

Brandhall – Transport Summary Technical Note

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Introduction

This Technical Note (TN) sets out a summary of the Transport baseline in relation to the SMBC Brandhall site. Specifically, this Note sets out the following information;

- Site access junction preferences review (May 2021 Technical Note);
- Accessibility of the site (Draft Transport Assessment);
- Development proposals for four masterplan options;
- Trip Generation;
- Parking proposals and standards based on pre-app discussions with a SMBC Highways Officer;
- Proposed vehicular trip generation and distribution per masterplan option based on pre-app discussions with a SMBC Highways Office; and
- Further work to be undertaken.

Access Junction Review

Summary

An initial analysis undertaken in May 2021 included a preliminary review of potential vehicular access points to the Brandhall Urban Village site. This considered the opportunities on the existing highway network, existing constraints, tree lines, junction spacing, pedestrian crossing facilities, gradients and sideways visibility splay requirements based on Manual for Streets (MfS).

Based on the preliminary analysis undertaken, the results of the site access junction scoping assessments are summarised in **Table 1**, with the junctions ranked in order of preference as follows;

Table 1. Potential Access Junction Review Summary

Number	Road / Location	2.4m x 43m Horizontal Visibility Splays	Width at Visibility Zone (m)	Initial Junction ranking	Major / Minor junction
1	Queensway	✓	119	1st	Major
2	Tame Road	✓	-	2nd	Major
3	Grafton Road	✓	69	3rd	Major
4	Ferndale Road	✓	58	5th	Minor
5	Heron Road	✓	-	4th	Minor

Conclusions

The preliminary analysis determined that;

- A priority junction on Queensway would be the optimum location for a primary site access. Queensway benefits from clear sideways visibility in both directions, no tree cover, pedestrian accessibility via a nearby signalised crossing, a wide access zone and direct access to the A4123 Wolverhampton road for access to the surrounding road network.
- Tame Road would also provide a primary access junction to the site, with good pedestrian access nearby and a low speed environment. The location has minimal tree clearance, but could require re-working of traffic calming measures due to the existing speed cushions and 'shark teeth' road markings currently in place.
- The Grafton Road junction location would provide clear horizontal visibility in both directions and good pedestrian accessibility; however, an inclined verge and thick tree line exist to the east.
- Heron Road could provide a minor junction to the site, in order to limit through traffic on nearby residential roads. A junction at the Heron Road location would be implemented in place of the existing golf course car park access, thereby satisfying existing alignment and visibility requirements.
- Ferndale Road is narrow, with existing on-street parking and residential dwellings in close proximity with an existing tree line to the south.

Opportunities

The analysis set out the potential opportunities available / improvements that could be required to accommodate access junctions to the site at the proposed locations. These are set out as follows;

Queensway

- Potential for the implementation of shared pedestrian / cycle lane on Queensway in relation to implementation of vehicular access to the site, to connect to Phase 2 of the TfWM Cycle network proposed on the A4123.
- Ensure pedestrian connectivity from within the site to existing signalised pedestrian crossing on Queensway.
- Potential for a 20mph zone and traffic calming measures in proximity to the proposed site accesses due to proposed primary school development.
- Upgrade bus stops to sheltered seating / real time information.

Tame Road

- Rework of traffic calming measures following implementation of vehicular access to the site.
- Ensure pedestrian connectivity from within the site to existing signalised pedestrian crossing on Tame Road.
- Improved pedestrian and cycle access to Jubilee park to the south of Tame Road.

Grafton Road

- Inclusion of pedestrian crossing facilities on Grafton Road, providing easier access to the western side for access to Rowley Regis rail station and Cakemore Playing Fields;
- Improvements to public right of way (PRoW) from Grafton Road / Lansdowne Road northward to Cakemore road via Yates Lane, for improved access to Rowley Regis rail station;
- Lighting improvements to the M5 underpass for improved visibility for pedestrians and cyclists;

Ferndale Road

- Implementation of footway on the southern side of Ferndale road in order to improve pedestrian accessibility along the northern boundary of the site.

Heron Road

- Improve connection from Heron Road to the A4123, thereby improving cycle and pedestrian access to the green space / park proposed within the site, an improving access to public transport provision on the A4123.

A4123 Wolverhampton Road

- Implementation of further pedestrian crossing facilities on the A4123 to improve access to amenities and transport links to the east of the A4123, benefitting connectivity to local education, healthcare, community and retail amenities.

Transport Baseline

The location of the site / study area boundary is shown in Figure 1.



Figure 1. Site Location / Boundary

The following text sets out the Baseline transport Conditions present at the site.

Existing Conditions

The outline application site is approximately 37ha situated on greenfield land within Brandhall, approximately 6.5km west of Birmingham city centre. The site is bounded to the west by the M5, to the east by the A4123 Wolverhampton Road, to the south by Tame Road and to the north by Ferndale Road and Heron Road.

The existing site comprises the Brandhall Golf & Social Club building with associated car parking and the accompanying Brandhall Golf Course. Existing community green space is also provided by Parson's Hill Park located within the eastern corner of the site and areas woodland included within the golf course area.

The Brandhall Brook runs on a north-south axis centrally through the site, adjacent to the Golf Club house. This watercourse could form a central part of the green space proposed as part of the proposals.

Accessibility

Local Highway Network

A4123 Wolverhampton Road

The development site is bounded to the east by the A4123 Wolverhampton Road, a dual carriageway road subject to a 40mph speed limit. The A4123 runs on a northwest-southeast axis routing between Oldbury to the north and Hagley Road West to the south, for direct access to Quinton, Bearwood and beyond to Birmingham city centre. The road provides 2m footways and regular streetlighting along both sides and provides a major route throughout the local area.

Approximately 2km north of the site, the A4123 forms the south-eastern arm of the six-arm Birchley Island roundabout junction. This provides for direct connection northward towards Dudley and Oldbury and eastward for connection to Junction 2 of the M5.

Approximately 1.85km southeast of the site, the A4123 provides direct connection to Hagley Road West, a major arterial road and dual carriageway that provides direct access to Birmingham city centre to the east, and Halesowen to the west.

Queensway

At the eastern extent of the site, the A4123 Wolverhampton Road forms the major arm of a three-arm priority junction with Queensway. Queensway is a single carriageway road subject to a 30mph speed limit that forms part of the south-eastern boundary of the site and provides pedestrian access to Parson's Hill Park. From the A4123, Queensway routes south-westward providing connections through the residential areas south of the site, before intersecting with Tame Road at a four-arm crossroads junction.

Queensway has 2m footways and regular street lighting along both sides of the carriageway. A signalised pedestrian crossing is provided to the north of the junction of Queensway / Brennand Road priority junction.

Tame Road

Tame Road is a two-way single carriageway road which forms the southwestern boundary of the development site. The road is subject to partly to a 30mph speed limit, with a 20mph speed limit zone in the vicinity of the site's southern boundary. Tame road provides footways and street lighting along both sides and includes regular speed cushions and 'shark teeth' yield road markings, which act as traffic calming measures. At its eastern extent, Tame road intersects with Perry Hill Road within Brandhall, and to its western extent becomes, Hurst Green Road providing direct access into Hurst Green and Blackheath.

In the vicinity of the site, a signalised pedestrian crossing across Tame Road provides pedestrian accessibility northward for connection to Queensway via the residential Worcester Road. Tame Road also provides bus stops on both sides of the carriageway, with the southern bus stop providing sheltered seating.

M5 Motorway

At the southwestern corner of the site boundary, Tame Road forms an underpass under the M5 Motorway. The M5 is a major route providing access northward for connection to the M6 and access southwards through the West Midlands for connection towards Bristol. The M5 forms the western boundary of the site, with a substantial tree buffer between the Motorway and the site.

Grafton Road / Lansdowne Road

Approximately 300m southwest of the site, Hurst Green Road intersects with Lansdowne Road at a three-arm priority junction. Lansdowne Road runs northward, under an M5 underpass and becomes Grafton Road, which forms the western boundary of the site. Grafton Road / Lansdowne Road is a single carriageway subject to a 30mph speed limit.

The road has footways along both sides and regular streetlighting and provides access northward towards Oldbury via connection to the A4123 Wolverhampton Road.

Ferndale Road / Heron Road

At the north-western corner of the site, Grafton Road forms the major arm of a three-arm priority junction with Ferndale Road. Ferndale Road is a two-way single carriageway residential road, subject to a 30mph speed limit. The road routes eastward from the junction and forms part of the northern boundary of the site. The road has a footway along its northern side and regular street lighting.

Approximately 130m west of the existing Brandhall Golf Club house, Ferndale Road forms the major arm of a priority junction with Heron Road, also a two-way single carriageway residential road that provides connection to the existing

Brandhall Golf Club house and car park. Both Ferndale Road and Heron Road provide access to the existing residential areas to the north of the site.

Pedestrian Accessibility

The Chartered Institution of Highways and Transportation (CIHT) document Guidelines for Providing for Journeys on Foot states that walking accounts for over a quarter of all journeys and four fifths of journeys less than 1 mile (1.6km). The guidance states that an average walking speed of 1.4m/s can be assumed, equating to approximately 3mph (5kph). The guidance contains acceptable walking distances for pedestrians without mobility impairment and identifies a preferred maximum walking distance for commuting, journey to school or sightseeing purposes as being 2km, and up to 1.2km to other destinations other than a town centre.

Based on the above, the development site is located within walking distance of the entirety of Brandhall, Hurst Green, Blackheath and Langley Green town centres and within proximity of the areas of Oldbury, Bearwood and Quinton.

The area surrounding the development site comprises a comprehensive network of well-lit footways that provide access to key local destinations within Brandhall and surrounding areas. Signalised pedestrian crossing facilities comprising dropped kerbs and tactile paving are in place in close proximity to the site, thereby providing for good pedestrian and cycle access to and from the site, including across the A4123 Wolverhampton Road, Queensway and Tame Road.

The existing golf course provides for pedestrian connection across the site with access via the existing Golf Club car park. In addition, public footpaths are in place from Grafton Road through Hurst Green Park to the west of the site, providing pedestrian access to Rowley Regis rail station via Cakemore Road. An off-street footpath is also in place to the north of the site, connecting Falcon Road with Pound Road for off-street pedestrian access towards Oldbury.

Cycling Accessibility

The CIHT and DfT document 'Cycle Friendly Infrastructure: Guidelines for Planning and Design' identifies typical cycle speeds for cyclists of varying confidence and ability, speeds of 10-20mph being identified for adult commuters. Using a mid-speed of 15mph, a catchment of 5 miles (8km) would be available within a 20-minute cycle time.

Based on the above, the development site is within reasonable cycling distance of the entirety of Harborne, Bartley Green, Halesowen, Rowley Regis, Oldbury and Smethwick. The site is also in reasonable cycling distance to West Bromwich, The Queen Elizabeth Hospital, Edgbaston and Cradley Heath.

The nearest designated cycle route to the site is the National Cycle Network (NCN) Route 5. Route 5 is a long distance route that runs approximately 3.4km north of the site along the Birmingham Canal Old Line towpath. In proximity to the site, NCN route 5 is a predominantly off-road route that runs on a north-south axis through Birmingham city centre toward Bromsgrove to the south and Walsall to the north. The route connects to NCN Route 81 at Smethwick Galton Bridge approximately 3.9km northeast of the site, a further designated cycle route that provides access into Wolverhampton.

A further local cycle route is also located approximately 2.5km south of the site through Woodgate Valley Country Park. This provides off-road, traffic free cycle connection to the cycle highway along the A38, for access into Birmingham city centre.

In addition, the A4123 Wolverhampton Road is identified as part of the Phase 2 delivery of the Transport for West Midlands (TfWM) Starley walking and cycling network.

In accordance with the CIHT guidance on acceptable walking and cycling distances set out above, the development site is well served by a range of educational establishments, retail, community, education and health facilities in close proximity all within the maximum recommended walking and cycling distances.

Local Amenities

Table 2 sets out the approximate distances and walking time to local amenities, with a map of local accessibility to local amenities set out in **Figure 1**.

Table 2. Local Amenities

Type	Amenity	Approx. Distance*	Approx. Walking Time
Education	Hurst Green Primary School	1100m	13 Minutes
	Causeway Green Primary School	1150m	13 Minutes
	Brandhall Primary School	600m	8 Minutes
	Warley Infant School	1000m	12 Minutes

Type	Amenity	Approx. Distance*	Approx. Walking Time
	Oldbury Academy	1300m	15 minutes
	Perry Fields High School	900m	12 Minutes
Local Retail	Nisa Local Convenience Store	450m	5 Minute
	Londis Convenience Store	350m	4 Minutes
	Select Convenience Store	400m	5 Minute
	Co-operative Food Brandhall	800m	11 Minutes
Community Facilities	Brandhall Library	850m	11 Minutes
	Bleakhouse Library	1000m	12 Minutes
Leisure	Sam's Health & Fitness	1050m	13 Minutes
	Goals Dudley	1400m	16 Minutes
Healthcare	Hill Top Medical Centre	1200m	14 Minutes
	Warley Medical Centre	1000m	12 Minutes

* Walking Distances and Time taken from the centre of the site

As illustrated, there are a range of facilities within the vicinity of the proposed development, in addition to the mix of uses provided within the development proposals.

Bus

Several high frequency bus services operate in close proximity to the site. The closest high frequency bus stops are located on the A4123 Wolverhampton Road, providing the regular National Express West Midlands 126 service to Dudley approximately five times per hour. Further services operate on Tame Road, including the 13A and 49 National Express West Midlands services to Birmingham three times per hour and Bearwood twice per hour respectively. Both bus stops provide sheltered seating with service and timetabled information.

Full bus service operation within 400m of the site is set out within **Table 2**, with the location of the nearest bus stops in relation to the site set out in **Figure 3**.

Table 3. Bus Timetables

Service Number	Route	Operator	Frequency		
			Mon-Fri	Saturday	Sunday
13A	Birmingham – Blackheath via Bearwood & Brandhall	NX West Midlands	30 mins	30 mins	60 mins
20	Oldbury – Bearwood via Brandhall	Diamond Buses	60 mins	60 mins	-
22	Bearwood – Oldbury via Warley & Langley	NX West Midlands	60 mins	60 mins	-
48A	West Bromwich – Bearwood via Warley	NX West Midlands	30 mins	30 mins	-
49	West Bromwich – Bearwood via Langley, Causeway Green & Brandhall	NX West Midlands	20 mins	20 mins	30 mins
54	West Bromwich – Worlds End via Europa Village, Smethwick, Cape Hill & Brandhall	NX West Midlands	30 mins	30 mins	60 mins
126	Dudley – Birmingham via Causeway Green & Bearwood	NX West Midlands	15 mins	15 mins	20 mins
231	Blackheath – Halesowen via Rowley Regis	Diamond Buses	60 mins	60 mins	-

Source: National Express West Midlands (nxbus.com) and Diamond Bus (diamondbuses.com)

Table 3 demonstrates that the site is served by approximately 16 bus services per hour in each direction, within destinations including Birmingham, Oldbury, Dudley, West Bromwich and Halesowen.

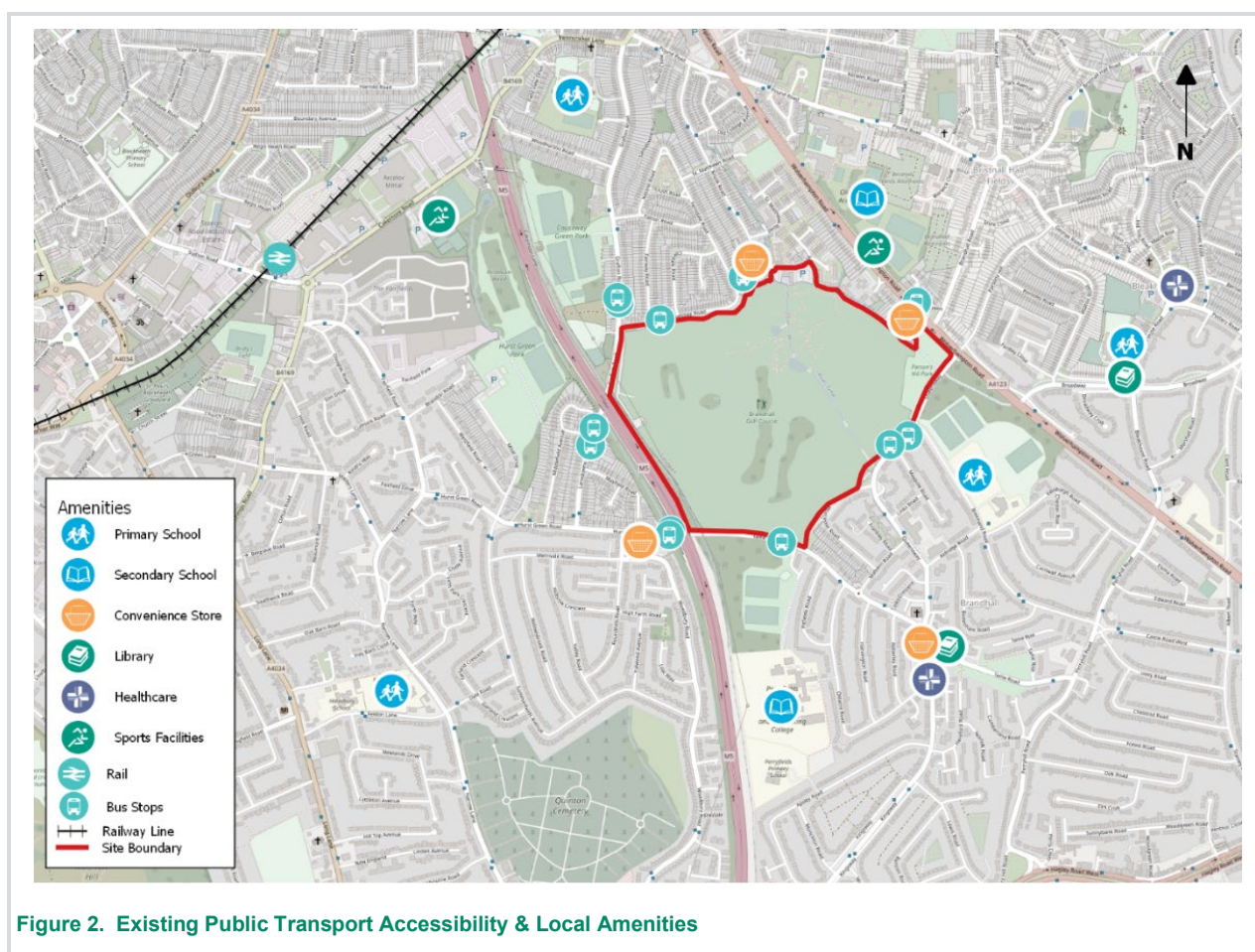
Rail

Rowley Regis rail station is located an approximate approximately 1.25km (19 minute) walking journey northwest of the site. The station is served by Chiltern Railway trains and regular, frequent West Midlands Trains services to Stourbridge Junction, Stratford Upon Avon, Dorridge, Worcester Shrub Hill, Kidderminster and Whitlock's End multiple times per hour.

Langley Green rail station and Old Hill rail stations are located approximately 2.1km north and 2.9km west of the development site respectively. These are situated on the same rail line and offer the same rail connections as Rowley Regis rail station.

As set out in **Table 3**, the site is also accessible to Birmingham city centre by bus travel. Here, Birmingham New Street station, a central hub of the British railway system, provides high frequency connections to a wide range of destinations across the UK.

The existing public transport accessibility and accessibility to local amenities is set out in **Figure 1** below.



Summary

The existing transport conditions can be summarised as follows:

- A comprehensive network of footways currently exists in the vicinity of the site;
- Existing cycle infrastructure in the vicinity of the site includes off-road routes, including the NCN Route 5 and NCN Route 81 along the Birmingham Old Canal Line Towpath;
- A range of local amenities are available within the local area surrounding the site including good access to education, local retail, leisure and community facilities; and
- The site is accessible by regular and frequent existing public transport services including bus and rail, and therefore ideally located for development.

Development Proposals

The proposals will replace the existing Brandhall Golf Course, including the associated Brandhall Golf & Social Club building.

The development quantum for each of the four masterplan options is summarised in **Table 4**, with a further summary of the options set out below.

Table 4. Draft Development Proposals

Masterplan Option 1	Dwellings (Units)	2 Form Entry (Pupils)
1	0	0
2	0	471
3	190	471
4	360	471

Option 1 - represents a 'Do Nothing' scenario, with the site retained as green space.

Option 2 - comprises the 'Do Nothing' scenario with the addition of a school parcel within the north western portion of the site comprising a two-form entry primary school totalling approximately 471 pupils.

Option 3 - comprises two residential parcels (R1 – R2) across approximately 5.2Ha of land providing a total of 190 residential dwellings, with a mix of low and medium density housing, in addition to the two-form entry primary school.

Option 4 - comprises four residential parcels (R1 – R4) across approximately 9.1Ha of land providing a total of 360 residential dwellings. This is in addition to the two-form entry primary school and provision of a wildlife corridor along the western boundary of the site adjacent to the M5 motorway.

Trip Generation

The TRICS database has been interrogated and the following trip rates and associated trip generations have been derived for the three options with development. Evidently option 1 has no resultant trip generation.

Table 5. Trip Rates

Land Use	Time Period	Arrivals	Departures	Two-Way
Private Houses	AM	0.128	0.393	0.521
	PM	0.360	0.159	0.519
Primary School	AM	0.320	0.254	0.574
	PM	0.016	0.030	0.046

The above trip rates have been applied to the three active development options with the resultant trip generations noted below.

Table 6. Raw Trip Generation

	Land Use	Time Period	Arrivals	Departures	Two-Way
Option 2	0 Private Houses	AM	0	0	0
		PM	0	0	0
	A two-form entry Primary School (471 pupils)	AM	151	120	270
		PM	8	14	22
Option 3	190 Private Houses	AM	24	75	99
		PM	68	30	99

	Land Use	Time Period	Arrivals	Departures	Two-Way
	A two-form entry Primary School (471 pupils)	AM	151	120	270
		PM	8	14	22
Option 4	360 Private Houses	AM	46	141	188
		PM	130	57	187
	A two-form entry Primary School (471 pupils)	AM	151	120	270
		PM	8	14	22

It is noted that the primary school is being proposed as a relocation of an existing school and also to provide a local primary school for the residents of the development. It is therefore assumed that initially a large portion of the trips associated with the Primary School are already on the network and will divert from the existing school to this new facility. It has been assumed that the level of locally diverted trips will be 80% of all trips associated with the development. In respect to the AM peak hour residential trips it has robustly been assumed that 20% of these will be linked to the primary school and 80% will be wholly new trips with no link to the primary school. During the PM peak hour the primary school is not typically active and as such all residential trips are assumed to be wholly new trips.

Table 7. Resultant Trip Generation

	Land Use	Time Period	Linked Trips	New Trips	Locally Diverted	Arrivals	Departures	Two-Way
	0 Private Houses	AM	-	-	-	0	0	0
		PM	-	-	-	0	0	0
Option 2	A two-form entry Primary School (471 pupils)	AM	-	20%	80%	151	120	270
		PM	-	20%	80%	8	14	22
Total Trip Generation		AM				151	120	270
		PM				8	14	22
	190 Private Houses	AM		80%		19	60	79
		PM		100%		68	30	99
Option 3	A two-form entry Primary School (471 pupils)	AM	20%		80%	151	120	270
		PM	20%		80%	8	14	22
Total Trip Generation		AM				170	179	350
		PM				76	44	120
	360 Private Houses	AM		80%		37	113	150
		PM		100%		130	57	187
Option 4	A two-form entry Primary School (471 pupils)	AM	20%		80%	151	120	270
		PM	20%		80%	8	14	22
Total Trip Generation		AM				188	233	420
		PM				137	71	209

Option 1 generates no trips.

The total effective trip generation for Option 2 is 270 two-way trips in the AM and 22 during the PM peak hour. It is noted that the vast majority of these are locally diverted and as such some parts of the network will see a reduction of trips, and that the impact will be fairly localised.

Option 3 generates 350 AM two-way trips, with 120 two-way trips generated in the PM peak hour. The impact of Option 2 will be wider than Option 2 due to the provision of 190 dwellings.

Option 4 has the largest trip generation of 420 AM and 209 PM peak hour two-way trips.

The trip rates and assumptions around the trip generations for all developments will need to be discussed and agreed with the local highways authority.

Parking

SMBC's adopted maximum car parking standards are set out in the Preparation of Transport Assessments and Travel Plans Supplementary Planning Document (SPD) (Adopted 2006) and Residential Design Guide SPD (Adopted 2014). These in turn are based on PPG13 standards.

The proposed parking quantum is still evolving but will be in line with adopted policy and is anticipated to be broadly based on the following maximum car parking standards set out in **Table 5** below.

Table 8. Car Parking Standards

Land Use Type	Use Class	Threshold above which parking standards apply	PPG13 & SMBC Car Parking Standards
Food Retail	E(a) (Formerly A1)	1,000m ² GFA	1 space per 14m ²
Non- Food Retail	E(a) (Formerly A1-A3)	1,000m ² GFA	1 space per 20m ²
Business Including Offices	E(g) (Formerly B1, A2)	2,500m ² GFA	1 space per 30m ²
Residential	C3	100 dwellings	1 space per to 2 Bedroom Properties 2 spaces per 3 to 4 Bedroom Properties 3 Dedicated parking spaces per 5 to 6 Bedroom Properties 4 Dedicated parking spaces per 7 to 8 Bedroom Properties For development >10 properties - 1 space per 4 properties
Hospital / Health Centres	C2, E(e) (Formerly C2, D1)	2,500m ² GFA	Discussion with SMBC
Higher and further education (non-residential elements)	F1(a) (Formerly D1)	2,500m ² GFA	1 space per 2 staff + 1 space per 15 students (total)
Leisure facilities	E(d) (Formerly D2)	1,000m ² GFA	1 space per 22m ²

Source: Preparation of Transport Assessments and Travel Plans (SPD) (2006) and Residential Design Guide SPD (2014)

The development proposals will come forward as part of an outline application for the wider site, therefore the minimum threshold above which the referenced car parking standards is met cumulatively by the wider development.

SMBC's adopted minimum cycle parking standards are set out in the Cycling Supplementary Planning Guidance (SPG) (2004). The cycle parking quantum proposed is still evolving but will be in line with the following adopted standards. Cycle parking standards relevant to the proposed land use classes are set out in **Table 6** below.

Table 9. Cycle Parking Standards

Land Use Type	Use Class	SMBC Cycle Parking Standards (UDP Policy T12)
General Cycle Parking	-	1 space per every 10 car parking spaces. Refinements and exceptions to this are set out as follows:
Food Retail	E(a) (Formerly A1)	As set out in General Cycle Parking above. Staff provision should be 33% of spaces provided.
Non-Food Retail	E(a) (Formerly A1-A3)	As set out in General Cycle Parking above. Staff provision should be 33% of spaces provided.

Business Including Offices	E(g) (Formerly B1, A2)	As set out in General Cycle Parking above. 75% of cycle spaces provided should be designated Staff parking. (Covered, high security such as lockers / enclosed stands).
Residential	C3	1 space per dwelling, plus an additional 1 space per 2 bedrooms. Garages will be regarded as providing for cycles. For units which do not have garages, individual high security facilities will be required.
Hospital / Health Centres	C2, E(e) (Formerly C2, D1)	As set out in General Cycle Parking above.
Primary, secondary and special schools (non-residential elements)	F1(a) (Formerly D1)	As set out in General Cycle Parking above. 1 staff space per 60 pupils (Covered, high security such as lockers / enclosed stands).
Leisure Facilities	E(d) (Formerly D2)	1 space per 6 car parking spaces.

Source: *Cycling (SPG) (2004)*

Access Strategy

Vehicle Access

As set out within the four proposed masterplan options, vehicular access to the site is proposed from several access points onto the existing local highway network. These comprise;

- Queensway (Adjacent to Parson’s Hill Park);
- Queensway (Adjacent to Brennand Road);
- Tame Road; and
- Grafton Road.

These access points are to be confirmed, however initial work surrounding the Primary School has resulted in an initial design being drawn up to begin this optioneering process. The initial design is noted within **Appendix B**.

The initial access option is located such that sufficient distance is maintained from Grafton Road to reduce any potential impact of blocking back of traffic. The design provides a standard priority access, a pedestrian crossing facility, widening of Ferndale Road and footways along with replacement parking for the on-street facility lost due to the access provision. Access optioneering will progress with discussions with the Local Highway Authority to enable agreement to be reached on a preferred layout option.

As set out in the start of this document, a site access review was conducted by AECOM in May 2021 and concluded that the access points on Queensway (Adjacent to Parson’s Hill Park), Tame Road and Grafton Road are preferred. It was found that these access points achieve the required horizontal visibility requirements with good existing pedestrian connectivity and the least existing constraints.

Pedestrian Access

The masterplan options have been designed with the aim of creating a walkable neighbourhood whereby the majority of day-to-day services are within acceptable and easy walking distances in order to internalise trips. The primary school site along with retail and community uses have been located to ensure that residential dwellings are within 400m of these facilities.

The options set out a network of shared use and segregated walking and cycling routes within the site, connecting to the existing external road network at the site boundary. These provide footways along all local roads, in addition to potential pedestrian connections including across the existing watercourse within the site, which will be developed as part of proposals for a green corridor.

Refuse Collection, Servicing and Emergency Vehicles

The development will be designed so that SMBC refuse vehicles can access refuse storage points for collection.

A maximum guideline distance between a refuse vehicle and storage points of 25m will be used, in line with Manual for Streets (MfS) guidance. Where distances exceed 25m, appropriate waste management measures will be discussed and agreed e.g. facilities management moving waste storage to an accessible area on waste collection days.

The development will also accommodate emergency vehicles. Swept-path analysis drawings undertaken to demonstrate that refuse and fire tender vehicles can access and egress the proposed layout where required will be provided with the Transport Assessment submitted as part of the forthcoming application.

Road Traffic Collision Statistics

Road Traffic Collision (RTC) data has been derived from the DfT (via the Crashmap database) in April 2022 for the most recent 5-year period for which data is available (not including 2020 due to the Covid-19 Pandemic). It is apparent that approximately 21 RTC occurred on the local highway network in the vicinity of the site, comprising;

- Three RTCs on Tame Road, of which two were slight in severity and one serious;
- One RTC on Grafton Road and was slight in Severity; and
- 16 RTCs on the A4123 Wolverhampton Road to the east of the site, of which 13 were slight in severity and three were serious.

The majority of the RTCs on the A4123 occurred in proximity to the A4123 / Queensway / Parsons Hill crossroads junction. Pedestrian crossing improvements are proposed to come forward as alongside the development proposals in order to improve pedestrian safety and accessibility to the site.

Trip Distribution

The distribution of vehicle trips generated by the proposed residential land uses has been estimated using 2011 Census Journey to Work data. This has been applied to Middle Super Output Area (MSOA) destinations within Sandwell, Dudley and Birmingham using origin MSOA's representative of the development site location and surroundings use classes.

The most likely routing from origin MSOAs to destination MSOAs has been calculated using Google Satellite photography and route mapping based on the shortest journey time and therefore most desirable route taking typical peak hour traffic conditions into account, with a percentage split assigned to each route from the site. The resultant trip distribution assumes a 25% split between the four proposed access points to the site.

Future year scenarios

Traffic surveys undertaken for the local highway network at junctions relevant to the site based on traffic distribution by TfWM have been requested from the Data Insight portal. The surveys included Manual Classified Counts (MCCs), and Autoprogram Volume Traffic Counts in relation to the years 2014 – 2021.

The assessment years to be considered are to include;

- Opening year (TBC);
- 5 years post-opening.

NTM adjusted TEMPRO growth factors will be used to derive background growth figures to growth the traffic counts to the assessment years. The ability of the existing junction layouts to accommodate the forecast increase in demand and the potential need for mitigation will also be considered. Any off-site mitigation works will be discussed with SMBC in advance of the planning application submission.

Further Work

The following transport work would be undertaken as part of any future planning application for the site.

- A Transport Assessment (TA) would be prepared as part of any future application in order to assess the traffic impacts of the development and set out proposed mitigation for any traffic impacts identified. A TA would assess the following;
 - **Policy Context** for national, regional and local policy;
 - **Accessibility** including site location, accessibility to amenities and sustainable transport modes;
 - **Existing Conditions** including operation of junctions in the vicinity of the site;
 - **Development Proposals** set out in detail;

- **Development Scenario** including assessment of trip generation associated with the proposals, trip distribution using 2011 Census data and modal shift as proposed mitigation of the impacts; and
- **Traffic Impact** on key junctions on the local network as a result of the development proposals using junction modelling assessments including for proposed site access junctions.
- A Travel Plan (TP) for the development would also be prepared as part of any future application in order to set out the summary of measures and targeted monitoring strategy to be put in place at the site to encourage travel by sustainable modes.

Appendix A – Full TRICS Outputs

FM STREET NAME TOWN/CITY

Licence No: 204604

Filtering Summary

Land Use	04/A	EDUCATION/PRIMARY
Selected Trip Rate Calculation Parameter Range	100-1000	PUPILS
Actual Trip Rate Calculation Parameter Range	84-1020	PUPILS
Date Range	Minimum: 01/01/14	Maximum: 25/11/19
Parking Spaces Range	All Surveys Included	
Days of the week selected	Monday	5
	Tuesday	6
	Wednesday	5
	Thursday	6
	Friday	3
Main Location Types selected	Suburban Area (PPS6 Out of Centre)	4
	Edge of Town	10
	Neighbourhood Centre (PPS6 Local Centre)	11
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	1,000 or Less	1
	1,001 to 5,000	6
	5,001 to 10,000	4
	10,001 to 15,000	1
	15,001 to 20,000	7
	20,001 to 25,000	3
	25,001 to 50,000	2
	50,001 to 100,000	1
Population <5 Mile ranges selected	5,000 or Less	1
	5,001 to 25,000	2
	25,001 to 50,000	2
	50,001 to 75,000	1
	75,001 to 100,000	4
	100,001 to 125,000	1
	125,001 to 250,000	3
	250,001 to 500,000	10
500,001 or More	1	
Car Ownership <5 Mile ranges selected	0.6 to 1.0	8
	1.1 to 1.5	16
	1.6 to 2.0	1
PTAL Rating	No PTAL Present	25

Calculation Reference: AUDIT-204604-220405-0404

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION

Category : A - PRIMARY

TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	BU BUCKINGHAMSHIRE	1 days
	HC HAMPSHIRE	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	CW CORNWALL	1 days
	DV DEVON	1 days
	SM SOMERSET	1 days
	WL WILTSHIRE	2 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	LE LEICESTERSHIRE	1 days
	NR NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	GM GREATER MANCHESTER	1 days
	LC LANCASHIRE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days
10	WALES	
	CF CARDIFF	1 days
11	SCOTLAND	
	EB CITY OF EDINBURGH	1 days
	FI FIFE	2 days
13	MUNSTER	
	TI TIPPERARY	1 days
14	LEINSTER	
	LU LOUTH	1 days
15	GREATER DUBLIN	
	DL DUBLIN	1 days

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

Primary 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 pupils
 Actual Range: 84 to 1020 (units:)
 Range Selected by User: 100 to 1000 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 25/11/19

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	5 days
Tuesday	6 days
Wednesday	5 days
Thursday	6 days
Friday	3 days

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

Selected survey types:

Manual count	25 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)	4
Edge of Town	10
Neighbourhood Centre (PPS6 Local Centre)	11

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

Selected Location Sub Categories:

Residential Zone	15
Village	8
No Sub Category	2

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

Secondary Filtering selection:

Use Class:

F1(a) 25 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 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	6 days
5,001 to 10,000	4 days
10,001 to 15,000	1 days
15,001 to 20,000	7 days
20,001 to 25,000	3 days
25,001 to 50,000	2 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,000 or Less	1 days
5,001 to 25,000	2 days
25,001 to 50,000	2 days
50,001 to 75,000	1 days
75,001 to 100,000	4 days
100,001 to 125,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	10 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	8 days
1.1 to 1.5	16 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	4 days
No	21 days

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

PTAL Rating:

No PTAL Present	25 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	BR-04-A-01 SCHOOL CLOSE BRISTOL WHITCHURCH Edge of Town Residential Zone Total Number of pupils: <i>Survey date: TUESDAY</i>	PRIMARY SCHOOL 208 22/09/15	BRISTOL CITY <i>Survey Type: MANUAL</i>
2	BU-04-A-01 LOWER ROAD NEAR AYLESBURY STOKE MANDEVILLE Neighbourhood Centre (PPS6 Local Centre) Village Total Number of pupils: <i>Survey date: WEDNESDAY</i>	PRIMARY SCHOOL 208 01/10/14	BUCKINGHAMSHIRE <i>Survey Type: MANUAL</i>
3	CF-04-A-01 AEL-Y-BRYN CARDIFF LLANEDEYRN Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of pupils: <i>Survey date: FRIDAY</i>	PRIMARY SCHOOL 194 05/05/17	CARDIFF <i>Survey Type: MANUAL</i>
4	CH-04-A-01 WESTON GROVE CHESTER UPTON Edge of Town Residential Zone Total Number of pupils: <i>Survey date: MONDAY</i>	PRIMARY SCHOOL 219 17/11/14	CHESHIRE <i>Survey Type: MANUAL</i>
5	CW-04-A-03 TREVERBYN RISE PENRYN Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of pupils: <i>Survey date: THURSDAY</i>	PRIMARY ACADEMY 440 28/03/19	CORNWALL <i>Survey Type: MANUAL</i>
6	DL-04-A-02 BALGRIFFIN PARK DUBLIN BALGRIFFIN Edge of Town No Sub Category Total Number of pupils: <i>Survey date: MONDAY</i>	PRIMARY SCHOOLS (2) 702 19/10/15	DUBLIN <i>Survey Type: MANUAL</i>
7	DS-04-A-01 VICARAGE ROAD DERBY MICKLEOVER Edge of Town Residential Zone Total Number of pupils: <i>Survey date: THURSDAY</i>	PRIMARY SCHOOL 387 25/06/15	DERBYSHIRE <i>Survey Type: MANUAL</i>
8	DV-04-A-04 CHURCH LANE CHERITON BISHOP Neighbourhood Centre (PPS6 Local Centre) Village Total Number of pupils: <i>Survey date: WEDNESDAY</i>	PRIMARY SCHOOL 85 12/07/17	DEVON <i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

9	EB-04-A-01 MAGDALENE DRIVE EDINBURGH	PRIMARY SCHOOL		CITY OF EDINBURGH
	Edge of Town Residential Zone			
	Total Number of pupils:	214		
	Survey date: MONDAY	23/04/18		Survey Type: MANUAL
10	FI-04-A-01 NORTHBANK ROAD NEAR DUNFERMLINE CAIRNEYHILL	PRIMARY SCHOOL		FIFE
	Neighbourhood Centre (PPS6 Local Centre) Village			
	Total Number of pupils:	285		
	Survey date: WEDNESDAY	27/05/15		Survey Type: MANUAL
11	FI-04-A-02 RINTOUL AVENUE NEAR DUNFERMLINE BLAIRHALL	PRIMARY SCHOOL		FIFE
	Neighbourhood Centre (PPS6 Local Centre) Village			
	Total Number of pupils:	159		
	Survey date: TUESDAY	22/03/16		Survey Type: MANUAL
12	GM-04-A-01 ROCH MILLS CRESCENT ROCHDALE	PRIMARY SCHOOL		GREATER MANCHESTER
	Edge of Town Residential Zone			
	Total Number of pupils:	457		
	Survey date: TUESDAY	20/10/15		Survey Type: MANUAL
13	HC-04-A-05 HAVANT ROAD HAYLING ISLAND	PRIMARY SCHOOL		HAMPSHIRE
	Edge of Town Residential Zone			
	Total Number of pupils:	550		
	Survey date: MONDAY	30/11/15		Survey Type: MANUAL
14	LC-04-A-06 SEVERN ROAD BLACKPOOL SOUTH SHORE	PRIMARY SCHOOL		LANCASHIRE
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone			
	Total Number of pupils:	449		
	Survey date: TUESDAY	27/09/16		Survey Type: MANUAL
15	LE-04-A-02 BEAUFORT WAY LEICESTER OADBY	PRIMARY SCHOOL		LEICESTERSHIRE
	Edge of Town Residential Zone			
	Total Number of pupils:	380		
	Survey date: THURSDAY	30/10/14		Survey Type: MANUAL
16	LU-04-A-02 BRYANSTOWN DROGHEDA BRYANSTOWN MANOR	PRIMARY SCHOOL		LOUTH
	Edge of Town Residential Zone			
	Total Number of pupils:	1020		
	Survey date: FRIDAY	19/06/15		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

17	NR-04-A-03	PRIMARY SCHOOL		NORTHAMPTONSHIRE
	BOOTH LANE NORTH NORTHAMPTON			
	Suburban Area (PPS6 Out of Centre) Residential Zone			
	Total Number of pupils:		400	
	<i>Survey date: THURSDAY</i>		<i>24/03/16</i>	<i>Survey Type: MANUAL</i>
18	SF-04-A-03	PRIMARY SCHOOL		SUFFOLK
	ENSTONE ROAD LOWESTOFT KIRKLEY			
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone			
	Total Number of pupils:		234	
	<i>Survey date: WEDNESDAY</i>		<i>10/12/14</i>	<i>Survey Type: MANUAL</i>
19	SM-04-A-01	PRIMARY SCHOOL		SOMERSET
	BRIDGWATER ROAD NEAR TAUNTON BATHPOOL			
	Neighbourhood Centre (PPS6 Local Centre) Village			
	Total Number of pupils:		407	
	<i>Survey date: THURSDAY</i>		<i>27/09/18</i>	<i>Survey Type: MANUAL</i>
20	TI-04-A-01	PRIMARY SCHOOL		TIPPERARY
	OLD ROAD NEAR NENAGH SILVERMINES			
	Neighbourhood Centre (PPS6 Local Centre) Village			
	Total Number of pupils:		84	
	<i>Survey date: THURSDAY</i>		<i>26/05/16</i>	<i>Survey Type: MANUAL</i>
21	TW-04-A-02	PRIMARY SCHOOL		TYNE & WEAR
	KELLS LANE GATESHEAD LOW FELL			
	Neighbourhood Centre (PPS6 Local Centre) No Sub Category			
	Total Number of pupils:		416	
	<i>Survey date: FRIDAY</i>		<i>19/10/18</i>	<i>Survey Type: MANUAL</i>
22	WL-04-A-01	PRIMARY SCHOOL		WILTSHIRE
	CASTLE VIEW ROAD NEAR SWINDON CHISELDON			
	Neighbourhood Centre (PPS6 Local Centre) Village			
	Total Number of pupils:		178	
	<i>Survey date: TUESDAY</i>		<i>20/09/16</i>	<i>Survey Type: MANUAL</i>
23	WL-04-A-02	C OF E PRIMARY ACADEMY		WILTSHIRE
	HIGH STREET ROWDE			
	Neighbourhood Centre (PPS6 Local Centre) Village			
	Total Number of pupils:		199	
	<i>Survey date: WEDNESDAY</i>		<i>03/04/19</i>	<i>Survey Type: MANUAL</i>
24	WM-04-A-02	PRIMARY SCHOOL		WEST MIDLANDS
	HAZEL ROAD BIRMINGHAM RUBERY			
	Edge of Town Residential Zone			
	Total Number of pupils:		234	
	<i>Survey date: TUESDAY</i>		<i>10/11/15</i>	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

25 WY-04-A-02 PRIMARY SCHOOL WEST YORKSHIRE
TOWN STREET
LEEDS

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of pupils: 621

Survey date: MONDAY

19/10/15

Survey Type: MANUAL

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

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY

TOTAL VEHICLES

Calculation factor: 1 PUPILS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	25	349	0.045	25	349	0.016	25	349	0.061
08:00 - 09:00	25	349	0.320	25	349	0.254	25	349	0.574
09:00 - 10:00	25	349	0.040	25	349	0.058	25	349	0.098
10:00 - 11:00	25	349	0.013	25	349	0.013	25	349	0.026
11:00 - 12:00	25	349	0.022	25	349	0.015	25	349	0.037
12:00 - 13:00	25	349	0.021	25	349	0.025	25	349	0.046
13:00 - 14:00	25	349	0.038	25	349	0.041	25	349	0.079
14:00 - 15:00	25	349	0.088	25	349	0.043	25	349	0.131
15:00 - 16:00	25	349	0.160	25	349	0.225	25	349	0.385
16:00 - 17:00	25	349	0.047	25	349	0.077	25	349	0.124
17:00 - 18:00	24	355	0.016	24	355	0.030	24	355	0.046
18:00 - 19:00	24	355	0.009	24	355	0.013	24	355	0.022
19:00 - 20:00	1	1020	0.000	1	1020	0.000	1	1020	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.819			0.810			1.629

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:	84 - 1020 (units:)
Survey date range:	01/01/14 - 25/11/19
Number of weekdays (Monday-Friday):	25
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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY

TAXIS

Calculation factor: 1 PUPILS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	25	349	0.000	25	349	0.000	25	349	0.000
08:00 - 09:00	25	349	0.003	25	349	0.003	25	349	0.006
09:00 - 10:00	25	349	0.000	25	349	0.000	25	349	0.000
10:00 - 11:00	25	349	0.000	25	349	0.000	25	349	0.000
11:00 - 12:00	25	349	0.000	25	349	0.000	25	349	0.000
12:00 - 13:00	25	349	0.000	25	349	0.000	25	349	0.000
13:00 - 14:00	25	349	0.000	25	349	0.000	25	349	0.000
14:00 - 15:00	25	349	0.001	25	349	0.000	25	349	0.001
15:00 - 16:00	25	349	0.001	25	349	0.002	25	349	0.003
16:00 - 17:00	25	349	0.000	25	349	0.000	25	349	0.000
17:00 - 18:00	24	355	0.000	24	355	0.000	24	355	0.000
18:00 - 19:00	24	355	0.000	24	355	0.000	24	355	0.000
19:00 - 20:00	1	1020	0.000	1	1020	0.000	1	1020	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.005			0.005			0.010

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

*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.*

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY

OGVS

Calculation factor: 1 PUPILS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	25	349	0.000	25	349	0.000	25	349	0.000
08:00 - 09:00	25	349	0.000	25	349	0.000	25	349	0.000
09:00 - 10:00	25	349	0.001	25	349	0.000	25	349	0.001
10:00 - 11:00	25	349	0.000	25	349	0.001	25	349	0.001
11:00 - 12:00	25	349	0.000	25	349	0.000	25	349	0.000
12:00 - 13:00	25	349	0.000	25	349	0.000	25	349	0.000
13:00 - 14:00	25	349	0.000	25	349	0.000	25	349	0.000
14:00 - 15:00	25	349	0.000	25	349	0.000	25	349	0.000
15:00 - 16:00	25	349	0.000	25	349	0.000	25	349	0.000
16:00 - 17:00	25	349	0.000	25	349	0.000	25	349	0.000
17:00 - 18:00	24	355	0.000	24	355	0.000	24	355	0.000
18:00 - 19:00	24	355	0.000	24	355	0.000	24	355	0.000
19:00 - 20:00	1	1020	0.000	1	1020	0.000	1	1020	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.001			0.002

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.*

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY

PSVS

Calculation factor: 1 PUPILS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	25	349	0.000	25	349	0.000	25	349	0.000
08:00 - 09:00	25	349	0.001	25	349	0.001	25	349	0.002
09:00 - 10:00	25	349	0.001	25	349	0.001	25	349	0.002
10:00 - 11:00	25	349	0.000	25	349	0.000	25	349	0.000
11:00 - 12:00	25	349	0.000	25	349	0.000	25	349	0.000
12:00 - 13:00	25	349	0.000	25	349	0.001	25	349	0.001
13:00 - 14:00	25	349	0.000	25	349	0.000	25	349	0.000
14:00 - 15:00	25	349	0.001	25	349	0.000	25	349	0.001
15:00 - 16:00	25	349	0.001	25	349	0.001	25	349	0.002
16:00 - 17:00	25	349	0.000	25	349	0.000	25	349	0.000
17:00 - 18:00	24	355	0.000	24	355	0.000	24	355	0.000
18:00 - 19:00	24	355	0.000	24	355	0.000	24	355	0.000
19:00 - 20:00	1	1020	0.000	1	1020	0.000	1	1020	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.004			0.004			0.008

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.

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY

CYCLISTS

Calculation factor: 1 PUPILS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	25	349	0.002	25	349	0.000	25	349	0.002
08:00 - 09:00	25	349	0.018	25	349	0.002	25	349	0.020
09:00 - 10:00	25	349	0.001	25	349	0.001	25	349	0.002
10:00 - 11:00	25	349	0.000	25	349	0.000	25	349	0.000
11:00 - 12:00	25	349	0.000	25	349	0.000	25	349	0.000
12:00 - 13:00	25	349	0.000	25	349	0.001	25	349	0.001
13:00 - 14:00	25	349	0.001	25	349	0.001	25	349	0.002
14:00 - 15:00	25	349	0.001	25	349	0.003	25	349	0.004
15:00 - 16:00	25	349	0.001	25	349	0.013	25	349	0.014
16:00 - 17:00	25	349	0.001	25	349	0.004	25	349	0.005
17:00 - 18:00	24	355	0.001	24	355	0.001	24	355	0.002
18:00 - 19:00	24	355	0.000	24	355	0.000	24	355	0.000
19:00 - 20:00	1	1020	0.000	1	1020	0.000	1	1020	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.026			0.026			0.052

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.

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY
CARS

Calculation factor: 1 PUPILS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	25	349	0.043	25	349	0.014	25	349	0.057
08:00 - 09:00	25	349	0.309	25	349	0.245	25	349	0.554
09:00 - 10:00	25	349	0.035	25	349	0.054	25	349	0.089
10:00 - 11:00	25	349	0.010	25	349	0.010	25	349	0.020
11:00 - 12:00	25	349	0.018	25	349	0.012	25	349	0.030
12:00 - 13:00	25	349	0.019	25	349	0.022	25	349	0.041
13:00 - 14:00	25	349	0.034	25	349	0.039	25	349	0.073
14:00 - 15:00	25	349	0.085	25	349	0.040	25	349	0.125
15:00 - 16:00	25	349	0.155	25	349	0.219	25	349	0.374
16:00 - 17:00	25	349	0.044	25	349	0.074	25	349	0.118
17:00 - 18:00	24	355	0.016	24	355	0.029	24	355	0.045
18:00 - 19:00	24	355	0.009	24	355	0.012	24	355	0.021
19:00 - 20:00	1	1020	0.000	1	1020	0.000	1	1020	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.777			0.770			1.547

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

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TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY

LGVS

Calculation factor: 1 PUPILS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	25	349	0.001	25	349	0.001	25	349	0.002
08:00 - 09:00	25	349	0.007	25	349	0.006	25	349	0.013
09:00 - 10:00	25	349	0.003	25	349	0.003	25	349	0.006
10:00 - 11:00	25	349	0.002	25	349	0.002	25	349	0.004
11:00 - 12:00	25	349	0.003	25	349	0.003	25	349	0.006
12:00 - 13:00	25	349	0.001	25	349	0.002	25	349	0.003
13:00 - 14:00	25	349	0.003	25	349	0.002	25	349	0.005
14:00 - 15:00	25	349	0.002	25	349	0.003	25	349	0.005
15:00 - 16:00	25	349	0.003	25	349	0.003	25	349	0.006
16:00 - 17:00	25	349	0.002	25	349	0.002	25	349	0.004
17:00 - 18:00	24	355	0.000	24	355	0.001	24	355	0.001
18:00 - 19:00	24	355	0.001	24	355	0.000	24	355	0.001
19:00 - 20:00	1	1020	0.000	1	1020	0.000	1	1020	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.028			0.028			0.056

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

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TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY

MOTOR CYCLES

Calculation factor: 1 PUPILS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	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	25	349	0.000	25	349	0.000	25	349	0.000
08:00 - 09:00	25	349	0.000	25	349	0.000	25	349	0.000
09:00 - 10:00	25	349	0.000	25	349	0.000	25	349	0.000
10:00 - 11:00	25	349	0.000	25	349	0.000	25	349	0.000
11:00 - 12:00	25	349	0.000	25	349	0.000	25	349	0.000
12:00 - 13:00	25	349	0.000	25	349	0.000	25	349	0.000
13:00 - 14:00	25	349	0.000	25	349	0.000	25	349	0.000
14:00 - 15:00	25	349	0.000	25	349	0.000	25	349	0.000
15:00 - 16:00	25	349	0.000	25	349	0.000	25	349	0.000
16:00 - 17:00	25	349	0.000	25	349	0.000	25	349	0.000
17:00 - 18:00	24	355	0.000	24	355	0.000	24	355	0.000
18:00 - 19:00	24	355	0.000	24	355	0.000	24	355	0.000
19:00 - 20:00	1	1020	0.000	1	1020	0.000	1	1020	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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

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

FM STREET NAME TOWN/CITY

Licence No: 204604

Filtering Summary

Land Use	03/A	RESIDENTIAL/HOUSES PRIVATELY OWNED
Selected Trip Rate Calculation Parameter Range	100-1817 DWELLS	
Actual Trip Rate Calculation Parameter Range	110-918 DWELLS	
Date Range	Minimum: 01/01/13	Maximum: 08/10/20
Parking Spaces Range	All Surveys Included	
Parking Spaces Per Dwelling Range:	All Surveys Included	
Bedrooms Per Dwelling Range:	All Surveys Included	
Percentage of dwellings privately owned:	All Surveys Included	
Days of the week selected	Monday	5
	Tuesday	2
	Wednesday	4
	Thursday	4
	Friday	2
Main Location Types selected	Suburban Area (PPS6 Out of Centre)	3
	Edge of Town	13
	Neighbourhood Centre (PPS6 Local Centre)	1
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	5,001 to 10,000	5
	10,001 to 15,000	8
	15,001 to 20,000	1
	20,001 to 25,000	3
Population <5 Mile ranges selected	5,001 to 25,000	2
	25,001 to 50,000	1
	50,001 to 75,000	3
	75,001 to 100,000	4
	100,001 to 125,000	1
	125,001 to 250,000	6
Car Ownership <5 Mile ranges selected	0.6 to 1.0	5
	1.1 to 1.5	9
	1.6 to 2.0	3
PTAL Rating	No PTAL Present	17

Calculation Reference: AUDIT-204604-210507-0557

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	HF HERTFORDSHIRE	1 days
	KC KENT	3 days
	SC SURREY	2 days
	WS WEST SUSSEX	4 days
03	SOUTH WEST	
	DV DEVON	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NE NORTH EAST LINCOLNSHIRE	1 days
11	SCOTLAND	
	FA FALKIRK	1 days

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

Primary 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: No of Dwellings
 Actual Range: 110 to 918 (units:)
 Range Selected by User: 100 to 1817 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Monday-Friday 0700-1900
 Include days where PT not known: Yes
 Range: 1 to 552

Date Range: 01/01/13 to 08/10/20

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	5 days
Tuesday	2 days
Wednesday	4 days
Thursday	4 days
Friday	2 days

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

Selected survey types:

Manual count	17 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)	3
Edge of Town	13
Neighbourhood Centre (PPS6 Local Centre)	1

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

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 17 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 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	5 days
10,001 to 15,000	8 days
15,001 to 20,000	1 days
20,001 to 25,000	3 days

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	1 days
50,001 to 75,000	3 days
75,001 to 100,000	4 days
100,001 to 125,000	1 days
125,001 to 250,000	6 days

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

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	9 days
1.6 to 2.0	3 days

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

Travel Plan:

Yes	8 days
No	9 days

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

PTAL Rating:

No PTAL Present	17 days
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This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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LIST OF SITES relevant to selection parameters

1	DS-03-A-02 RADBOURNE LANE DERBY	MIXED HOUSES	DERBYSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 371 <i>Survey date: TUESDAY 10/07/18</i>		<i>Survey Type: MANUAL</i>
2	DV-03-A-02 MILLHEAD ROAD HONITON	HOUSES & BUNGALOWS	DEVON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 116 <i>Survey date: FRIDAY 25/09/15</i>		<i>Survey Type: MANUAL</i>
3	ES-03-A-03 SHEPHAM LANE POLEGATE	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 212 <i>Survey date: MONDAY 11/07/16</i>		<i>Survey Type: MANUAL</i>
4	FA-03-A-02 ROSEBANK AVENUE & SPRINGFIELD DRIVE FALKIRK	MIXED HOUSES	FALKIRK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 161 <i>Survey date: WEDNESDAY 29/05/13</i>		<i>Survey Type: MANUAL</i>
5	HF-03-A-03 HARE STREET ROAD BUNTINGFORD	MIXED HOUSES	HERTFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 160 <i>Survey date: MONDAY 08/07/19</i>		<i>Survey Type: MANUAL</i>
6	KC-03-A-04 KILN BARN ROAD AYLESFORD DITTON	SEMI-DETACHED & TERRACED	KENT
	Edge of Town Residential Zone Total No of Dwellings: 110 <i>Survey date: FRIDAY 22/09/17</i>		<i>Survey Type: MANUAL</i>
7	KC-03-A-06 MARGATE ROAD HERNE BAY	MIXED HOUSES & FLATS	KENT
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 363 <i>Survey date: WEDNESDAY 27/09/17</i>		<i>Survey Type: MANUAL</i>
8	KC-03-A-07 RECVLVER ROAD HERNE BAY	MIXED HOUSES	KENT
	Edge of Town Residential Zone Total No of Dwellings: 288 <i>Survey date: WEDNESDAY 27/09/17</i>		<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

9	NE-03-A-02 HANOVER WALK SCUNTHORPE	SEMI DETACHED & DETACHED		NORTH EAST LINCOLNSHIRE
	Edge of Town No Sub Category Total No of Dwellings:		432	
	<i>Survey date: MONDAY</i>		<i>12/05/14</i>	<i>Survey Type: MANUAL</i>
10	NF-03-A-06 BEAUFORT WAY GREAT YARMOUTH BRADWELL	MIXED HOUSES		NORFOLK
	Edge of Town Residential Zone Total No of Dwellings:		275	
	<i>Survey date: MONDAY</i>		<i>23/09/19</i>	<i>Survey Type: MANUAL</i>
11	SC-03-A-05 REIGATE ROAD HORLEY	MIXED HOUSES		SURREY
	Edge of Town Residential Zone Total No of Dwellings:		207	
	<i>Survey date: MONDAY</i>		<i>01/04/19</i>	<i>Survey Type: MANUAL</i>
12	SC-03-A-06 AMLETS LANE CRANLEIGH	MIXED HOUSES & FLATS		SURREY
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings:		116	
	<i>Survey date: THURSDAY</i>		<i>08/10/20</i>	<i>Survey Type: MANUAL</i>
13	ST-03-A-07 BEACONSIDE STAFFORD MARSTON GATE	DETACHED & SEMI-DETACHED		STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		248	
	<i>Survey date: WEDNESDAY</i>		<i>22/11/17</i>	<i>Survey Type: MANUAL</i>
14	WS-03-A-04 HILLS FARM LANE HORSHAM BROADBRIDGE HEATH	MIXED HOUSES		WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		151	
	<i>Survey date: THURSDAY</i>		<i>11/12/14</i>	<i>Survey Type: MANUAL</i>
15	WS-03-A-08 ROUNDSTONE LANE ANGMERING	MIXED HOUSES		WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		180	
	<i>Survey date: THURSDAY</i>		<i>19/04/18</i>	<i>Survey Type: MANUAL</i>
16	WS-03-A-09 LITTLEHAMPTON ROAD WORTHING WEST DURRINGTON	MIXED HOUSES & FLATS		WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		197	
	<i>Survey date: THURSDAY</i>		<i>05/07/18</i>	<i>Survey Type: MANUAL</i>

FM STREET NAME TOWN/CITY

Licence No: 204604

LIST OF SITES relevant to selection parameters (Cont.)

17	WS-03-A-11	MIXED HOUSES	WEST SUSSEX
	ELLIS ROAD		
	WEST HORSHAM		
	S BROADBRIDGE HEATH		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	918	
	Survey date: TUESDAY	02/04/19	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.

FM STREET NAME TOWN/CITY

Licence No: 204604

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

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.071	17	265	0.306	17	265	0.377
08:00 - 09:00	17	265	0.128	17	265	0.393	17	265	0.521
09:00 - 10:00	17	265	0.141	17	265	0.164	17	265	0.305
10:00 - 11:00	17	265	0.117	17	265	0.149	17	265	0.266
11:00 - 12:00	17	265	0.123	17	265	0.136	17	265	0.259
12:00 - 13:00	17	265	0.155	17	265	0.140	17	265	0.295
13:00 - 14:00	17	265	0.152	17	265	0.153	17	265	0.305
14:00 - 15:00	17	265	0.165	17	265	0.188	17	265	0.353
15:00 - 16:00	17	265	0.264	17	265	0.173	17	265	0.437
16:00 - 17:00	17	265	0.282	17	265	0.162	17	265	0.444
17:00 - 18:00	17	265	0.360	17	265	0.159	17	265	0.519
18:00 - 19:00	17	265	0.315	17	265	0.178	17	265	0.493
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.273			2.301			4.574

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:	110 - 918 (units:)
Survey date range:	01/01/13 - 08/10/20
Number of weekdays (Monday-Friday):	17
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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

FM STREET NAME TOWN/CITY

Licence No: 204604

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

MULTI-MODAL TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.002	17	265	0.002	17	265	0.004
08:00 - 09:00	17	265	0.004	17	265	0.004	17	265	0.008
09:00 - 10:00	17	265	0.003	17	265	0.002	17	265	0.005
10:00 - 11:00	17	265	0.002	17	265	0.002	17	265	0.004
11:00 - 12:00	17	265	0.001	17	265	0.001	17	265	0.002
12:00 - 13:00	17	265	0.002	17	265	0.002	17	265	0.004
13:00 - 14:00	17	265	0.002	17	265	0.002	17	265	0.004
14:00 - 15:00	17	265	0.002	17	265	0.002	17	265	0.004
15:00 - 16:00	17	265	0.005	17	265	0.005	17	265	0.010
16:00 - 17:00	17	265	0.004	17	265	0.004	17	265	0.008
17:00 - 18:00	17	265	0.002	17	265	0.002	17	265	0.004
18:00 - 19:00	17	265	0.002	17	265	0.002	17	265	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.031			0.030			0.061

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.*

FM STREET NAME TOWN/CITY

Licence No: 204604

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.001	17	265	0.001	17	265	0.002
08:00 - 09:00	17	265	0.002	17	265	0.002	17	265	0.004
09:00 - 10:00	17	265	0.002	17	265	0.001	17	265	0.003
10:00 - 11:00	17	265	0.002	17	265	0.003	17	265	0.005
11:00 - 12:00	17	265	0.001	17	265	0.001	17	265	0.002
12:00 - 13:00	17	265	0.002	17	265	0.003	17	265	0.005
13:00 - 14:00	17	265	0.002	17	265	0.001	17	265	0.003
14:00 - 15:00	17	265	0.002	17	265	0.002	17	265	0.004
15:00 - 16:00	17	265	0.002	17	265	0.002	17	265	0.004
16:00 - 17:00	17	265	0.002	17	265	0.001	17	265	0.003
17:00 - 18:00	17	265	0.001	17	265	0.001	17	265	0.002
18:00 - 19:00	17	265	0.001	17	265	0.001	17	265	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.020			0.019			0.039

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.*

FM STREET NAME TOWN/CITY

Licence No: 204604

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

MULTI-MODAL PSVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.001	17	265	0.001	17	265	0.002
08:00 - 09:00	17	265	0.001	17	265	0.001	17	265	0.002
09:00 - 10:00	17	265	0.001	17	265	0.001	17	265	0.002
10:00 - 11:00	17	265	0.001	17	265	0.001	17	265	0.002
11:00 - 12:00	17	265	0.000	17	265	0.000	17	265	0.000
12:00 - 13:00	17	265	0.000	17	265	0.000	17	265	0.000
13:00 - 14:00	17	265	0.001	17	265	0.001	17	265	0.002
14:00 - 15:00	17	265	0.000	17	265	0.000	17	265	0.000
15:00 - 16:00	17	265	0.001	17	265	0.001	17	265	0.002
16:00 - 17:00	17	265	0.001	17	265	0.001	17	265	0.002
17:00 - 18:00	17	265	0.001	17	265	0.001	17	265	0.002
18:00 - 19:00	17	265	0.000	17	265	0.000	17	265	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.008			0.008			0.016

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.*

FM STREET NAME TOWN/CITY

Licence No: 204604

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

MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.004	17	265	0.007	17	265	0.011
08:00 - 09:00	17	265	0.007	17	265	0.016	17	265	0.023
09:00 - 10:00	17	265	0.000	17	265	0.003	17	265	0.003
10:00 - 11:00	17	265	0.002	17	265	0.003	17	265	0.005
11:00 - 12:00	17	265	0.002	17	265	0.004	17	265	0.006
12:00 - 13:00	17	265	0.004	17	265	0.004	17	265	0.008
13:00 - 14:00	17	265	0.001	17	265	0.001	17	265	0.002
14:00 - 15:00	17	265	0.003	17	265	0.002	17	265	0.005
15:00 - 16:00	17	265	0.006	17	265	0.004	17	265	0.010
16:00 - 17:00	17	265	0.011	17	265	0.008	17	265	0.019
17:00 - 18:00	17	265	0.013	17	265	0.007	17	265	0.020
18:00 - 19:00	17	265	0.010	17	265	0.009	17	265	0.019
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.063			0.068			0.131

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

*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.*

FM STREET NAME TOWN/CITY

Licence No: 204604

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

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.087	17	265	0.447	17	265	0.534
08:00 - 09:00	17	265	0.158	17	265	0.674	17	265	0.832
09:00 - 10:00	17	265	0.181	17	265	0.237	17	265	0.418
10:00 - 11:00	17	265	0.154	17	265	0.210	17	265	0.364
11:00 - 12:00	17	265	0.165	17	265	0.199	17	265	0.364
12:00 - 13:00	17	265	0.215	17	265	0.192	17	265	0.407
13:00 - 14:00	17	265	0.217	17	265	0.212	17	265	0.429
14:00 - 15:00	17	265	0.228	17	265	0.260	17	265	0.488
15:00 - 16:00	17	265	0.458	17	265	0.242	17	265	0.700
16:00 - 17:00	17	265	0.472	17	265	0.242	17	265	0.714
17:00 - 18:00	17	265	0.568	17	265	0.231	17	265	0.799
18:00 - 19:00	17	265	0.484	17	265	0.275	17	265	0.759
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.387			3.421			6.808

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

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

FM STREET NAME TOWN/CITY

Licence No: 204604

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

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.015	17	265	0.029	17	265	0.044
08:00 - 09:00	17	265	0.036	17	265	0.100	17	265	0.136
09:00 - 10:00	17	265	0.030	17	265	0.029	17	265	0.059
10:00 - 11:00	17	265	0.023	17	265	0.027	17	265	0.050
11:00 - 12:00	17	265	0.020	17	265	0.021	17	265	0.041
12:00 - 13:00	17	265	0.025	17	265	0.014	17	265	0.039
13:00 - 14:00	17	265	0.016	17	265	0.024	17	265	0.040
14:00 - 15:00	17	265	0.028	17	265	0.035	17	265	0.063
15:00 - 16:00	17	265	0.083	17	265	0.036	17	265	0.119
16:00 - 17:00	17	265	0.050	17	265	0.026	17	265	0.076
17:00 - 18:00	17	265	0.038	17	265	0.026	17	265	0.064
18:00 - 19:00	17	265	0.041	17	265	0.043	17	265	0.084
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.405			0.410			0.815

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.*

FM STREET NAME TOWN/CITY

Licence No: 204604

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

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.001	17	265	0.016	17	265	0.017
08:00 - 09:00	17	265	0.001	17	265	0.015	17	265	0.016
09:00 - 10:00	17	265	0.002	17	265	0.007	17	265	0.009
10:00 - 11:00	17	265	0.002	17	265	0.002	17	265	0.004
11:00 - 12:00	17	265	0.003	17	265	0.004	17	265	0.007
12:00 - 13:00	17	265	0.002	17	265	0.003	17	265	0.005
13:00 - 14:00	17	265	0.003	17	265	0.003	17	265	0.006
14:00 - 15:00	17	265	0.004	17	265	0.003	17	265	0.007
15:00 - 16:00	17	265	0.017	17	265	0.006	17	265	0.023
16:00 - 17:00	17	265	0.013	17	265	0.004	17	265	0.017
17:00 - 18:00	17	265	0.008	17	265	0.002	17	265	0.010
18:00 - 19:00	17	265	0.012	17	265	0.003	17	265	0.015
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.068			0.068			0.136

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

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FM STREET NAME TOWN/CITY

Licence No: 204604

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

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.001	17	265	0.005	17	265	0.006
08:00 - 09:00	17	265	0.000	17	265	0.006	17	265	0.006
09:00 - 10:00	17	265	0.000	17	265	0.003	17	265	0.003
10:00 - 11:00	17	265	0.000	17	265	0.002	17	265	0.002
11:00 - 12:00	17	265	0.000	17	265	0.001	17	265	0.001
12:00 - 13:00	17	265	0.000	17	265	0.001	17	265	0.001
13:00 - 14:00	17	265	0.001	17	265	0.000	17	265	0.001
14:00 - 15:00	17	265	0.001	17	265	0.000	17	265	0.001
15:00 - 16:00	17	265	0.003	17	265	0.001	17	265	0.004
16:00 - 17:00	17	265	0.002	17	265	0.000	17	265	0.002
17:00 - 18:00	17	265	0.004	17	265	0.001	17	265	0.005
18:00 - 19:00	17	265	0.004	17	265	0.000	17	265	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.016			0.020			0.036

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.

FM STREET NAME TOWN/CITY

Licence No: 204604

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.000	17	265	0.000	17	265	0.000
08:00 - 09:00	17	265	0.000	17	265	0.001	17	265	0.001
09:00 - 10:00	17	265	0.000	17	265	0.000	17	265	0.000
10:00 - 11:00	17	265	0.000	17	265	0.000	17	265	0.000
11:00 - 12:00	17	265	0.000	17	265	0.000	17	265	0.000
12:00 - 13:00	17	265	0.000	17	265	0.000	17	265	0.000
13:00 - 14:00	17	265	0.000	17	265	0.000	17	265	0.000
14:00 - 15:00	17	265	0.000	17	265	0.000	17	265	0.000
15:00 - 16:00	17	265	0.000	17	265	0.000	17	265	0.000
16:00 - 17:00	17	265	0.000	17	265	0.000	17	265	0.000
17:00 - 18:00	17	265	0.000	17	265	0.000	17	265	0.000
18:00 - 19:00	17	265	0.000	17	265	0.000	17	265	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.001			0.001

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.*

FM STREET NAME TOWN/CITY

Licence No: 204604

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

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.002	17	265	0.021	17	265	0.023
08:00 - 09:00	17	265	0.001	17	265	0.022	17	265	0.023
09:00 - 10:00	17	265	0.002	17	265	0.010	17	265	0.012
10:00 - 11:00	17	265	0.002	17	265	0.004	17	265	0.006
11:00 - 12:00	17	265	0.003	17	265	0.005	17	265	0.008
12:00 - 13:00	17	265	0.003	17	265	0.004	17	265	0.007
13:00 - 14:00	17	265	0.004	17	265	0.004	17	265	0.008
14:00 - 15:00	17	265	0.004	17	265	0.003	17	265	0.007
15:00 - 16:00	17	265	0.020	17	265	0.007	17	265	0.027
16:00 - 17:00	17	265	0.016	17	265	0.004	17	265	0.020
17:00 - 18:00	17	265	0.012	17	265	0.003	17	265	0.015
18:00 - 19:00	17	265	0.016	17	265	0.004	17	265	0.020
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.085			0.091			0.176

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.*

FM STREET NAME TOWN/CITY

Licence No: 204604

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

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.109	17	265	0.503	17	265	0.612
08:00 - 09:00	17	265	0.202	17	265	0.812	17	265	1.014
09:00 - 10:00	17	265	0.214	17	265	0.279	17	265	0.493
10:00 - 11:00	17	265	0.182	17	265	0.244	17	265	0.426
11:00 - 12:00	17	265	0.190	17	265	0.228	17	265	0.418
12:00 - 13:00	17	265	0.247	17	265	0.215	17	265	0.462
13:00 - 14:00	17	265	0.239	17	265	0.240	17	265	0.479
14:00 - 15:00	17	265	0.264	17	265	0.300	17	265	0.564
15:00 - 16:00	17	265	0.566	17	265	0.289	17	265	0.855
16:00 - 17:00	17	265	0.548	17	265	0.280	17	265	0.828
17:00 - 18:00	17	265	0.631	17	265	0.268	17	265	0.899
18:00 - 19:00	17	265	0.551	17	265	0.331	17	265	0.882
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.943			3.989			7.932

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.*

FM STREET NAME TOWN/CITY

Licence No: 204604

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

MULTI-MODAL CARS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.050	17	265	0.252	17	265	0.302
08:00 - 09:00	17	265	0.101	17	265	0.321	17	265	0.422
09:00 - 10:00	17	265	0.101	17	265	0.126	17	265	0.227
10:00 - 11:00	17	265	0.082	17	265	0.110	17	265	0.192
11:00 - 12:00	17	265	0.094	17	265	0.101	17	265	0.195
12:00 - 13:00	17	265	0.113	17	265	0.104	17	265	0.217
13:00 - 14:00	17	265	0.111	17	265	0.108	17	265	0.219
14:00 - 15:00	17	265	0.122	17	265	0.141	17	265	0.263
15:00 - 16:00	17	265	0.206	17	265	0.122	17	265	0.328
16:00 - 17:00	17	265	0.217	17	265	0.118	17	265	0.335
17:00 - 18:00	17	265	0.294	17	265	0.119	17	265	0.413
18:00 - 19:00	17	265	0.260	17	265	0.139	17	265	0.399
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.751			1.761			3.512

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.*

FM STREET NAME TOWN/CITY

Licence No: 204604

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

MULTI-MODAL LGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.012	17	265	0.025	17	265	0.037
08:00 - 09:00	17	265	0.012	17	265	0.021	17	265	0.033
09:00 - 10:00	17	265	0.020	17	265	0.019	17	265	0.039
10:00 - 11:00	17	265	0.018	17	265	0.017	17	265	0.035
11:00 - 12:00	17	265	0.015	17	265	0.018	17	265	0.033
12:00 - 13:00	17	265	0.018	17	265	0.015	17	265	0.033
13:00 - 14:00	17	265	0.020	17	265	0.022	17	265	0.042
14:00 - 15:00	17	265	0.019	17	265	0.018	17	265	0.037
15:00 - 16:00	17	265	0.020	17	265	0.020	17	265	0.040
16:00 - 17:00	17	265	0.021	17	265	0.016	17	265	0.037
17:00 - 18:00	17	265	0.028	17	265	0.015	17	265	0.043
18:00 - 19:00	17	265	0.018	17	265	0.012	17	265	0.030
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.221			0.218			0.439

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.*

FM STREET NAME TOWN/CITY

Licence No: 204604

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

MULTI-MODAL MOTOR CYCLES

Calculation factor: 1 DWELLS

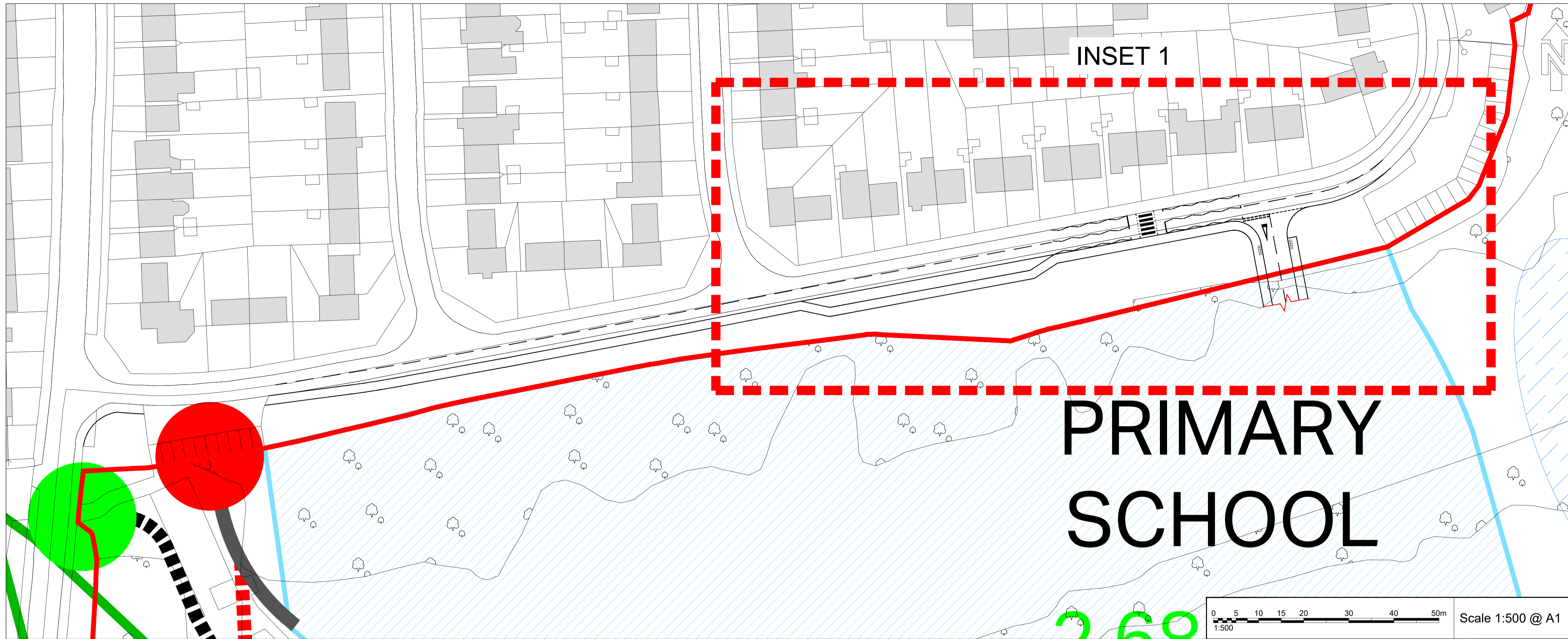
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	265	0.000	17	265	0.001	17	265	0.001
08:00 - 09:00	17	265	0.000	17	265	0.003	17	265	0.003
09:00 - 10:00	17	265	0.000	17	265	0.000	17	265	0.000
10:00 - 11:00	17	265	0.000	17	265	0.000	17	265	0.000
11:00 - 12:00	17	265	0.000	17	265	0.000	17	265	0.000
12:00 - 13:00	17	265	0.000	17	265	0.000	17	265	0.000
13:00 - 14:00	17	265	0.001	17	265	0.000	17	265	0.001
14:00 - 15:00	17	265	0.001	17	265	0.001	17	265	0.002
15:00 - 16:00	17	265	0.001	17	265	0.001	17	265	0.002
16:00 - 17:00	17	265	0.002	17	265	0.002	17	265	0.004
17:00 - 18:00	17	265	0.002	17	265	0.001	17	265	0.003
18:00 - 19:00	17	265	0.002	17	265	0.001	17	265	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.010			0.019

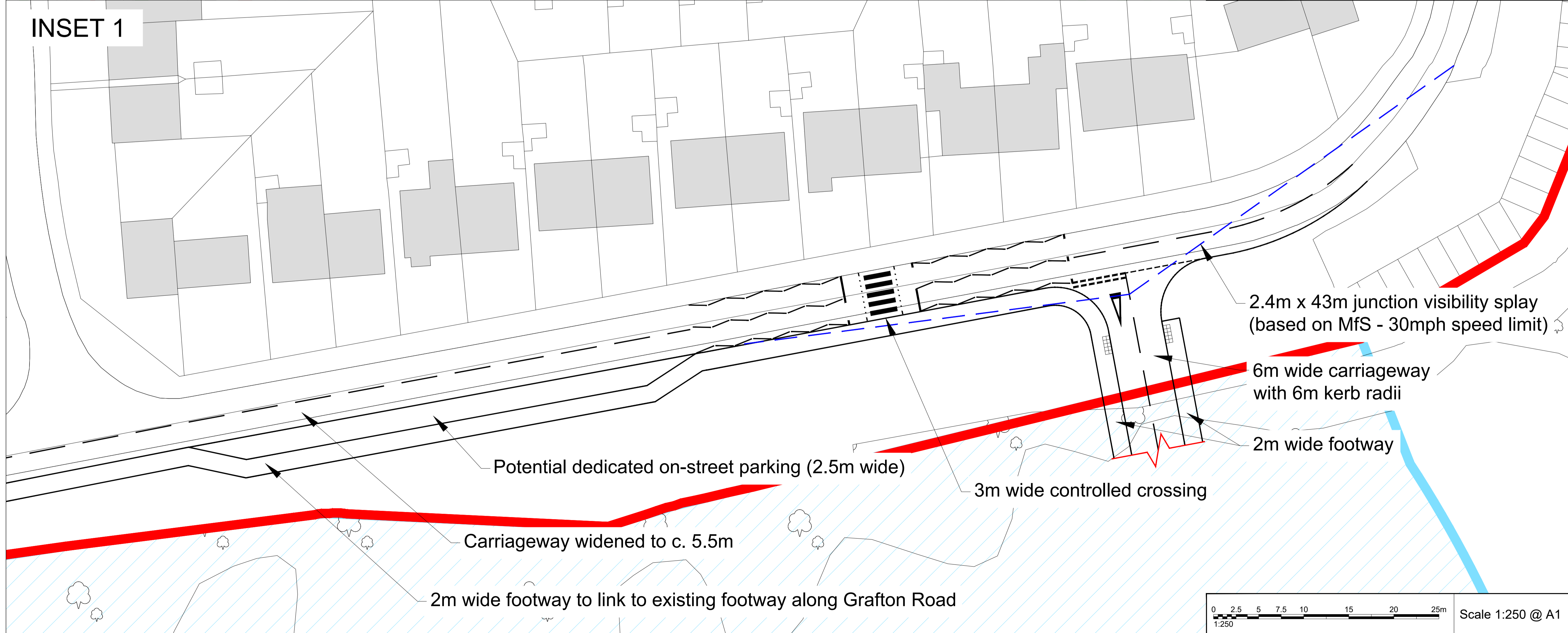
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are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

Appendix B – Primary School Access Option



PRIMARY SCHOOL



INSET 1

INSET 1

2.4m x 43m junction visibility splay
(based on MfS - 30mph speed limit)

6m wide carriageway
with 6m kerb radii

2m wide footway

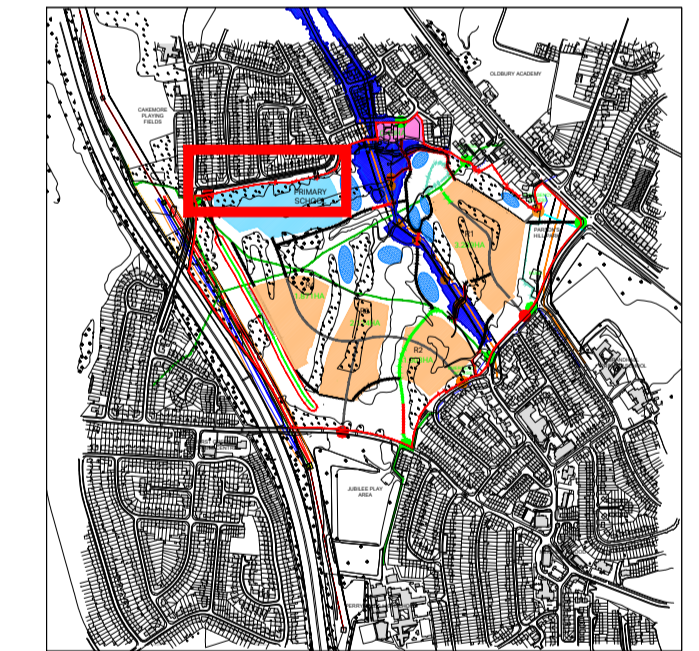
Potential dedicated on-street parking (2.5m wide)

3m wide controlled crossing

Carriageway widened to c. 5.5m

2m wide footway to link to existing footway along Grafton Road

KEY PLAN



ISSUE/REVISION

NR	DATE	DESCRIPTION	BY	CHK	APP
P01.1	27/04/22	First Issue	BC	CM	CM

ISSUE PURPOSE / SUITABILITY

INITIAL STATUS OR WIP

PROJECT NUMBER

60653817

SHEET TITLE

BRANDHALL URBAN VILLAGE
PRELIMINARY SITE ACCESS DESIGN
FOR PRIMARY SCHOOL

SHEET NUMBER

60653817_3622_001

DRAFT

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