



Midco Holdings Limited

217 Kingston Road
Teddington

Transport Statement

October 2019

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1 INTRODUCTION

- 1.1 Vectos has been appointed by Midco Holdings Limited to provide transport advice in relation to development proposals at 217 Kingston Road, Teddington, in the London Borough of Richmond upon Thames (LBRuT). The location of the site is shown in **Figure 1**.
- 1.2 The existing site is currently vacant and fronts onto Kingston Road. Space for off-street parking is situated to south-east of the building, with dropped kerbs allowing access from Kingston Road.
- 1.3 The applicant is seeking to construct a two-storey detached building comprising seven self-contained flats to the site frontage and a 2-bedroom detached dwelling to the rear of the site. Four of the flats will have 2 bedrooms and three of the flats will have 1 bedroom.
- 1.4 In addition, an off-street car park will be provided to the rear of the building to provide six parking spaces. These spaces will be allocated for use by the proposed development (0.75 parking space per unit). The provision of a car park in this location utilises the existing dropped kerb and access, and is similar to the adjacent residential development to the south east of the site, and parking situation adopted here.

Planning Context

- 1.5 Vectos prepared the initial Transport Statement for the site, issued in January 2017, which was submitted with the planning application (Ref: 17/1658/FUL). This application was refused, and a subsequent application was submitted in June 2018 which was also refused (Ref: 18/2033/FUL).
- 1.6 The 2018 application was refused for the following reasons pertaining to highways and transportation, in particular related to parking and access:

‘The proposed development, by reason of the narrow access and restricted manoeuvring space, lack of disabled parking space; unsatisfactory siting of refuse/recycling facilities, unsegregated pedestrian access and no passing area, would represent an inconvenient and unsafe form of development and in all likelihood would detract from the free flow of traffic and pedestrian safety on the adjoining highway. The proposal is therefore considered contrary to, the Local Development Framework, in particular, Policies DM TP6 and DM TP8 of

the Development Management Plan, Policy LP45 of the Local Plan (Publication Version for consultation) and the aims and objectives of the Supplementary Planning Documents: Front Garden Parking and Other Off-Street Parking Standards.'

- 1.7 The Delegated Officer's Report also provides a summary of the LBRuT position on highways and transport matters:

'Policies DM TP7 and LP44 seek the provision of-appropriate cycle access and sufficient, secure cycle parking facilities. Appendix Four- Parking Standards of the Local Plan outlines parking requirements. The minimum cycle parking requirement for 1-2 bed unit is 1space. This would be met.

It is important to note that in principle, parking to the centre of garden land is not considered acceptable. Furthermore, the path which would lead to the parking space is significantly narrow at (approximately 3 metres wide). Without any passing area for vehicles within the access road, it becomes difficult for vehicles to enter and leave-safely. The arrangements of the parking would significantly affect the pedestrian and traffic flow of this already busy road. The site would be swamped with parking to the centre of the existing garden land which as result would appear compact. The introduction of 9 parking spaces in this small area with a tight access path and poor manoeuvring tracking/spaces would cause significant harm to the area whilst disturbing the free flow of the area.

Furthermore, the development must provide at least a 1.2 metre footpath to the rear for pedestrians. The footpath provided is too narrow. The segregated path to the house to the rear should continue all the way in order to keep pedestrian safety. Furthermore, the refuse and recycling location is shown to be to the rear which is significantly further away from the front of the property. Given the unsafe transport arrangements proposed, this location would further impede pedestrian safety. The collection of this waste would be located to the front. This would further narrow and obstruct the access road which would still, as existing and proposed, be too narrow to cater for this development:-

Sightlines at the vehicle access point of 2.4x2.1m- for pedestrians are required as the use of the crossover is intensified. The sightlines must be at the back of path either side of the vehicle access.

The cycle storage for all flats would be within a secure, enclosed and weatherproof structure using sheffield stands. However, if the application were to be approved, details of this would be requested and the provision of two separate stores (one for the flats and one for the house) would be required. If the application were to be approved, a construction management statement, boundary treatment and landscaping and allocation of parking spaces for the flats would be implemented. The 5106 agreement would also remove access to resident/visitor permits if a CPZ is implemented in the area, no time limit.

If the scheme were found acceptable, a condition would be appended to the consent to secure the new requirements of building regulations Part M, which came into force 1 October 2015, in regard to accessible and adaptable dwellings and wheelchair users.

The development on these grounds would be unacceptable.'

- 1.8 This decision was appealed in December 2018 in which Vectos prepared and issued a Transport Written Statement justifying the proposed access and car parking, siting of refuse collection arrangements and the pedestrian access arrangements. The information provided within this Transport Written Statement is included within this updated Transport Statement application. The appeal was dismissed although the appeal decision detailed that all the transport and highways reasons for refusal had now been accepted through the Written Statement justification apart from level of parking with point 6 in the appeal decision stating:

'However, the space between the two buildings would be dominated by car parking with minimal amenity space for the occupiers of the frontage building and little scope for landscape measures. The appellant has referred to Paragraph 123 of the National Planning Policy Framework (the Framework) that encourages the efficient use of sites. But the central part of the site would have a cramped layout and appearance that would not reflect the urban design quality and site layout considerations set out in Policy LP1. There would also be conflict with Paragraph 127 of the Framework and with the Council's Supplementary Planning Document on Small and Medium Housing Sites (2006) both of which promote visually attractive layouts with appropriate and effective landscaping.'

- 1.9 As a result of this feedback the applicant has decided to reduce the level of on-site parking from eight to six spaces. This will ensure the site does not have a cramped layout and will adhere to the site layout considerations set out in Policy LP1. All other layout and transport

considerations are maintained as per the Transport Written Statement and accepted by the Planning Inspector with the previous planning appeal.

Report Structure

1.10 This report provides an assessment of the potential effects of the development proposals in transport terms. The report has been prepared in accordance with National Planning Practice Guidance (NPPG) and guidance set out by Transport for London.

1.11 The remainder of this report is structured as follows:

- Section 2: Existing Conditions
- Section 3: Development Proposals
- Section 4: Policy Context
- Section 5: Effects of the Development Proposals
- Section 6: Summary and Conclusion

2 EXISTING CONDITIONS

- 2.1 This section summarises the existing situation surrounding the site on Kingston Road, including details of the former operation of the site, its accessibility by car and non-car modes of transport, and local car parking conditions.

Site Location and Existing Use

- 2.2 The site at 217 Kingston Road, Teddington is situated approximately 850m to the north of Hampton Wick Station and 1.2km to the east of Teddington Station. The strategic location of the site shown on **Figure 1**, and the local context of the site is shown **Figure 2**.
- 2.3 The existing site comprises a two storey Victorian building containing two residential units. The building fronts onto Kingston Road. Space for off-street parking is situated to south-east of the building, with dropped kerbs allowing access from Kingston Road.

Local Highway Network

- 2.4 Kingston Road (A310) is a single carriageway road, subject to a 30mph speed limit. It connects the A313 in Teddington to the north-west, to the A308 Hampton Court Road to the south-west. On-street parking is provided intermittently along both sides of the carriageway. The area does not form parking of a Controlled Parking Zone (CPZ).

Local Facilities

- 2.5 Kingston Road is predominantly residential in nature. However a number of local shops are located opposite the site. This includes a dry-cleaning service, beauty salon, convenience store, pharmacy, bakery, DIY store and two food restaurants.
- 2.6 Sacred Heart Primary School is located approximately 220m walking distance south west of the site on St Mark's Road, and Collis Primary School is around 750m walking distance. In addition, Hampton Wick GP surgery is located on Kingston Road, approximately 600m south of the site. The provision of these key facilities within the vicinity of the site will enable future residents to undertake many day-to-day tasks on foot.

Accessibility by Non-Car Modes

Walking

- 2.7 A person's willingness to walk is dependent on many factors including access to a car, safety, road congestion, weather, gradients, parking, health, direction of route and purpose of journey.
- 2.8 Central Government research refers to a distance of 2km as a suitable distance over which walking might replace car trips. Similarly, the Institution of Highways and Transportation (IHT) Guidelines suggest a maximum 'acceptable' walking distance for pedestrians without a mobility impairment of 2km. A 2km catchment from the site includes Teddington, Hampton Wick and much of the western site of Kingston.
- 2.9 Pedestrian facilities within the vicinity of the site are good and there are suitable links to Teddington, Hampton Wick, and Kingston.
- 2.10 Footways are provided along both sides of Kingstone Road with pedestrian crossing islands with dropped kerbs and tactile paving provided in several locations.

Cycling

- 2.11 Central Government research states that cycling has the potential to substitute for short car trips, particularly those under 5km, and to form part of a longer journey by public transport. As well as encompassing Teddington, Hampton Wick and Kingston, a 5km catchment from the site extends to Twickenham and Surbiton.
- 2.12 Low traffic volumes and speeds in the area create a safe environment for cyclists.

Public Transport

Public Transport Accessibility Level (PTAL)

- 2.13 The Public Transport Accessibility Level (PTAL) is a theoretical measure of the accessibility of a given point to the surrounding public transport network, taking into account walk access time and service availability. The method used is essentially a way of measuring the density of the public transport network at a particular point.
- 2.14 The PTAL measure, reflects:

- The walking distance from the point of interest to the public transport access points;
- The reliability of the service modes available;
- The number of services available within the catchment; and
- The level of service at the public transport access points – i.e. average waiting time.

2.15 The PTAL is categorised into eight levels, 1a to 6b where 6b represents an excellent level of accessibility and 1a a low level of accessibility. The PTAL level for the Site is 2, indicating a relatively low level of public transport accessibility. However, whilst PTAL is a useful basis for comparing the transport accessibility of different sites, due to the simplicity of the calculation it does not give any indication of the propensity of people to use public transport to access a site. The provision of two bus stops directly opposite the site, as well its proximity to Hampton Wick Station means that future residents are likely to utilise public transport services.

2.16 The PTAL summary report is shown in **Appendix A**. The public transport facilities located within the vicinity of the site are discussed below.

Rail Services

2.17 The site lies approximately 850m, or approximately 10 minutes' walk, from Hampton Wick Station, which provides access to National Rail services. The station is managed by South West Trains.

2.18 A summary of the services available from Hampton Wick Station is provided in **Table 2.1**.

Table 2.1: National Rail Services from Hampton Wick Station

Destination	Calling Points	Frequency (Trains per Hour)		
		Weekday	Sat	Sun
London Waterloo (Indirect via Richmond)	Vauxhall-Clapham Junction-Wimbledon-New Malden-Hampton Wick-Teddington-Twickenham-Richmond-Putney-Wandsworth Town-Queenstown Road	2	2	-
London Waterloo (Indirect via Kingston)	Vauxhall-Clapham Junction-Putney-Richmond-Twickenham-Teddington-Hampton Wick-Kingston-New Malden-Wimbledon-Vauxhall	4	4	3
Shepperton	London Waterloo-Vauxhall-Clapham Junction-Wimbledon-New Malden-Kingston-Hampton Wick-Teddington-Sunbury-Shepperton	2	2	1

Local Bus Services

2.19 The closest bus stops on Kingston Road are located directly opposite the site. These stops are served by bus routes 281, 285 and 681. A summary of local bus services is provided in **Table 2.2** below.

Table 2.2: Local Bus Services

Service	Route	Average Daytime Frequency		
		Weekday	Saturday	Sunday
281	Tolworth Tower-Surbiton Station-Kingston Station-Hampton Wick Station-Fulwell Station-Hounslow Station-Hounslow Bus Station	7-9	7-12	10-14
285	Heathrow Central Bus Station-Hatton Cross Station-Feltham Station-Teddington Memorial Hospital-Hampton Wick Station-Cromwell Road Bus Station	7-11	8-12	11-16
681	Hounslow Bus Station-Hounslow Station-Twickenham Station-Fulwell Station-Broom Road/Teddington School	08:09, 08:15	-	-

Zipcar

2.20 Zipcar is a pay-as-you-go car club designed to provide members with convenient access to cars and vans. Usage is charged in 30 minute units with insurance and 20 miles of free fuel included in the price of the hire. Booking is done on-line or via smartphone app or mobile

internet access with members being provided with a smartcard to unlock the car door and pin to obtain the car keys.

- 2.21 Richmond-upon-Thames is a multi-operator borough, meaning it has other companies on offer as well as Zipcar. The UK currently has around 150,000 Zipcar members with the large majority in areas such as Bristol, Cambridge, Oxford and London.
- 2.22 A number of Zipcar sites are located within close proximity to the application site, including on A313 High Street (approx. 14-minute walk), Teddington Station (approx. 14-minute walk) and A309 Park Road (approx. 17-minute walk).

Summary

- 2.23 As demonstrated above, the site benefits from its proximity to local bus services and to Hampton Wick Rail Station. The site is also accessible via walking and cycling, encouraging sustainable travel by potential residents.

3 DEVELOPMENT PROPOSALS

- 3.1 This section sets out the development proposals for the site.
- 3.2 The existing site is currently vacant and fronts onto Kingston Road. Space for off-street parking is situated to south-east of the building, with dropped kerbs allowing access from Kingston Road.
- 3.3 The applicant is seeking to construct a two-storey detached building comprising seven self-contained flats to the site frontage and a 2-bedroom detached dwelling to the rear of the site. Four of the flats will have 2 bedrooms and three of the flats will have 1 bedroom.
- 3.4 In addition, an off-street car park will be provided to the rear of the building to provide six parking spaces.
- 3.5 The architect layout plans for the ground floor level is shown in **Appendix B**.

Vehicle Access and Car Parking

- 3.6 An off-street car park will be provided to the rear of the building to provide 6 parking spaces in total, including 1 disabled space. The provision of a car park in this location utilises the existing dropped kerb and parking area on the south-eastern boundary of the site. A plan of the proposed ground floor layout and dimensions is shown in **Appendix B**.
- 3.7 The access road will be a minimum of 2.5m wide which allows for vehicles to access the site, as shown on the swept path plan shown at **Drawing 184336/AT/B01** at **Appendix C**. This will require vehicles to give-way on the rare occasion that a vehicle arrives at the same time as a departing vehicle in the access road.
- 3.8 As outlined in Section 5, the expected vehicle impact of the proposals is considered to be low. The additional vehicular impact of the proposals in any peak period, will be minimal, at an additional 1 vehicle movement per peak period. The access road is circa 34m in length and based upon a vehicle speed of 5mph (2.2 meters per second), this only take circa 15 seconds for a vehicle to traverse.

- 3.9 Therefore, given that there is only 1 vehicle movement per hour and a vehicle only takes 15 seconds to traverse the access road, the chance of vehicles meeting on the access road are very low. In addition, the access road is straight, providing good visibility for vehicle drivers
- 3.10 On the rare occasion when a vehicle does have to give-way, this will be only for a very short period and will only cause a minor inconvenience for other road users and pedestrians. This is not considered to be an uncommon occurrence, where vehicles give-way to one another on side-roads for example. It is therefore considered that there is no material safety impact and that the access is sufficient to accommodate the anticipated vehicle demand. It is also noted that the adjacent property 219 Kingston Road has a similar arrangement with a single way working access provided to parking and garages to the rear.
- 3.11 Notwithstanding the above, signage will be provided to ensure that drivers are aware that incoming vehicles have priority. This is shown in **Drawing 162577/SK01** contained within **Appendix C**. The operation of this arrangement will be monitored. In the unlikely event that vehicle movement conflict does occur, a signal control system will be provided which would prioritise incoming vehicles. The incoming signal will be green at all times, unless a vehicle is exiting the site. If a vehicle is arriving at the same time as another is departing, the arriving vehicle will be given priority. It is considered that the exact specification can be considered at detailed design stage if needed, although, at this stage, it is considered an overdesign for the proposals at 217 Kingston Road. An indicative drawing of the potential signal-controlled access is shown in **Drawing 184336/SK/04** and contained within **Appendix C**.
- 3.12 In line with LBRuT's request, the crossover access into the site will not be widened beyond its current width.
- 3.13 Reference is made to pedestrian inter-visibility splays of 2.4m x 2.1m being required, either side of the vehicle access. This is referenced in LBRuT Supplementary Planning Guidance "Front Garden and Other Off-Street Parking Standards – September 2006", which advises the following at Paragraph 3.6:

Visibility splays must be provided in accordance with national guidelines as described in Design Bulletin 32 or any succeeding document. As a minimum, pedestrian sightlines of 2.1m x 2.4m, as shown in Fig 4, will be required at a property boundary with the public highway. Boundary treatment and landscaping within pedestrian and vehicle sightline envelopes,

should not normally exceed 0.6m in height, although a 0.6m wall with railings above may be acceptable. This will ensure that pedestrian and vehicular sightlines are unimpeded, so enabling safe entry and exit from a property.

- 3.14 It should be noted that the above policy is from 2006 and references Design Bulletin 32 or any succeeding document. Design Bulletin 32 was superseded in 2007 by Manual for Streets. In September 2010, Manual for Streets 2 was published, building on the advice contained within Manual for Streets 1. The following reference is provided to pedestrian visibility splays at Section 10.6, as below:

“10.6.1 – vehicle exits at the back edge of the footway means that emerging drives will have to take account of people on the footway. The absence of wide visibility splays at minor accesses will encourage drivers to emerge more cautiously – similarly to how vehicles pull out when visibility along the carriageway is restricted.

10.6.3 – Consideration should be given to whether this will be appropriate, taking into account the following:

- *the frequency of vehicle movements;*
- *the amount of pedestrian activity; and*
- *the width of the footway.”*

- 3.15 It can be seen from the above, that the current standards as outlined in Manual for Streets 2 are applicable. This document highlights that restricted visibility actually provides a safety benefit. Further, consideration should be given based on vehicle movements, pedestrian activity and the width of the footway. As outlined, the level of vehicle movements will be a maximum of 1 vehicle per hour in the peak period and pedestrian activity is considered to be relatively low. The width of the footway is also considered to be generous at circa 2.6m. It is therefore considered that a pedestrian visibility splay is not required and would actually provide a safety benefit. Notwithstanding the above, a 2m x 2m pedestrian visibility splay can be accommodated in-line with DMRB guidance and any proposed property boundary will be below 0.6m in height, as set-out below and illustrated at **Drawing 162577/SK02** provided at Appendix C.

Figure 3.1: Pedestrian Visibility Requirements outlined in Part 7 TD 41/95 of DMRB

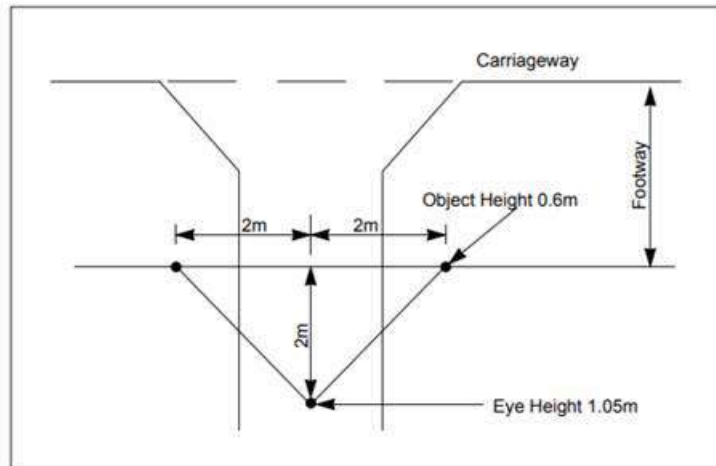


Figure 2/2 : Visibility at Back of Footway Crossing

Pedestrian Access

3.16 Following pre-app discussions with LBRuT, a separate footway is provided to the car park and house to the rear of the Site, to provide an alternative to using the main vehicular access to the rear. As outlined on the ground floor layout plan, the footway has a minimum width of 0.95m. It should be noted that this is not for public access but is simply to provide access for the residents and visitors to access the rear of the Site. As outlined in Manual for Streets, a minimum of 0.9m width is required to accommodate a wheelchair user. It is therefore considered that the proposed separate footway is appropriate. Further, given the light use of the vehicular access, it is considered that pedestrians can also safely use the main vehicular use in practice, as there will be no material safety impact.

Disabled Parking

3.17 The current London Plan requires that 1 disabled space be provided for each wheelchair accessible / adaptable unit (typically 10% of units). A ground floor unit is proposed to be wheelchair accessible and therefore 1 disabled parking space is provided as part of the total provision of 6 parking spaces to the rear of the Site, as shown on the ground floor layout.

Cycle Parking

- 3.18 London Plan cycle parking standards require one space per studio and one bed unit and two spaces for all other dwellings. In line with these standards, 14 cycle parking spaces will be provided to the rear of the building. Cycle parking will be secure, enclosed and weatherproof.

Refuse Collection

- 3.19 A bin store is located next to the car park to the rear of the building. Bins will be moved to a secondary store at the front of the site both side of the pedestrian access on collection days. This is within 10m of the highway for ease of collection by refuse operatives. In line with the refuse collection of other residential properties along Kingston Road, refuse collection vehicles will pull up on-street on collection days. It is considered that this arrangement is typical of existing residential collection arrangements locally and given the frequency of refuse collection, will not have a detrimental impact on other road users. The proposed refuse store and collection area is outlined on layout plans shown in **Appendix B**

4 POLICY CONTEXT

4.1 In this section a summary of the relevant transport policies at a national, regional and local level is given and considered in the context of the application site and the proposed development.

National Policy

National Planning Policy Framework, 2012

4.2 The National Planning Policy Framework (NPPF) was published by the Department for Communities and Local Government in March 2012 and sets out national policy for delivering sustainable growth and development in England. The NPPF details how it expects policy to be applied and it aims to make the planning system less complex and more accessible.

4.3 One of the 12 core land-use principles within the NPPF includes:

[to] actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.

4.4 Section 4 of the NPPF deals with promoting sustainable transport, and paragraphs 29 and 32 state:

The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel.

All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- *the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*
- *safe and suitable access to the site can be achieved for all people; and*
- *improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or*

refused on transport grounds where the residual cumulative impacts of development are severe.

4.5 The NPPF also states at paragraph 35 that:

Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to:

- *accommodate the efficient delivery of goods and supplies;*
- *give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*
- *incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
- *consider the needs of people with disabilities by all modes of transport.*

Regional Policy

The London Plan, 2016

4.6 The London Plan, Spatial Development Strategy for Greater London was adopted in July 2011 and has been subject to several alterations since.

4.7 The Revised Early Minor Alterations to the London Plan was published in October 2013 which aimed to ensure that the London Plan is fully consistent with NPPF. Following this, The Draft Further Alterations to the London Plan was adopted in March 2015 to address key housing and employment issues emerging from analysis of Census 2011 data. In March 2016, the Mayor published the Housing Standards and the Parking Standards Minor Alterations to the London Plan (MALPs) to form the consolidated version. From this date, these alterations are operative as formal alterations to the London Plan and form part of the development plan for London.

4.8 The London Plan sets out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years.

4.9 The London Plan is the overall strategic plan for London setting out the framework for development of London over the next 20-25 years. It is the strategic, London-wide policy context within which boroughs should set their detailed local plan policies.

4.10 Policy 6.1 states that:-

“The Mayor will work with all relevant partners to encourage the closer integration of transport and development through the schemes and proposals shown in Table 6.1 and by encouraging patterns and nodes of development that reduce the need to travel, especially by car”.

4.11 Policy 6.13 relates to parking and states that:

“The Mayor wishes to see an appropriate balance being struck between promoting new development and preventing excessive car parking provision that can undermine cycling, walking and public transport use.”

4.12 It is recognised within paragraph 6.44 *“that developments should always include parking provision for disabled people. Despite improvements to public transport, some disabled people require the use of private cars.”*

Draft London Plan, 2019

4.13 The Draft New London Plan is currently under review and provides an updated draft set of strategic policies for London. The emerging London Plan is a material consideration in the determination of planning applications.

4.14 The Draft London Plan sets out the emerging approach to be taken on a number of policy issues. Chapter 10 of the London Plan pertains to transport, more precisely cycle parking and car-free developments.

4.15 Draft Policy T5 on Cycling states that:

“Development Plans and development proposals should help remove barriers to cycling and create a healthy environment in which people choose to cycle. This will be achieved through:

1) supporting the delivery of a London-wide network of cycle routes, with new routes and improved infrastructure.

2) securing the provision of appropriate levels of cycle parking which should be fit for purpose, secure and well-located. Developments should provide cycle parking at least in accordance with the minimum standards set out in Table 10.2 and Figure 10.2, ensuring that a minimum of two short-stay and two long-stay cycle parking spaces are provided where the application of the minimum standards would result in a lower provision.

Cycle parking should be designed and laid out in accordance with the guidance contained in the London Cycling Design Standards. Development proposals should demonstrate how cycle parking facilities will cater for larger cycles, including adapted cycles for disabled people.”

4.16 Policy T6 on Car Parking surrounding car-free developments states that:

4.17 “Car parking should be restricted in line with levels of existing and future public transport accessibility and connectivity.

4.18 Car-free development should be the starting point for all development proposals in places that are (or are planned to be) well-connected by public transport, with developments elsewhere designed to provide the minimum necessary parking (‘carlite’). Car-free development has no general parking but should still provide disabled persons parking in line with Part D of this policy.”

4.19 Draft Policy T6.1 on Residential parking further details that:

4.20 “Disabled persons parking should be provided for new residential developments. Residential development proposals delivering ten or more units must, as a minimum:

4.21 1) ensure that for three per cent of dwellings, at least one designated disabled persons parking bay per dwelling is available from the outset

4.22 2) demonstrate as part of the Parking Design and Management Plan, how an additional seven per cent of dwellings could be provided with one designated disabled persons parking space per dwelling in future upon request as soon as existing provision is insufficient. This should be secured at the planning stage.”

The Mayor's Transport Strategy, 2018

- 4.23 The Mayor's Transport Strategy sets out the Mayor's policies and proposals to reshape transport in London over the next two decades. At the heart of this document is the aim for 80% of all trips in London to be made on foot, by cycle or using public transport by 2041.
- 4.24 The proposed development will achieve this target of 80% of all trips by sustainable modes as the development will be car-free, with the exception of disabled parking bays.

Local Policy

London Borough of Richmond Upon Thames – Local Development Framework Core Strategy (2009)

- 4.25 The Local Development Core Strategy was adopted in 2009 and will be the strategic planning framework for the borough over the next 15 years. The document sets out the key planning policies that will the borough will adhere too within the broader context of the London Plan.
- 4.26 Core Policy 5 within the document details how the council will seek to promote sustainable travel within the borough, policies include:
- 4.27 Policy 5.A on Sustainable Travel notes, "Require developments which would generate significant amounts of travel to be located on sites well served by public transport"
- 4.28 Policy 5.C on Cycling and Walking states, "Prioritise the needs of pedestrians and cyclists in the design of new developments including links to existing networks and requiring the provision of adequate cycle parking"

London Borough of Richmond upon Thames Development Management Plan (DMP) 2011

- 4.29 The DMP was adopted in November 2011 and contains detailed policies to be used when considering future development in the borough. The policies take forward the strategic objectives set out in the Core Strategy and follow its three theses – For a Sustainable Future, Protecting Local Character and Meeting People's Needs.

- 4.30 The Development Management policies for Transport and Parking are designed to take forward Core Policy 5 of the Core Strategy, which seeks to promote the use of sustainable modes of travel. Those relevant to the site are listed below.
- 4.31 **Policy DM TP 2** - 'Transport and New Development.' This policy states that *"the impact of new development on the transport network will be assessed against other plan policies and transport standards."* It is noted that all planning applications for smaller developments should be accompanied by a Transport Statement.
- 4.32 **Policy DM TP 3** - 'Enhancing Transport Links.' Policy DM TP 3 states that all new development must be designed to improve accessibility. Developments should maximise permeability, with safe, convenient, accessible and appropriate road, cycle and pedestrian routes, both within and within the immediate vicinity of the site. Appropriate links should also be provided to public transport nodes and key land uses.
- 4.33 **Policy DM TP 6** - 'Walking and the Pedestrian Environment' states that *"the Council will ensure that new development protects, maintains and, where appropriate, improves the existing pedestrian infrastructure. New development should not adversely impact in the pedestrian environment and should provide appropriate pedestrian access."*
- 4.34 **Policy DM TP 7** - 'Cycling' states that the Council will ensure that new development do not adversely impact on the cycling network or cyclists and provides appropriate cycle access and sufficient, secure cycle parking facilities
- 4.35 **Policy DM TP 8** - 'Off Street Parking- Retention and New Provision.' This policy states that *"developments, redevelopments [and] conversions will have to demonstrate that the new scheme provides an appropriate level of off street parking to avoid an unacceptable impact on on-street parking and local traffic conditions."*
- 4.36 Subsequently, the policy refers to a set of maximum car parking standards which are set out in Appendix Four. These standards take into account bus, rail and tube accessibility as well as local highway and traffic conditions including the demand for on-street parking. The standards are summarised in **Table 4.1** below.

Table 4.1: Maximum Parking Standards: London Borough of Richmond upon Thames

Unit Size	Parking Spaces
1-2 bedrooms	1 spaces
3 bedrooms	2 spaces

- 4.37 In general it is expected that in areas which have what the Borough Council considers a low PTAL (1-4), the standards should be met. Developers may only provide fewer parking spaces, including car free schemes, if they can show that there would be no adverse impact on amenity, street scene, road safety or emergency access in the surrounding area or a generation of unacceptable overspill of on-street parking in the vicinity.

Policy Summary

- 4.38 The proposals at 217 Kingston Road accord with policy requirements. They include off-street parking and cycle parking for the new residences and the site is located in an area of good accessibility to public transport and key facilities.

5 TRIP GENERATION

- 5.1 This section of the report provides an assessment of the predicted number of person trips to and from the site. This will be used to assess the effect of the proposals on the transport network.
- 5.2 The applicant is seeking to construct a two-storey detached building comprising seven self-contained flats to the site frontage and a 2-bedroom detached dwelling to the rear of the site. Four of the flats will have 2 bedrooms and three of the flats will have 1 bedroom.
- 5.3 Therefore, there is a net increase of seven residential units as a result of the proposals.

Vehicle Trip Generation

- 5.4 The expected vehicle impact of the proposals is considered to be low. The potential traffic impact of the proposals has been considered further for the whole scheme of 7 apartments and 1 house, using the current TRICS database. Suburban locations in Greater London with a similar PTAL 2 have been considered. The potential traffic impact of the proposals in the peak weekday periods has been outlined below, with the full TRICS outputs provided at **Appendix D.**

Table 5.1: Houses and Flats Trip Rates– Weekday AM and PM Peak

Development	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
Houses	0.085	0.293	0.122	0.098
Flats	0.031	0.100	0.112	0.041

Table 5.2: Existing and Proposed Vehicular Trip Generation – Weekday AM and PM Peak

Development	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
Proposed – 7 Flats	0	+1	+1	0
Proposed – 1 House	0	0	0	0
Net Impact	0	+1	+1	0

- 5.5 It can be seen from the above table, that the additional vehicular impact of the proposals in any peak period, will be minimal, at an additional 1 vehicle movement per peak period.

- 5.6 Therefore, given that there is only 1 vehicle movement per hour and a vehicle only takes 15 seconds to traverse the access road, the chance of vehicles meeting on the access road are very low. In addition, the access road is straight, providing good visibility for vehicle drivers
- 5.7 On the rare occasion when a vehicle does have to give-way, this will be only for a very short period and will only cause a minor inconvenience for other road users and pedestrians. This is not considered to be an uncommon occurrence, where vehicles give-way to one another on side-roads for example. It is therefore considered that there is no material safety impact and that the access is sufficient to accommodate the anticipated vehicle demand. It is also noted that the adjacent property 219 Kingston Road has a similar arrangement with a single way working access provided to parking and garages to the rear.
- 5.8 Notwithstanding the above, signage will be provided to ensure that drivers are aware that incoming vehicles have priority. This is shown in **Drawing 162577/SK01** contained within **Appendix C**. The operation of this arrangement will be monitored. In the unlikely event that vehicle movement conflict does occur, a signal control system will be provided which would prioritise incoming vehicles. The incoming signal will be green at all times, unless a vehicle is exiting the site. If a vehicle is arriving at the same time as another is departing, the arriving vehicle will be given priority. It is considered that the exact specification can be considered at detailed design stage if needed, although, at this stage, it is considered an overdesign for the proposals at 217 Kingston Road. An indicative drawing of the potential signal-controlled access is shown in **Drawing 184336/SK/04** and contained within **Appendix C**.

Effect on On-Street Parking

- 5.9 Six parking spaces will be associated with the development proposals which is the equivalent to 0.75 per unit. This is within the maximum parking standards, as set out by LBRuT.
- 5.10 Despite the site only receiving a PTAL score of 2 it is located directly opposite two regular bus services (the 281 and 285) which provide frequent links to Teddington, Kingston and Hounslow which will be the likely locations for future residents work and leisure trips. Moreover, a previous iteration of the site provided 8 parking spaces and this has been reduced to 6 spaces to adhere to the appeal comments that the site should reflect the urban design quality and site layout considerations set out in Policy LP1.

- 5.11 Given the majority of units are also flats, it is not expected that any on-street parking will have an unacceptable impact on on-street parking and local traffic conditions. This complies with Policy DM TP 8, which states *“developments, redevelopments [and] conversions will have to demonstrate that the new scheme provides an appropriate level of off street parking to avoid an unacceptable impact on on-street parking and local traffic conditions”*.
- 5.12 The proposals are within the maximum parking standards and the level of parking has been reduced to increase landscape provision, in-line with previous planning appeal decision. To understand the likely demand for parking, 2011 National Census Survey Data has been reviewed for car ownership for flats and houses within the vicinity of the site (Output Area E01003838). The census data shows that the local level of car ownership for flats is circa 0.8 vehicles per dwelling. The proposed level of parking is therefore considered to be in-line with local levels of car ownership. Further, this is based on 2011 data and trends over the past 8 years have displayed that car ownership levels are decreasing. It is therefore considered the provision of 6 spaces for the development will satisfy demand. The census data can be viewed at **Appendix E**.

Summary

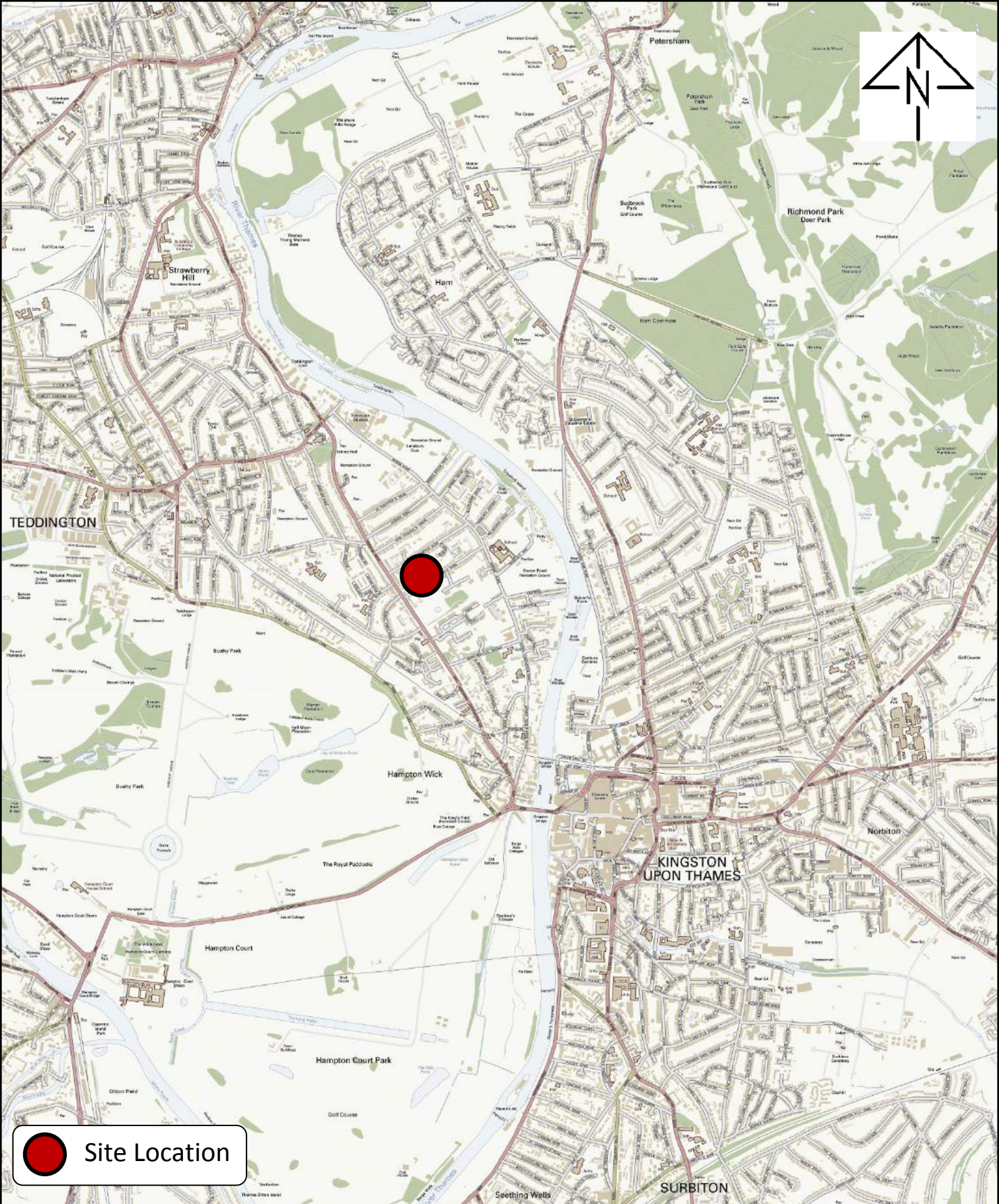
- 5.13 This section has demonstrated that vehicle trip generation associated with the proposed development will be low, with less than less than one vehicle trip during the AM peak hour and PM peak hour on average.
- 5.14 It has also been demonstrated that proposed scheme will provide an appropriate level of off-street parking which not result in an unacceptable impact on on-street parking and local traffic conditions. Therefore, there will be no effect on local on-street parking conditions as a result of the proposals.

6 SUMMARY AND CONCLUSION

- 6.1 Vectos has been employed by Midco Holdings Limited to provide transport advice in regards to a site at 217 Kingston Road, Teddington, in the London Borough of Richmond upon Thames (LBRuT).
- 6.2 The existing site is currently vacant and fronts onto Kingston Road. Space for off-street parking is situated to south-east of the building, with dropped kerbs allowing access from Kingston Road.
- 6.3 The applicant is seeking to construct a two-storey detached building comprising seven self-contained flats to the site frontage and a 2-bedroom detached dwelling to the rear of the site. Four of the flats will have 2 bedrooms and three of the flats will have 1 bedroom.
- 6.4 In addition, an off-street car park will be provided to the rear of the building to provide six parking spaces. These spaces will be allocated for use by the proposed development (0.75 parking space per unit). The provision of a car park in this location utilises the existing dropped kerb and access, and is similar to the adjacent residential development to the south east of the site, and parking situation adopted here.
- 6.5 Following discussions with LBRuT, a pedestrian footway will be provided to connect the front of the building to the rear car park. In addition, signage will be provided to ensure that drivers are aware that incoming vehicles have priority.
- 6.6 The site benefits from its proximity to local bus services and to Hampton Wick Rail Station. The site is also accessible via walking and cycling, encouraging sustainable travel by potential residents.
- 6.7 It has been demonstrated that vehicle trip generation associated with the proposed development will be low, with less than one vehicle trip during the AM peak hour and PM peak hour on average.
- 6.8 It has also been demonstrated that proposed scheme will provide an appropriate level of off-street parking which not result in an unacceptable impact on on-street parking and local traffic conditions. Therefore, there will be no effect on local on-street parking conditions as a result of the proposals.

6.9 In conclusion, and in light of the above, it is considered that the proposed development is acceptable in transport terms.

FIGURES



 Site Location

217 Kingston Road, Teddington

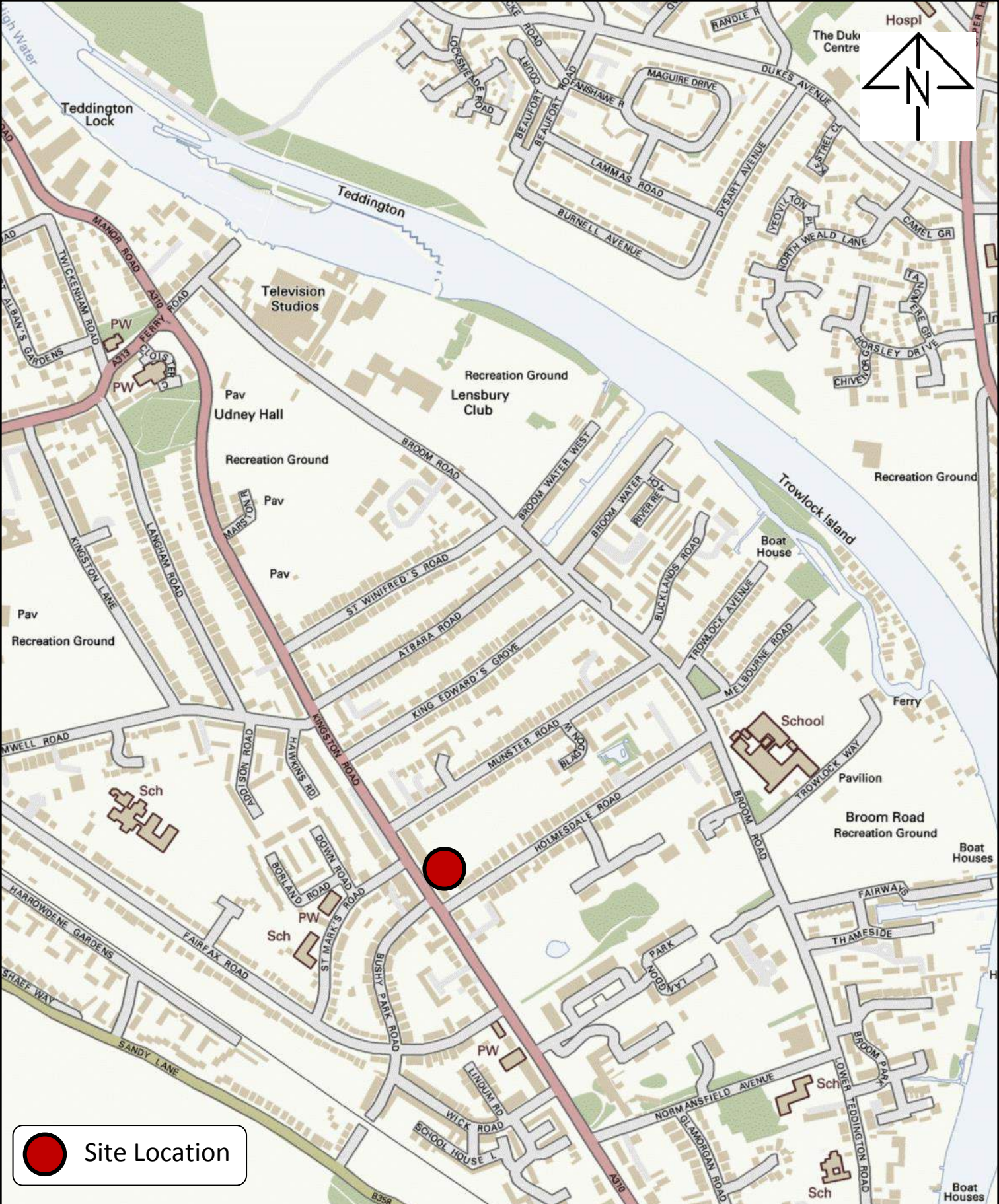
Midco Holdings Limited

Site Location (Strategic Context)



Network Building, 97 Tottenham Court Road, London W1T 4TP
Tel: 020 7580 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWN: R.R	CHECKED: X.Y	DATE: 23/12/2016	SCALES: NTS	DRAWING REFERENCE: Figure 1	REVISION:
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 Site Location

217 Kingston Road, Teddington

Midco Holdings Limited

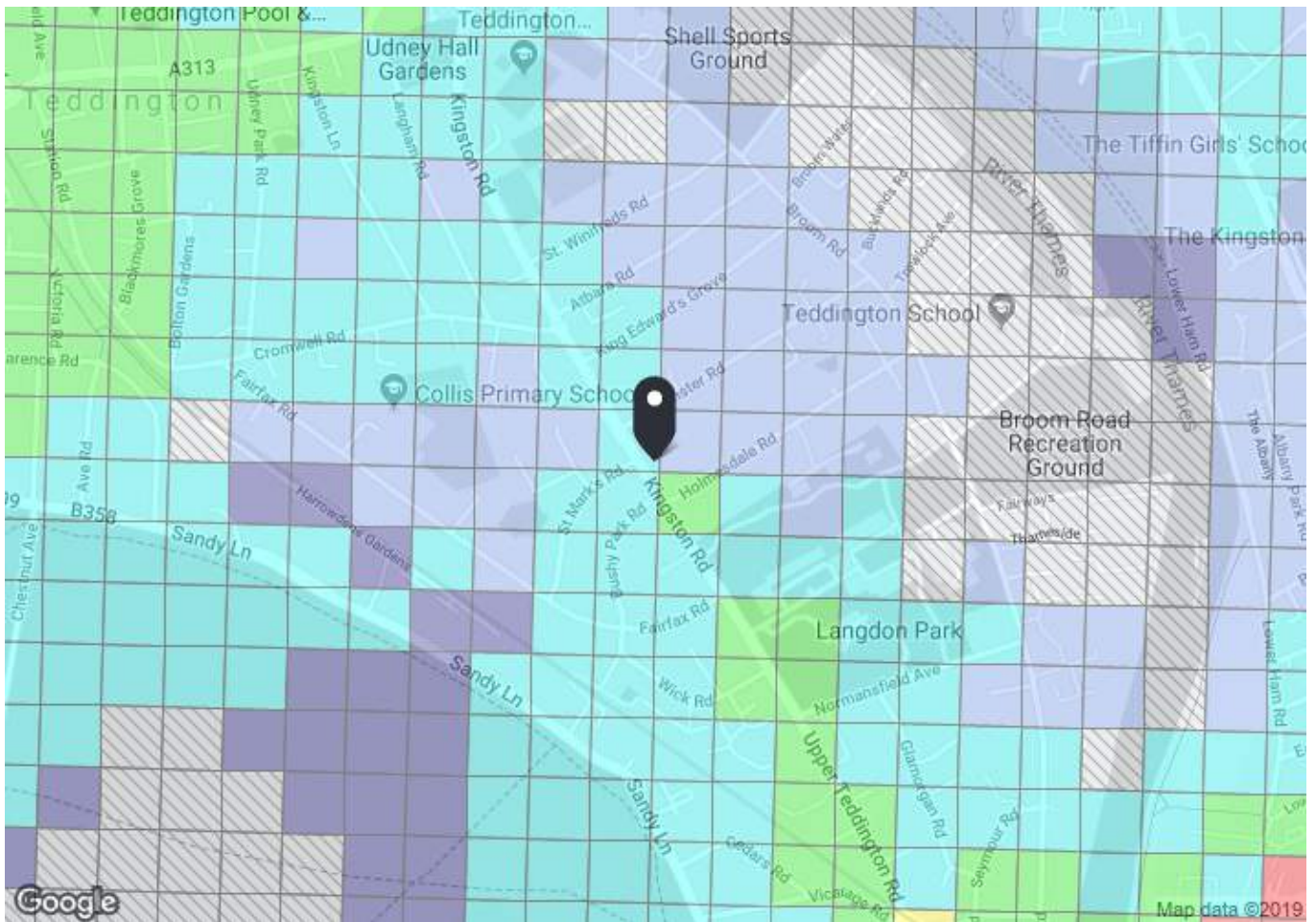
Site Location (Local Context)



Network Building, 97 Tottenham Court Road, London W1T 4TP
Tel: 020 7580 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWN: R.R	CHECKED: X.Y	DATE: 23/12/2016	SCALES: NTS	DRAWING REFERENCE: Figure 2	REVISION:
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APPENDIX A



PTAL output for Base Year 2

217 Kingston Rd
217 Kingston Rd, Teddington TW11 9JN, UK
Easting: 516990, Northing: 170504

Grid Cell: 34190

Report generated: 16/10/2019

Map key - PTAL

	0 (Worst)		1a
	1b		2
	3		4
	5		6a
	6b (Best)		

Map layers

- PTAL (cell size: 100m)

Calculation Parameters

Day of Week	M-F
Time Period	AM Peak
Walk Speed	4.8 kph
Bus Node Max. Walk Access Time (mins)	8
Bus Reliability Factor	2.0
LU Station Max. Walk Access Time (mins)	12
LU Reliability Factor	0.75
National Rail Station Max. Walk Access Time (mins)	12
National Rail Reliability Factor	0.75

Calculation data

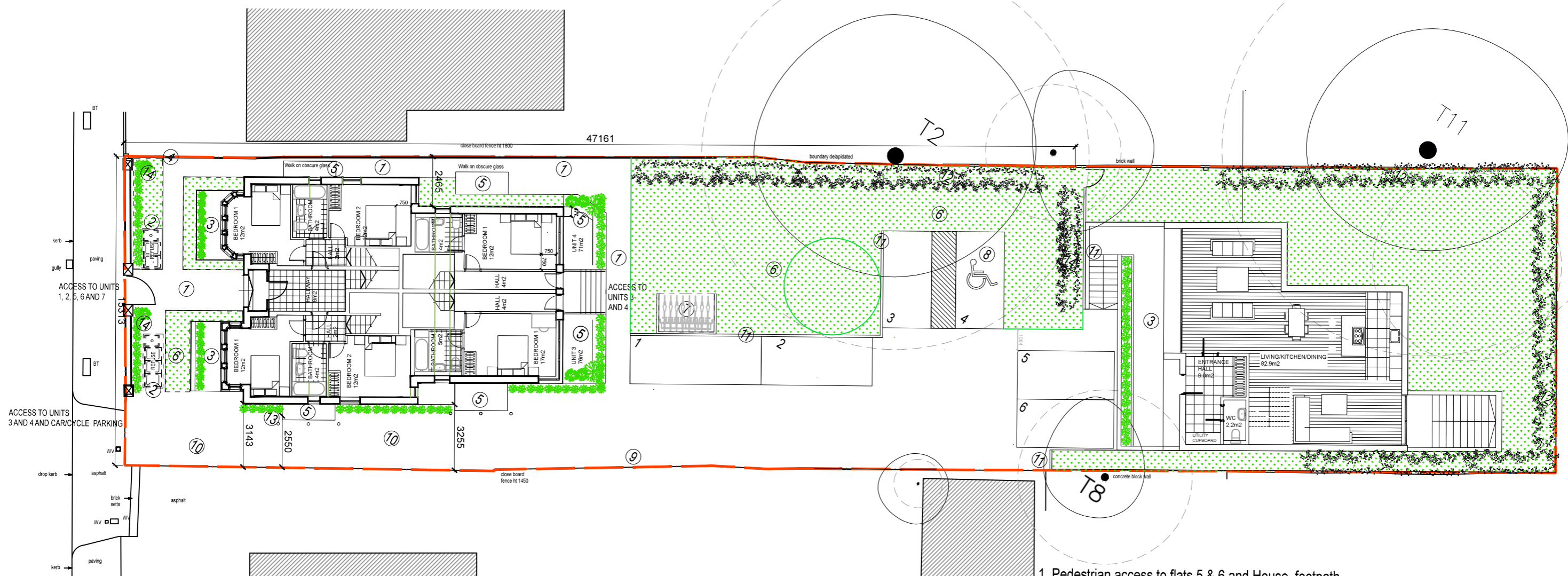
Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	KINGSTON RD ST MARK'S RD	281	62.16	7.5	0.78	6	6.78	4.43	1	4.43
Bus	KINGSTON RD ST MARK'S RD	285	62.16	6	0.78	7	7.78	3.86	0.5	1.93
Bus	SANDY LANE BUSHY PARK RD	481	599.52	1	7.49	32	39.49	0.76	0.5	0.38
Bus	SANDY LANE BUSHY PARK RD	X26	599.52	2	7.49	17	24.49	1.22	0.5	0.61
									Total Grid Cell AI:	7.35

APPENDIX B

NOTES

- The Copy right of this drawing is the property of Create and must not be copied otherwise reproduced without written consent.
- The contractor is responsible for checking dimensions, tolerances and references. Any discrepancy to be verified with the Architect before proceeding with the works.
- Do not scale drawing. Figured dimensions to be worked to in all cases.

FOR PLANNING



1. Pedestrian access to flats 5 & 6 and House, footpath
2. Bin store
3. Open lightwell (not covered)
4. Lightwell covered with toughened obscure glass panel
5. Lightwell/Terrace
6. Shared amenity space
7. Covered cycle parking
8. Car parking
9. Boundary
10. Vehicle access, gravel drive
11. Fence
12. Screening by Conifers (or similar planting)
13. Bollard
14. Hedge 750mm high

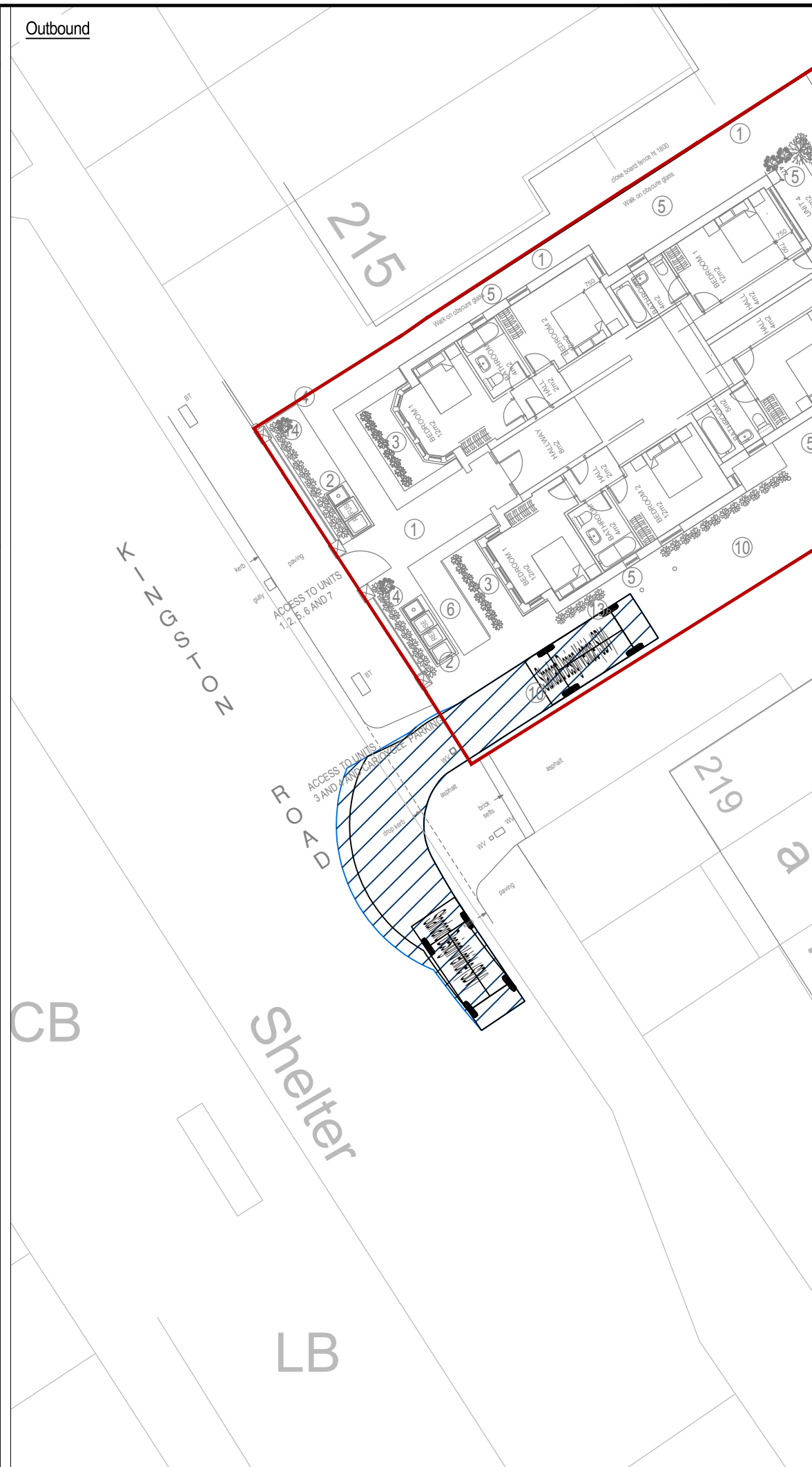
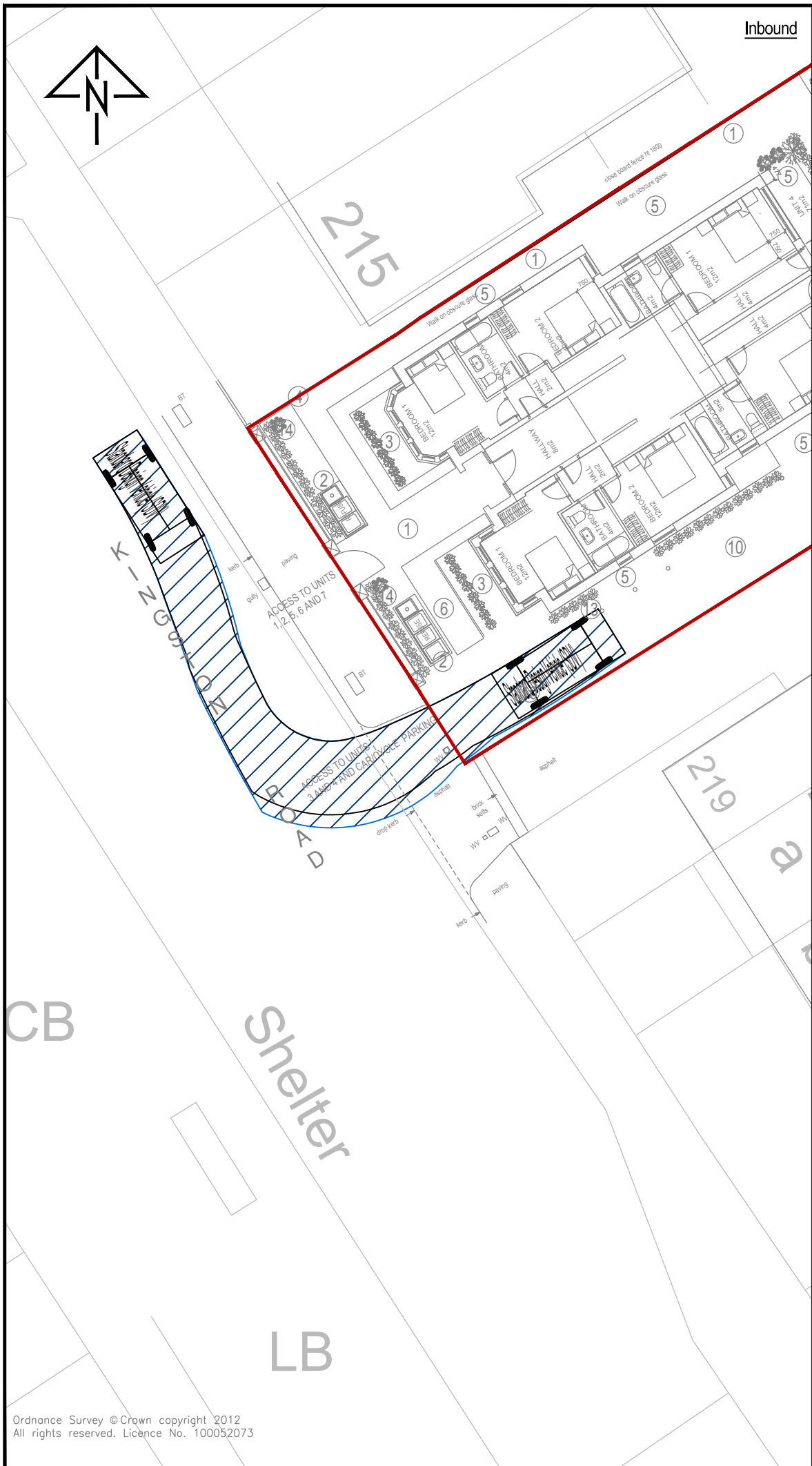
30.09.19	G	Issue for comments / AA / MW
08.06.18	F	Access Amended / NC / MW
13.05.18	E	Minor Amendment / NC / MW
23.04.18	D	Issue for planning / NC / MW
30.01.17	C	Issue for planning / PG / MW
10.11.16	B	Issue for comments / PG / MW
26.10.16	A	Issue for comments / PG / MW

date	rev	revision/author/checker
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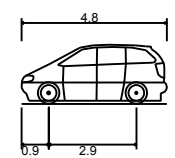
client	Midco Holdings Ltd
project	217 Kingston Road
drawing	PLANNING APPLICATION PROPOSED SITE PLAN

drawing no	240 2 PL(10) P00	rev	G
drawn	PG	checked	MW
scale @ A3	1:200	date	30.01.2017

APPENDIX C



- Notes:**
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 3. Site Plan is 240 2 PL10 P00-I by Create.



Standard Design Vehicle (SDV)	
Overall Length	4.800m
Overall Width	2.000m
Overall Body Height	1.950m
Min Body Ground Clearance	0.100m
Track Width	2.000m
Lock-to-lock time	4.00s
Wall to Wall Turning Radius	6.000m

REV.	DETAILS	DRAWN	CHECKED	DATE
A	Layout updated	PP	DS	16.10.2019

CLIENT:
Midco Holdings Limited

PROJECT:
**217 Kingston Road
Teddington**

DRAWING TITLE:
**Swept Path Analysis
Site Access
Standard Design Vehicle**

SCALES:
1:200 at A3

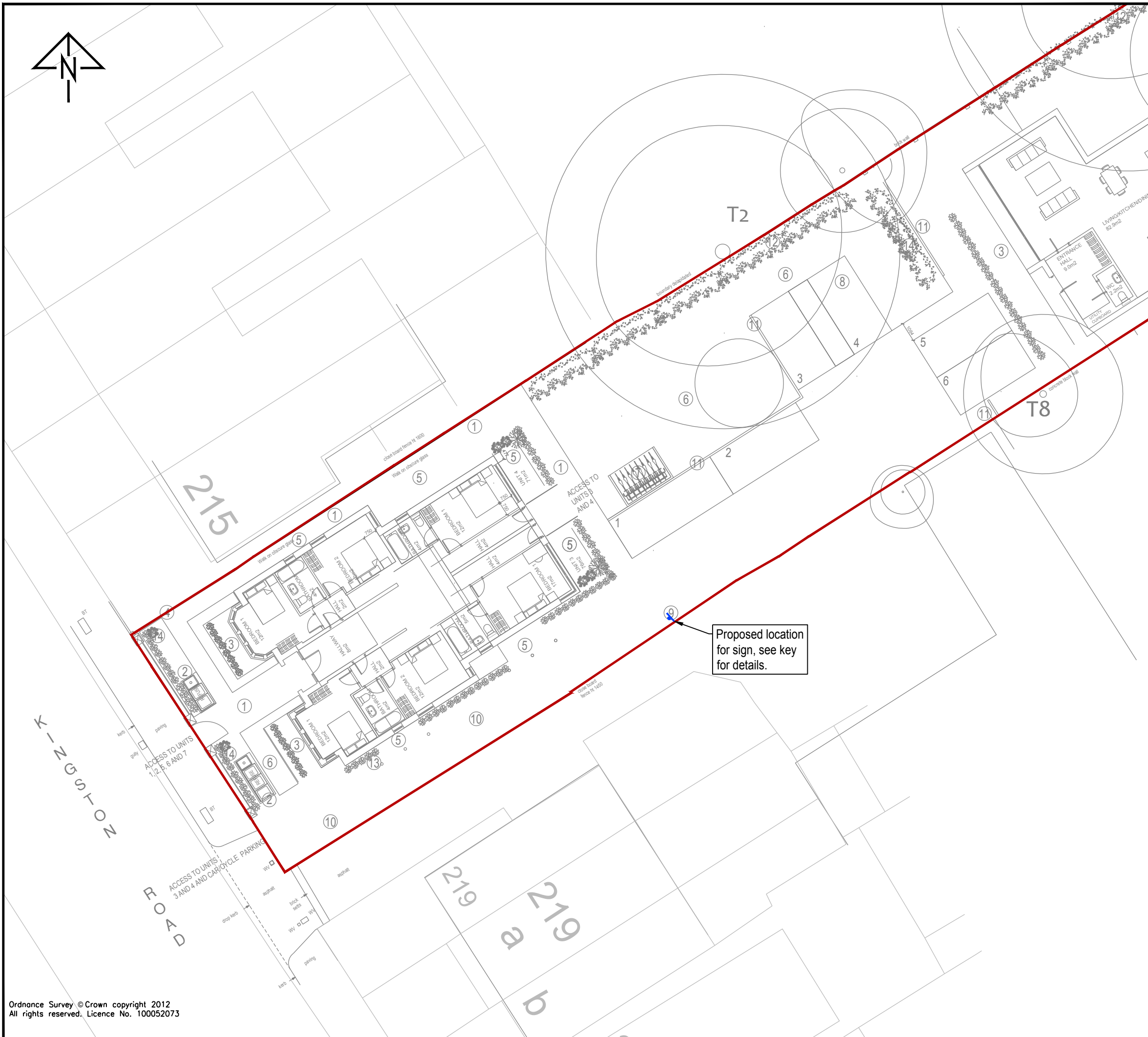
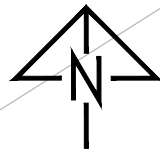
DRAWN:	PP	CHECKED:	DS	DATE:	10/10/2019
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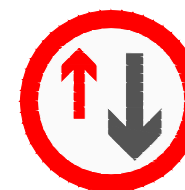
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Key:



Give way to inbound vehicles

A	Layout updated	PP	DS	16.10.2019
REV.	DETAILS	DRAWN	CHECKED	DATE

CLIENT:
Midco Holdings Limited

PROJECT:
**217 Kingston Road
Teddington**

DRAWING TITLE:
**Proposed Give-way Access
Arrangement**

SCALES:
1:200 at A3

DRAWN:	PP	CHECKED:	DS	DATE:	10/10/2019
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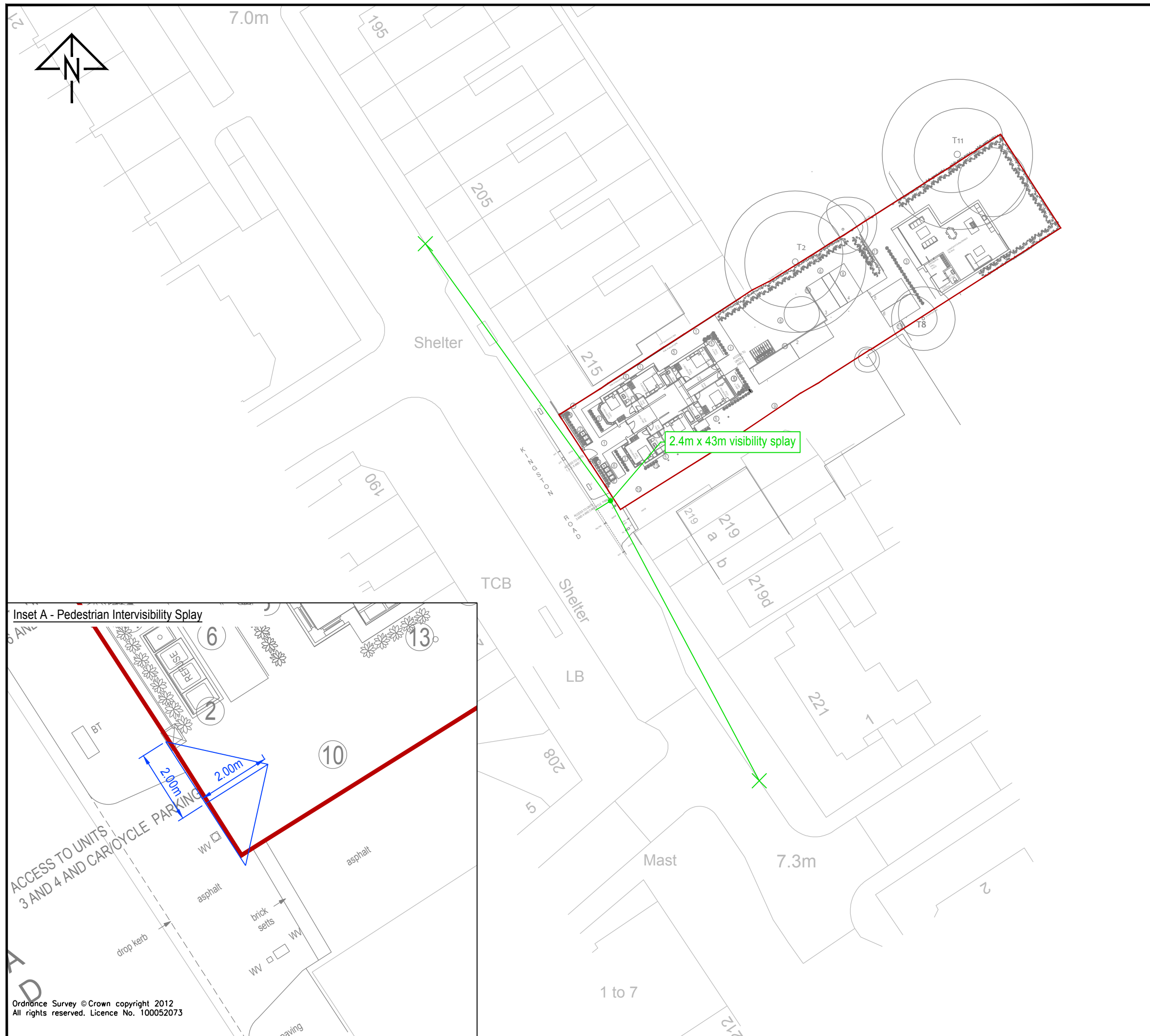


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REV.	A	Layout updated	PP	DS	16.10.2019
		DETAILS	DRAWN	CHECKED	DATE

CLIENT:
Midco Holdings Limited

PROJECT:
**217 Kingston Road
Teddington**

DRAWING TITLE:
Visibility Splays

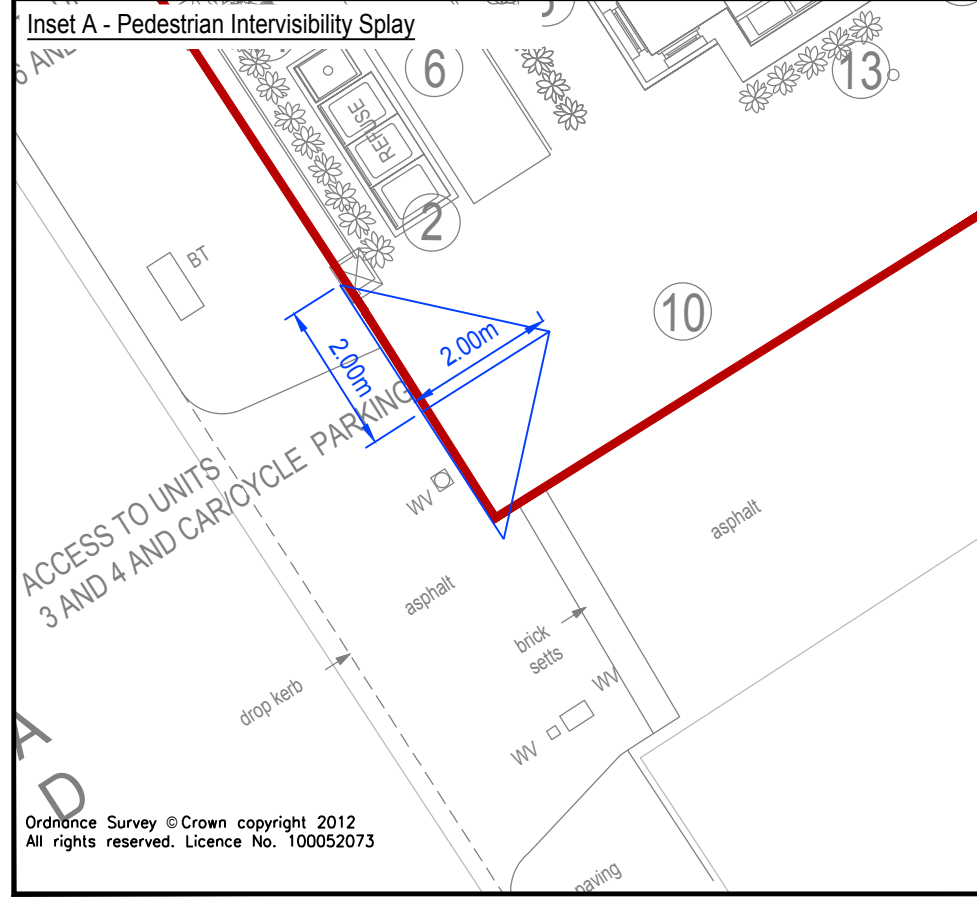
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DRAWN: PP CHECKED: DS DATE: 10/10/2019



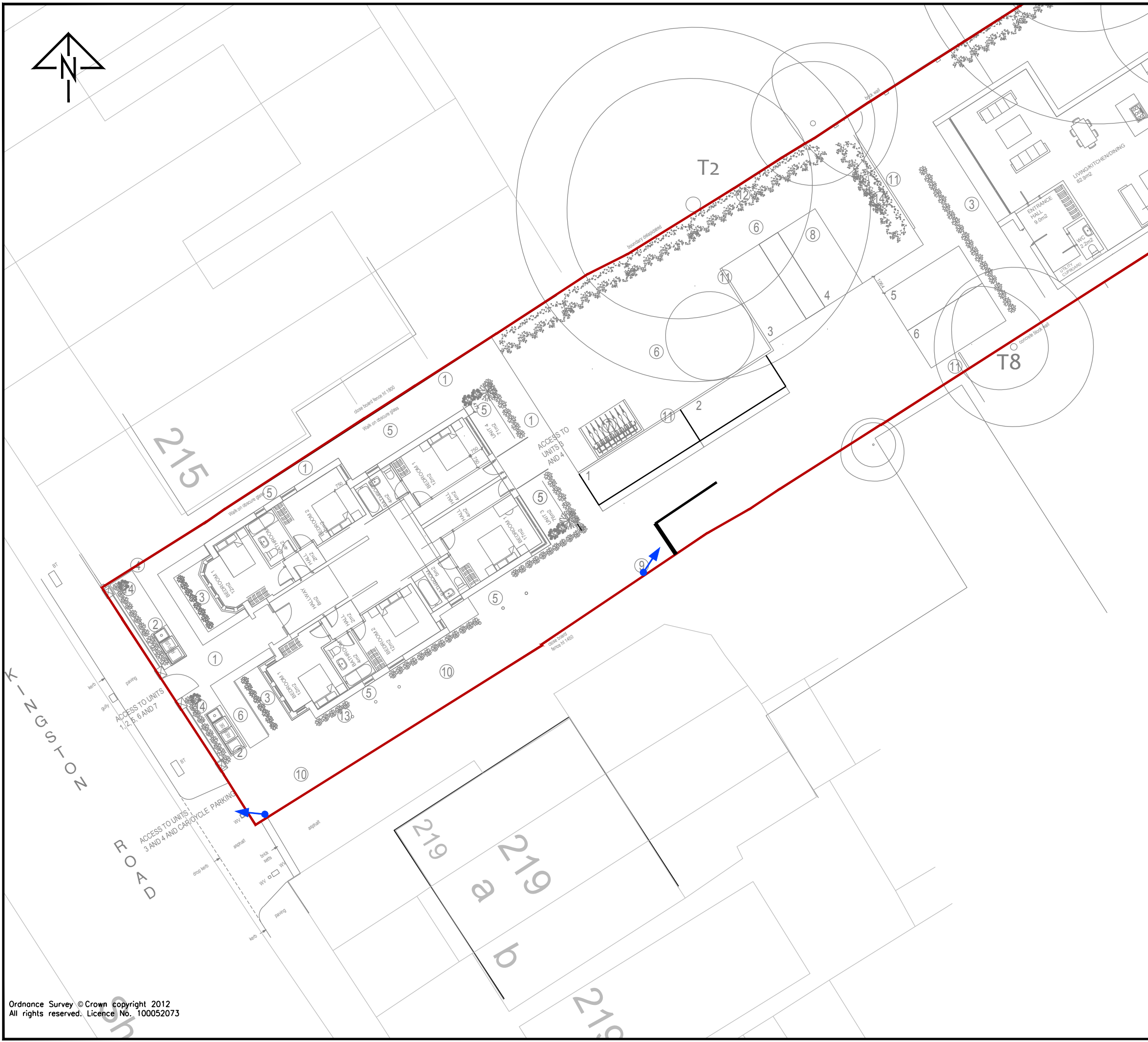
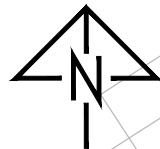
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 Potential Signal Location

REV.	DETAILS	DRAWN	CHECKED	DATE

CLIENT:
Midco Holdings Limited

PROJECT:
**217 Kingston Road
Teddington**

DRAWING TITLE:
**Potential Signalised Access
Arrangement**

SCALES:
1:200 at A3

DRAWN: PP CHECKED: AP DATE: 16.10.2019



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APPENDIX D

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	EN ENFIELD	1 days
	HV HAVERING	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 16 to 493 (units:)
Range Selected by User: 9 to 493 (units:)

Public Transport Provision:

Selection by: Include all surveys

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

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

Selected survey days:

Monday	1 days
Tuesday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	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:

Built-Up Zone	2
---------------	---

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

Secondary Filtering selection:

Use Class:

C3	2 days
----	--------

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

Population within 1 mile:

10,001 to 15,000	1 days
25,001 to 50,000	1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

125,001 to 250,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
1.1 to 1.5	1 days

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

Travel Plan:

Yes	1 days
No	1 days

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

PTAL Rating:

2 Poor	2 days
--------	--------

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

LIST OF SITES relevant to selection parameters

1	EN-03-C-01 SOUTH STREET ENFIELD	BLOCK OF FLATS		ENFIELD
	Suburban Area (PPS6 Out of Centre) Built-Up Zone			
	Total Number of dwellings:		16	
	<i>Survey date: MONDAY</i>		<i>16/11/15</i>	<i>Survey Type: MANUAL</i>
2	HV-03-C-02 WATERLOO ROAD ROMFORD	BLOCKS OF FLATS		HAVERING
	Suburban Area (PPS6 Out of Centre) Built-Up Zone			
	Total Number of dwellings:		493	
	<i>Survey date: TUESDAY</i>		<i>22/11/16</i>	<i>Survey Type: MANUAL</i>

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/C - FLATS PRIVATELY OWNED
VEHICLES

Calculation factor: 1 DWELLS

Estimated TRIP rate value per 7 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated 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	2	255	0.037	0.261	2	255	0.083	0.578	2	255	0.120	0.839
08:00 - 09:00	2	255	0.031	0.220	2	255	0.100	0.701	2	255	0.131	0.921
09:00 - 10:00	2	255	0.047	0.330	2	255	0.045	0.316	2	255	0.092	0.646
10:00 - 11:00	2	255	0.028	0.193	2	255	0.039	0.275	2	255	0.067	0.468
11:00 - 12:00	2	255	0.028	0.193	2	255	0.041	0.289	2	255	0.069	0.482
12:00 - 13:00	2	255	0.035	0.248	2	255	0.029	0.206	2	255	0.064	0.454
13:00 - 14:00	2	255	0.057	0.399	2	255	0.053	0.371	2	255	0.110	0.770
14:00 - 15:00	2	255	0.051	0.358	2	255	0.057	0.399	2	255	0.108	0.757
15:00 - 16:00	2	255	0.075	0.523	2	255	0.059	0.413	2	255	0.134	0.936
16:00 - 17:00	2	255	0.088	0.619	2	255	0.057	0.399	2	255	0.145	1.018
17:00 - 18:00	2	255	0.112	0.784	2	255	0.041	0.289	2	255	0.153	1.073
18:00 - 19:00	2	255	0.106	0.743	2	255	0.059	0.413	2	255	0.165	1.156
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.695	4.871			0.663	4.649			1.358	9.520

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

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

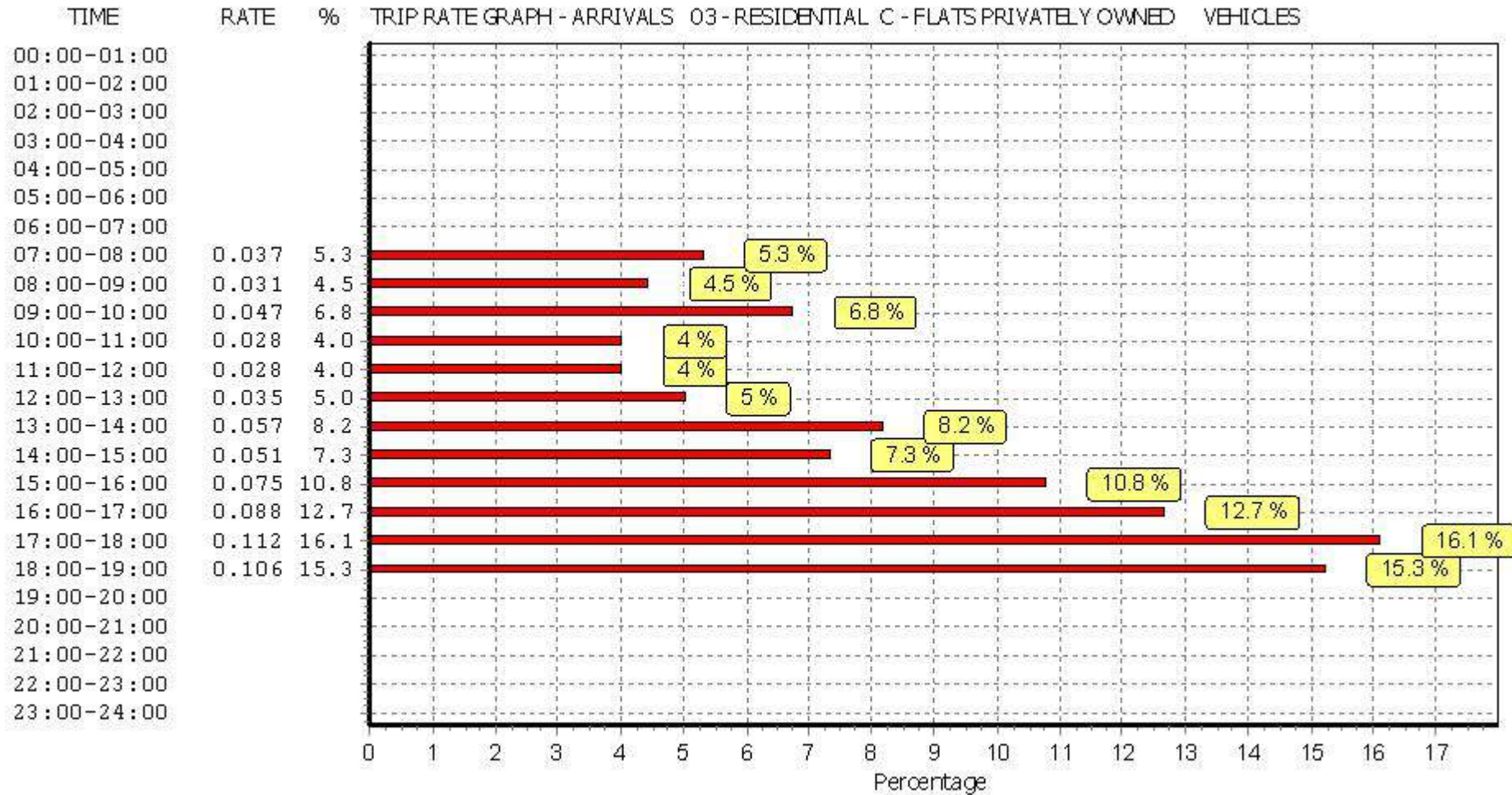
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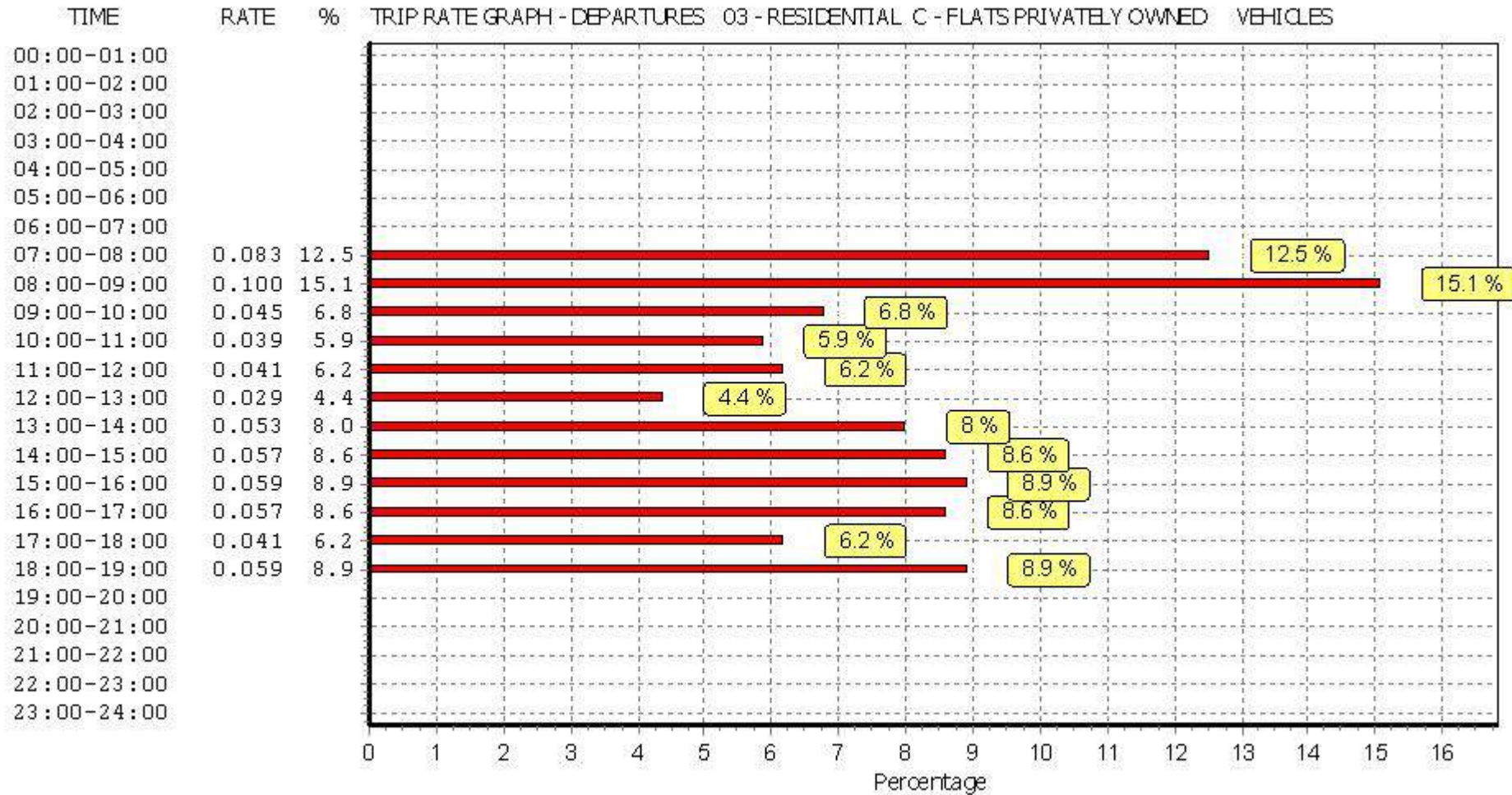
Parameter summary

Trip rate parameter range selected:	16 - 493 (units:)
Survey date date range:	01/01/10 - 03/07/18
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

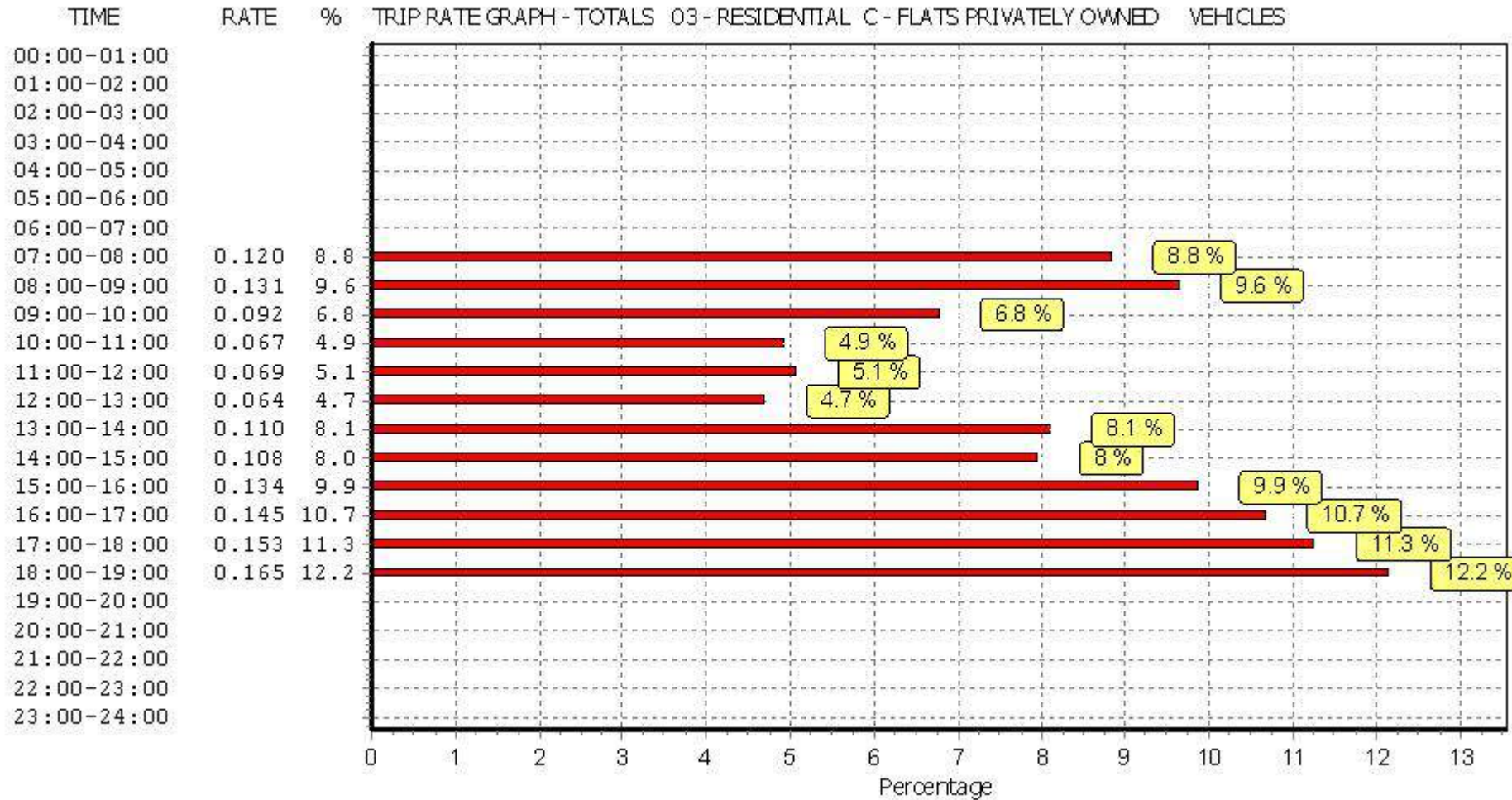
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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



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



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

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

TAXIS

Calculation factor: 1 DWELLS

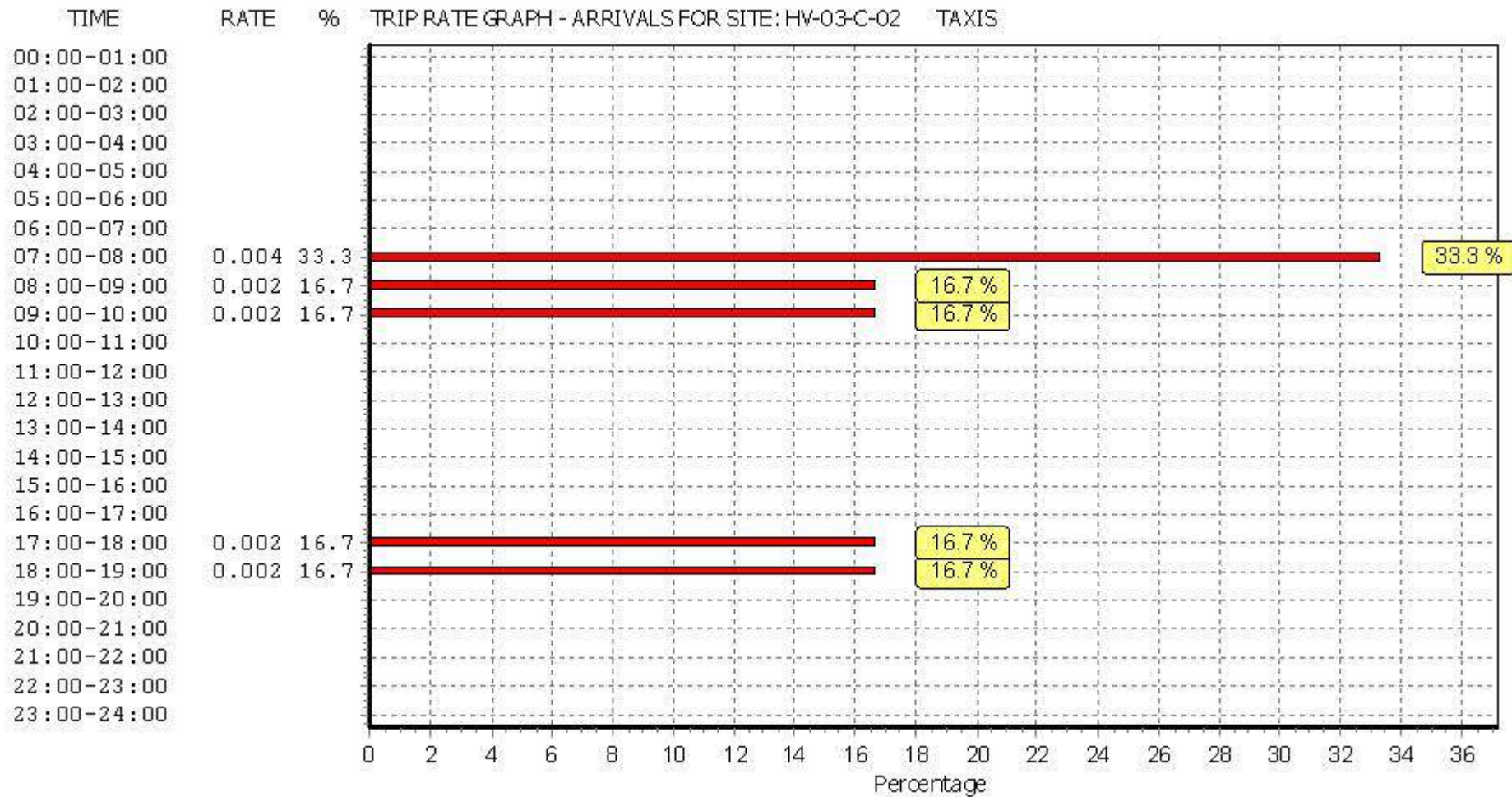
Estimated TRIP rate value per 7 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

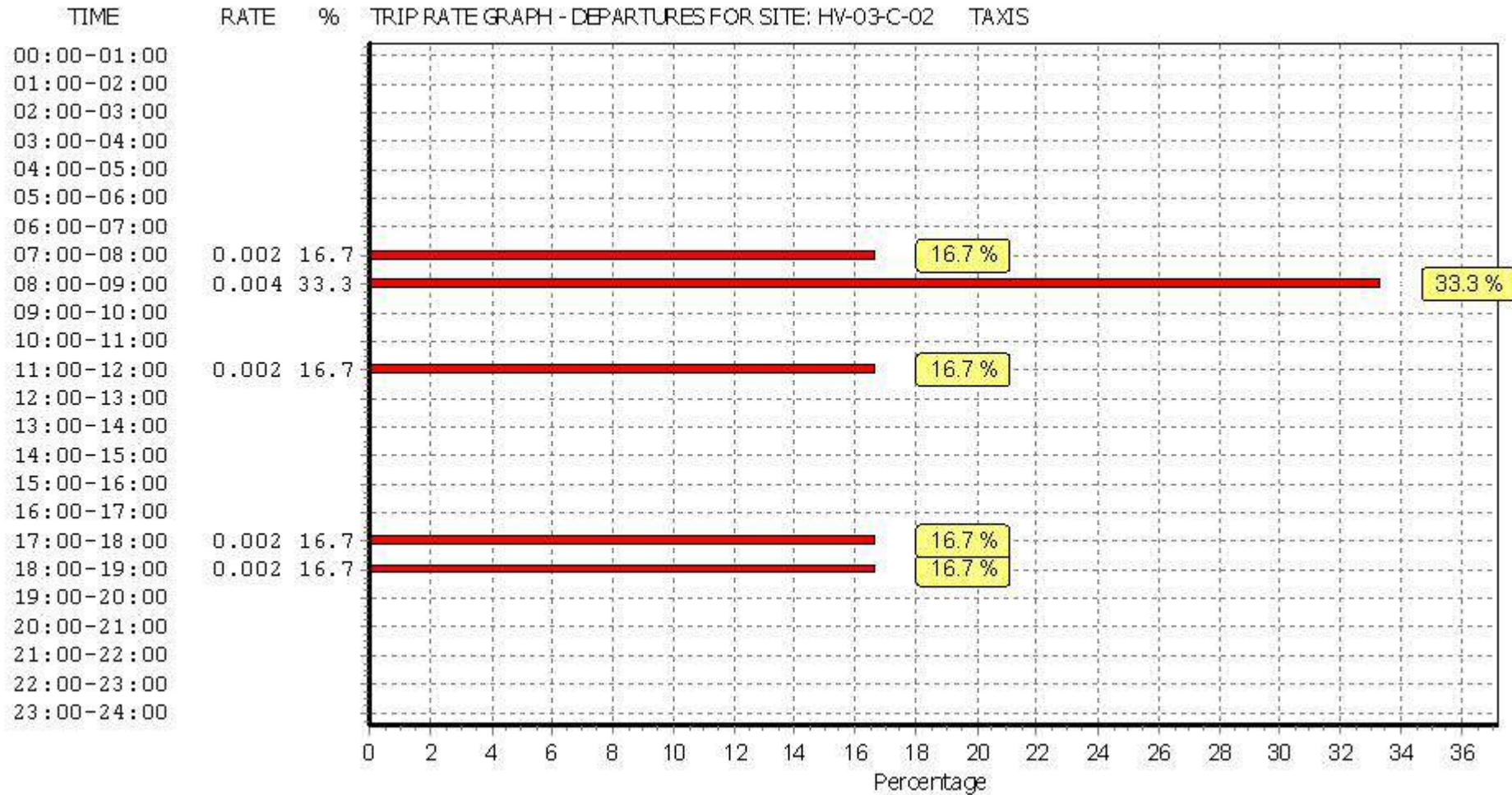
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	2	255	0.004	0.028	2	255	0.002	0.014	2	255	0.006	0.042
08:00 - 09:00	2	255	0.002	0.014	2	255	0.004	0.028	2	255	0.006	0.042
09:00 - 10:00	2	255	0.002	0.014	2	255	0.000	0.000	2	255	0.002	0.014
10:00 - 11:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
11:00 - 12:00	2	255	0.000	0.000	2	255	0.002	0.014	2	255	0.002	0.014
12:00 - 13:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
13:00 - 14:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
14:00 - 15:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
15:00 - 16:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
16:00 - 17:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
17:00 - 18:00	2	255	0.002	0.014	2	255	0.002	0.014	2	255	0.004	0.028
18:00 - 19:00	2	255	0.002	0.014	2	255	0.002	0.014	2	255	0.004	0.028
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.012	0.084			0.012	0.084			0.024	0.168

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.

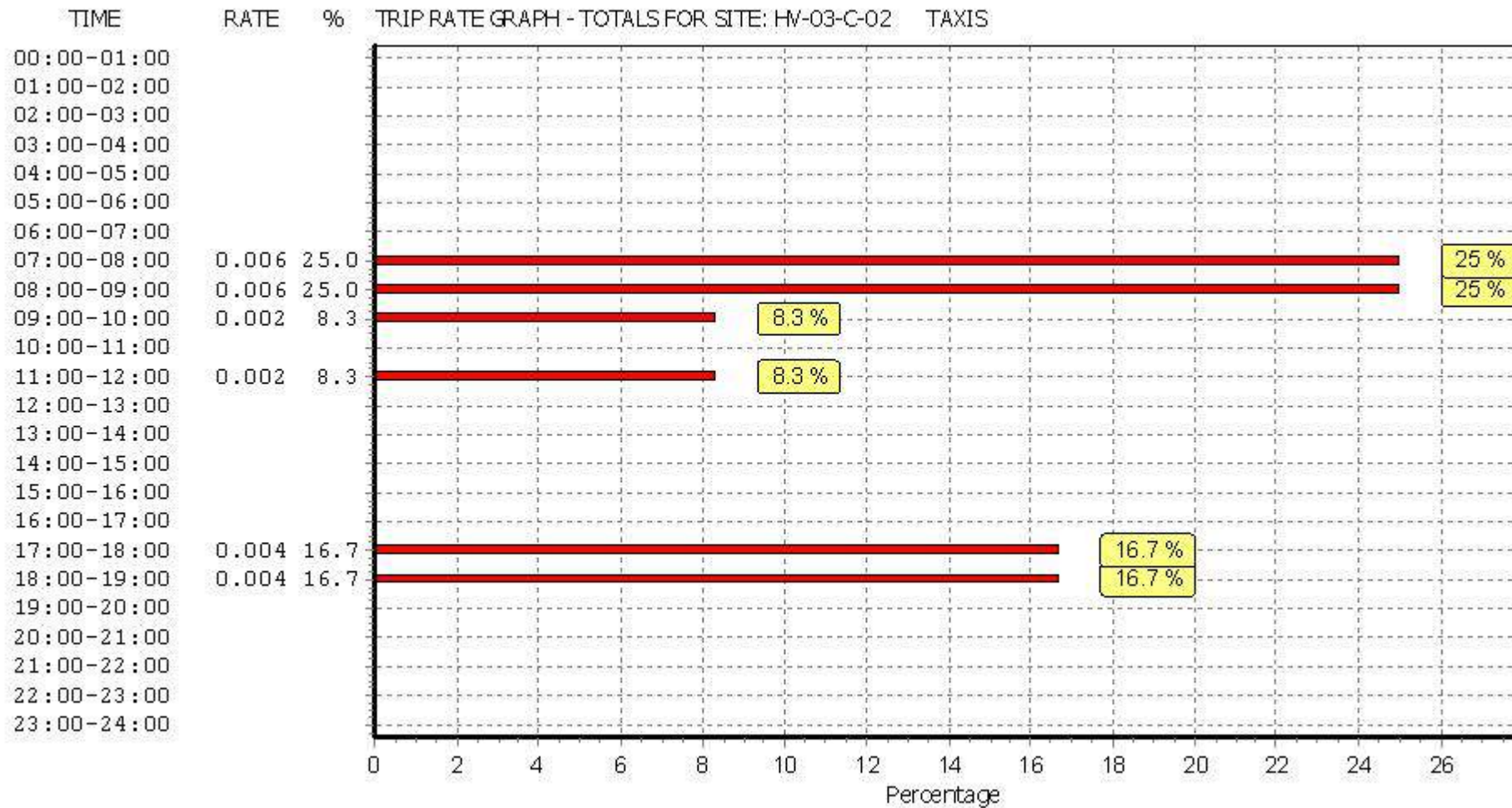
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.



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



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



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

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

OGVS

Calculation factor: 1 DWELLS

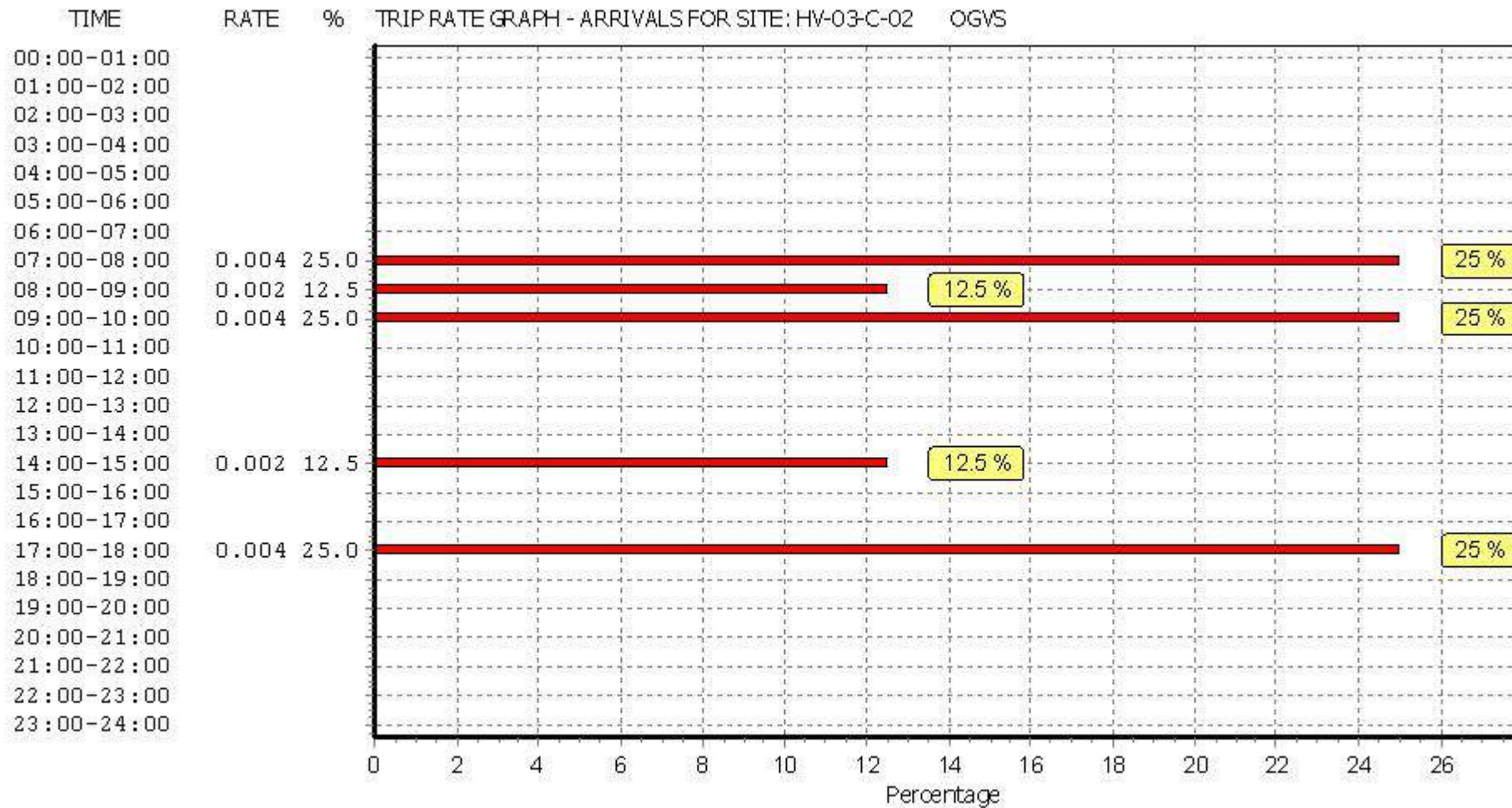
Estimated TRIP rate value per 7 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

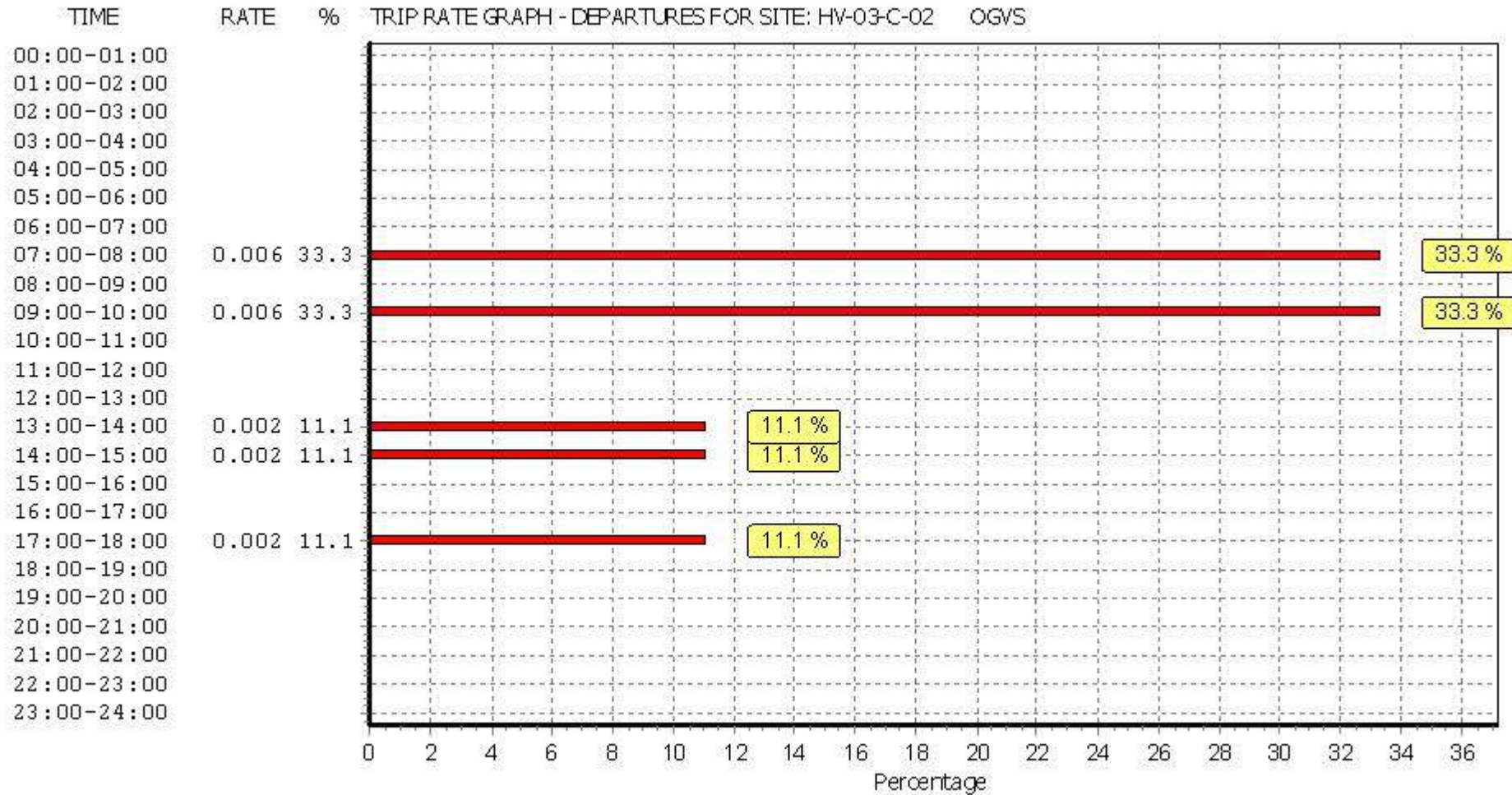
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	2	255	0.004	0.028	2	255	0.006	0.041	2	255	0.010	0.069
08:00 - 09:00	2	255	0.002	0.014	2	255	0.000	0.000	2	255	0.002	0.014
09:00 - 10:00	2	255	0.004	0.028	2	255	0.006	0.041	2	255	0.010	0.069
10:00 - 11:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
11:00 - 12:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
12:00 - 13:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
13:00 - 14:00	2	255	0.000	0.000	2	255	0.002	0.014	2	255	0.002	0.014
14:00 - 15:00	2	255	0.002	0.014	2	255	0.002	0.014	2	255	0.004	0.028
15:00 - 16:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
16:00 - 17:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
17:00 - 18:00	2	255	0.004	0.028	2	255	0.002	0.014	2	255	0.006	0.042
18:00 - 19:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.016	0.112			0.018	0.124			0.034	0.236

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.

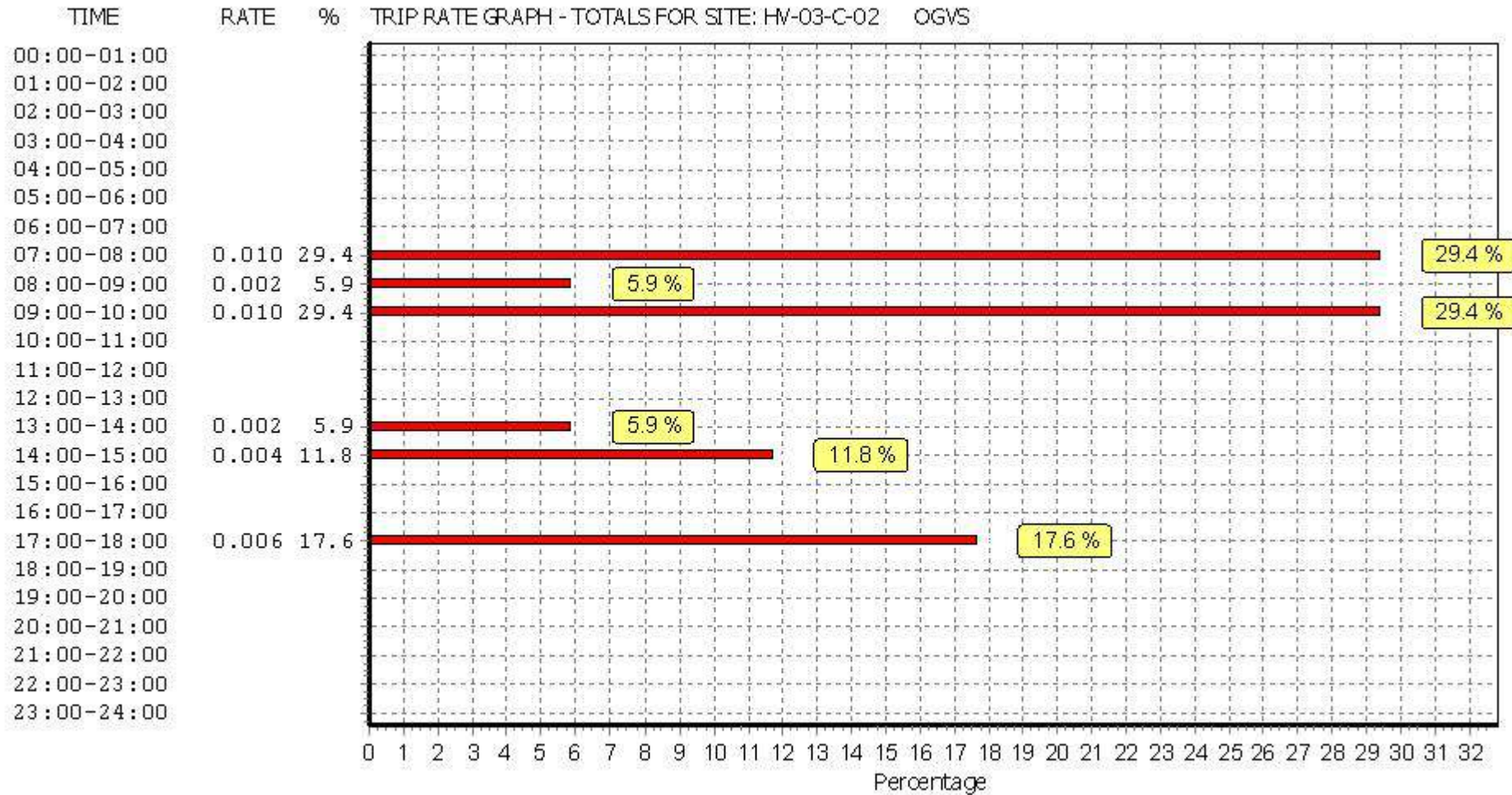
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.



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



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



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

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

Calculation factor: 1 DWELLS

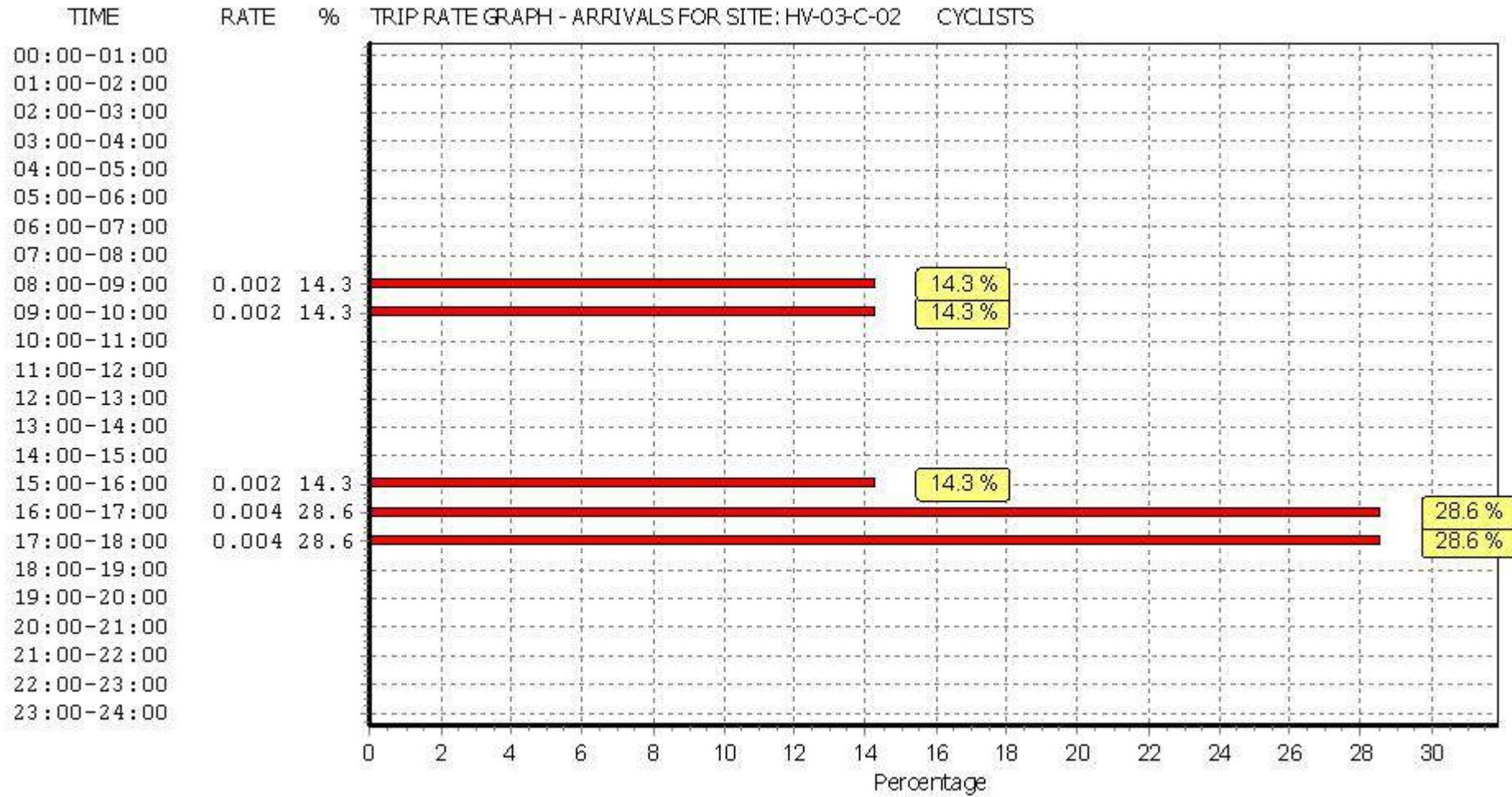
Estimated TRIP rate value per 7 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

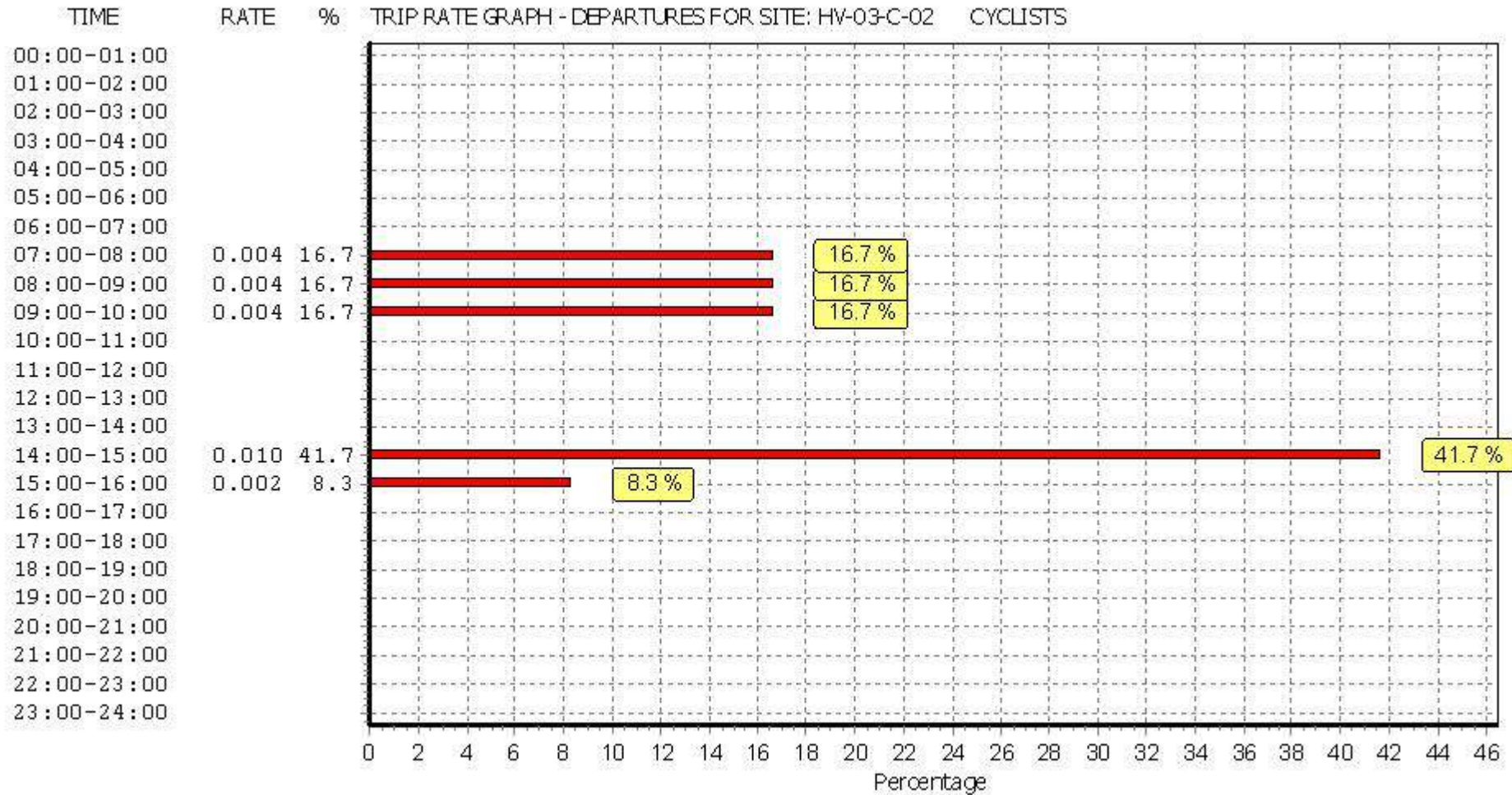
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	2	255	0.000	0.000	2	255	0.004	0.028	2	255	0.004	0.028
08:00 - 09:00	2	255	0.002	0.014	2	255	0.004	0.028	2	255	0.006	0.042
09:00 - 10:00	2	255	0.002	0.014	2	255	0.004	0.028	2	255	0.006	0.042
10:00 - 11:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
11:00 - 12:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
12:00 - 13:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
13:00 - 14:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
14:00 - 15:00	2	255	0.000	0.000	2	255	0.010	0.069	2	255	0.010	0.069
15:00 - 16:00	2	255	0.002	0.014	2	255	0.002	0.014	2	255	0.004	0.028
16:00 - 17:00	2	255	0.004	0.028	2	255	0.000	0.000	2	255	0.004	0.028
17:00 - 18:00	2	255	0.004	0.028	2	255	0.000	0.000	2	255	0.004	0.028
18:00 - 19:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.014	0.098			0.024	0.167			0.038	0.265

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.

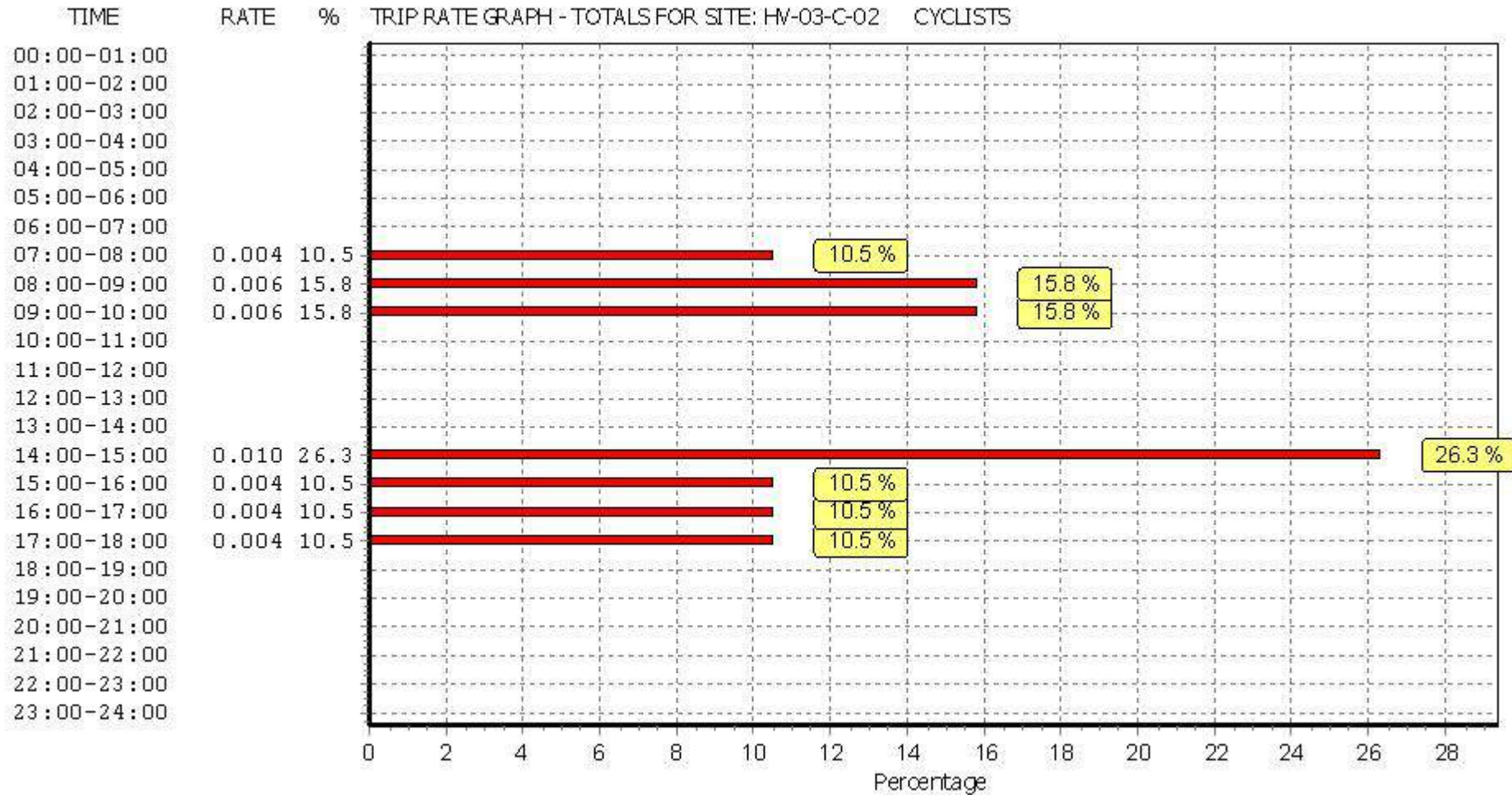
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.



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



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



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

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

CARS

Calculation factor: 1 DWELLS

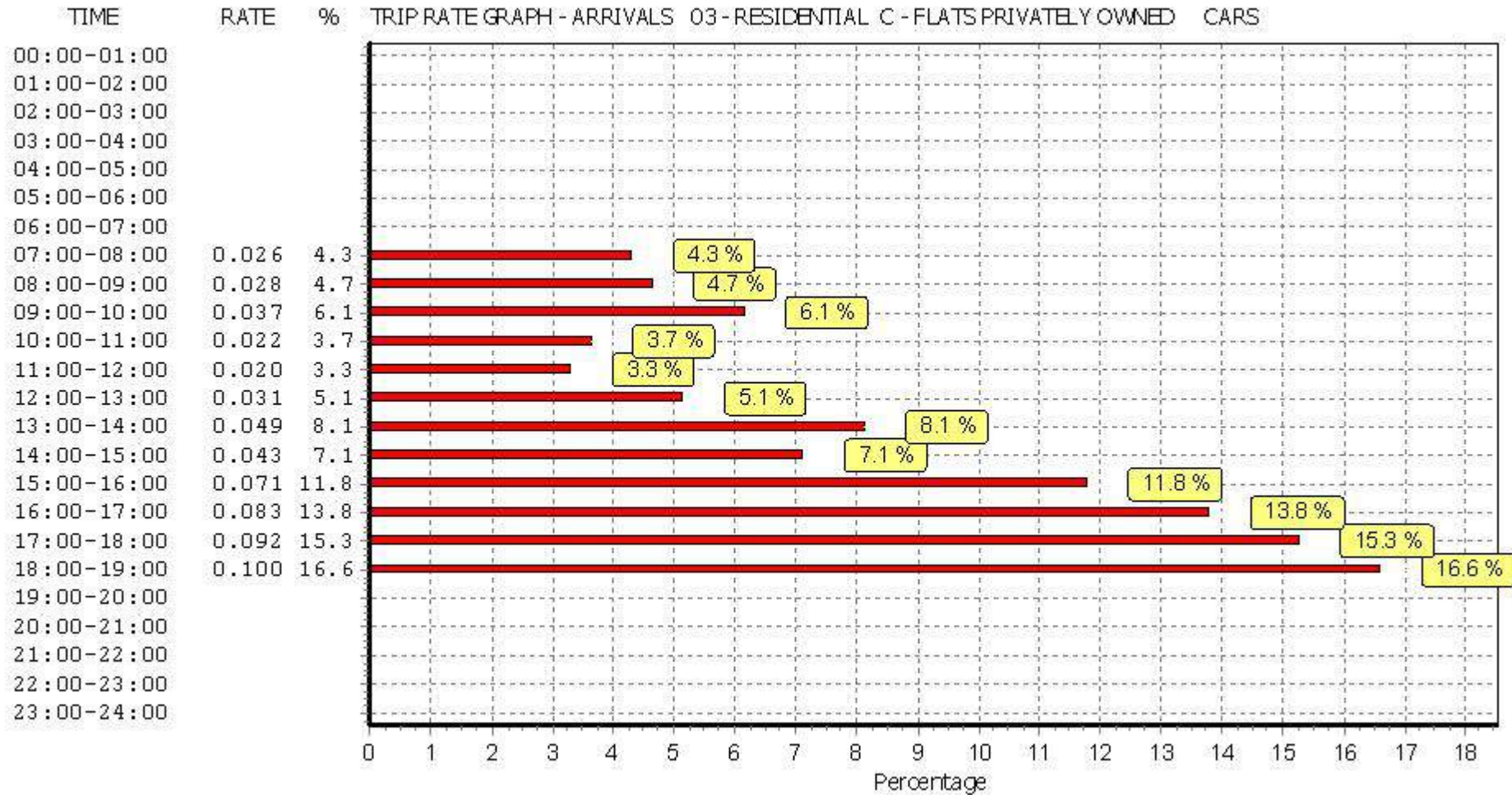
Estimated TRIP rate value per 7 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

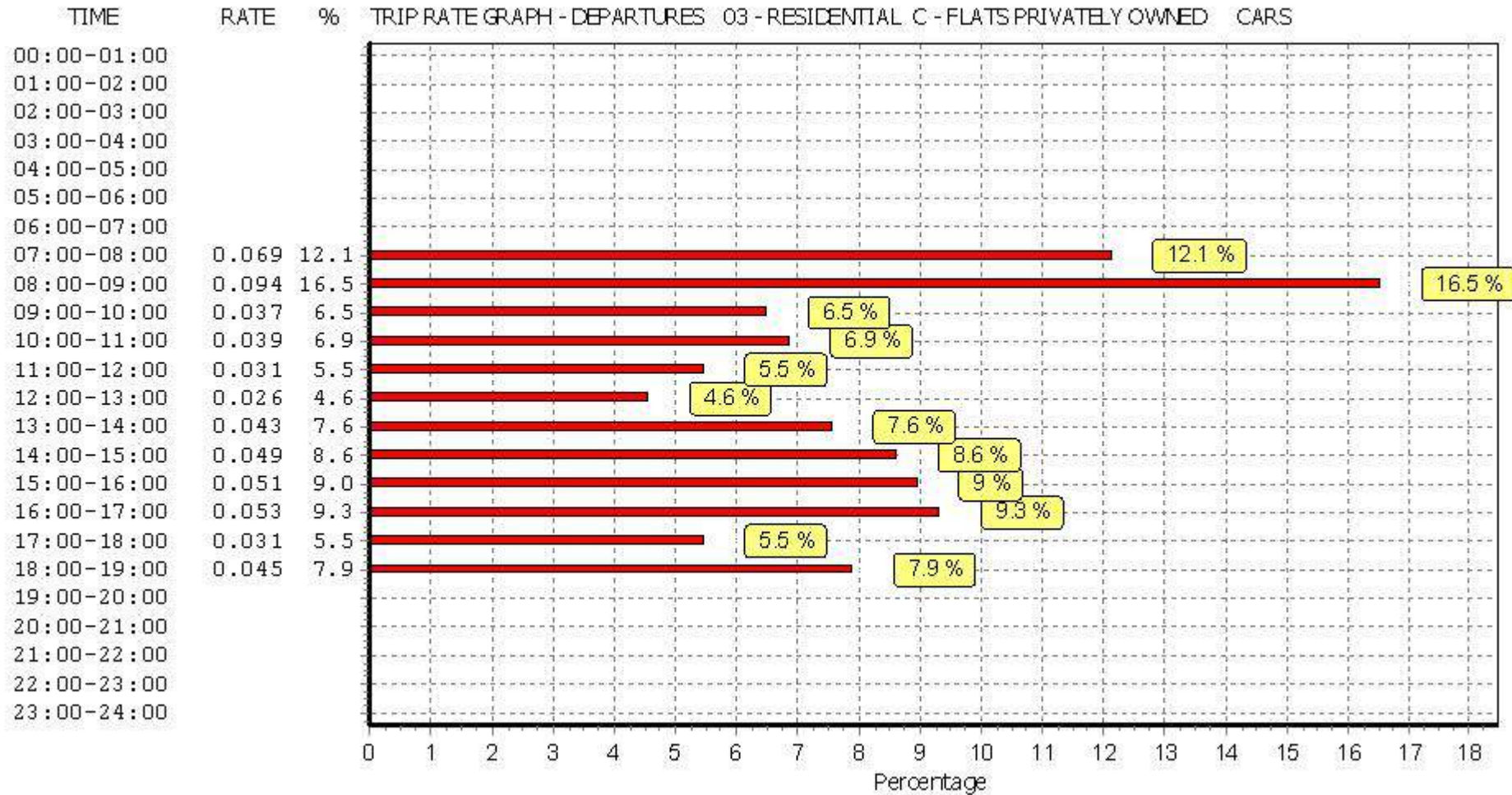
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	2	255	0.026	0.179	2	255	0.069	0.481	2	255	0.095	0.660
08:00 - 09:00	2	255	0.028	0.193	2	255	0.094	0.660	2	255	0.122	0.853
09:00 - 10:00	2	255	0.037	0.261	2	255	0.037	0.261	2	255	0.074	0.522
10:00 - 11:00	2	255	0.022	0.151	2	255	0.039	0.275	2	255	0.061	0.426
11:00 - 12:00	2	255	0.020	0.138	2	255	0.031	0.220	2	255	0.051	0.358
12:00 - 13:00	2	255	0.031	0.220	2	255	0.026	0.179	2	255	0.057	0.399
13:00 - 14:00	2	255	0.049	0.344	2	255	0.043	0.303	2	255	0.092	0.647
14:00 - 15:00	2	255	0.043	0.303	2	255	0.049	0.344	2	255	0.092	0.647
15:00 - 16:00	2	255	0.071	0.495	2	255	0.051	0.358	2	255	0.122	0.853
16:00 - 17:00	2	255	0.083	0.578	2	255	0.053	0.371	2	255	0.136	0.949
17:00 - 18:00	2	255	0.092	0.646	2	255	0.031	0.220	2	255	0.123	0.866
18:00 - 19:00	2	255	0.100	0.701	2	255	0.045	0.316	2	255	0.145	1.017
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.602	4.209			0.568	3.988			1.170	8.197

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.

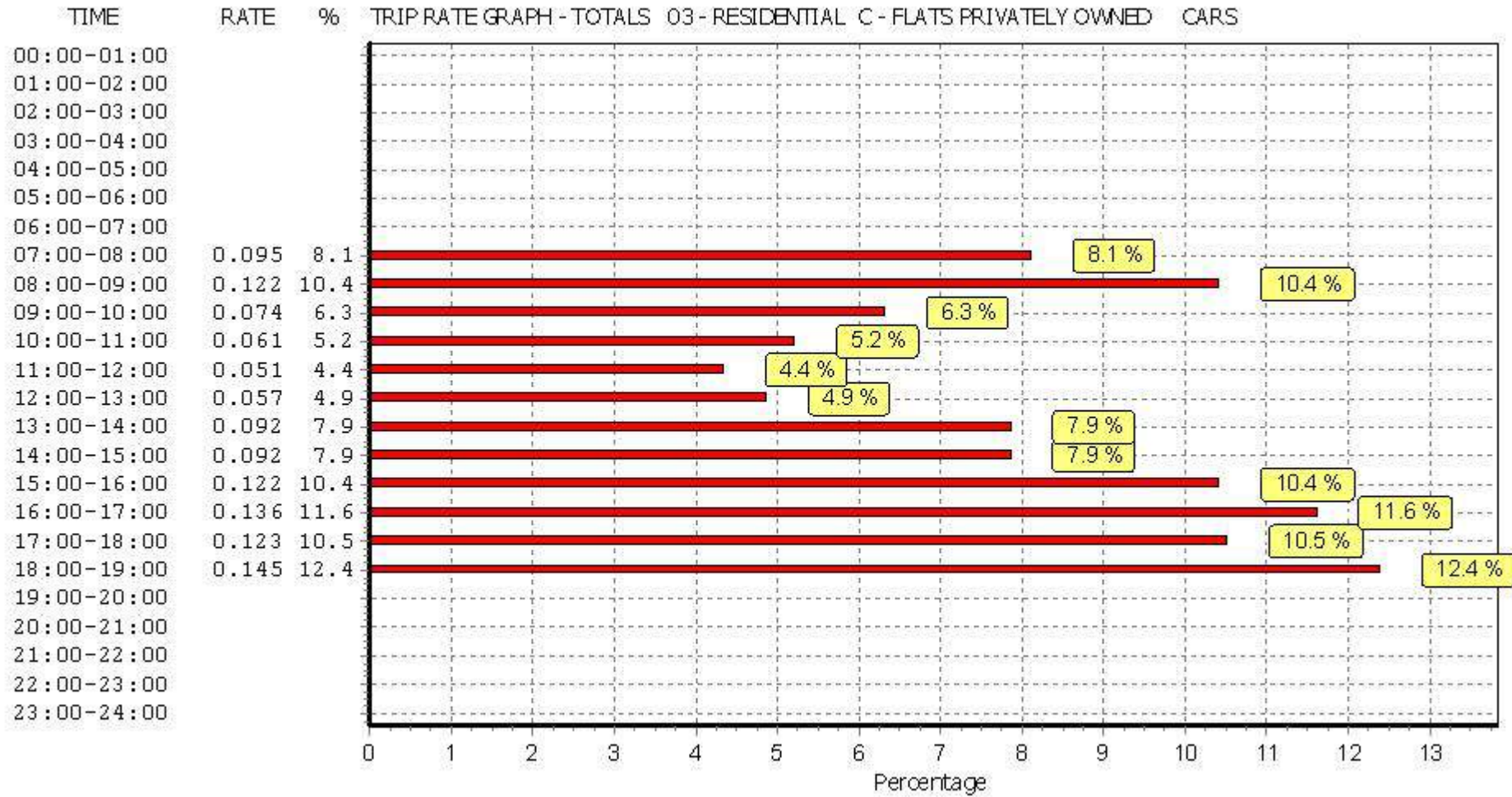
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.



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



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



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

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

Calculation factor: 1 DWELLS

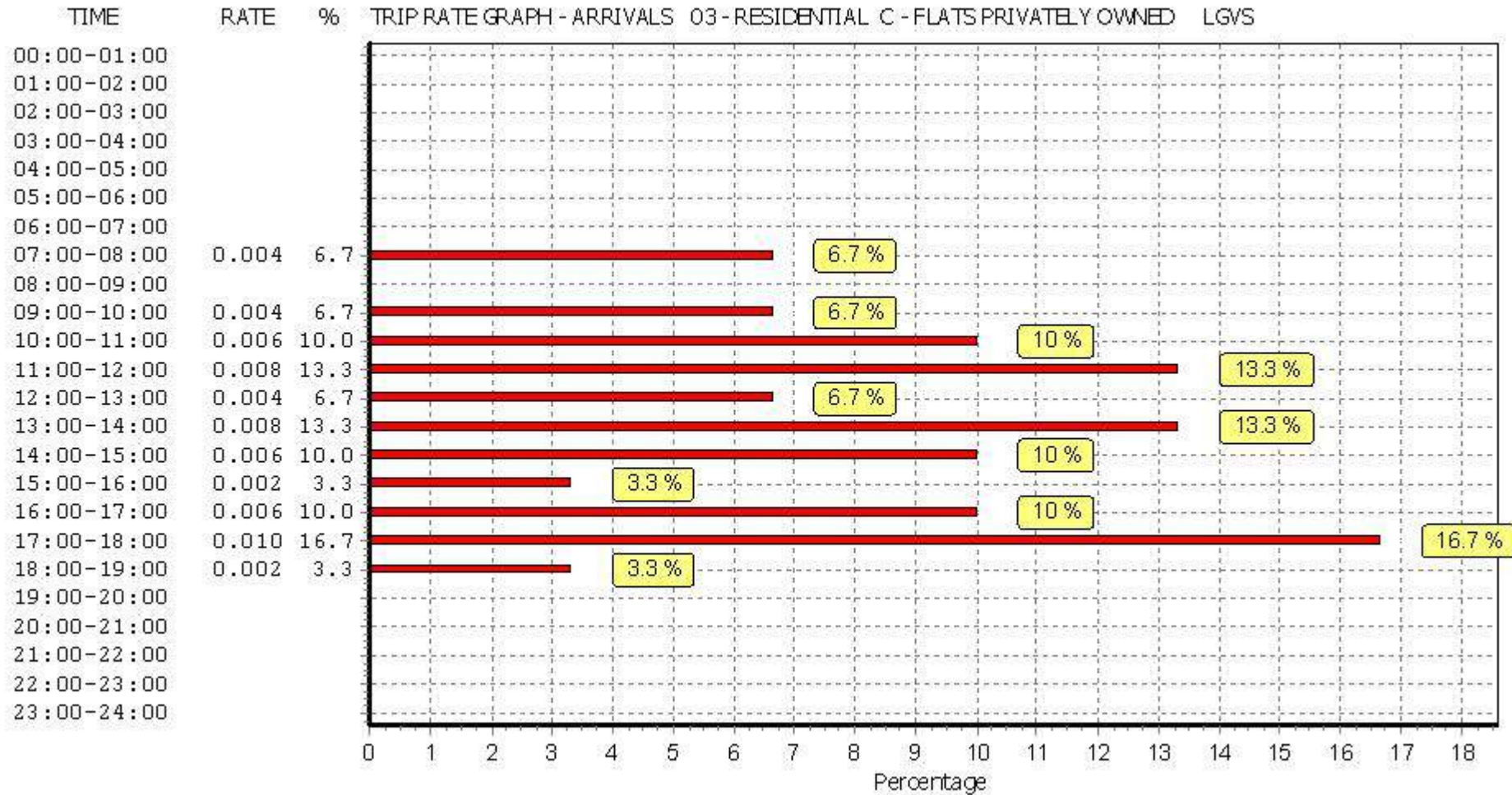
Estimated TRIP rate value per 7 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

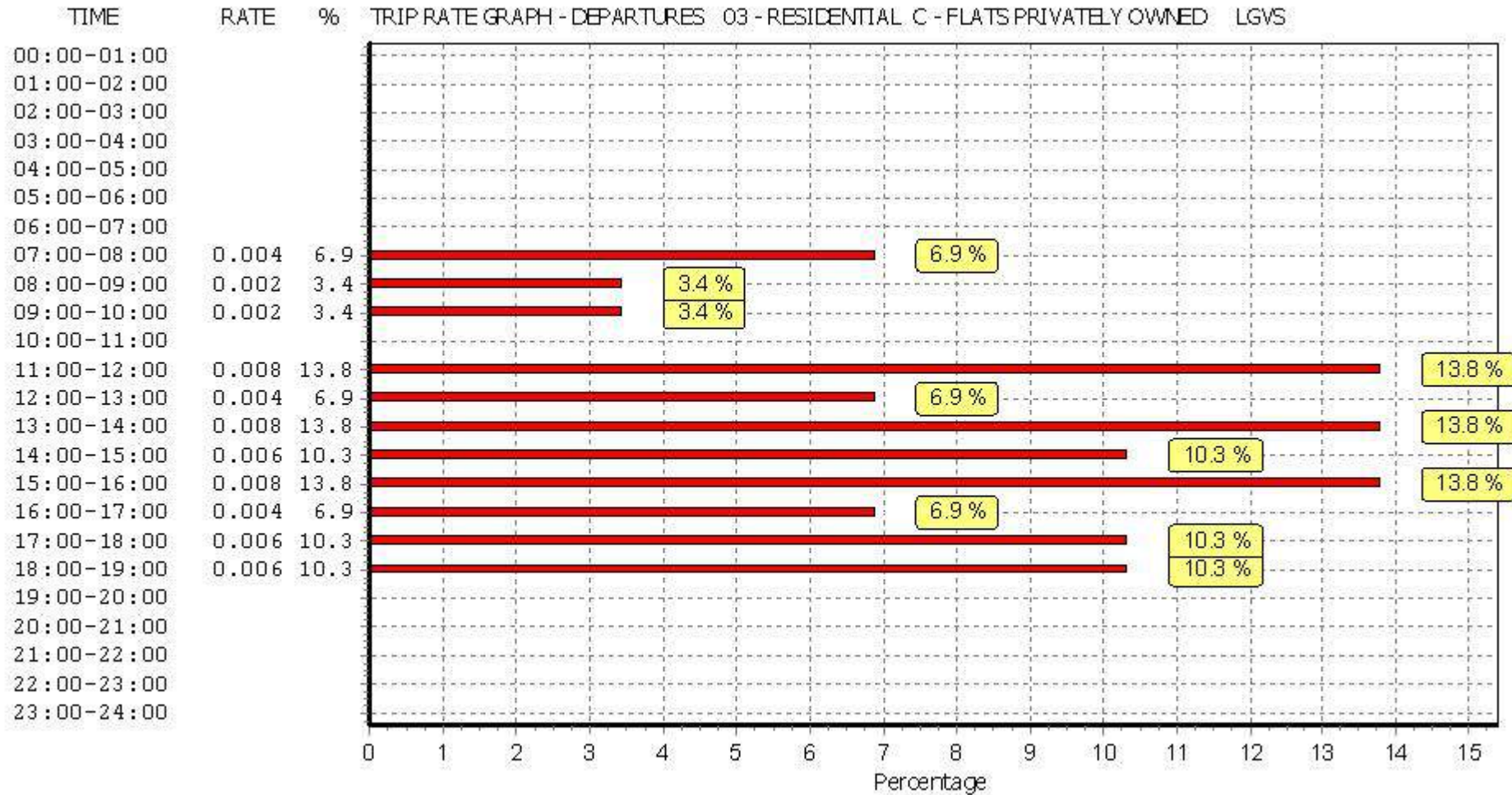
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	2	255	0.004	0.028	2	255	0.004	0.028	2	255	0.008	0.056
08:00 - 09:00	2	255	0.000	0.000	2	255	0.002	0.014	2	255	0.002	0.014
09:00 - 10:00	2	255	0.004	0.028	2	255	0.002	0.014	2	255	0.006	0.042
10:00 - 11:00	2	255	0.006	0.041	2	255	0.000	0.000	2	255	0.006	0.041
11:00 - 12:00	2	255	0.008	0.055	2	255	0.008	0.055	2	255	0.016	0.110
12:00 - 13:00	2	255	0.004	0.028	2	255	0.004	0.028	2	255	0.008	0.056
13:00 - 14:00	2	255	0.008	0.055	2	255	0.008	0.055	2	255	0.016	0.110
14:00 - 15:00	2	255	0.006	0.041	2	255	0.006	0.041	2	255	0.012	0.082
15:00 - 16:00	2	255	0.002	0.014	2	255	0.008	0.055	2	255	0.010	0.069
16:00 - 17:00	2	255	0.006	0.041	2	255	0.004	0.028	2	255	0.010	0.069
17:00 - 18:00	2	255	0.010	0.069	2	255	0.006	0.041	2	255	0.016	0.110
18:00 - 19:00	2	255	0.002	0.014	2	255	0.006	0.041	2	255	0.008	0.055
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.060	0.414			0.058	0.400			0.118	0.814

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.

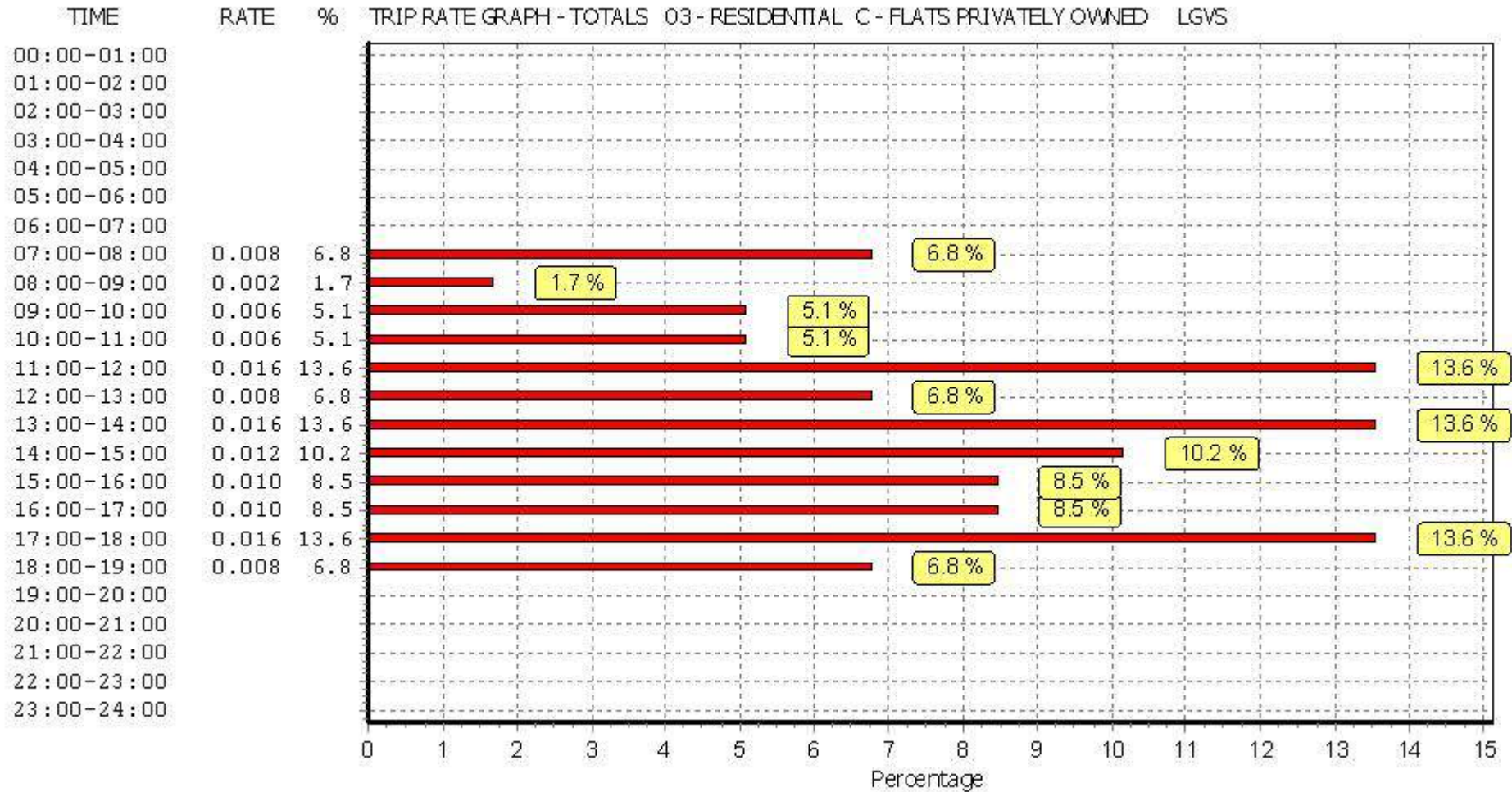
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.*



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



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



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

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

Calculation factor: 1 DWELLS

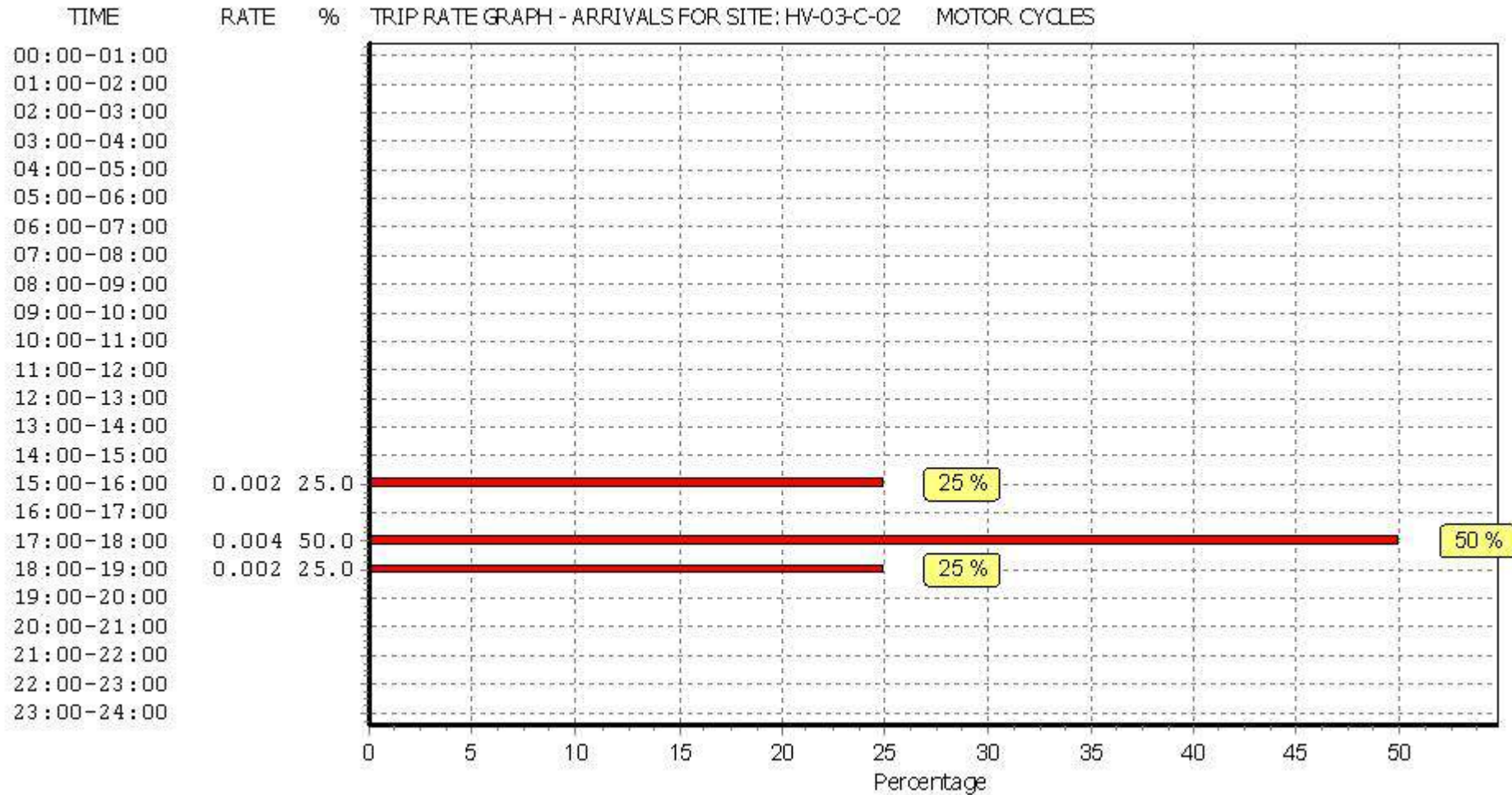
Estimated TRIP rate value per 7 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

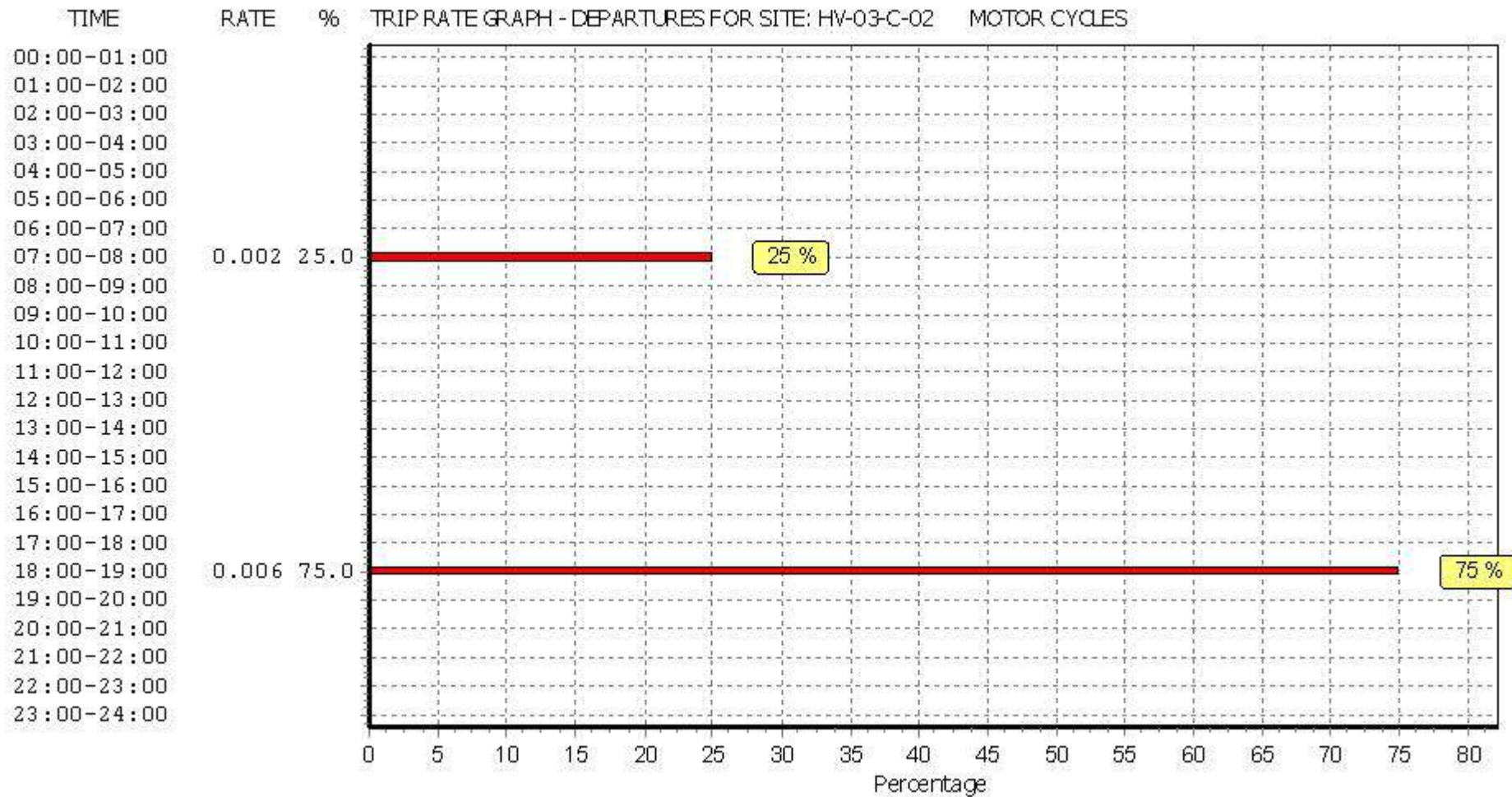
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	2	255	0.000	0.000	2	255	0.002	0.014	2	255	0.002	0.014
08:00 - 09:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
09:00 - 10:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
10:00 - 11:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
11:00 - 12:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
12:00 - 13:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
13:00 - 14:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
14:00 - 15:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
15:00 - 16:00	2	255	0.002	0.014	2	255	0.000	0.000	2	255	0.002	0.014
16:00 - 17:00	2	255	0.000	0.000	2	255	0.000	0.000	2	255	0.000	0.000
17:00 - 18:00	2	255	0.004	0.028	2	255	0.000	0.000	2	255	0.004	0.028
18:00 - 19:00	2	255	0.002	0.014	2	255	0.006	0.041	2	255	0.008	0.055
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.008	0.056			0.008	0.055			0.016	0.111

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.

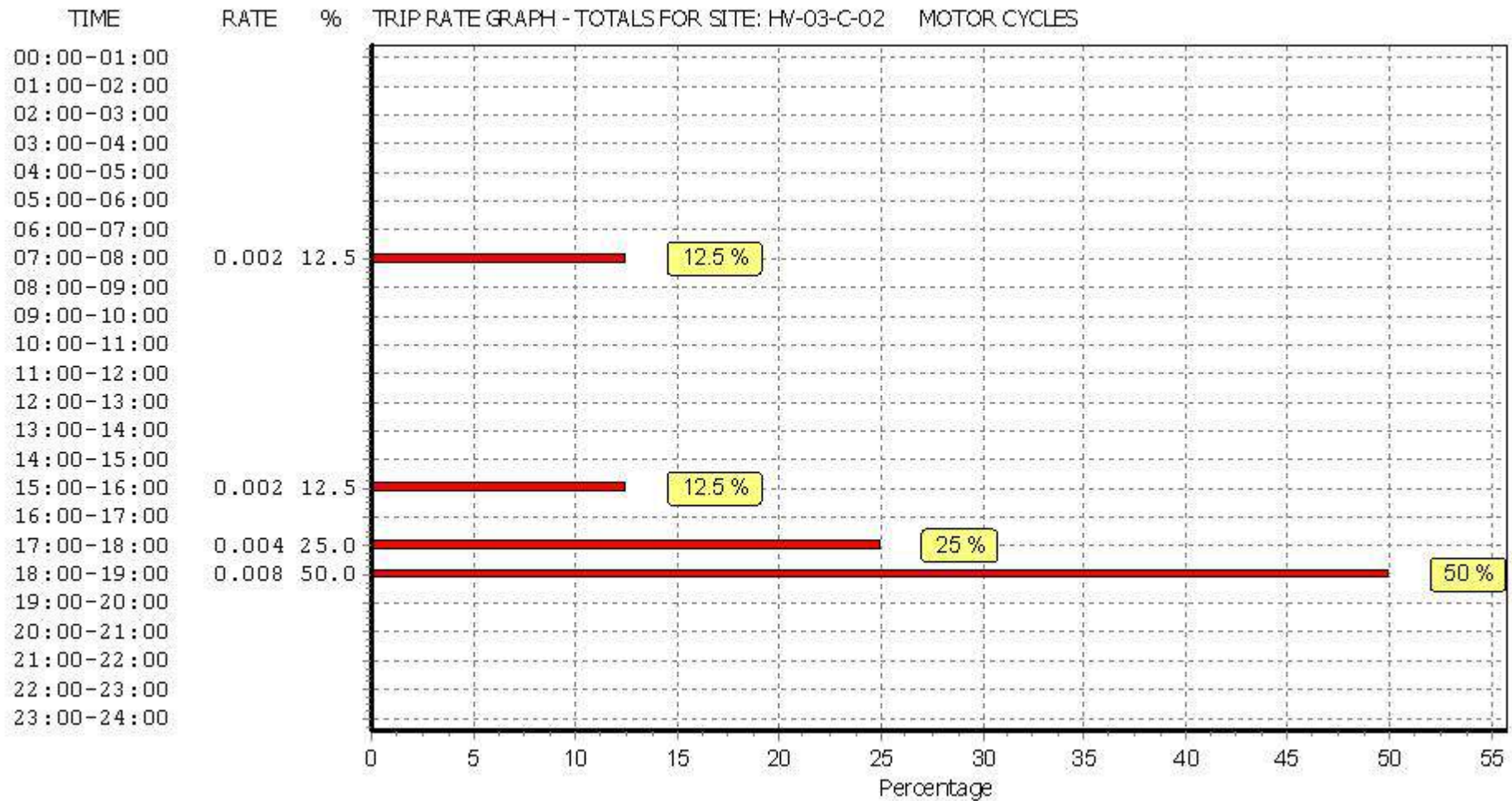
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.*



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



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



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

Calculation Reference: AUDIT-152301-181107-1133

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01 GREATER LONDON
HO HOUNSLOW 1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 82 to 82 (units:)
Range Selected by User: 10 to 1045 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 29/06/15

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 1 days

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

Selected survey types:

Manual count 1 days
Directional ATC Count 0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre) 1

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

Selected Location Sub Categories:

Development Zone 1

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

Secondary Filtering selection:

Use Class:

C3 1 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:

25,001 to 50,000 1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

500,001 or More 1 days

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

Car ownership within 5 miles:

0.6 to 1.0 1 days

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

Travel Plan:

Yes 1 days

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

PTAL Rating:

2 Poor 1 days

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

LIST OF SITES relevant to selection parameters

1 HO-03-A-01 MIXED HOUSING HOUNSLOW
THORNBURY ROAD
OSTERLEY

Suburban Area (PPS6 Out of Centre)
Development Zone

Total Number of dwellings: 82

Survey date: TUESDAY

16/09/14

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
VEHICLES

Calculation factor: 1 DWELLS

Estimated TRIP rate value per 1 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated 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	1	82	0.073	0.000	1	82	0.146	0.000	1	82	0.219	0.000
08:00 - 09:00	1	82	0.085	0.000	1	82	0.293	0.000	1	82	0.378	0.000
09:00 - 10:00	1	82	0.146	0.000	1	82	0.159	0.000	1	82	0.305	0.000
10:00 - 11:00	1	82	0.098	0.000	1	82	0.207	0.000	1	82	0.305	0.000
11:00 - 12:00	1	82	0.110	0.000	1	82	0.122	0.000	1	82	0.232	0.000
12:00 - 13:00	1	82	0.098	0.000	1	82	0.159	0.000	1	82	0.257	0.000
13:00 - 14:00	1	82	0.134	0.000	1	82	0.037	0.000	1	82	0.171	0.000
14:00 - 15:00	1	82	0.073	0.000	1	82	0.122	0.000	1	82	0.195	0.000
15:00 - 16:00	1	82	0.146	0.000	1	82	0.232	0.000	1	82	0.378	0.000
16:00 - 17:00	1	82	0.268	0.000	1	82	0.098	0.000	1	82	0.366	0.000
17:00 - 18:00	1	82	0.122	0.000	1	82	0.098	0.000	1	82	0.220	0.000
18:00 - 19:00	1	82	0.207	0.000	1	82	0.098	0.000	1	82	0.305	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			1.560	0.000			1.771	0.000			3.331	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.*

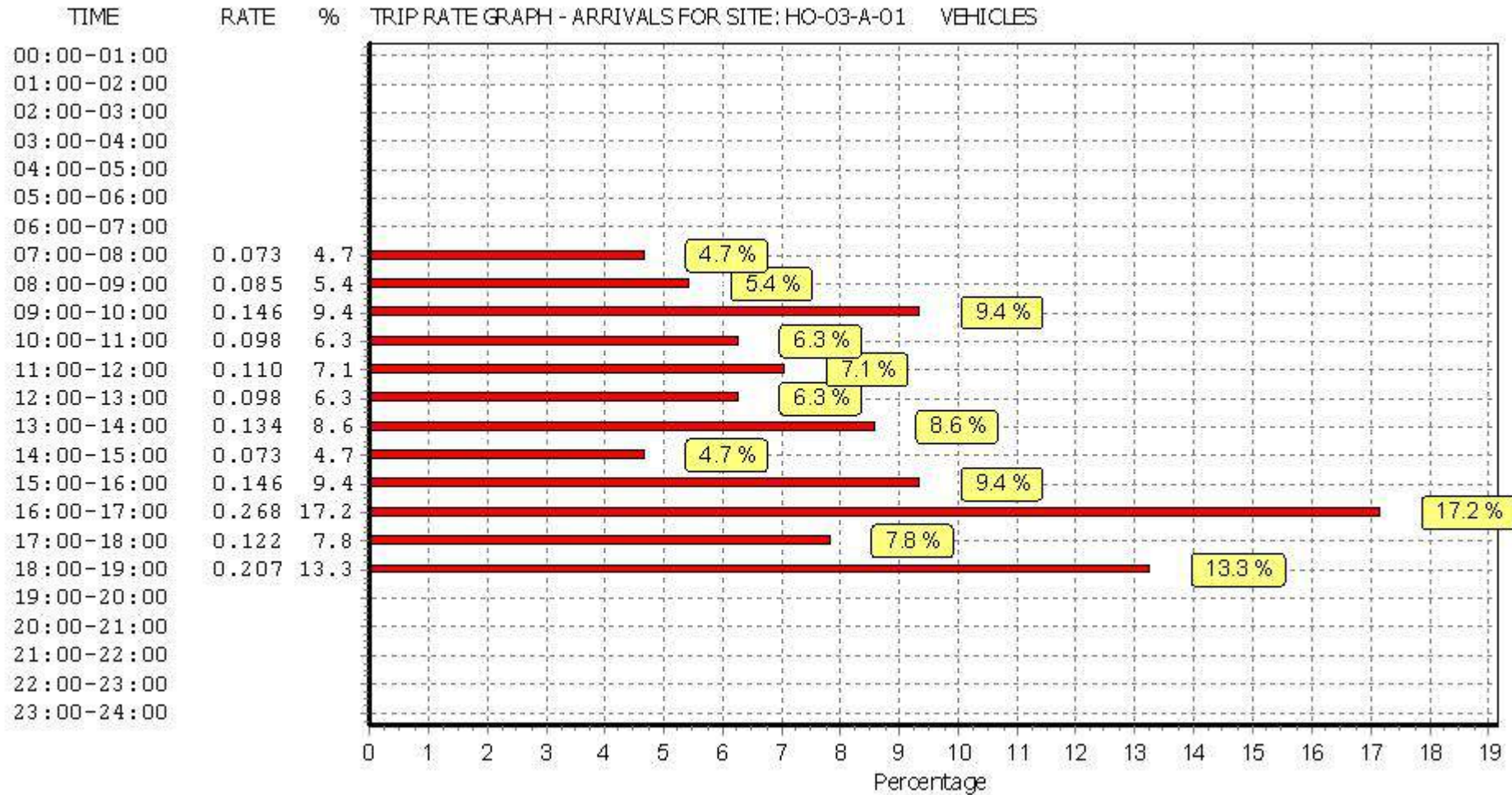
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The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

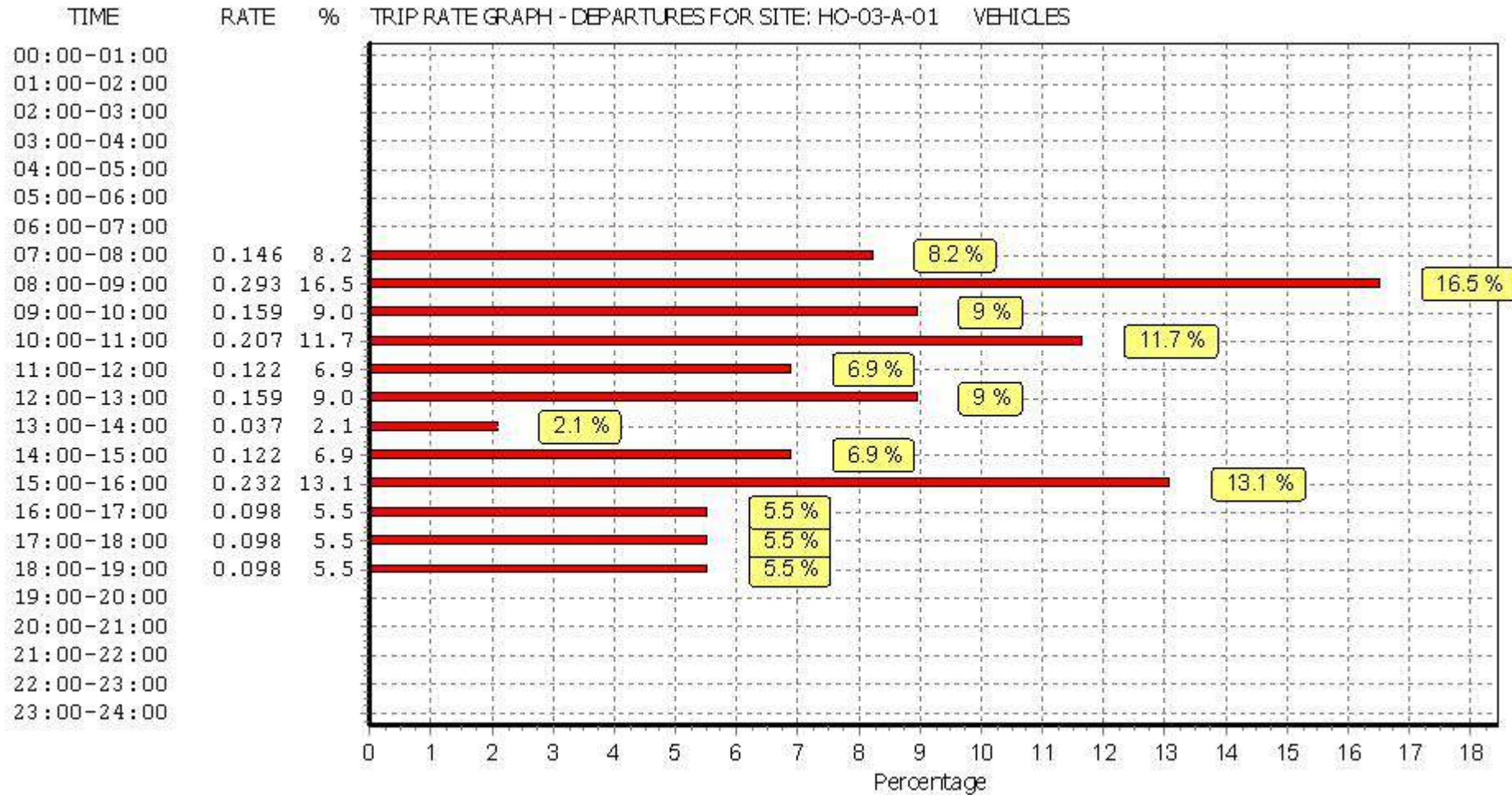
Parameter summary

Trip rate parameter range selected:	82 - 82 (units:)
Survey date date range:	01/01/10 - 29/06/15
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

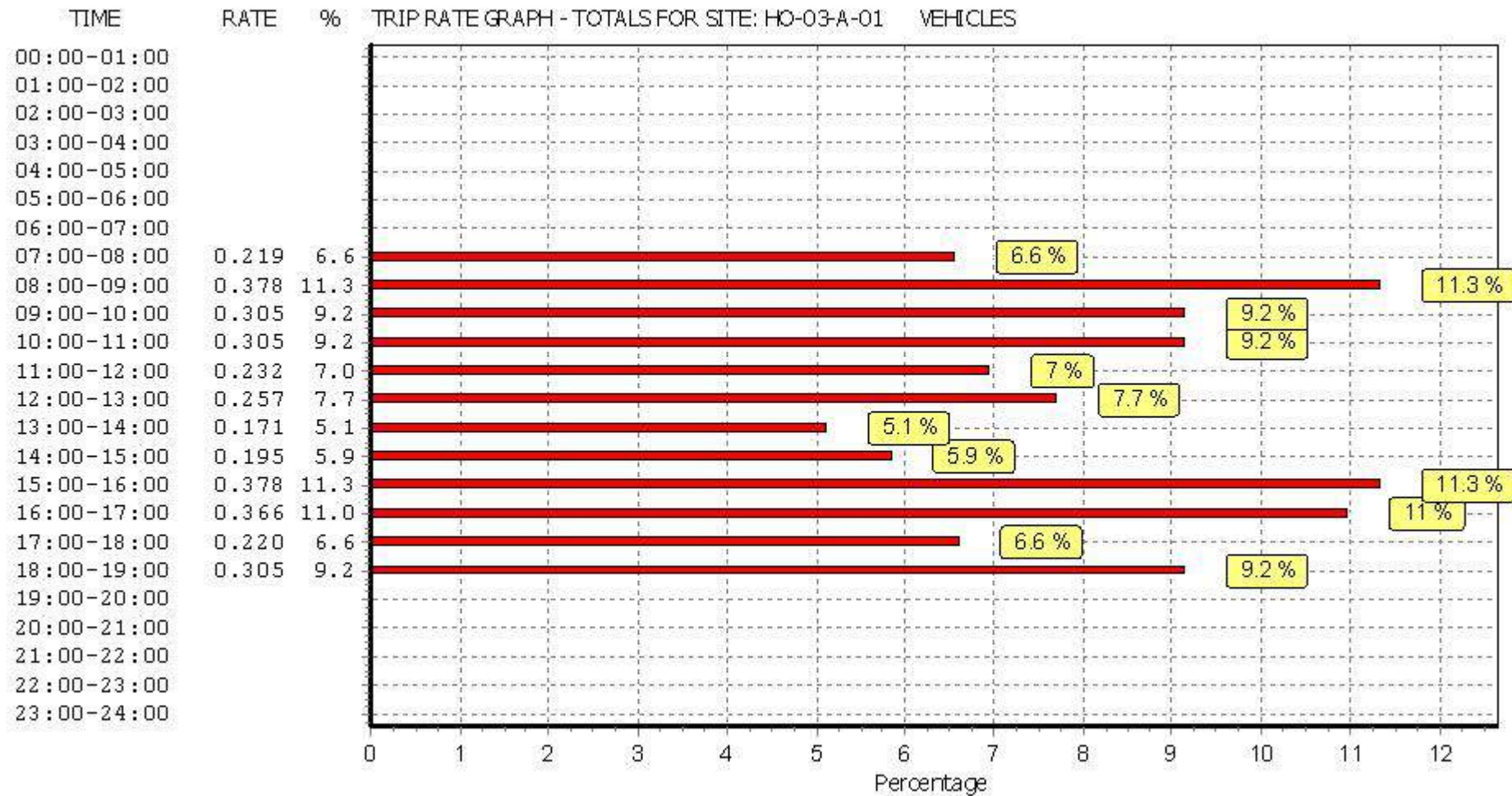
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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.



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



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



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

TAXIS

Calculation factor: 1 DWELLS

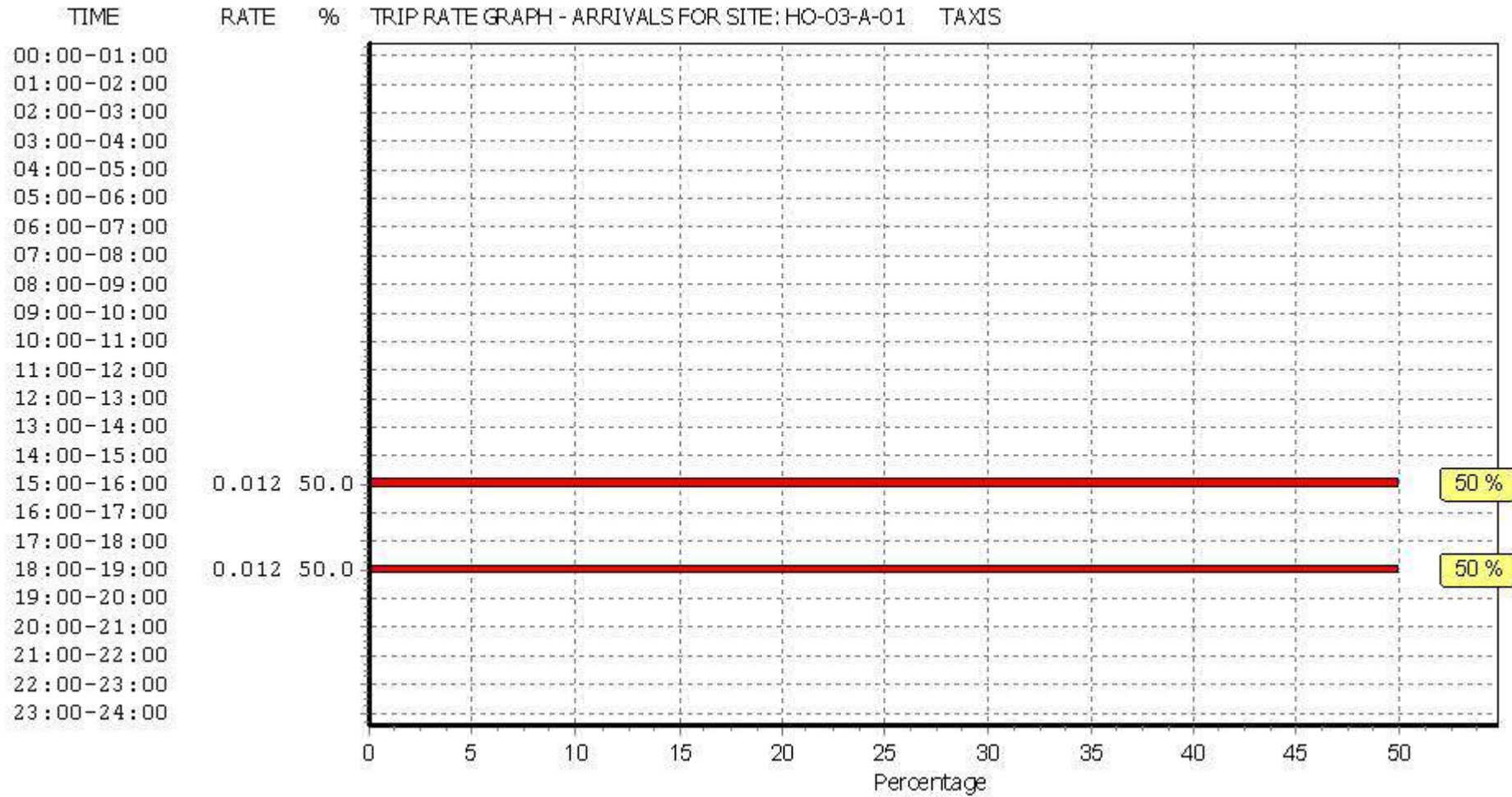
Estimated TRIP rate value per 1 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

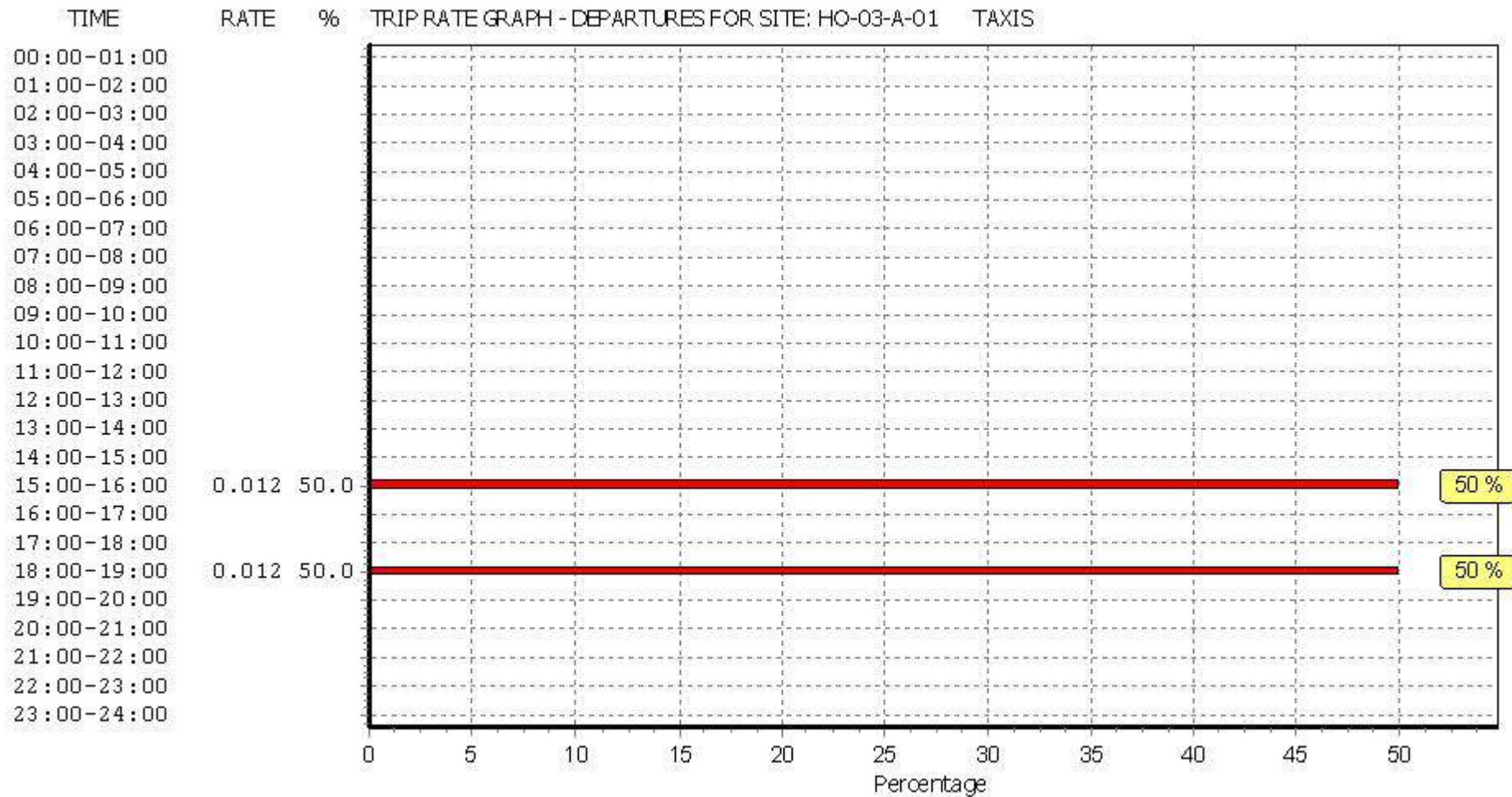
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
08:00 - 09:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
09:00 - 10:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
10:00 - 11:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
11:00 - 12:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
12:00 - 13:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
13:00 - 14:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
14:00 - 15:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
15:00 - 16:00	1	82	0.012	0.000	1	82	0.012	0.000	1	82	0.024	0.000
16:00 - 17:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
17:00 - 18:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
18:00 - 19:00	1	82	0.012	0.000	1	82	0.012	0.000	1	82	0.024	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.024	0.000			0.024	0.000			0.048	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.

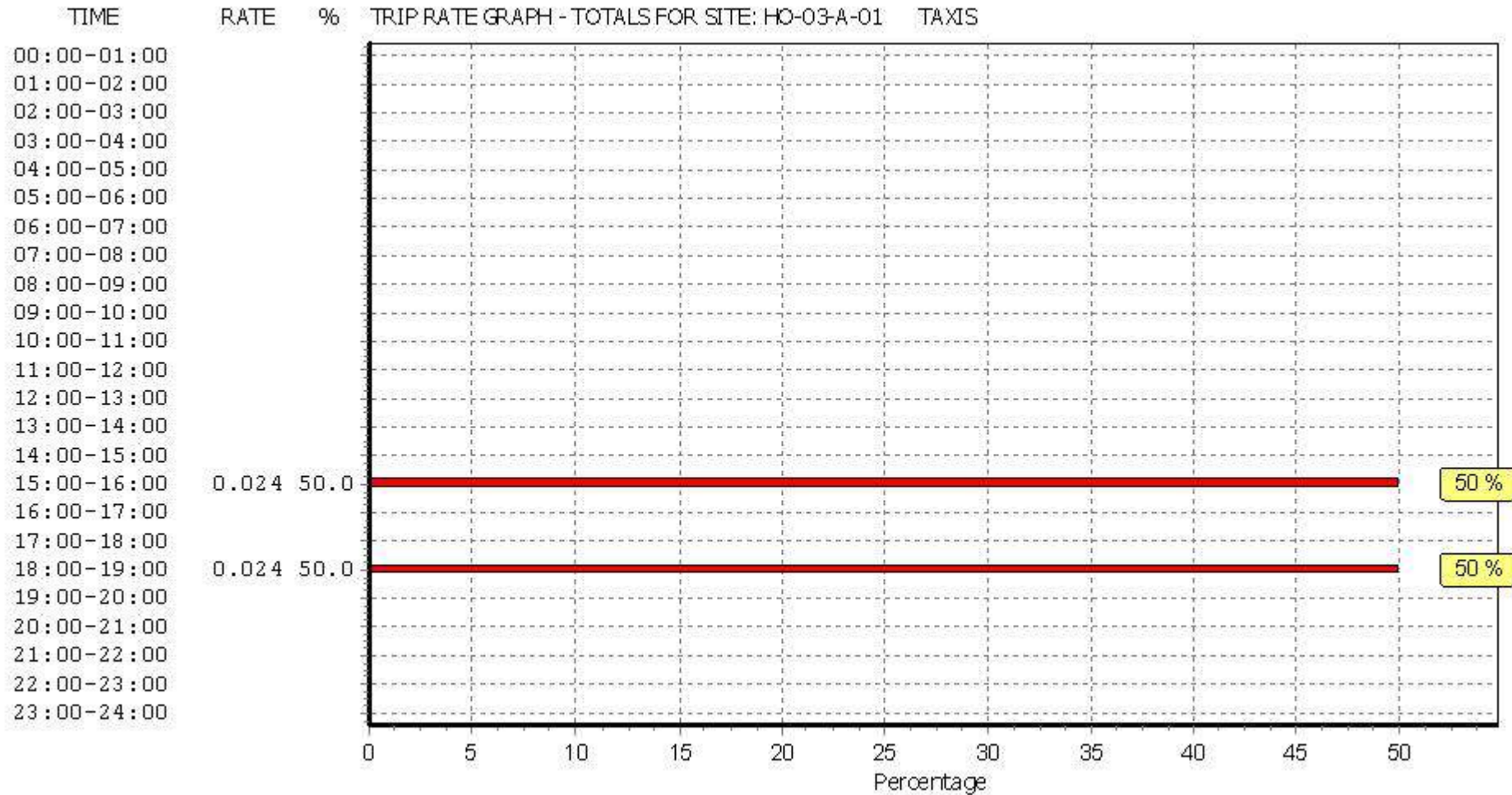
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.*



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



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

Calculation factor: 1 DWELLS

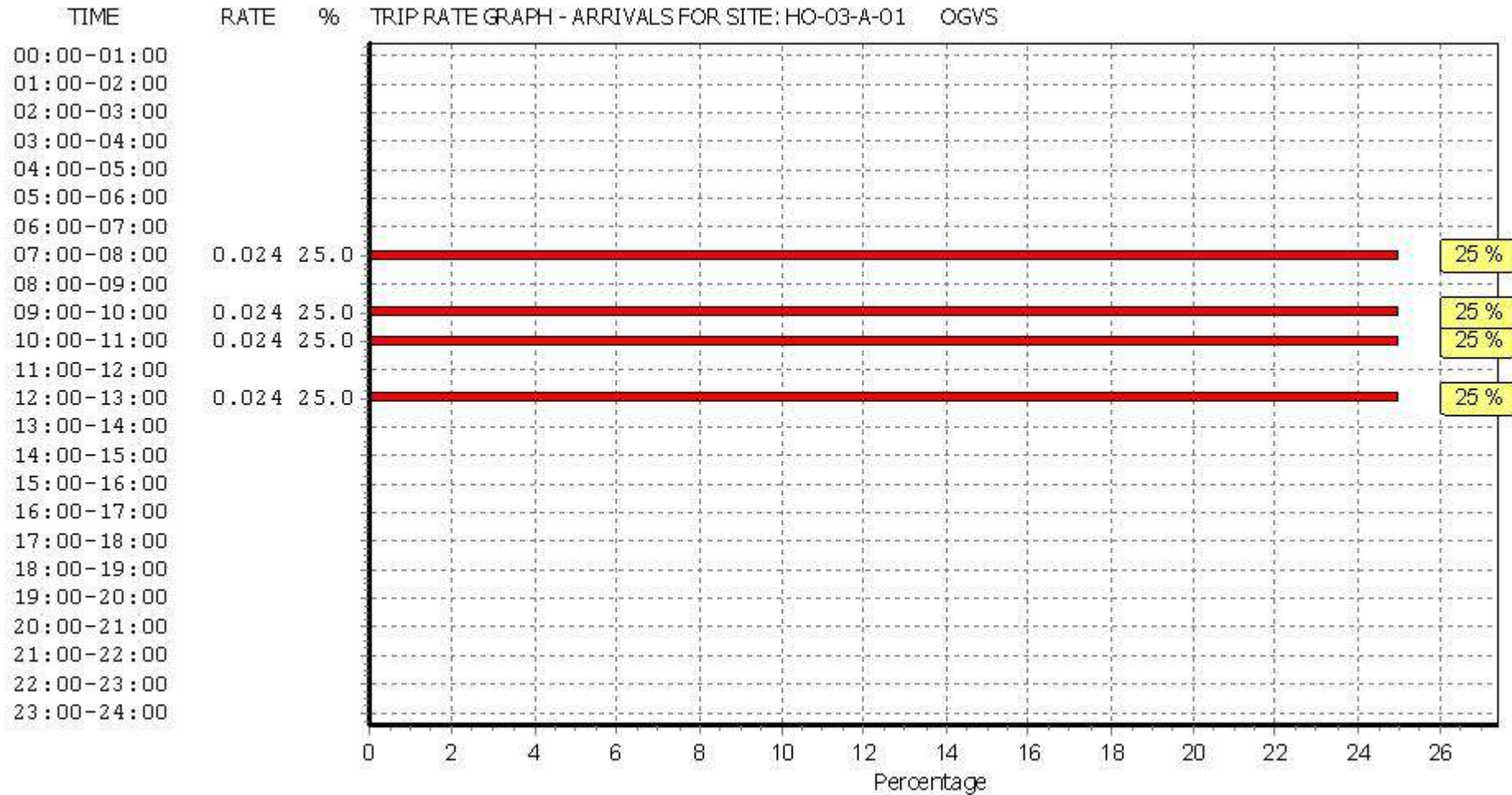
Estimated TRIP rate value per 1 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

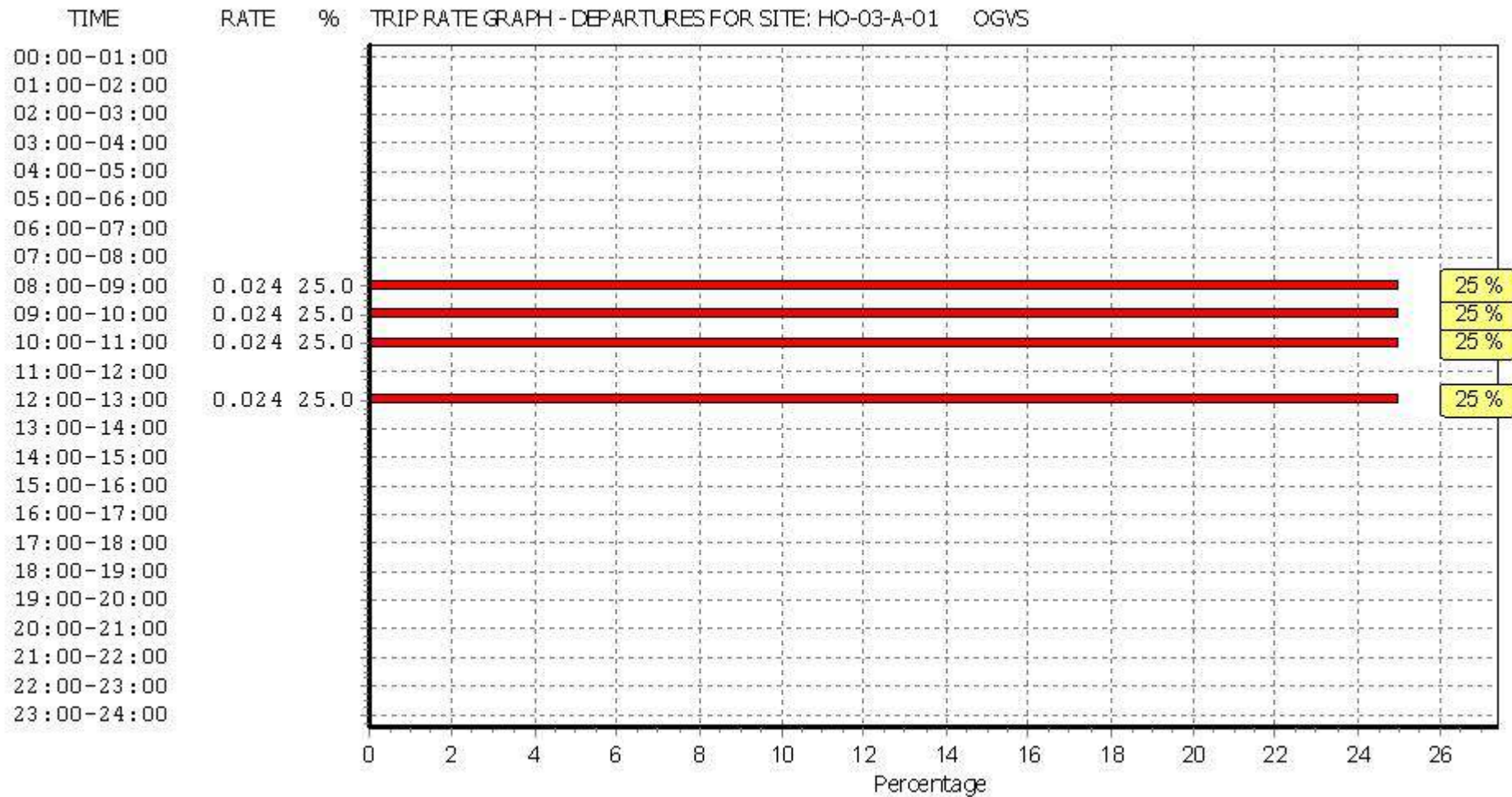
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	1	82	0.024	0.000	1	82	0.000	0.000	1	82	0.024	0.000
08:00 - 09:00	1	82	0.000	0.000	1	82	0.024	0.000	1	82	0.024	0.000
09:00 - 10:00	1	82	0.024	0.000	1	82	0.024	0.000	1	82	0.048	0.000
10:00 - 11:00	1	82	0.024	0.000	1	82	0.024	0.000	1	82	0.048	0.000
11:00 - 12:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
12:00 - 13:00	1	82	0.024	0.000	1	82	0.024	0.000	1	82	0.048	0.000
13:00 - 14:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
14:00 - 15:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
15:00 - 16:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
16:00 - 17:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
17:00 - 18:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
18:00 - 19:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.096	0.000			0.096	0.000			0.192	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.

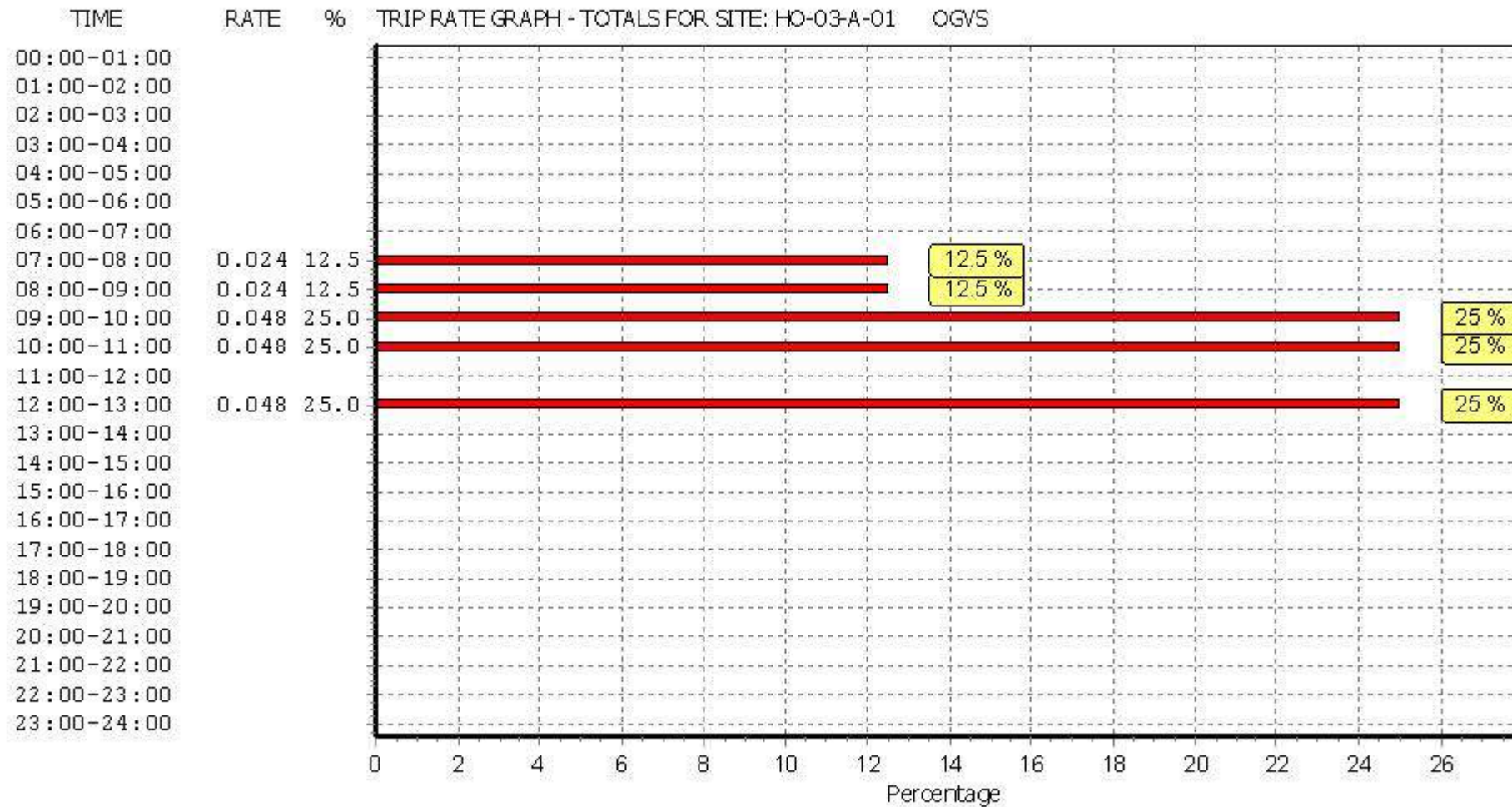
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.*



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



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



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

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

Calculation factor: 1 DWELLS

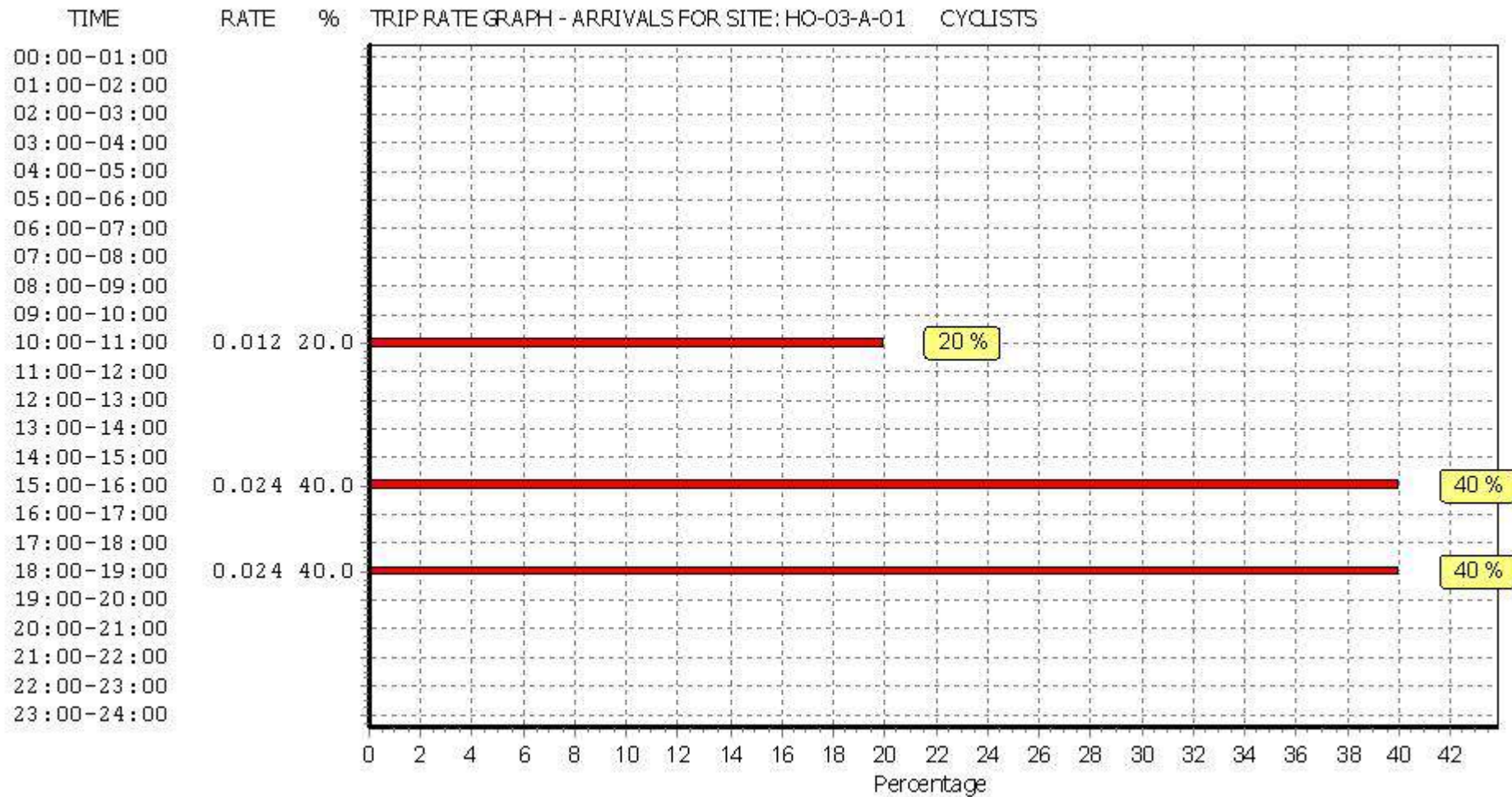
Estimated TRIP rate value per 1 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

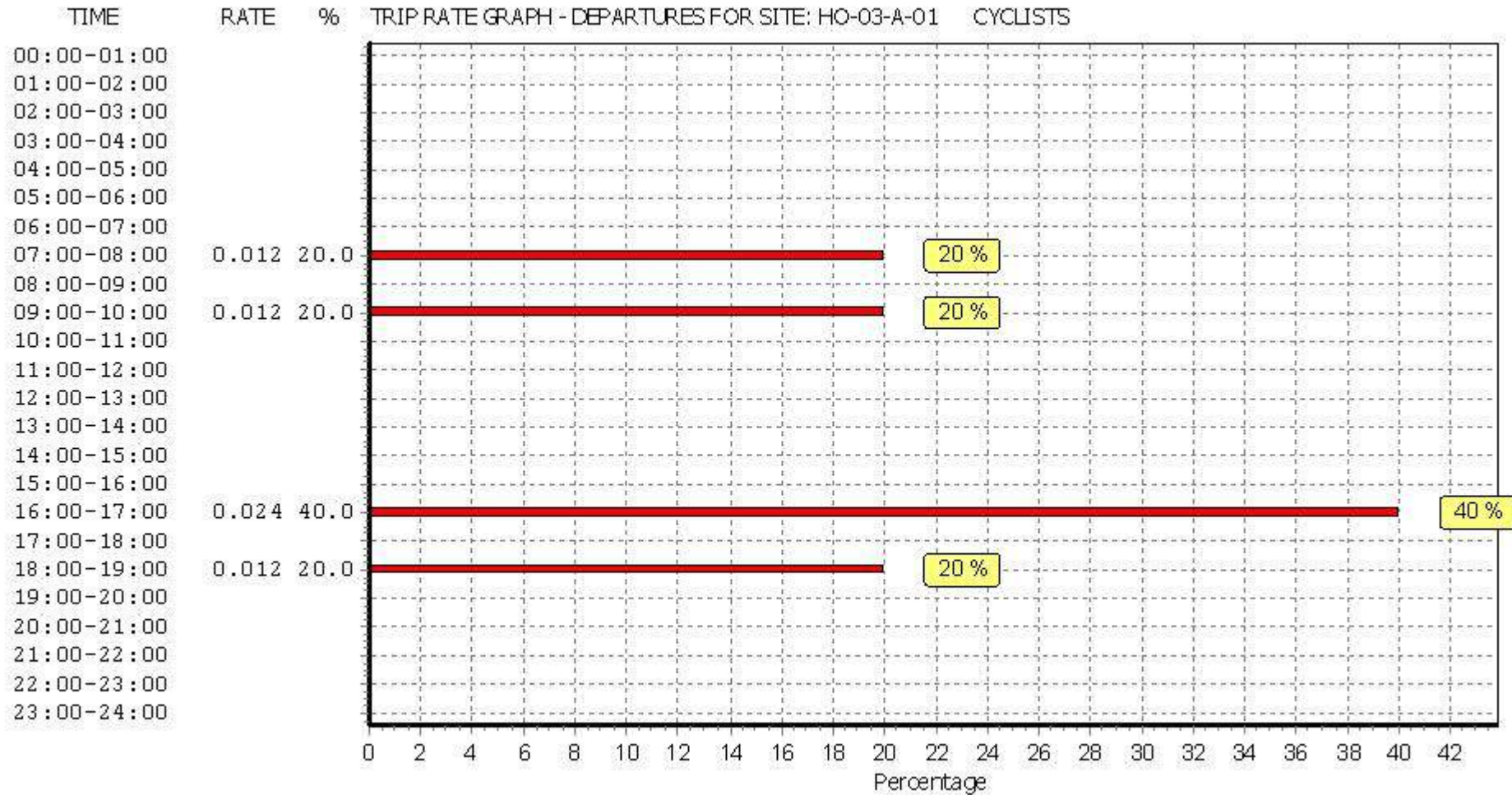
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	1	82	0.000	0.000	1	82	0.012	0.000	1	82	0.012	0.000
08:00 - 09:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
09:00 - 10:00	1	82	0.000	0.000	1	82	0.012	0.000	1	82	0.012	0.000
10:00 - 11:00	1	82	0.012	0.000	1	82	0.000	0.000	1	82	0.012	0.000
11:00 - 12:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
12:00 - 13:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
13:00 - 14:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
14:00 - 15:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
15:00 - 16:00	1	82	0.024	0.000	1	82	0.000	0.000	1	82	0.024	0.000
16:00 - 17:00	1	82	0.000	0.000	1	82	0.024	0.000	1	82	0.024	0.000
17:00 - 18:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
18:00 - 19:00	1	82	0.024	0.000	1	82	0.012	0.000	1	82	0.036	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.060	0.000			0.060	0.000			0.120	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.

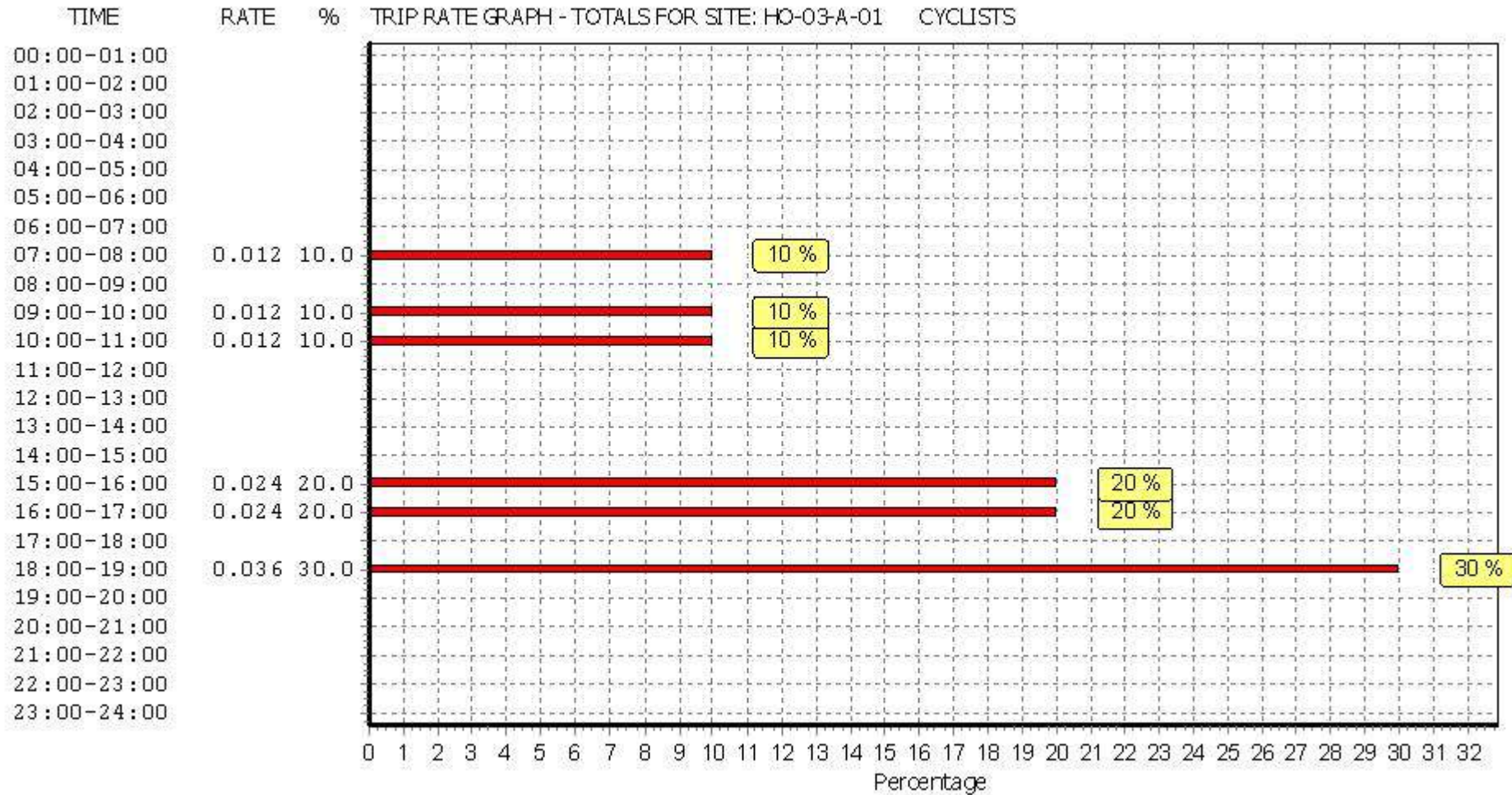
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.*



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



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



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

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

Calculation factor: 1 DWELLS

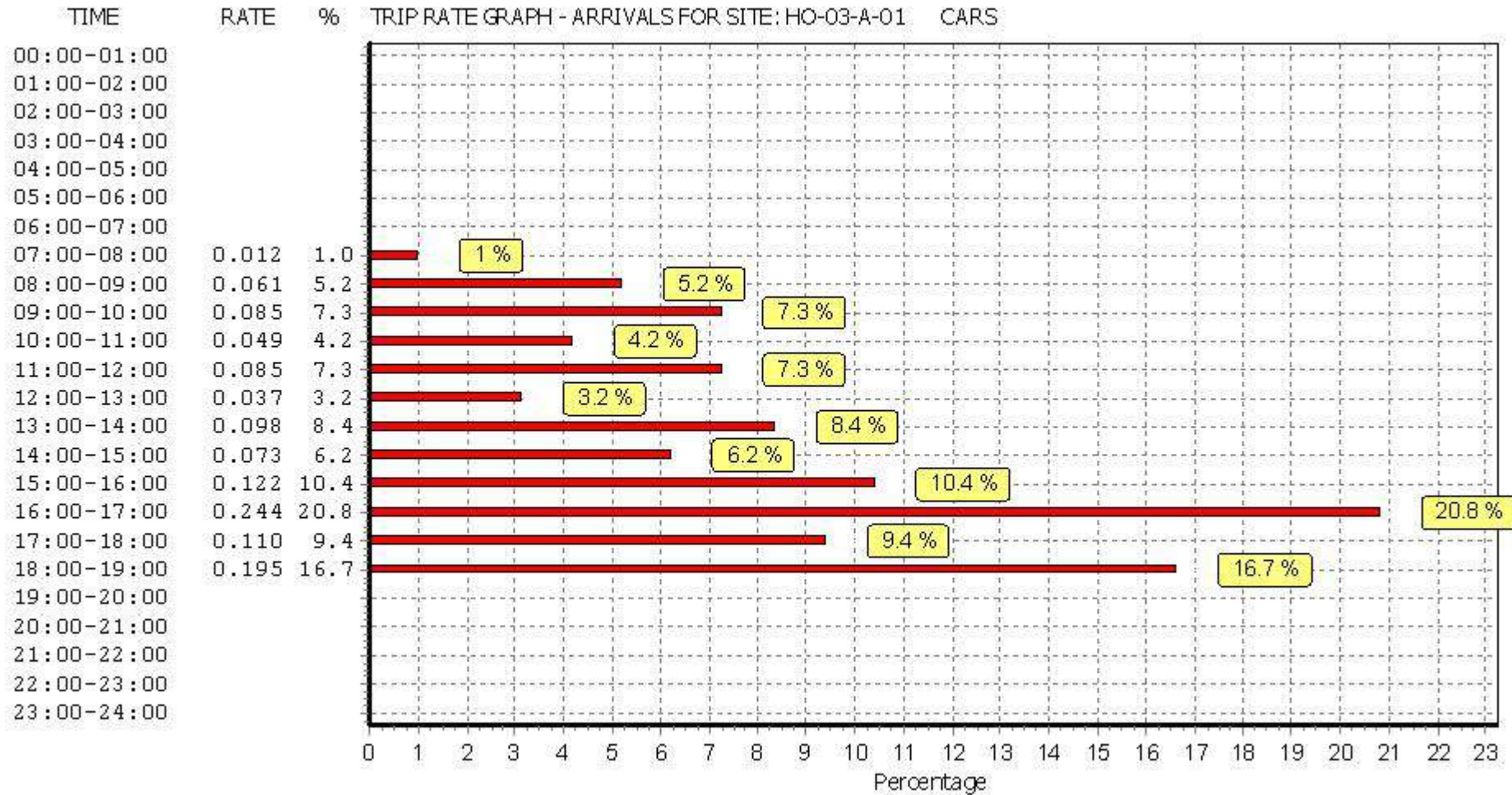
Estimated TRIP rate value per 1 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

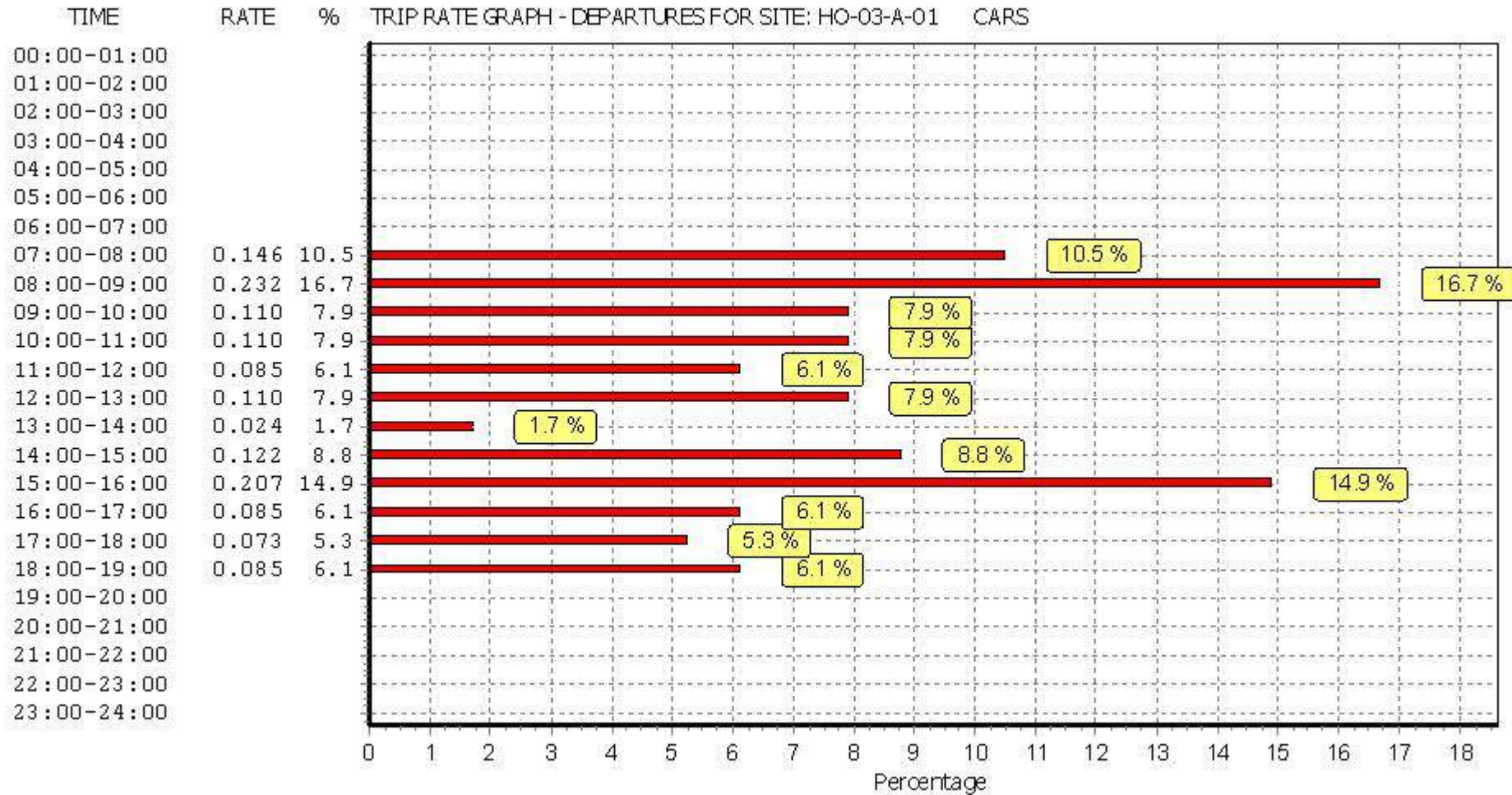
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	1	82	0.012	0.000	1	82	0.146	0.000	1	82	0.158	0.000
08:00 - 09:00	1	82	0.061	0.000	1	82	0.232	0.000	1	82	0.293	0.000
09:00 - 10:00	1	82	0.085	0.000	1	82	0.110	0.000	1	82	0.195	0.000
10:00 - 11:00	1	82	0.049	0.000	1	82	0.110	0.000	1	82	0.159	0.000
11:00 - 12:00	1	82	0.085	0.000	1	82	0.085	0.000	1	82	0.170	0.000
12:00 - 13:00	1	82	0.037	0.000	1	82	0.110	0.000	1	82	0.147	0.000
13:00 - 14:00	1	82	0.098	0.000	1	82	0.024	0.000	1	82	0.122	0.000
14:00 - 15:00	1	82	0.073	0.000	1	82	0.122	0.000	1	82	0.195	0.000
15:00 - 16:00	1	82	0.122	0.000	1	82	0.207	0.000	1	82	0.329	0.000
16:00 - 17:00	1	82	0.244	0.000	1	82	0.085	0.000	1	82	0.329	0.000
17:00 - 18:00	1	82	0.110	0.000	1	82	0.073	0.000	1	82	0.183	0.000
18:00 - 19:00	1	82	0.195	0.000	1	82	0.085	0.000	1	82	0.280	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			1.171	0.000			1.389	0.000			2.560	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.

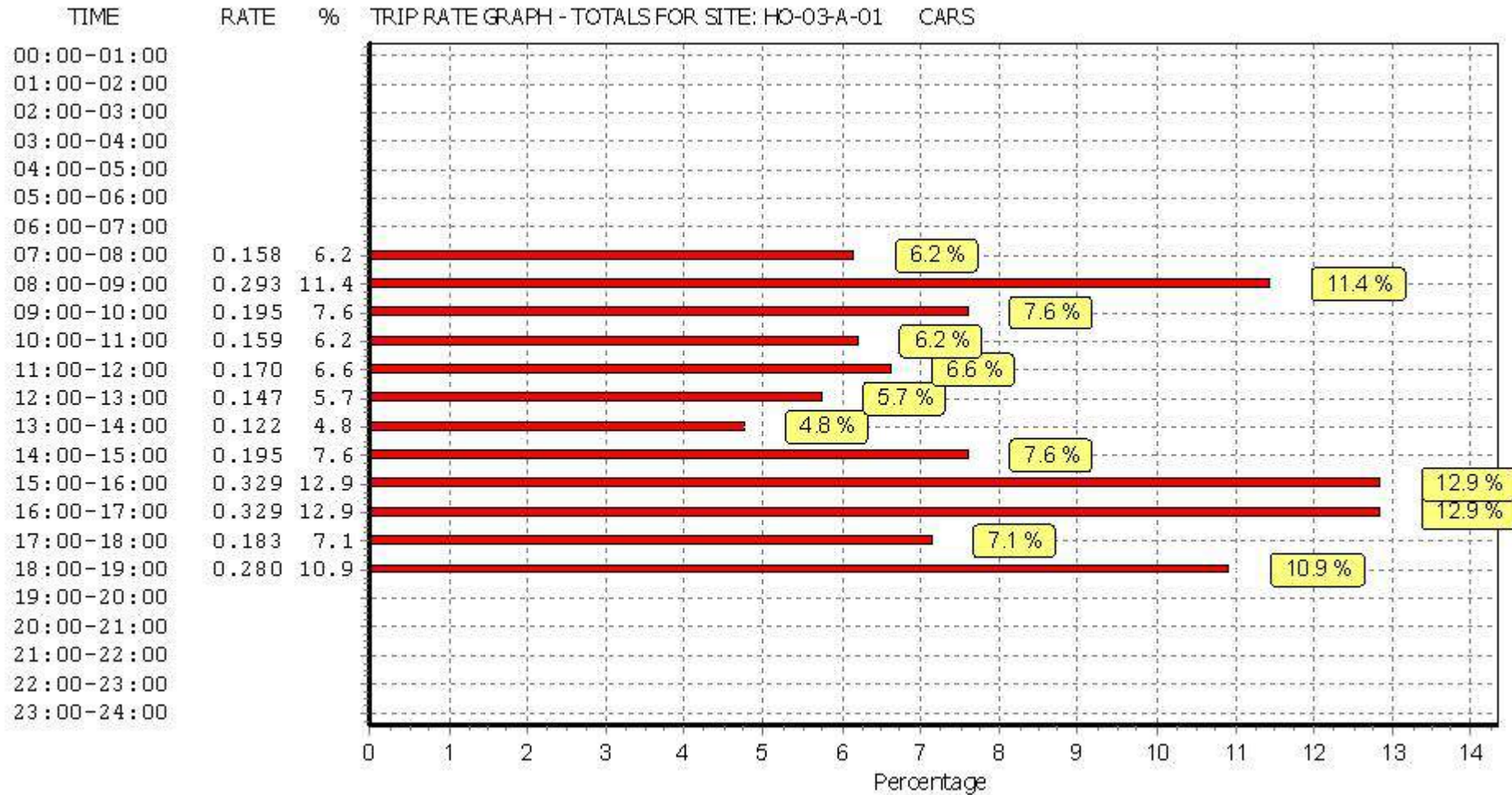
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.*



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



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



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

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

Calculation factor: 1 DWELLS

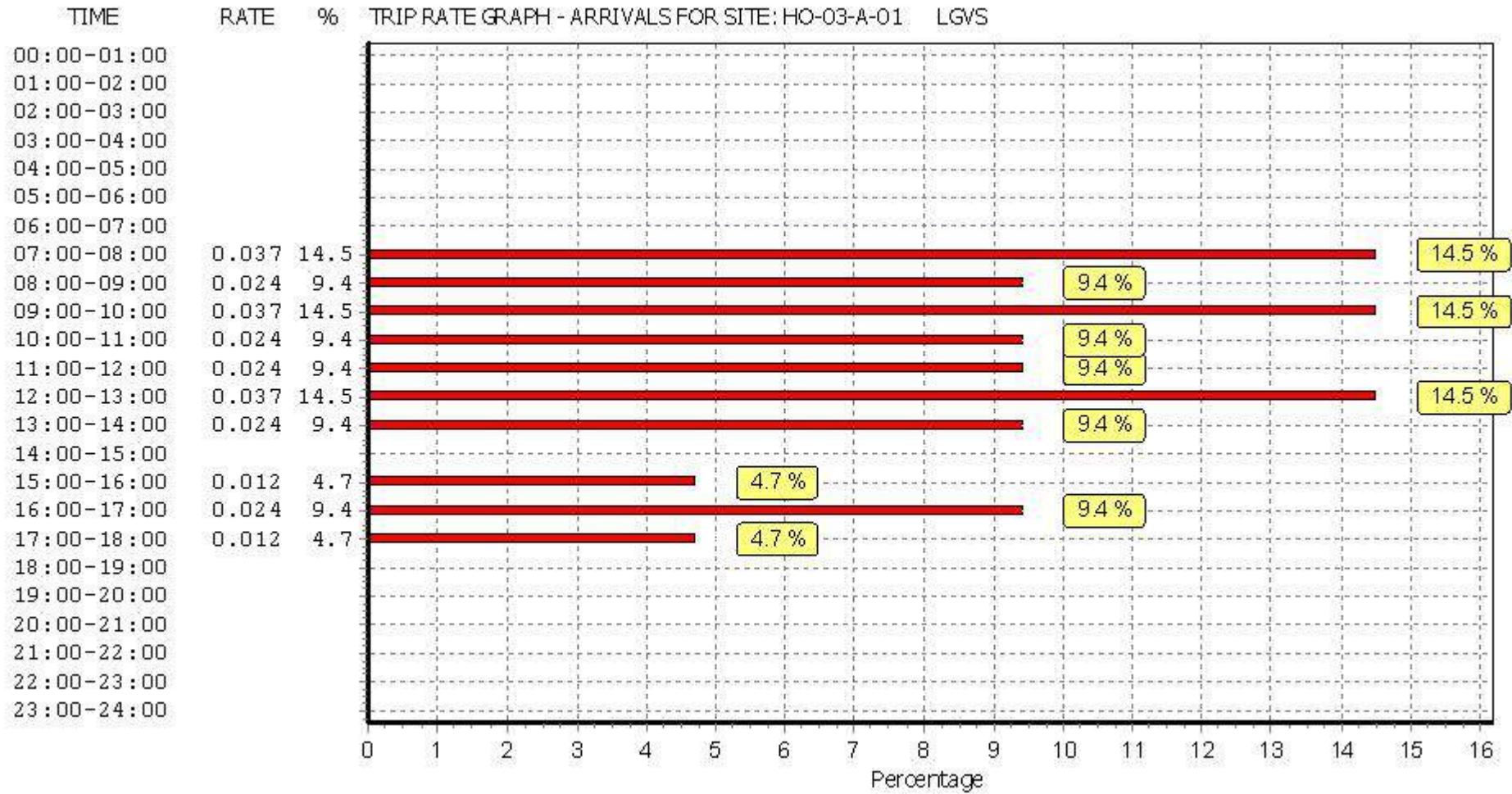
Estimated TRIP rate value per 1 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

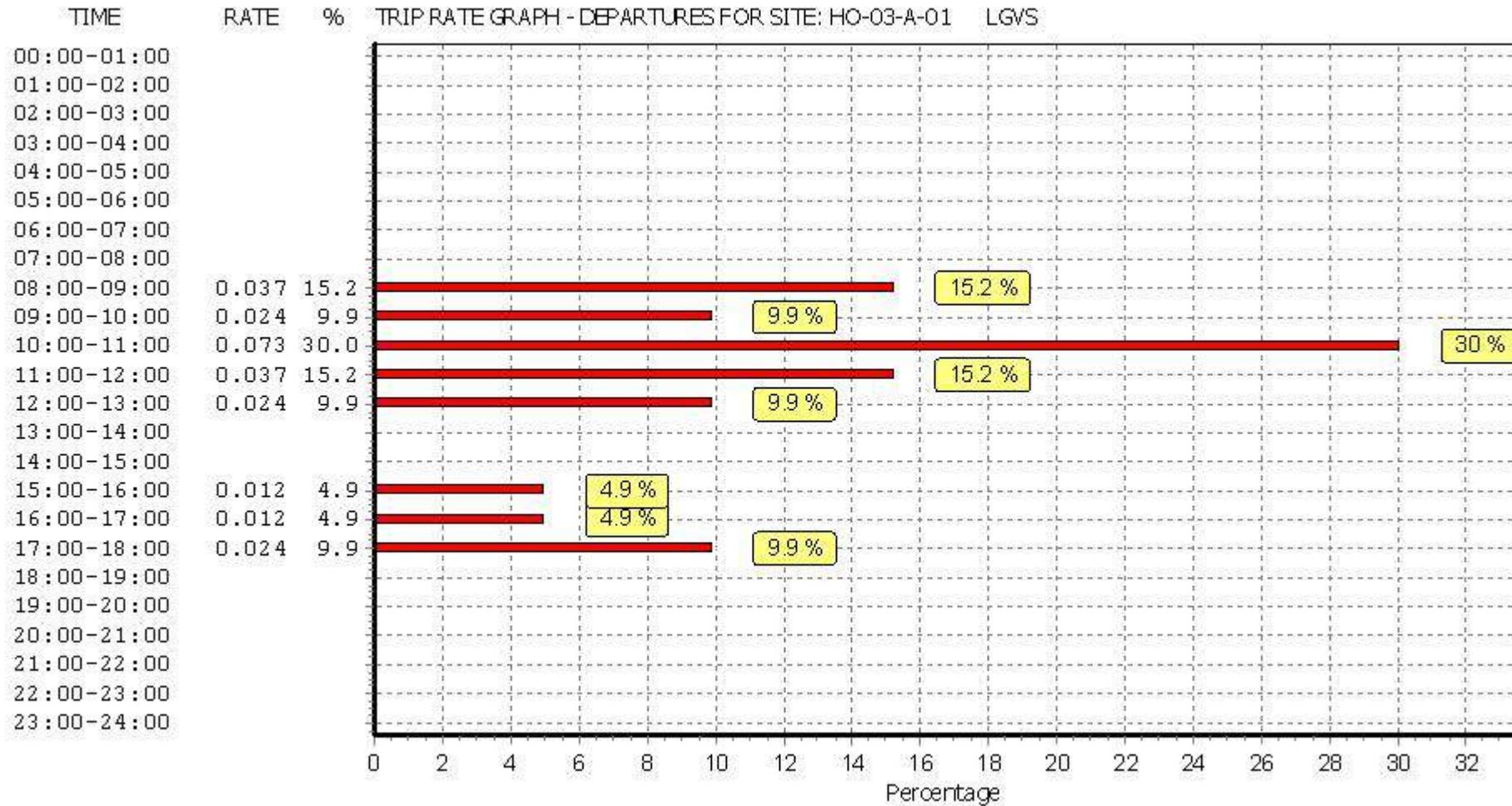
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	1	82	0.037	0.000	1	82	0.000	0.000	1	82	0.037	0.000
08:00 - 09:00	1	82	0.024	0.000	1	82	0.037	0.000	1	82	0.061	0.000
09:00 - 10:00	1	82	0.037	0.000	1	82	0.024	0.000	1	82	0.061	0.000
10:00 - 11:00	1	82	0.024	0.000	1	82	0.073	0.000	1	82	0.097	0.000
11:00 - 12:00	1	82	0.024	0.000	1	82	0.037	0.000	1	82	0.061	0.000
12:00 - 13:00	1	82	0.037	0.000	1	82	0.024	0.000	1	82	0.061	0.000
13:00 - 14:00	1	82	0.024	0.000	1	82	0.000	0.000	1	82	0.024	0.000
14:00 - 15:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
15:00 - 16:00	1	82	0.012	0.000	1	82	0.012	0.000	1	82	0.024	0.000
16:00 - 17:00	1	82	0.024	0.000	1	82	0.012	0.000	1	82	0.036	0.000
17:00 - 18:00	1	82	0.012	0.000	1	82	0.024	0.000	1	82	0.036	0.000
18:00 - 19:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.255	0.000			0.243	0.000			0.498	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.

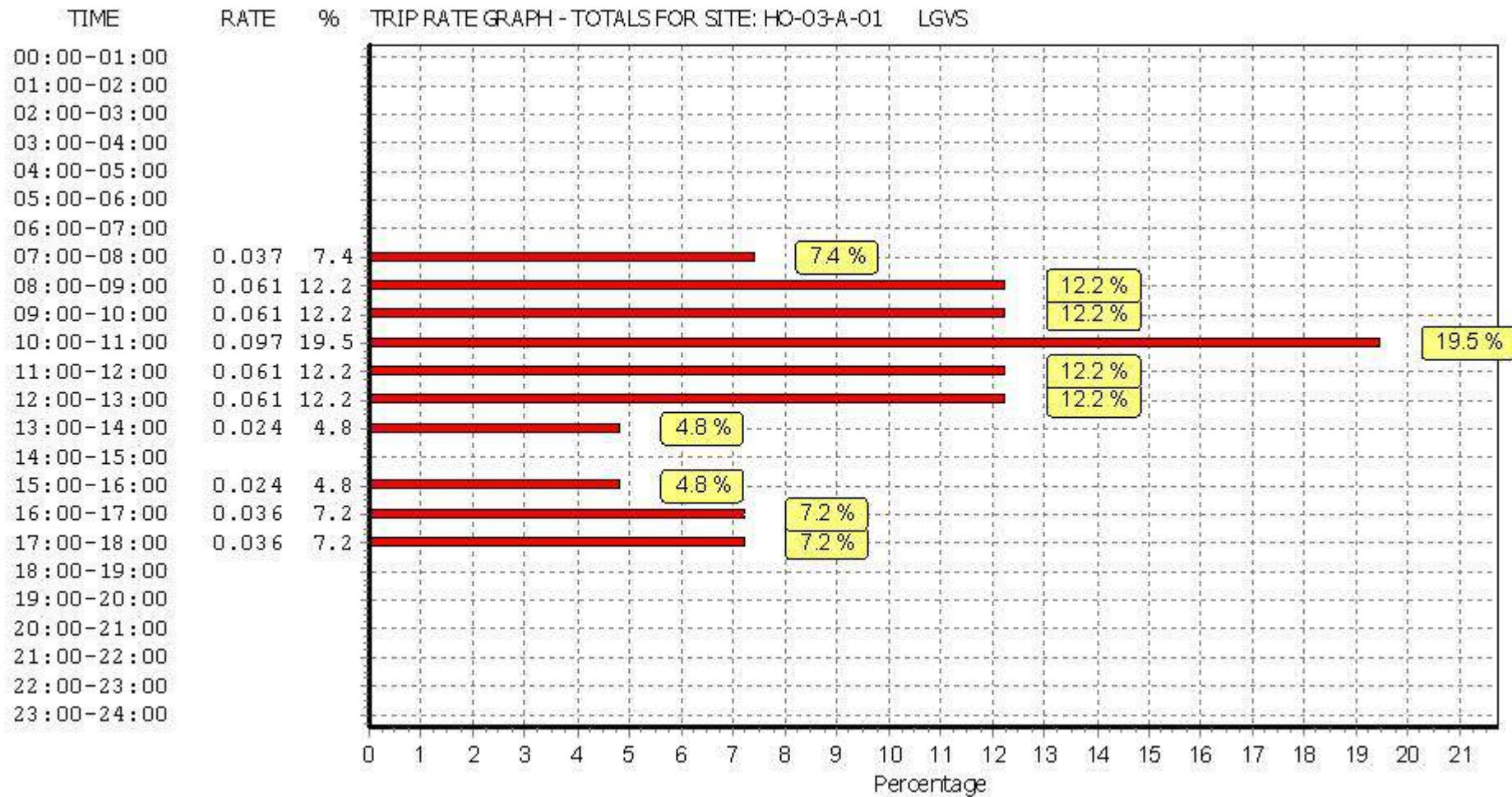
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.*



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



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



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

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

Calculation factor: 1 DWELLS

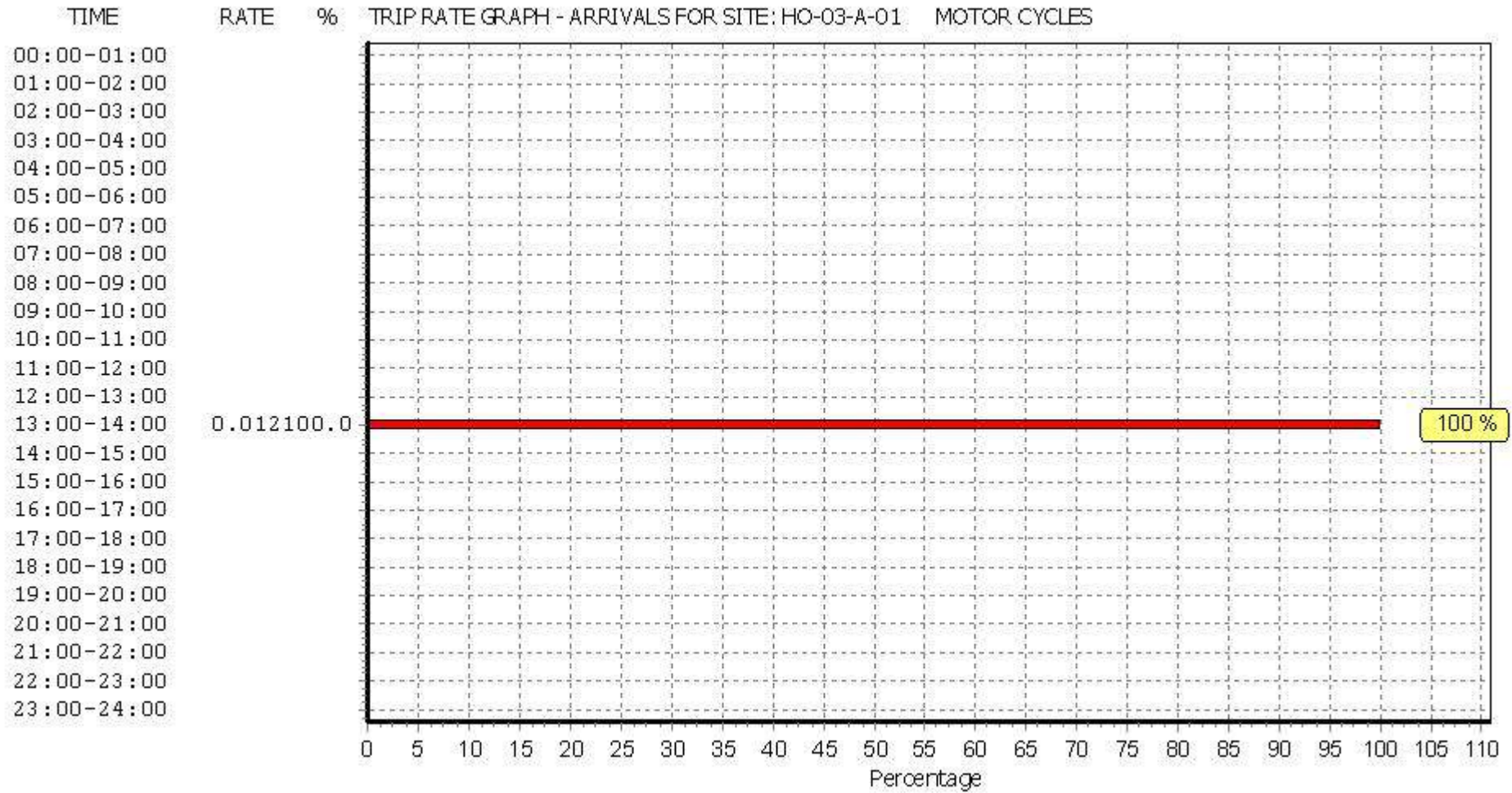
Estimated TRIP rate value per 1 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

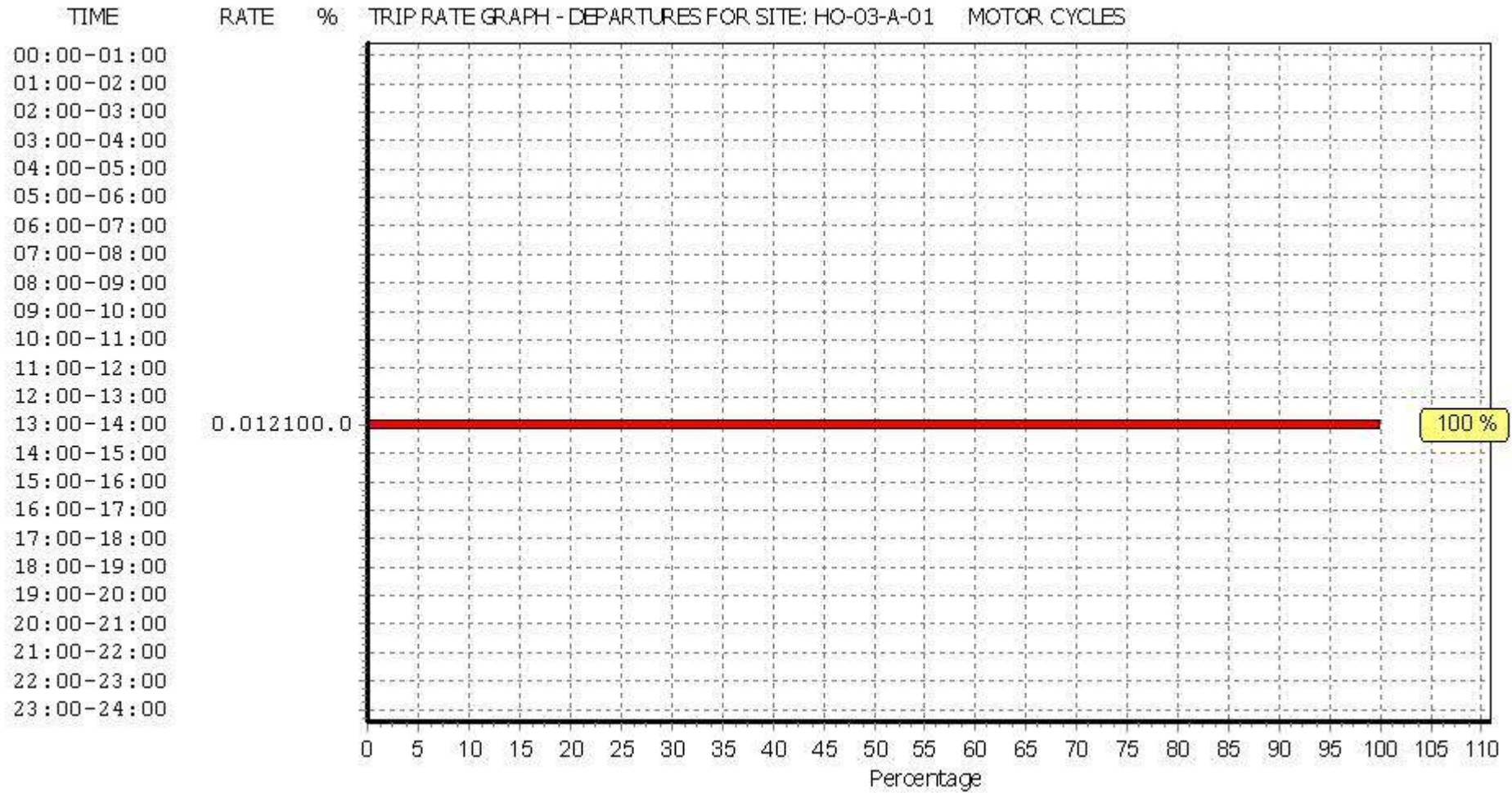
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
08:00 - 09:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
09:00 - 10:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
10:00 - 11:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
11:00 - 12:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
12:00 - 13:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
13:00 - 14:00	1	82	0.012	0.000	1	82	0.012	0.000	1	82	0.024	0.000
14:00 - 15:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
15:00 - 16:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
16:00 - 17:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
17:00 - 18:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
18:00 - 19:00	1	82	0.000	0.000	1	82	0.000	0.000	1	82	0.000	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.012	0.000			0.012	0.000			0.024	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.

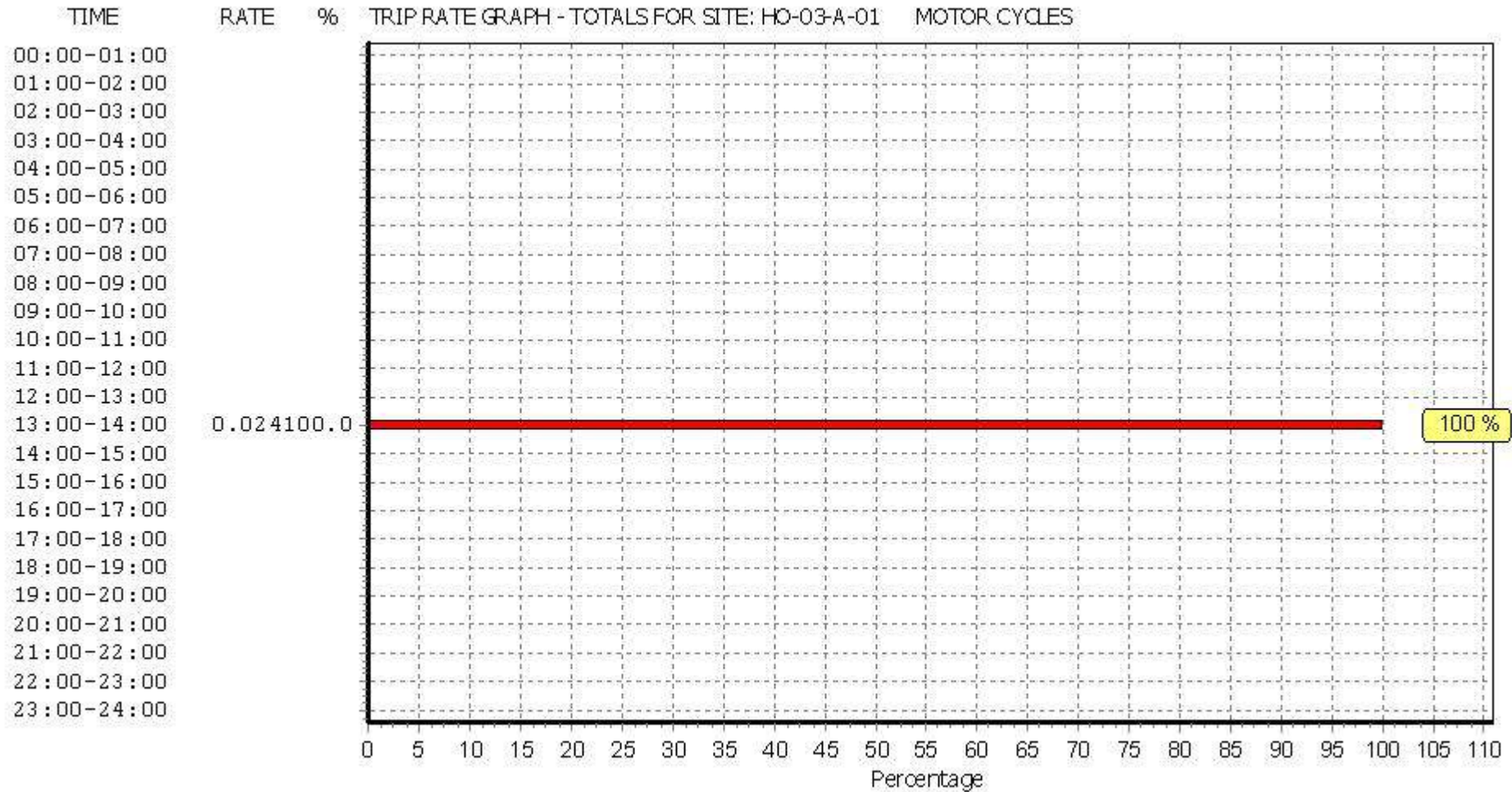
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.*



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



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



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

APPENDIX E

LC4415EW - Accommodation type by car or van availability by number of usual residents aged 17 or over in household

ONS Crown Copyright Reserved [from Nomis on 9 October 2019]

population All households
 units Persons
 date 2011
 area type 2011 super output areas - lower layer
 area name E01003838 : Richmond upon Thames 022E
 no of usual residents in househ All categories: Number of usual residents aged 17 or over in household

Cars or Vans	All categories:		Whole house or bungalow		Flat, maisonette, apartment, caravan or other mobile or temporary structure			
	Accommodation type							
All categories: Car or van avail:	758	1.05		358	1.34	400	0.80	
No cars or vans in household	158		21%	33		9%	125	31%
1 car or van in household	401		53%	171		48%	230	58%
2 or more cars or vans in house	199		26%	154		43%	45	11%
		799			479		320	

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