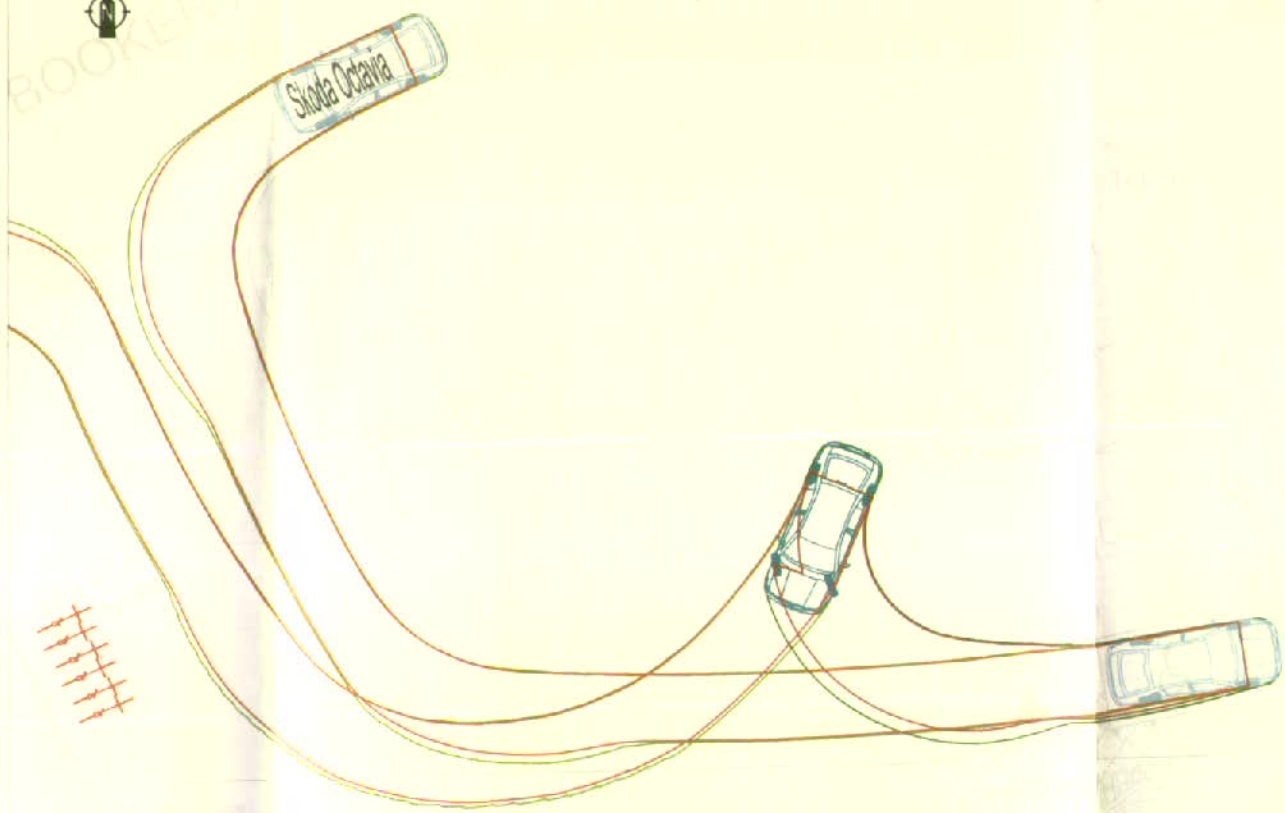
Vehicle Used

Skoda Octavia	
Overall Length	4.572m
Overall Width	1.768m
Overall Body Height	1.486m
Min Body Ground Clearance	0.249m
Max Track Width	1.713m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	5.100m

Bay 8



Bay 11



REV	DESCRIPTION	BY	CHK	APP	DATE

TPZ DEZ Developments Ltd

QUAY WEST at MediaCity UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com

Project:

Booker Avenue,
Liverpool

Drawing Title:

Retail Unit Car Park
Auto Tracking Analysis

Scale @ A3	Drawn Date	Checked Date	Approved Date
1:200	SH 30.03.2014	AB 30.03.2014	AB 30.03.2014

Project No.	Office	Type	Drawing No.	Revision
A086135	Man	T	A086135-SK003	---

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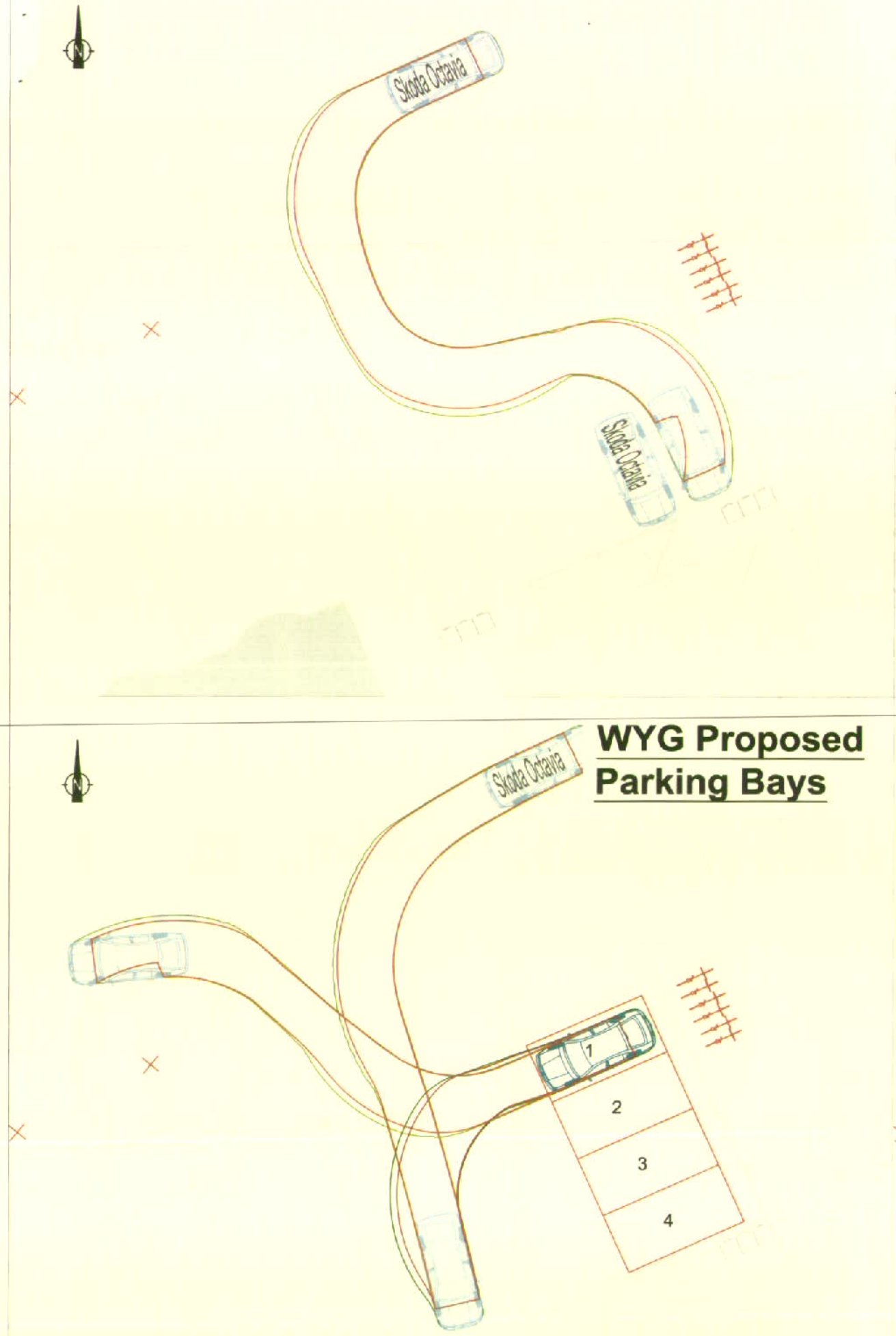
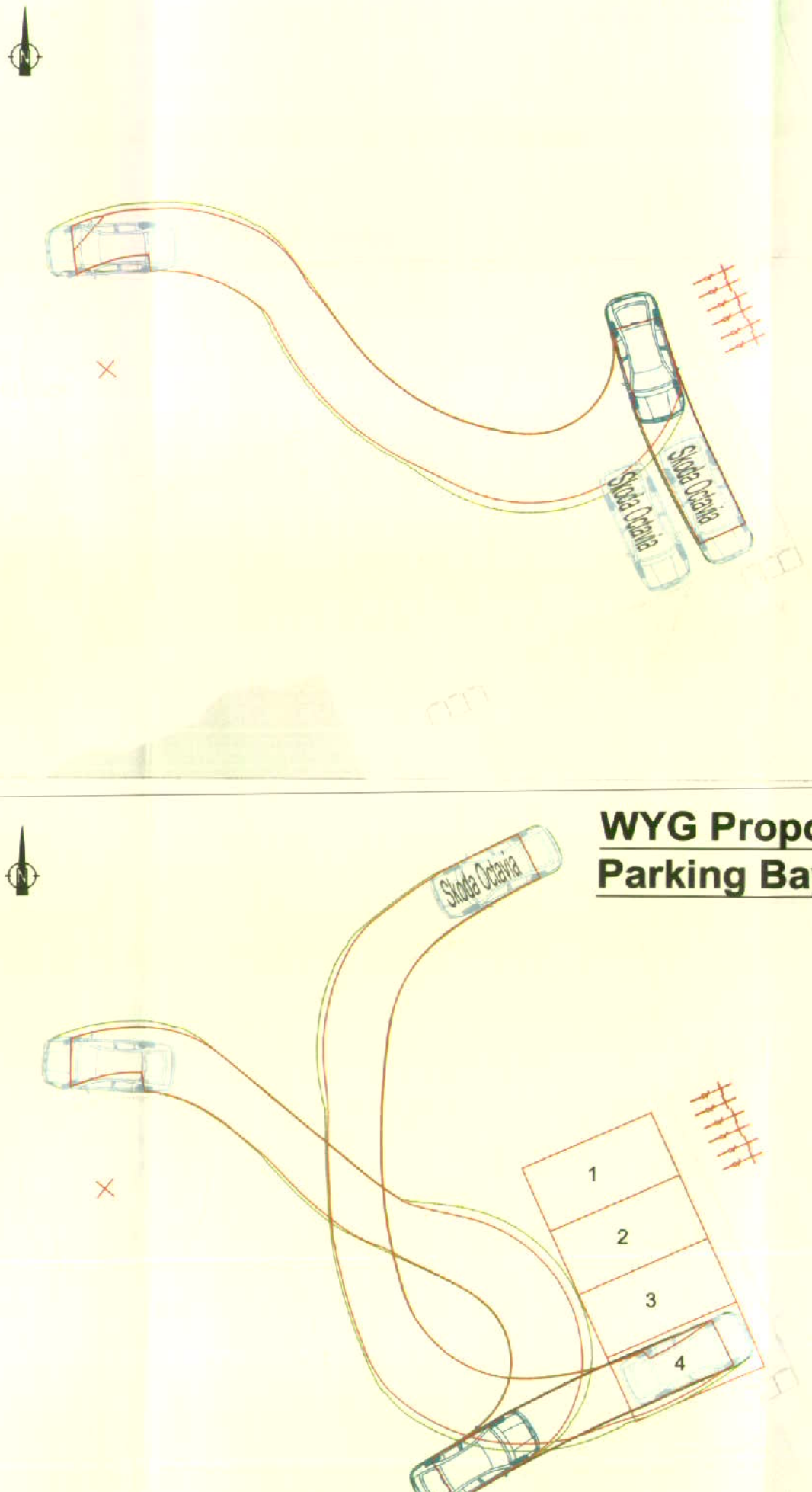
DO NOT SCALE: CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ANY OMISSIONS OR ERRORS





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WYG Proposed Parking Bays

WYG Proposed Parking Bays

REV	DESCRIPTION	BY	CHK	APP	DATE

TPZ DEZ Developments Ltd

QUAY WEST at MediaCity UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com

Project:

Booker Avenue,
Liverpool

Drawing Title:

Residential Car Park
Auto Tracking Analysis

Scale @ A3	Drawn Date	Checked Date	Approved Date
1:200	SH 30.03.2014	AB 30.03.2014	AB 30.03.2014

Project No.	Office	Type	Drawing No.	Revision
A086135	Man	T	A086135-SK001	--

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Appendix D – TRICS Outputs

(Petrol Filling Station – With Retail)

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 13 - PETROL FILLING STATIONS
Category : B - PFS - WITH RETAIL
MULTI-MODAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	SC	SURREY	2 days
03	**SOUTH WEST**		
	CW	CORNWALL	1 days
05	**EAST MIDLANDS**		
	NT	NOTTINGHAMSHIRE	1 days
06	**WEST MIDLANDS**		
	HE	HEREFORDSHIRE	1 days
	WM	WEST MIDLANDS	1 days
11	**SCOTLAND**		
	GC	GLASGOW CITY	1 days

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

Filtering Stage 2 selection:

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

Parameter:	Site area
Actual Range:	0.19 to 0.30 (units: hect)
Range Selected by User:	0.059 to 0.3 (units: hect)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/05 to 19/10/11

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

Selected survey days:

Monday	1 days
Tuesday	2 days
Wednesday	3 days
Saturday	1 days

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

Selected survey types:

Manual count	7 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)	3
Edge of Town	2
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	3
High Street	1
No Sub Category	3

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out

Filtering Stage 3 selection:

Use Class:

Not Known	4 days
Sui Generis	3 days

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

Population within 1 mile:

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

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

Population within 5 miles:

50,001 to 75,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
500,001 or More	2 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	4 days
1.1 to 1.5	2 days
1.6 to 2.0	1 days

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

Travel Plan:

No	7 days

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

LIST OF SITES relevant to selection parameters

1 **CW-13-B-01** **TESCO PFS** **CORNWALL**
TOLGUS VEAN

REDRUTH
Edge of Town
No Sub Category
Total Site area: 0.21 hect
Survey date: SATURDAY *01/10/11* *Survey Type: MANUAL*

2 **GC-13-B-01** **BP/M&S** **GLASGOW CITY**
POLLOKSHAW ROAD
STRATHBUNGO
GLASGOW
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Site area: 0.23 hect
Survey date: WEDNESDAY *04/06/08* *Survey Type: MANUAL*

3 **HE-13-B-01** **TEXACO/SOMERFIELD** **HEREFORDSHIRE**
HOLMER ROAD

HEREFORD
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Site area: 0.21 hect
Survey date: MONDAY *18/10/10* *Survey Type: MANUAL*

4 **NT-13-B-02** **BP/LONDIS** **NOTTINGHAMSHIRE**
HUTHWAITE ROAD

SUTTON-IN-ASHFIELD
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Site area: 0.20 hect
Survey date: WEDNESDAY *28/06/06* *Survey Type: MANUAL*

5 **SC-13-B-03** **BP/M&S** **SURREY**
LONDON ROAD

BAGSHOT
Edge of Town Centre
No Sub Category
Total Site area: 0.23 hect
Survey date: TUESDAY *15/07/08* *Survey Type: MANUAL*

6 **SC-13-B-04** **BP/M&S** **SURREY**
EPSOM ROAD (A25)
MERROW
GUILDFORD
Edge of Town
Residential Zone
Total Site area: 0.19 hect
Survey date: TUESDAY *30/09/08* *Survey Type: MANUAL*

7 **WM-13-B-04** **TEXACO & CO-OP** **WEST MIDLANDS**
HIGH STREET
HARBORNE
BIRMINGHAM
Suburban Area (PPS6 Out of Centre)
High Street
Total Site area: 0.30 hect
Survey date: WEDNESDAY *19/10/11* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 13 - PETROL FILLING STATIONS/B - PFS - WITH RETAIL

MULTI-MODAL VEHICLES

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	0.26	158.824	2	0.26	164.706	2	0.26	323.530
07:00 - 08:00	7	0.22	343.949	7	0.22	333.121	7	0.22	677.070
08:00 - 09:00	7	0.22	363.057	7	0.22	361.783	7	0.22	724.840
09:00 - 10:00	7	0.22	376.433	7	0.22	363.694	7	0.22	740.127
10:00 - 11:00	7	0.22	377.070	7	0.22	373.885	7	0.22	750.955
11:00 - 12:00	7	0.22	415.924	7	0.22	411.465	7	0.22	827.389
12:00 - 13:00	7	0.22	470.064	7	0.22	478.344	7	0.22	948.408
13:00 - 14:00	7	0.22	385.350	7	0.22	391.720	7	0.22	777.070
14:00 - 15:00	7	0.22	386.624	7	0.22	377.070	7	0.22	763.694
15:00 - 16:00	7	0.22	455.414	7	0.22	456.688	7	0.22	912.102
16:00 - 17:00	7	0.22	447.134	7	0.22	451.592	7	0.22	898.726
17:00 - 18:00	**7**	**0.22**	**503.185**	7	0.22	499.363	**7**	**0.22**	**1002.548**
18:00 - 19:00	7	0.22	496.815	**7**	**0.22**	**500.000**	7	0.22	996.815
19:00 - 20:00	7	0.22	357.325	7	0.22	371.975	7	0.22	729.300
20:00 - 21:00	3	0.24	198.611	3	0.24	216.667	3	0.24	415.278
21:00 - 22:00	3	0.24	177.778	3	0.24	175.000	3	0.24	352.778
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5913.557			5927.073			11840.630

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

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

Parameter summary

Trip rate parameter range selected:	0.19 to 0.30 (units: hect)
Survey date date range:	01/01/05 - 19/10/11
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	1
Number of Sundays:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 13 - PETROL FILLING STATIONS/B - PFS - WITH RETAIL

MULTI-MODAL CYCLISTS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	0.26	5.882	2	0.26	3.922	2	0.26	9.804
07:00 - 08:00	**7**	**0.22**	**6.369**	**7**	**0.22**	**5.732**	**7**	**0.22**	**12.101**
08:00 - 09:00	7	0.22	4.459	7	0.22	5.096	7	0.22	9.555
09:00 - 10:00	7	0.22	2.548	7	0.22	1.911	7	0.22	4.459
10:00 - 11:00	7	0.22	1.911	7	0.22	1.911	7	0.22	3.822
11:00 - 12:00	7	0.22	1.911	7	0.22	1.911	7	0.22	3.822
12:00 - 13:00	7	0.22	0.637	7	0.22	1.274	7	0.22	1.911
13:00 - 14:00	7	0.22	1.911	7	0.22	1.274	7	0.22	3.185
14:00 - 15:00	7	0.22	1.911	7	0.22	1.274	7	0.22	3.185
15:00 - 16:00	7	0.22	1.911	7	0.22	2.548	7	0.22	4.459
16:00 - 17:00	7	0.22	2.548	7	0.22	2.548	7	0.22	5.096
17:00 - 18:00	7	0.22	4.459	7	0.22	4.459	7	0.22	8.918
18:00 - 19:00	7	0.22	3.822	7	0.22	3.822	7	0.22	7.644
19:00 - 20:00	7	0.22	2.548	7	0.22	4.459	7	0.22	7.007
20:00 - 21:00	3	0.24	1.389	3	0.24	1.389	3	0.24	2.778
21:00 - 22:00	3	0.24	4.167	3	0.24	4.167	3	0.24	8.334
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			48.383			47.697			96.080

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

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

Parameter summary

Trip rate parameter range selected:	0.19 to 0.30 (units: hect)
Survey date date range:	01/01/05 - 19/10/11
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	1
Number of Sundays:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 13 - PETROL FILLING STATIONS/B - PFS - WITH RETAIL

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	0.26	11.765	2	0.26	15.686	2	0.26	27.451
07:00 - 08:00	7	0.22	32.484	7	0.22	27.389	7	0.22	59.873
08:00 - 09:00	7	0.22	50.955	7	0.22	42.675	7	0.22	93.630
09:00 - 10:00	7	0.22	38.217	7	0.22	35.032	7	0.22	73.249
10:00 - 11:00	7	0.22	49.045	7	0.22	43.949	7	0.22	92.994
11:00 - 12:00	7	0.22	38.854	7	0.22	38.217	7	0.22	77.071
12:00 - 13:00	7	0.22	59.873	7	0.22	57.325	7	0.22	117.198
13:00 - 14:00	**7**	**0.22**	**63.057**	7	0.22	63.057	7	0.22	126.114
14:00 - 15:00	7	0.22	57.962	7	0.22	49.682	7	0.22	107.644
15:00 - 16:00	7	0.22	58.599	**7**	**0.22**	**71.338**	**7**	**0.22**	**129.937**
16:00 - 17:00	7	0.22	42.675	7	0.22	37.580	7	0.22	80.255
17:00 - 18:00	7	0.22	50.318	7	0.22	43.949	7	0.22	94.267
18:00 - 19:00	7	0.22	59.236	7	0.22	64.968	7	0.22	124.204
19:00 - 20:00	7	0.22	44.586	7	0.22	52.866	7	0.22	97.452
20:00 - 21:00	3	0.24	45.833	3	0.24	52.778	3	0.24	98.611
21:00 - 22:00	3	0.24	40.278	3	0.24	48.611	3	0.24	88.889
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			743.737			745.102			1488.839

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

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

Parameter summary

Trip rate parameter range selected:	0.19 to 0.30 (units: hect)
Survey date date range:	01/01/05 - 19/10/11
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	1
Number of Sundays:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 13 - PETROL FILLING STATIONS/B - PFS - WITH RETAIL

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate	No. Days	Ave. AREA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	**2**	**0.26**	**7.843**	2	0.26	5.882	**2**	**0.26**	**13.725**
07:00 - 08:00	7	0.22	3.822	7	0.22	2.548	7	0.22	6.370
08:00 - 09:00	7	0.22	4.459	7	0.22	3.185	7	0.22	7.644
09:00 - 10:00	7	0.22	5.732	**7**	**0.22**	**7.006**	7	0.22	12.738
10:00 - 11:00	7	0.22	1.274	7	0.22	2.548	7	0.22	3.822
11:00 - 12:00	7	0.22	4.459	7	0.22	3.185	7	0.22	7.644
12:00 - 13:00	7	0.22	3.185	7	0.22	3.185	7	0.22	6.370
13:00 - 14:00	7	0.22	3.822	7	0.22	4.459	7	0.22	8.281
14:00 - 15:00	7	0.22	3.185	7	0.22	2.548	7	0.22	5.733
15:00 - 16:00	7	0.22	3.185	7	0.22	4.459	7	0.22	7.644
16:00 - 17:00	7	0.22	1.274	7	0.22	2.548	7	0.22	3.822
17:00 - 18:00	7	0.22	4.459	7	0.22	5.732	7	0.22	10.191
18:00 - 19:00	7	0.22	4.459	7	0.22	2.548	7	0.22	7.007
19:00 - 20:00	7	0.22	2.548	7	0.22	3.822	7	0.22	6.370
20:00 - 21:00	3	0.24	0.000	3	0.24	2.778	3	0.24	2.778
21:00 - 22:00	3	0.24	0.000	3	0.24	0.000	3	0.24	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			53.706			56.433			110.139

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

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

Parameter summary

Trip rate parameter range selected:	0.19 to 0.30 (units: hect)
Survey date date range:	01/01/05 - 19/10/11
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	1
Number of Sundays:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are 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 E – TRICS Outputs (Convenience Store)

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : O - CONVENIENCE STORE
MULTI-MODAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
05	**EAST MIDLANDS**		
	LN	LINCOLNSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	WY	WEST YORKSHIRE	1 days
09	**NORTH**		
	DH	DURHAM	1 days

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

Filtering Stage 2 selection:

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

Parameter:	Gross floor area
Actual Range:	280 to 469 (units: sqm)
Range Selected by User:	100 to 750 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/05 to 19/12/12

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	1 days
Thursday	1 days

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

Selected survey types:

Manual count	4 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
Edge of Town	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	4

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

Filtering Stage 3 selection:

Use Class:

A1	4 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
20,001 to 25,000	2 days

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

Population within 5 miles:

75,001 to 100,000	1 days
100,001 to 125,000	2 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	3 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	4 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	4 days

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

LIST OF SITES relevant to selection parameters

1	**DH-01-O-01**	**SAINSBURY'S LOCAL**		**DURHAM**
	132 STATION LANE			
	SEATON CAREW			
	HARTLEPOOL			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		469 sqm	
	Survey date: MONDAY		*26/11/12*	*Survey Type: MANUAL*
2	**ES-01-O-01**	**ONE STOP**		**EAST SUSSEX**
	THE SIDINGS			
	ORE VALLEY			
	HASTINGS			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		280 sqm	
	Survey date: WEDNESDAY		*19/12/12*	*Survey Type: MANUAL*
3	**LN-01-O-01**	**SPAR**		**LINCOLNSHIRE**
	257 NEWARK STREET			
	NORTH HYKEHAM			
	LINCOLN			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:		350 sqm	
	Survey date: TUESDAY		*15/05/07*	*Survey Type: MANUAL*
4	**WY-01-O-01**	**SAINSBURY'S LOCAL**		**WEST YORKSHIRE**
	KEIGHLEY ROAD			
	BRADFORD			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:		400 sqm	
	Survey date: THURSDAY		*06/12/12*	*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
BA-01-O-01	No on-site parking
DC-01-O-01	No on-site parking
FA-01-O-01	No on-site parking

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	280	0.357	1	280	0.357	1	280	0.714
07:00 - 08:00	4	375	8.806	4	375	8.472	4	375	17.278
08:00 - 09:00	4	375	7.805	4	375	7.138	4	375	14.943
09:00 - 10:00	4	375	6.805	4	375	6.938	4	375	13.743
10:00 - 11:00	4	375	7.872	4	375	7.338	4	375	15.210
11:00 - 12:00	4	375	8.272	4	375	8.406	4	375	16.678
12:00 - 13:00	4	375	10.007	4	375	9.473	4	375	19.480
13:00 - 14:00	4	375	6.938	4	375	6.471	4	375	13.409
14:00 - 15:00	4	375	7.939	4	375	7.672	4	375	15.611
15:00 - 16:00	4	375	9.740	4	375	10.540	4	375	20.280
16:00 - 17:00	4	375	9.606	4	375	9.206	4	375	18.812
17:00 - 18:00	4	375	11.007	4	375	10.407	4	375	21.414
18:00 - 19:00	**4**	**375**	**12.608**	**4**	**375**	**13.609**	**4**	**375**	**26.217**
19:00 - 20:00	4	375	8.406	4	375	9.273	4	375	17.679
20:00 - 21:00	4	375	6.137	4	375	6.871	4	375	13.008
21:00 - 22:00	3	383	2.176	3	383	2.263	3	383	4.439
22:00 - 23:00	1	469	1.919	1	469	2.559	1	469	4.478
23:00 - 24:00									
Total Rates:			126.400			126.993			253.393

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

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

Parameter summary

Trip rate parameter range selected:	280 - 469 (units: sqm)
Survey date date range:	01/01/05 - 19/12/12
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	3

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

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	280	0.000	1	280	0.000	1	280	0.000
07:00 - 08:00	4	375	0.334	4	375	0.400	4	375	0.734
08:00 - 09:00	**4**	**375**	**1.134**	**4**	**375**	**1.134**	**4**	**375**	**2.268**
09:00 - 10:00	4	375	0.267	4	375	0.133	4	375	0.400
10:00 - 11:00	4	375	0.267	4	375	0.267	4	375	0.534
11:00 - 12:00	4	375	0.200	4	375	0.267	4	375	0.467
12:00 - 13:00	4	375	0.467	4	375	0.400	4	375	0.867
13:00 - 14:00	4	375	0.067	4	375	0.133	4	375	0.200
14:00 - 15:00	4	375	0.200	4	375	0.133	4	375	0.333
15:00 - 16:00	4	375	0.133	4	375	0.200	4	375	0.333
16:00 - 17:00	4	375	0.400	4	375	0.334	4	375	0.734
17:00 - 18:00	4	375	0.334	4	375	0.267	4	375	0.601
18:00 - 19:00	4	375	0.400	4	375	0.467	4	375	0.867
19:00 - 20:00	4	375	0.133	4	375	0.334	4	375	0.467
20:00 - 21:00	4	375	0.267	4	375	0.200	4	375	0.467
21:00 - 22:00	4	375	0.200	4	375	0.000	4	375	0.200
22:00 - 23:00	1	469	0.000	1	469	0.000	1	469	0.000
23:00 - 24:00									
Total Rates:			4.803			4.669			9.472

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

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

Parameter summary

Trip rate parameter range selected:	280 - 469 (units: sqm)
Survey date date range:	01/01/05 - 19/12/12
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	3

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

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	280	1.071	1	280	1.071	1	280	2.142
07:00 - 08:00	4	375	1.601	4	375	1.201	4	375	2.802
08:00 - 09:00	4	375	5.070	4	375	5.003	4	375	10.073
09:00 - 10:00	4	375	3.269	4	375	2.935	4	375	6.204
10:00 - 11:00	4	375	3.869	4	375	3.269	4	375	7.138
11:00 - 12:00	4	375	5.537	4	375	4.870	4	375	10.407
12:00 - 13:00	4	375	4.603	4	375	4.870	4	375	9.473
13:00 - 14:00	4	375	5.337	4	375	5.670	4	375	11.007
14:00 - 15:00	4	375	3.135	4	375	3.602	4	375	6.737
15:00 - 16:00	**4**	**375**	**7.672**	4	375	7.005	**4**	**375**	**14.677**
16:00 - 17:00	4	375	4.803	4	375	4.603	4	375	9.406
17:00 - 18:00	4	375	3.803	4	375	3.803	4	375	7.606
18:00 - 19:00	4	375	6.538	**4**	**375**	**7.138**	4	375	13.676
19:00 - 20:00	4	375	4.069	4	375	4.870	4	375	8.939
20:00 - 21:00	4	375	2.602	4	375	2.869	4	375	5.471
21:00 - 22:00	3	383	1.218	3	383	1.654	3	383	2.872
22:00 - 23:00	1	469	0.000	1	469	0.000	1	469	0.000
23:00 - 24:00									
Total Rates:			64.197			64.433			128.630

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

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

Parameter summary

Trip rate parameter range selected:	280 - 469 (units: sqm)
Survey date date range:	01/01/05 - 19/12/12
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	3

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

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	280	0.000	1	280	0.000	1	280	0.000
07:00 - 08:00	4	375	0.067	**4**	**375**	**0.334**	4	375	0.401
08:00 - 09:00	4	375	0.000	4	375	0.133	4	375	0.133
09:00 - 10:00	4	375	0.067	4	375	0.200	4	375	0.267
10:00 - 11:00	4	375	0.067	4	375	0.000	4	375	0.067
11:00 - 12:00	4	375	0.267	4	375	0.067	4	375	0.334
12:00 - 13:00	4	375	0.133	4	375	0.067	4	375	0.200
13:00 - 14:00	**4**	**375**	**0.400**	4	375	0.267	**4**	**375**	**0.667**
14:00 - 15:00	4	375	0.267	4	375	0.067	4	375	0.334
15:00 - 16:00	4	375	0.133	4	375	0.133	4	375	0.266
16:00 - 17:00	4	375	0.200	4	375	0.067	4	375	0.267
17:00 - 18:00	4	375	0.334	4	375	0.067	4	375	0.401
18:00 - 19:00	4	375	0.200	4	375	0.067	4	375	0.267
19:00 - 20:00	4	375	0.000	4	375	0.000	4	375	0.000
20:00 - 21:00	4	375	0.000	4	375	0.000	4	375	0.000
21:00 - 22:00	3	383	0.000	3	383	0.000	3	383	0.000
22:00 - 23:00	1	469	0.000	1	469	0.000	1	469	0.000
23:00 - 24:00									
Total Rates:			2.135			1.469			3.604

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

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

Parameter summary

Trip rate parameter range selected:	280 - 469 (units: sqm)
Survey date date range:	01/01/05 - 19/12/12
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	3

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are 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 F – TRICS Outputs (Residential)

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

03	**SOUTH WEST**		
	CW	CORNWALL	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	1 days
	SF	SUFFOLK	1 days
05	**EAST MIDLANDS**		
	LE	LEICESTERSHIRE	1 days
06	**WEST MIDLANDS**		
	SH	SHROPSHIRE	1 days
	ST	STAFFORDSHIRE	1 days
	WK	WARWICKSHIRE	1 days
	WM	WEST MIDLANDS	1 days
	WO	WORCESTERSHIRE	1 days
08	**NORTH WEST**		
	CH	CHESHIRE	1 days
	MS	MERSEYSIDE	1 days
11	**SCOTLAND**		
	AG	ANGUS	1 days
	HI	HIGHLAND	1 days

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

Filtering Stage 2 selection:

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

Parameter: Number of dwellings
Actual Range: 6 to 15 (units:)
Range Selected by User: 6 to 15 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/05 to 21/06/13

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:

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

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

Selected survey types:

Manual count	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:

Suburban Area (PPS6 Out of Centre)	10
Edge of Town	3

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

Selected Location Sub Categories:

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

Filtering Stage 3 selection:

Use Class:

C3	12 days

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

Population within 1 mile:

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

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

Population within 5 miles:

25,001 to 50,000	3 days
75,001 to 100,000	4 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	3 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	6 days
1.1 to 1.5	7 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	13 days

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

LIST OF SITES relevant to selection parameters

1 **AG-03-A-01** **BUNGALOWS/DET.** **ANGUS**
KEPTIE ROAD

ARBROATH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 7
Survey date: TUESDAY *22/05/12* *Survey Type: MANUAL*

2 **CA-03-A-04** **DETACHED** **CAMBRIDGESHIRE**

THORPE PARK ROAD
PETERBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 9
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

3 **CH-03-A-08** **DETACHED** **CHESHIRE**
WHITCHURCH ROAD
BOUGHTON HEATH
CHESTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 11
Survey date: TUESDAY *22/05/12* *Survey Type: MANUAL*

4 **CW-03-A-01** **TERRACED** **CORNWALL**
ALVERTON ROAD

PENZANCE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 13
Survey date: THURSDAY *30/06/05* *Survey Type: MANUAL*

5 **HI-03-A-13** **HOUSING** **HIGHLAND**
KINGSMILLS ROAD

INVERNESS
Edge of Town
Residential Zone
Total Number of dwellings: 9
Survey date: THURSDAY *21/05/09* *Survey Type: MANUAL*

6 **LE-03-A-01** **DETACHED** **LEICESTERSHIRE**
REDWOOD AVENUE

MELTON MOWBRAY
Edge of Town
Residential Zone
Total Number of dwellings: 11
Survey date: TUESDAY *03/05/05* *Survey Type: MANUAL*

7 **MS-03-A-03** **DETACHED** **MERSEYSIDE**
BEMPTON ROAD
OTTERSPOOL
LIVERPOOL
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 15
Survey date: FRIDAY *21/06/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

8	**SF-03-A-04** **DETACHED & BUNGALOWS**		**SUFFOLK**
	NORMANSTON DRIVE		
	LOWESTOFT		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	7	
	Survey date: TUESDAY	*23/10/12*	*Survey Type: MANUAL*
9	**SH-03-A-03** **DETATCHED**		**SHROPSHIRE**
	SOMERBY DRIVE		
	BICTON HEATH		
	SHREWSBURY		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	10	
	Survey date: FRIDAY	*26/06/09*	*Survey Type: MANUAL*
10	**ST-03-A-05** **TERRACED & DETACHED**		**STAFFORDSHIRE**
	WATERMEET GROVE		
	ETRURIA		
	STOKE-ON-TRENT		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	14	
	Survey date: WEDNESDAY	*26/11/08*	*Survey Type: MANUAL*
11	**WK-03-A-01** **TERRACED/SEMI/DET.**		**WARWICKSHIRE**
	ARLINGTON AVENUE		
	LEAMINGTON SPA		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	6	
	Survey date: FRIDAY	*21/10/11*	*Survey Type: MANUAL*
12	**WM-03-A-02** **DETACHED & SEMI DET.**		**WEST MIDLANDS**
	HEATH STREET		
	STOURBRIDGE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	12	
	Survey date: WEDNESDAY	*26/04/06*	*Survey Type: MANUAL*
13	**WO-03-A-01** **DETACHED**		**WORCESTERSHIRE**
	MARLBOROUGH AVENUE		
	ASTON FIELDS		
	BROMSGROVE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	10	
	Survey date: THURSDAY	*23/06/05*	*Survey Type: MANUAL*

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

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

MULTI-MODAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	10	0.097	13	10	0.246	13	10	0.343
08:00 - 09:00	13	10	0.254	**13**	**10**	**0.455**	**13**	**10**	**0.709**
09:00 - 10:00	13	10	0.119	13	10	0.306	13	10	0.425
10:00 - 11:00	13	10	0.239	13	10	0.201	13	10	0.440
11:00 - 12:00	13	10	0.216	13	10	0.231	13	10	0.447
12:00 - 13:00	13	10	0.246	13	10	0.254	13	10	0.500
13:00 - 14:00	13	10	0.179	13	10	0.216	13	10	0.395
14:00 - 15:00	13	10	0.254	13	10	0.254	13	10	0.508
15:00 - 16:00	13	10	0.299	13	10	0.216	13	10	0.515
16:00 - 17:00	13	10	0.358	13	10	0.276	13	10	0.634
17:00 - 18:00	**13**	**10**	**0.366**	13	10	0.291	13	10	0.657
18:00 - 19:00	13	10	0.254	13	10	0.201	13	10	0.455
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.881			3.147			6.028

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

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

Parameter summary

Trip rate parameter range selected:	6 - 15 (units:)
Survey date date range:	01/01/05 - 21/06/13
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

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

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	10	0.007	13	10	0.007	13	10	0.014
08:00 - 09:00	**13**	**10**	**0.015**	**13**	**10**	**0.015**	**13**	**10**	**0.030**
09:00 - 10:00	13	10	0.007	13	10	0.007	13	10	0.014
10:00 - 11:00	13	10	0.007	13	10	0.007	13	10	0.014
11:00 - 12:00	13	10	0.007	13	10	0.007	13	10	0.014
12:00 - 13:00	13	10	0.015	13	10	0.015	13	10	0.030
13:00 - 14:00	13	10	0.000	13	10	0.000	13	10	0.000
14:00 - 15:00	13	10	0.000	13	10	0.000	13	10	0.000
15:00 - 16:00	13	10	0.000	13	10	0.000	13	10	0.000
16:00 - 17:00	13	10	0.000	13	10	0.000	13	10	0.000
17:00 - 18:00	13	10	0.000	13	10	0.000	13	10	0.000
18:00 - 19:00	13	10	0.000	13	10	0.000	13	10	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.058			0.058			0.116

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

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

Parameter summary

Trip rate parameter range selected:	6 - 15 (units:)
Survey date date range:	01/01/05 - 21/06/13
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

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

MULTI-MODAL PSVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	10	0.000	13	10	0.000	13	10	0.000
08:00 - 09:00	13	10	0.000	13	10	0.000	13	10	0.000
09:00 - 10:00	13	10	0.000	13	10	0.000	13	10	0.000
10:00 - 11:00	13	10	0.000	13	10	0.000	13	10	0.000
11:00 - 12:00	13	10	0.000	13	10	0.000	13	10	0.000
12:00 - 13:00	13	10	0.000	13	10	0.000	13	10	0.000
13:00 - 14:00	13	10	0.000	13	10	0.000	13	10	0.000
14:00 - 15:00	13	10	0.000	13	10	0.000	13	10	0.000
15:00 - 16:00	13	10	0.000	13	10	0.000	13	10	0.000
16:00 - 17:00	13	10	0.000	13	10	0.000	13	10	0.000
17:00 - 18:00	13	10	0.000	13	10	0.000	13	10	0.000
18:00 - 19:00	13	10	0.000	13	10	0.000	13	10	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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

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

Parameter summary

Trip rate parameter range selected:	6 - 15 (units:)
Survey date date range:	01/01/05 - 21/06/13
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

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

MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	10	0.015	**13**	**10**	**0.045**	**13**	**10**	**0.060**
08:00 - 09:00	13	10	0.022	13	10	0.022	13	10	0.044
09:00 - 10:00	13	10	0.000	13	10	0.007	13	10	0.007
10:00 - 11:00	13	10	0.007	13	10	0.007	13	10	0.014
11:00 - 12:00	13	10	0.007	13	10	0.007	13	10	0.014
12:00 - 13:00	13	10	0.015	13	10	0.015	13	10	0.030
13:00 - 14:00	13	10	0.007	13	10	0.000	13	10	0.007
14:00 - 15:00	13	10	0.000	13	10	0.000	13	10	0.000
15:00 - 16:00	**13**	**10**	**0.030**	13	10	0.000	13	10	0.030
16:00 - 17:00	13	10	0.030	13	10	0.022	13	10	0.052
17:00 - 18:00	13	10	0.007	13	10	0.007	13	10	0.014
18:00 - 19:00	13	10	0.000	13	10	0.000	13	10	0.000
19:00 - 20:00	1	7	0.000	1	7	0.000	1	7	0.000
20:00 - 21:00	1	7	0.000	1	7	0.000	1	7	0.000
21:00 - 22:00	1	7	0.000	1	7	0.000	1	7	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.140			0.132			0.272

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

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

Parameter summary

Trip rate parameter range selected:	6 - 15 (units:)
Survey date date range:	01/01/05 - 21/06/13
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

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

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	10	0.075	13	10	0.261	13	10	0.336
08:00 - 09:00	13	10	0.321	**13**	**10**	**0.642**	**13**	**10**	**0.963**
09:00 - 10:00	13	10	0.142	13	10	0.366	13	10	0.508
10:00 - 11:00	13	10	0.276	13	10	0.254	13	10	0.530
11:00 - 12:00	13	10	0.291	13	10	0.269	13	10	0.560
12:00 - 13:00	13	10	0.321	13	10	0.328	13	10	0.649
13:00 - 14:00	13	10	0.224	13	10	0.276	13	10	0.500
14:00 - 15:00	13	10	0.328	13	10	0.313	13	10	0.641
15:00 - 16:00	13	10	0.448	13	10	0.321	13	10	0.769
16:00 - 17:00	**13**	**10**	**0.500**	13	10	0.403	13	10	0.903
17:00 - 18:00	13	10	0.463	13	10	0.366	13	10	0.829
18:00 - 19:00	13	10	0.351	13	10	0.269	13	10	0.620
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.740			4.068			7.808

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

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

Parameter summary

Trip rate parameter range selected:	6 - 15 (units:)
Survey date date range:	01/01/05 - 21/06/13
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

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

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	10	0.037	13	10	0.075	13	10	0.112
08:00 - 09:00	13	10	0.052	**13**	**10**	**0.313**	**13**	**10**	**0.365**
09:00 - 10:00	13	10	0.090	13	10	0.097	13	10	0.187
10:00 - 11:00	13	10	0.082	13	10	0.127	13	10	0.209
11:00 - 12:00	13	10	0.097	13	10	0.052	13	10	0.149
12:00 - 13:00	13	10	0.127	13	10	0.134	13	10	0.261
13:00 - 14:00	13	10	0.104	13	10	0.075	13	10	0.179
14:00 - 15:00	13	10	0.104	13	10	0.127	13	10	0.231
15:00 - 16:00	**13**	**10**	**0.164**	13	10	0.082	13	10	0.246
16:00 - 17:00	13	10	0.104	13	10	0.060	13	10	0.164
17:00 - 18:00	13	10	0.134	13	10	0.022	13	10	0.156
18:00 - 19:00	13	10	0.112	13	10	0.067	13	10	0.179
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.207			1.231			2.438

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

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

Parameter summary

Trip rate parameter range selected:	6 - 15 (units:)
Survey date date range:	01/01/05 - 21/06/13
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	10	0.000	13	10	0.000	13	10	0.000
08:00 - 09:00	13	10	0.000	**13**	**10**	**0.022**	**13**	**10**	**0.022**
09:00 - 10:00	13	10	0.000	13	10	0.000	13	10	0.000
10:00 - 11:00	13	10	0.000	13	10	0.000	13	10	0.000
11:00 - 12:00	13	10	0.000	13	10	0.000	13	10	0.000
12:00 - 13:00	13	10	0.007	13	10	0.000	13	10	0.007
13:00 - 14:00	13	10	0.000	13	10	0.000	13	10	0.000
14:00 - 15:00	13	10	0.000	13	10	0.000	13	10	0.000
15:00 - 16:00	**13**	**10**	**0.015**	13	10	0.000	13	10	0.015
16:00 - 17:00	13	10	0.007	13	10	0.000	13	10	0.007
17:00 - 18:00	13	10	0.000	13	10	0.000	13	10	0.000
18:00 - 19:00	13	10	0.000	13	10	0.000	13	10	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.029			0.022			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.

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

Parameter summary

Trip rate parameter range selected:	6 - 15 (units:)
Survey date date range:	01/01/05 - 21/06/13
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	10	0.127	13	10	0.381	13	10	0.508
08:00 - 09:00	13	10	0.396	**13**	**10**	**1.000**	**13**	**10**	**1.396**
09:00 - 10:00	13	10	0.231	13	10	0.470	13	10	0.701
10:00 - 11:00	13	10	0.366	13	10	0.388	13	10	0.754
11:00 - 12:00	13	10	0.396	13	10	0.328	13	10	0.724
12:00 - 13:00	13	10	0.470	13	10	0.478	13	10	0.948
13:00 - 14:00	13	10	0.336	13	10	0.351	13	10	0.687
14:00 - 15:00	13	10	0.433	13	10	0.440	13	10	0.873
15:00 - 16:00	**13**	**10**	**0.657**	13	10	0.403	13	10	1.060
16:00 - 17:00	13	10	0.642	13	10	0.485	13	10	1.127
17:00 - 18:00	13	10	0.604	13	10	0.396	13	10	1.000
18:00 - 19:00	13	10	0.463	13	10	0.336	13	10	0.799
19:00 - 20:00	1	7	0.000	1	7	0.000	1	7	0.000
20:00 - 21:00	1	7	0.000	1	7	0.000	1	7	0.000
21:00 - 22:00	1	7	0.000	1	7	0.000	1	7	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.121			5.456			10.577

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

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

Parameter summary

Trip rate parameter range selected:	6 - 15 (units:)
Survey date date range:	01/01/05 - 21/06/13
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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