

Project:	Land off Hall Bank, Pontesbury, Shropshire	Ref: C13787
Subject:	Transportation & Highways	
Prepared:	Graham Sutton	Date: 18 November 2013
Approved:	Mike Bellamy	Date: 19 November 2013
Revision:	A	Date: 20 November 2013

1. Introduction

- 1.1 This Technical Note has been prepared by Hydrock Consultants Ltd on behalf of the Hereford Diocese Board of Finance. It is submitted in support of a potential development site, located off Hall Bank in the village of Pontesbury, which is being promoted for inclusion in the new allocations document of the Shropshire Local Plan.
- 1.2 The development proposal would consist of:
- 60 dwellings
 - A village shop (approximately 465sqm (5,000 sqft))
 - A relocated children's day nursery (approximately 167sqm (1,800 sqft))
 - Public open space
- 1.3 This report has been prepared to assess the accessibility and connectivity of the site to the existing transport infrastructure and to the existing services, facilities and amenities within the village. In addition, it is understood that the Council is seeking confidence that the local highway network could accommodate the proposed development, and therefore this report assesses the likely traffic impact of the development scheme on the surrounding network.

2. Background

- 2.1 Part of the site has already been assessed by Shropshire Council in its Site Allocations and Management of Development (SAMDev) Plan – Preferred Options Draft – dated February 2012, in which the western section of the site is identified as 'Land off Hall Bank (ref: PBY018/R) for an estimated 17 dwellings. The site is prioritised by the Parish Council as it is '*centrally located and would better link the existing play area into the village.*' However, it is understood that the Parish council and the local community have identified a need for a new shop within the village, together with additional off-road car parking and some extra open space. Consequently, a wider concept has been drawn up and presented based on the quantum and mix of development set out above.
- 2.2 Hall Bank is a one way public highway and initial feedback from the Highway Authority suggests that vehicular access should only derive from Hall Bank via a left in/left out arrangement with additional pedestrian/cycle connectivity onto Hall Bank. It is understood that pedestrian/cycle/emergency access should also be considered onto Hinton Lane (to the east of the site).

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2.3 This Technical Note describes the existing local highway network and the accessibility of the site. It identifies potential access options and examines the likely traffic impact of the scheme onto the local network. Further detailed assessment work in respect of the transport impacts of the development would be required to be undertaken at planning application stage, but at this stage, this report puts forward a reasoned argument as to why it is considered that there would be no material highways or transportation matters that would preclude the inclusion of the site within the Shropshire Local Plan.

3. Local Highway Network

3.1 The development site would have frontage to Hall Bank along its southern edge and to Hinton Lane on its eastern boundary. To the north lie open fields (and a former railway line – a public footpath), while to the west are residential properties.

Hall Bank

3.2 The main arterial route running through the village of Pontesbury is the A488. Within the village, a one-way system has been implemented, whereby the A488 Hall Bank forms the west to east arm of the one-way system and the A488 Main Road accommodates traffic travelling in the east to west direction. At the western end, the A488 continues westwards (as Minsterley Road) with Main Road and Station Road (from the north) forming priority junctions – see **Plate 1**. At the eastern end of the one-way system, the A488 Hall Bank continues eastwards as Main Road – see **Plate 2**.



Plate 1 – Main Rd/Hall Bk/Station Rd/Minsterley Rd junction



Plate 2 – Hall Bank/Main Road junction

3.3 Hall Bank is typically 4.3m-4.9m wide across the development site frontage with a 1.5m wide footway on its northern side and a grass margin (of variable width) on its southern side – see **Plate 3**. Travelling from its western end, Hall Bank serves residential properties to the west of the development site, and accommodates a bus stop/shelter a short distance thereafter – see **Plate 4**. Moving eastwards it serves a children’s day nursery (proposed to be relocated at part of the development scheme) and a medical centre (Pontesbury Primary Care Centre). Hall Bank forms a priority junction with Hinton Lane (with Hall Bank being the major arm) immediately to the east of the medical centre, after which it serves further residential properties (including the cul-de-sac of Manor Gardens) and a another bus stop/shelter before rejoining Main Road.

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Plate 3 – Hall Bank



Plate 4 – Bus Stop on Hall Bank (western stop)

- 3.4 Hall Bank is subject to a speed limit of 30mph. Street lighting is present throughout its length. Signing and lining at accesses and junctions along its length enforce the one-way system.

Main Road

- 3.5 Main Road runs more centrally through the village serving a large number of residential properties, particularly to the south, but also the village amenities, including shops, the parish church, the post office, pharmacy and restaurants. Main Road is also subject to a speed limit of 30mph and is lit throughout. The carriageway varies in width and has footways on either side. Again, signing and lining enforce the one-way system at junctions.

Hinton Lane

- 3.6 Hinton Lane, forming the eastern boundary of the development site, is a country lane that leads to the village of Hinton. It is typically 3.7m wide (narrowing to 2.6m) with no footways or street lighting – see **Plate 5**. At its junction with Hall Bank – see **Plate 6**, visibility splays measure 2.4m x 43m to the northwest and 2.4m x 72m to the south.



Plate 5 – Hinton Lane



Plate 6 – Hall Bank/Hinton Lane junction

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- 3.7 Hinton Lane is subject to a speed limit of 30mph for the first 60m from Hall Bank before the national speed limit applies.
- 3.8 The Sustrans National Cycle Network (NCN) route 44 (linking Shrewsbury to Cinderford in Gloucestershire) runs along Hinton Lane, the eastern section of Hall Bank and part of Main Road.

Public Footpaths

- 3.9 A public footpath runs along the western boundary of the site from Hall Bank to the former railway line. At this point, it joins another public footpath that runs along the old railway line in a broadly west to east direction. These routes provide useful recreational facilities.

4. Accessibility and Connectivity

Local Services, Facilities and Amenities

- 4.1 There is a full range of services, facilities and amenities within the village. Those that are located along Hall Bank and Main Road are listed below with approximate walking distances taken from the centre of the site frontage to Hall Bank.

- Bus stop/shelter on Hall Bank (to the west of the site) – **100m**
- Medical Centre off Hall Bank – **150m**
- Dental Surgery off Hall Bank – **170m**
- Restaurant off Main Road – **180m** (from the west)
- Pharmacy off Main Road – **220m** (from the west)
- Bennett's Business Centre off Main Road – **230m** (from the west)
- Hairdresser off Main Road – **280m**
- Hignetts (Fine Food and Bakery) off Main Road – **330m**
- Post Office off Main Road – **330m**
- General Stores – **340m**
- Tea Room off Main Road – **350m**
- Florist off Main Road – **350m** (from the west)
- Public Hall off Main Road – **360m**
- Cooperative (Foodstore) off Main Road – **370m** (from the west)
- Parish Church off Main Road – **420m**

- 4.2 Also within Pontesbury are the following:

- Area Police Station – **300m**
- Library – **660m**
- Primary School (Pontesbury Church of England Primary School) – **700m**
- Secondary School (The Mary Webb School and Science College) – **750m**
- Numerous public inns, restaurants and takeaways

Walking and Cycling

- 4.3 Paragraph 4.4.1 of the DfT document *Manual for Streets* (MfS) states that walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800m) walking distance of residential areas which residents may access comfortably on foot.
- 4.4 However, this is not an upper limit and the expired PPG13 stated that walking offers the greatest potential to replace short car trips, particularly those under 2km. PPG13 also stated that cycling has the potential to replace short car journeys for distances less than 5km, and could form part of linked trip using public transport.
- 4.5 All of the village services and amenities listed above are within a comfortable walking distance (10 minute walk) of the development site, and well within a comfortable cycle distance.
- 4.6 A comprehensive footway network within the village provides for safe walking journeys to and from the key destination points listed above. There are no on- and off-road cycling facilities within the village (i.e. dedicated cycle lanes) but the road network is generally wide enough and relatively flat (with no significant gradients) to accommodate safe cycling.

Public Transport

- 4.7 The main bus services that travel through the village are the 552/553 services between Shrewsbury and Stiperstones/Bishops Castle which run every half hourly to hourly (Monday to Saturday). The journey time to Shrewsbury is approximately 30 minutes, with the first bus departing from Pontesbury at 07.02 and the last bus departing from Shrewsbury at 18.05.
- 4.8 From observations on site, there are relatively high bus patronage levels from the two bus stops located along Hall Bank.
- 4.9 Other bus services include the 745 which links Pontesbury to Ludlow and the 775 linking the village to Newtown.
- 4.10 The nearest railway stations are located at Shrewsbury (approximately 11km away) and at Church Stretton (approximately 14km) providing mainline services to the UK.

Accessibility Summary

- 4.11 There are a full range of services and facilities in the village within a safe and comfortable walking and cycling distance of the development site. There are also a number of bus services that serve the area. Therefore, the site can be considered to have a very good level of accessibility and connectivity. Consequently, it is considered that there are ample opportunities for residents of the proposed development to be able to travel by sustainable modes of transport, and not be reliant on the use of private vehicles.

5. Site Access Options

- 5.1 The Highway Authority has suggested that vehicular access to the development site should only derive from Hall Bank via a left in/left out arrangement with additional pedestrian/cycle access onto Hall Bank, and that pedestrian/ cycle/emergency access should also be considered onto Hinton Lane.
- 5.2 An **Access Strategy** plan has been prepared (drawing: **13787/SKT01**) attached to this report, which identifies potential vehicular, cycle and pedestrian access points, as described below.

Vehicular Access

- 5.3 Two vehicular accesses to/from Hall Bank will be provided, one of which will be retained for emergency access only. They will both utilise left in/left out arrangements – see attached drawing: **13787/SKT04**. A visibility splay of 2.4m x 60.0m has been shown at each access point in the westerly direction, commensurate with an 85thile speed of 37mph using visibility standards set out in *Manual for Streets*.
- 5.4 A secondary access to the shop will be provided east of the main site access junction. However, this will be designed so that the main site access junction would be the preferred route for drivers.
- 5.5 There is sufficient frontage to Hall Bank to form an appropriate junction, and therefore proposing suitable and safe vehicular access(s) to serve the development site is not considered to be problematic.

Pedestrian/Cycle Access

- 5.6 The internal road system serving the site is likely to be designed with footways on either side or through the use of shared surfaces. A 20mph design speed would be applied to provide a safe environment for pedestrians and cyclists. Consideration could be given to widening the existing footway on the north side of Hall Bank although any such widening could impact upon the tree-line along the southern boundary of the site.
- 5.7 In addition, a pedestrian/cycle link could be provided onto Hinton Lane, subject to the provision of suitable details, visibility splays, etc. Such access point would not be located on the desire line between the site and the centre of the village, and would therefore likely to be used for recreational purposes only in accessing the surrounding public footpaths and cycle routes.
- 5.8 Hinton Lane is already a signed cycle route and is used by walkers (it is advertised within the Pontesbury Walks leaflet). Therefore, it is not considered necessary or appropriate to undertake any significant infrastructure improvements to Hinton Lane as part of the development scheme.

6. Forecast Traffic Generation and Distribution

Trip Generation

6.1 Multi-modal trip rates for the development proposal have been calculated using the TRICS 2013(b) database.

Residential

6.2 The TRICS Category C3 Dwelling Privately Owned has been selected as appropriate for generating a robust trip rate for the residential element of the scheme given that a probable mix of market / affordable dwellings would be proposed – TRICS indicates that affordable dwellings generate less traffic than open market dwellings.

6.3 Furthermore, the database has been filtered in order to derive the most representative sites. This includes the removal of sites in London, Scotland and Ireland from the database, and the selection of ‘Suburban Area’ and ‘Edge of Town’ within the location type categories.

6.4 The calculated trip rates proposed for the residential use within this assessment are shown in **Table 6.1**. The TRICS 2013(b) Summary Table is attached to this report. The full TRICS Output data can be provided upon request.

Table 6.1: Peak Hour Trip Generation - Proposed Residential Development

Time	Trip Rate (per household)		Total Trips (60 Dwellings)		
	Arrivals	Departures	Arrivals	Departures	Total
Weekday AM Peak (0800-0900hrs)	0.165	0.404	10	24	34
Weekday PM Peak (1700-1800hrs)	0.327	0.221	23	13	36

Village Shop

6.5 The TRICS Category Retail/Local Shops has been selected as appropriate for generating a robust trip rate for the proposed village shop. The calculated trip rates proposed for the village shop use within this assessment are shown in **Table 6.2**. The TRICS 2013(b) Summary Table is attached to this report.

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Table 6.2: Peak Hour Trip Generation - Proposed Village Shop Development

Time	Trip Rate (per 100sqm GFA)		Total Trips (465sqm GFA)		
	Arrivals	Departures	Arrivals	Departures	Total
Weekday AM Peak (0800-0900hrs)	4.238	3.776	20	18	38
Weekday PM Peak (1700-1800hrs)	4.419	4.459	21	21	42

Children’s Day Nursery

6.6 The TRICS Category Education/Nursery has been selected as appropriate for generating a robust trip rate for the proposed relocation of the day nursery. The calculated trip rates proposed for the nursery within this assessment are shown in **Table 6.3**. The TRICS 2013(b) Summary Table is attached to this report.

Table 6.3: Peak Hour Trip Generation - Proposed Day Nursery Development

Time	Trip Rate (per 100sqm GFA)		Total Trips (167sqm GFA)		
	Arrivals	Departures	Arrivals	Departures	Total
Weekday AM Peak (0800-0900hrs)	7.899	7.377	13	12	25
Weekday PM Peak (1700-1800hrs)	5.216	7.079	9	12	21

Net Development Traffic Impact

6.7 It is important to note that the Children’s Day Nursery is already located along Hall Bank. Therefore the trips associated with this use are already taking place on the local highway network.

6.8 Accordingly, the total number of new trips to the local highway network would be the sum of the totals set out in **Tables 6.1** and **6.2** above. These are summarised in **Table 6.4**.

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Table 6.4: Net Vehicular Traffic Generation from the Proposed Development

Time	Total Trips (All Uses)		
	Arrivals	Departures	Total
Weekday AM Peak (0800-0900hrs)	30	42	72
Weekday PM Peak (1700-1800hrs)	44	34	78

6.9 **Table 6.4** indicates that the proposed development of 60 dwellings, a village shop and the relocation of the children’s day nursery is predicted to generate an additional 72 vehicle movements in the AM peak hour (30 arrivals and 42 departures) and an additional 78 vehicle movements in the PM peak hour (44 arrivals and 34 departures) onto the local highway network over and above existing traffic levels.

6.10 This translates to just over one additional vehicular movement every minute during the AM and PM peak hour periods.

6.11 It should be noted that the above analysis does not take into account any propensity for linked trips, i.e. there will be a number of trips associated with the residential element of the development that will travel to and from the proposed village shop – in the above analysis these trips have been double-counted. In addition, the above assessment has been based on 100% open market dwellings, thereby providing a robust analysis in terms of trip generation for the residential element of the scheme.

6.12 In any event, it is not considered that the net additional traffic generated by the proposed development would have any detrimental effect on the safe and efficient operation of the local highway network.

Trip Distribution

6.13 Given the nature of the one-way system within Pontesbury, all vehicular traffic would arrive at the site from the west (via the junction of Hall Bank with Main Road/Station Road/Minsterley Road). Equally the majority of vehicular traffic would depart to the east via the Hall Bank/Main Road junction. Some traffic would then turn right and travel along Main Road (if heading westwards), with the remainder continuing to travel eastwards along Main Road.

6.14 At planning application stage, it is recommended that traffic turning counts are undertaken at the above two junctions to establish current volume and direction flows. This and an analysis using Travel to Work Area Census data would provide a more robust traffic distribution model and would confirm that sufficient capacity exists at the junctions to accommodate the additional traffic generated by the development without implementing any mitigation measures.

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7. Summary

7.1 This Technical Note has been prepared in support of a potential development site which is being promoted for inclusion in the new allocations document of the Shropshire Local Plan.

Conclusions

7.2 The development site has sufficient frontage to Hall Bank to provide safe and appropriate access arrangements. The internal layout of the site would be designed to encourage slow traffic speeds thus providing a safe environment for pedestrians and cyclists. Adequate provision can be made for pedestrian/cycle access from Hall Bank and Hinton Lane, as well as service/delivery/emergency vehicle access from Hall Bank.

7.3 From the TRICS analysis, the development proposal is anticipated to generate approximately, on average, just over one additional vehicular movement onto the highway network every minute during the AM and PM peak hours. It is not considered that such additional traffic generation would have a detrimental impact on the safe and efficient operation of the surrounding highway network.

Recommendations

7.4 The following transport-related issues are recommended in progressing the scheme:

- Protect and enhance existing public footpaths along the western and northern boundaries of the site;
- Provide pedestrian/cycle links to the site, via Hall Bank and Hinton Lane;
- Prepare more detailed drawings of the site accesses, including access/parking arrangements for the proposed village shop and relocated children's day nursery;
- Undertake traffic turning counts at the junctions of Hall Bank with Main Road to the east and Hall Bank with Main Road/Station Road/Minsterley Road to the east; and,
- Prepare a Transport Assessment and Travel Plan in support of a planning application.

7.5 In overall summary, it is considered that there are no significant highways and transportation reasons that should preclude the Council from including the proposed development site within the new allocations document of the Shropshire Local Plan.

Attachments:

Access Strategy - drawing: 13787/SKT01(A)
Potential Access Arrangement - drawing: 13787/SKT04
TRICS Summary Tables

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KEY

- DEVELOPMENT SITE
- - - EXISTING PUBLIC FOOTPATH
- - - POTENTIAL VEHICLE ACCESS POINT
- - - POTENTIAL PEDESTRIAN / CYCLE ACCESS POINT
- - - POTENTIAL EMERGENCY ACCESS POINT

Rev	Date	Description	By	Ckd
A	20/11/13	POTENTIAL VEHICLE ACCESS POINT RELOCATED AND EMERGENCY ACCESS POINT SHOWN	SCJ	GS

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Project
LAND OFF HALL BANK, PONTESBURY, SHROPSHIRE

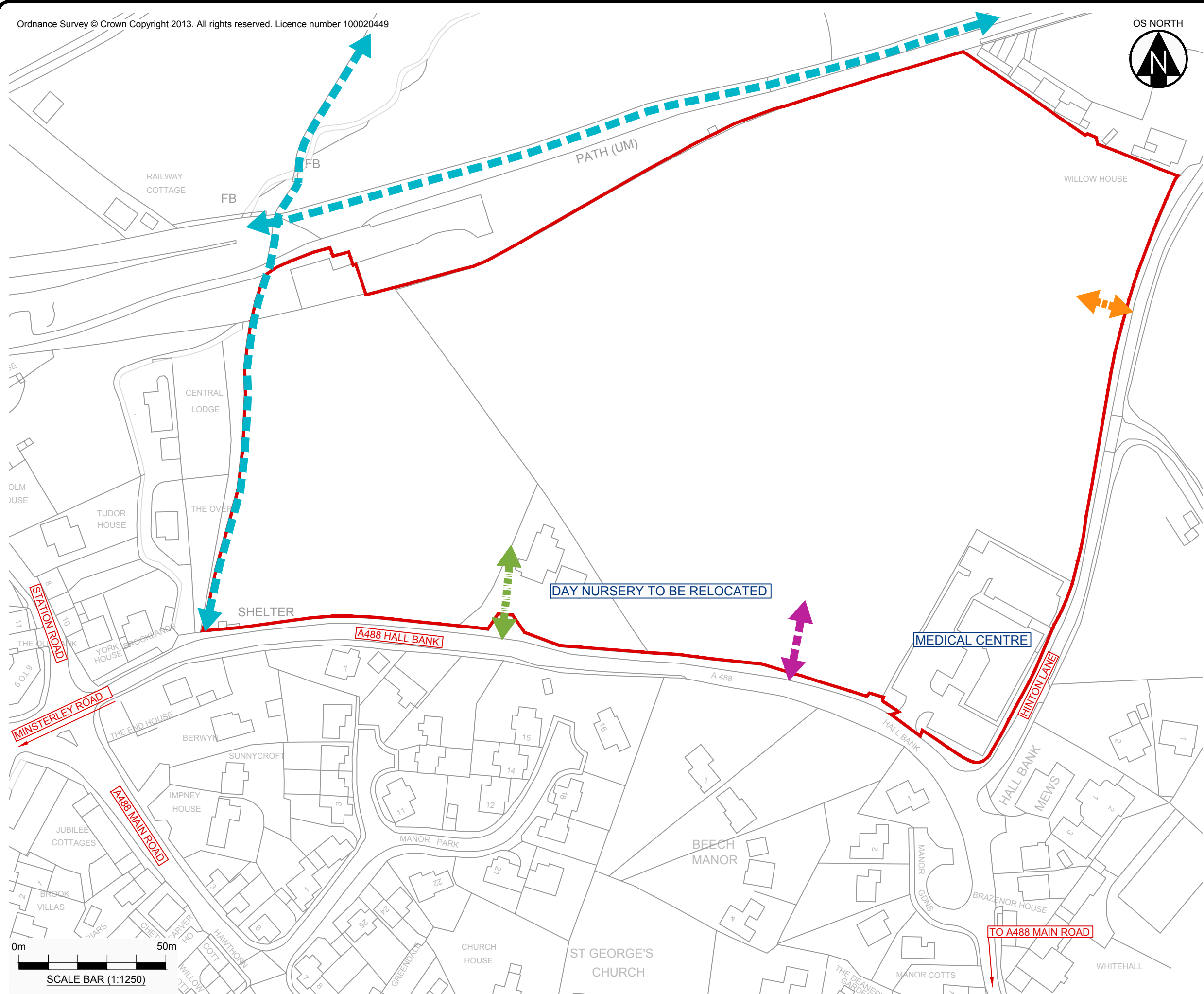
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ACCESS STRATEGY

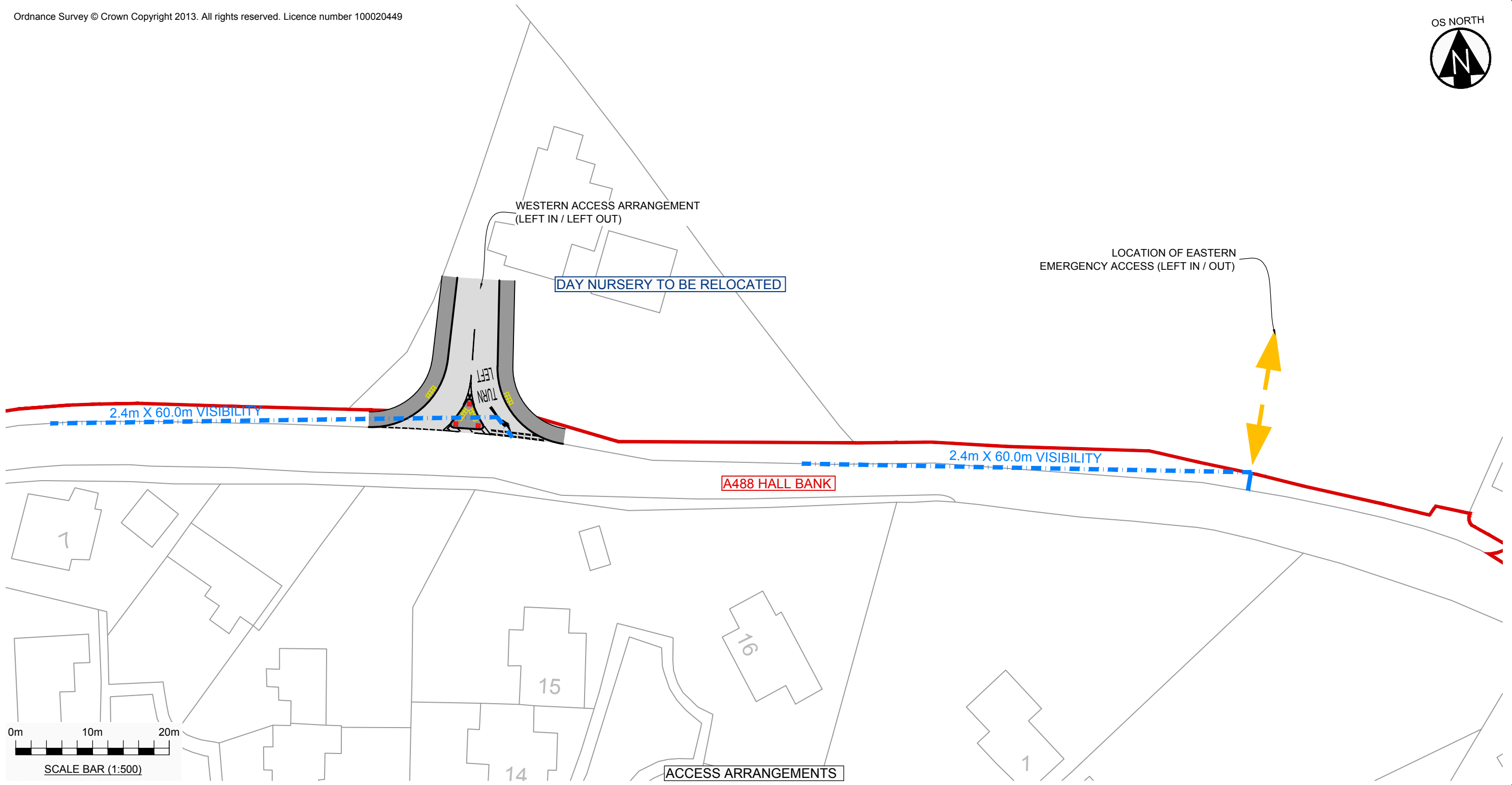
Drawing Status
IN REPORT

Job No. **C13787**

Drawn	Checked	Scale at A3	Date	Issue Date
SCJ	MB	1:1250	19/11/13	19/11/13

Drawing No.	Revision
13787/SKT01	A





- KEY**
- DEVELOPMENT SITE
 - FOOTWAY CONSTRUCTION
 - CARRIAGEWAY CONSTRUCTION
 - TACTILE PAVING

Rev	Date	Description	By	Ckd

Client
HEREFORD DIOCESE BOARD OF FINANCE (HDBoF)

Project
LAND OFF HALL BANK, PONTESBURY, SHROPSHIRE

Title
POTENTIAL ACCESS ARRANGEMENT LEFT IN/LEFT OUT JUNCTION AND EMERGENCY ACCESS JUNCTION

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SCJ	GS	1:500	20/11/13	20/11/13

Drawing No.
13787/SKT04

Revision
 -

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

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	26	71	0.070	26	71	0.278	26	71	0.348
08:00 - 09:00	26	71	0.165	26	71	0.404	26	71	0.569
09:00 - 10:00	26	71	0.190	26	71	0.221	26	71	0.411
10:00 - 11:00	26	71	0.160	26	71	0.181	26	71	0.341
11:00 - 12:00	26	71	0.173	26	71	0.183	26	71	0.356
12:00 - 13:00	26	71	0.195	26	71	0.169	26	71	0.364
13:00 - 14:00	26	71	0.195	26	71	0.193	26	71	0.388
14:00 - 15:00	26	71	0.201	26	71	0.215	26	71	0.416
15:00 - 16:00	26	71	0.258	26	71	0.199	26	71	0.457
16:00 - 17:00	26	71	0.327	26	71	0.192	26	71	0.519
17:00 - 18:00	26	71	0.388	26	71	0.221	26	71	0.609
18:00 - 19:00	26	71	0.261	26	71	0.181	26	71	0.442
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.583			2.637			5.220

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

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

Parameter summary

Trip rate parameter range selected: 36 - 115 (units:)
 Survey date date range: 01/01/05 - 30/05/13
 Number of weekdays (Monday-Friday): 26
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 1

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

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

VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	553	3.716	9	553	3.575	9	553	7.291
08:00 - 09:00	9	553	4.238	9	553	3.776	9	553	8.014
09:00 - 10:00	9	553	4.459	9	553	3.896	9	553	8.355
10:00 - 11:00	9	553	3.756	9	553	3.635	9	553	7.391
11:00 - 12:00	9	553	3.595	9	553	3.374	9	553	6.969
12:00 - 13:00	9	553	4.961	9	553	4.961	9	553	9.922
13:00 - 14:00	9	553	4.258	9	553	4.720	9	553	8.978
14:00 - 15:00	9	553	3.555	9	553	3.555	9	553	7.110
15:00 - 16:00	9	553	3.716	9	553	3.635	9	553	7.351
16:00 - 17:00	9	553	4.820	9	553	4.639	9	553	9.459
17:00 - 18:00	9	553	4.419	9	553	4.459	9	553	8.878
18:00 - 19:00	9	553	4.258	9	553	4.559	9	553	8.817
19:00 - 20:00	9	553	3.916	9	553	3.756	9	553	7.672
20:00 - 21:00	8	592	1.920	8	592	2.532	8	592	4.452
21:00 - 22:00	4	605	2.230	4	605	2.396	4	605	4.626
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			57.817			57.468			115.285

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

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

Parameter summary

Trip rate parameter range selected: 240 - 825 (units: sqm)
 Survey date date range: 01/01/05 - 21/11/12
 Number of weekdays (Monday-Friday): 9
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY

VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	224	2.534	6	224	1.043	6	224	3.577
08:00 - 09:00	6	224	7.899	6	224	7.377	6	224	15.276
09:00 - 10:00	6	224	3.130	6	224	2.757	6	224	5.887
10:00 - 11:00	6	224	0.671	6	224	0.298	6	224	0.969
11:00 - 12:00	6	224	0.373	6	224	0.522	6	224	0.895
12:00 - 13:00	6	224	1.043	6	224	1.267	6	224	2.310
13:00 - 14:00	6	224	1.639	6	224	1.714	6	224	3.353
14:00 - 15:00	6	224	0.894	6	224	0.820	6	224	1.714
15:00 - 16:00	6	224	1.937	6	224	1.863	6	224	3.800
16:00 - 17:00	6	224	3.949	6	224	3.949	6	224	7.898
17:00 - 18:00	6	224	5.216	6	224	7.079	6	224	12.295
18:00 - 19:00	5	228	0.525	5	228	1.226	5	228	1.751
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			29.810			29.915			59.725

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

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

Parameter summary

Trip rate parameter range selected: 182 - 350 (units: sqm)
 Survey date date range: 01/01/05 - 26/09/12
 Number of weekdays (Monday-Friday): 6
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

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