

Proposed Starbucks Drive-Thru, Land at Whitworth Road (Dunelm & Carpetright) Car Park, Rochdale

Transport Assessment

MAY 2023

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1 Introduction

1.1 Background

This Transport Assessment (TA) has been prepared by Arcadis Consulting UK Limited (Arcadis) on behalf of Glenbrook Investments Ltd to support the submission of a full planning application for the development of a new stand-alone E(b) Use Class drive-through coffee unit within an existing retail unit (Dunelm) car park off Whitworth Road, Rochdale.

The planning application is for the construction of a drive-thru coffee shop building with associated external plant/refuse area modifications to the existing parking areas, and to the local highway to provide an improved access for vehicles, within the car park of Dunelm.

This TA should be considered and read in conjunction with accompanying application documents, in particular the application drawings, Planning Statement and Design & Access Statement.

1.2 Document Structure

The structure of this TA is as follows:

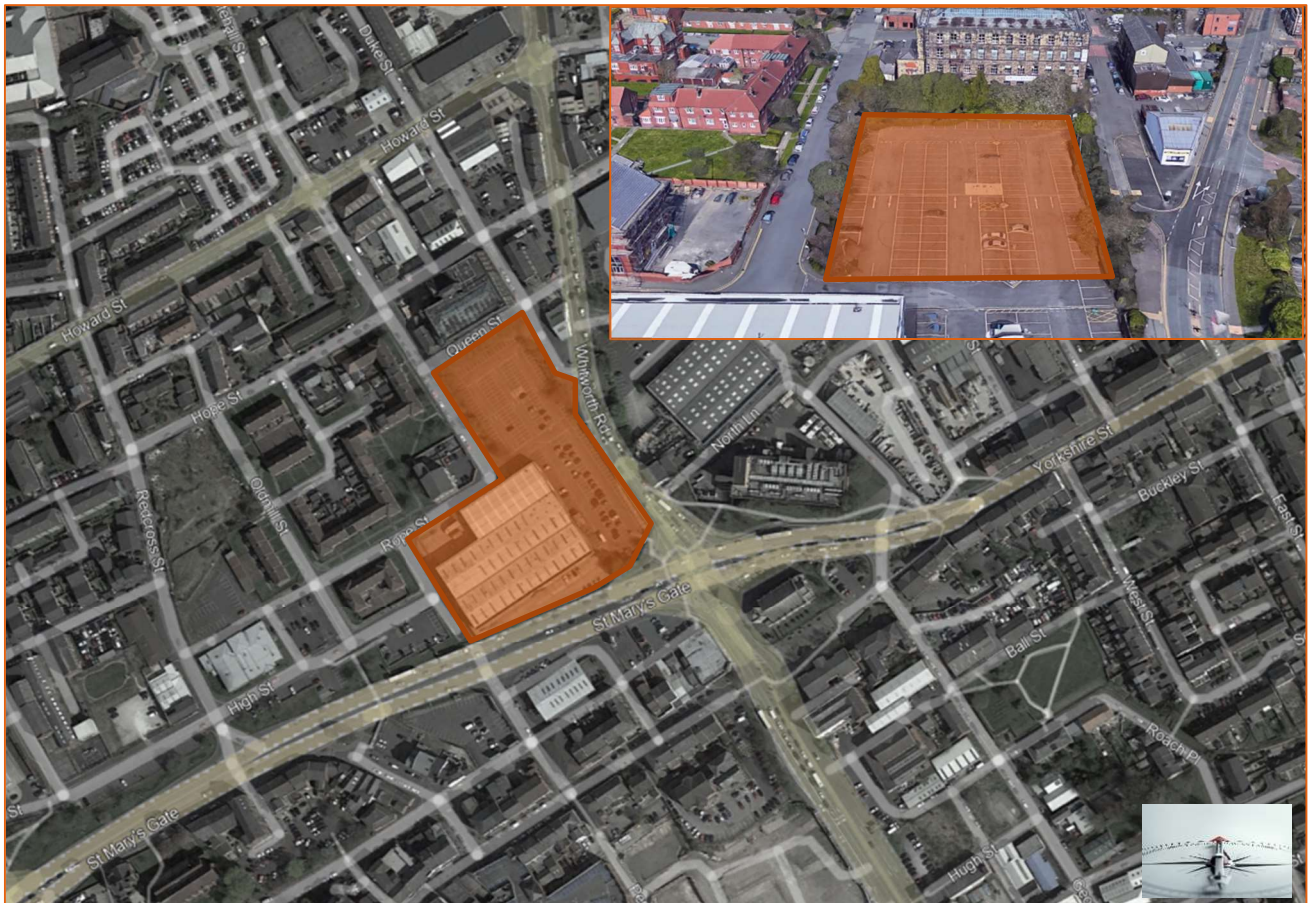
- **Section 2** describes the existing transportation and movement conditions around the application site, along with any proposed changes.
- **Section 3** describes the proposed development, as it relates to transportation and movement.
- **Section 4** summarises an assessment of the potential impact of the development on the transportation and movement network.
- **Section 5** provides a summary and sets out the conclusions.

2 Existing Conditions

2.1 Site Location

The application site is located within at the northern end the 244 space car park of the existing Dunelm retail site which is located on the northwest corner of the junction of St Mary's Gate (A58) and Whitworth Road (A671). Figure 1 refers.

Figure 1 – Site Location & Application Boundary



2.2 Highway Network

2.2.1 Public Highway Boundary

Figure 2 shows the extent of the public highway around the site. The site is entirely surrounded by adopted public highway, including the current vehicular access from Duke Street.

Figure 2 – Public Highway Boundary



2.2.2 Access & Egress Routes

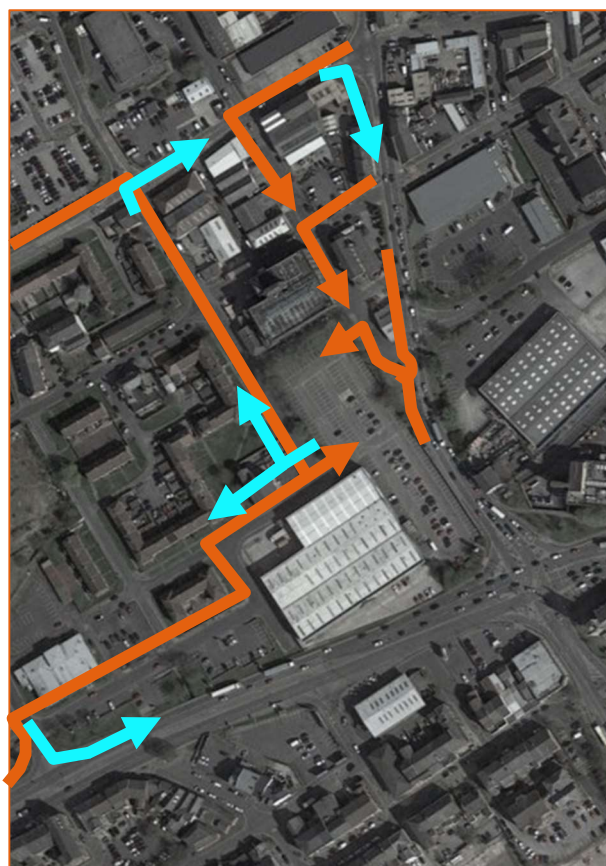
The current vehicular (car) access and egress routes for the site are shown in Figure 3. These are either from:

- Duke Street on the east side of the site; and
- Rope Street / Whitehall Street on the west side of the site.

Egress is only via Rope Street / Whitehall Street with exit to Duke Street restricted, although there is anecdotal evidence that this does occur.

HGV vehicles servicing the site tend to arrive and depart from St Mary's Gate via High Street and Rope Street.

Figure 3 – Access & Egress Routes

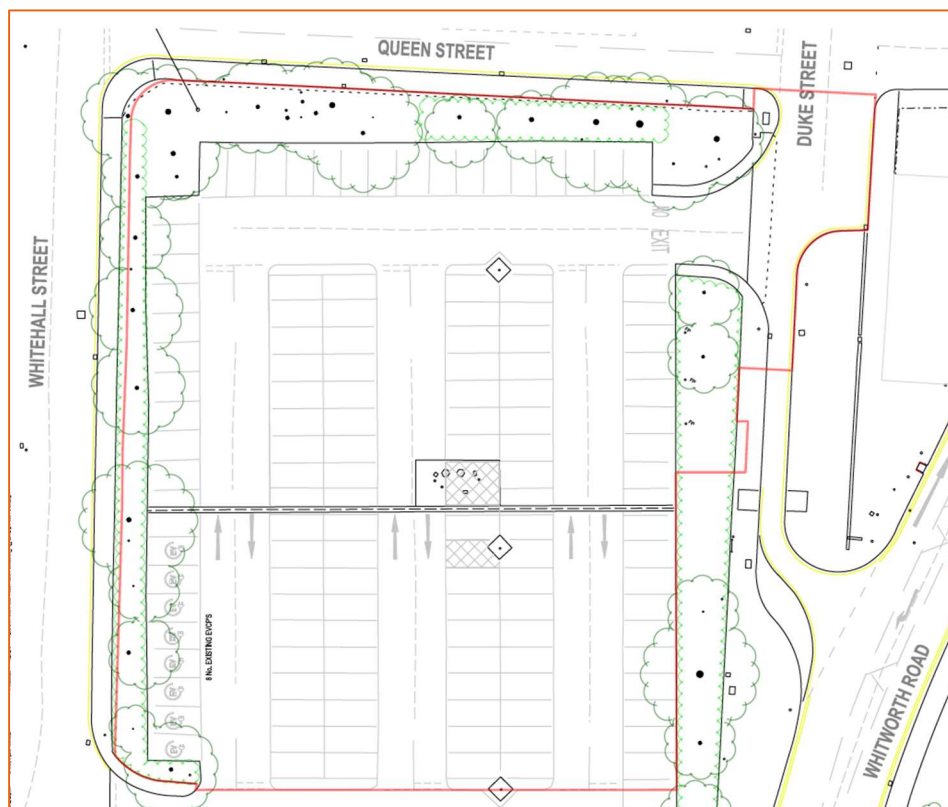


2.2.3 Existing Layout of Application Site

The existing car park within the application site has a total of 128 spaces comprised of 120 standard spaces, 8 EV charging spaces, and no Blue Badge spaces. Figure 4 refers.

These spaces are rarely used, if at all, by the existing stores during typical operating hours and conditions.

Figure 4 – Existing Layout of Application Site



2.2.4 Existing Highway Conditions

The application site is located close to a major junction on the ring-road around the north of Rochdale town centre (St Mary's Gate (A58) with Whitworth Road / John Street). This is busy section of the network throughout the day with east/west traffic movements along the A58 and to / from Whitworth Road, with the typical weekday AM (0800-0900) and PM (1700-1800) peak periods being particularly busy, but this during the weekend (Saturday 1200-1300) also being busy. During these periods the junction can become congested with queues forming on all arms and drivers experiencing delays.

Traffic surveys were undertaken during the early stages of the project and the key findings from these are:

- The network peak hours are:
 - Weekday PM = 17:30 to 18:30
 - Weekend (Saturday) = 14:00 to 15:00
- Entries into Duke Street from Whitworth Road during peak periods are low:
 - Southbound Right Turn = 4 weekday PM / 7 Saturday
 - Northbound Left Turn = 27 weekday PM / 43 Saturday

2.2.5 Collision Data

5 years of collision data has within the vicinity of the site has been extracted from [CrashMap](#) and the locations and type are shown in Figure 5 and summarised in Table 1.

Figure 5 – 5 Year Collision Data

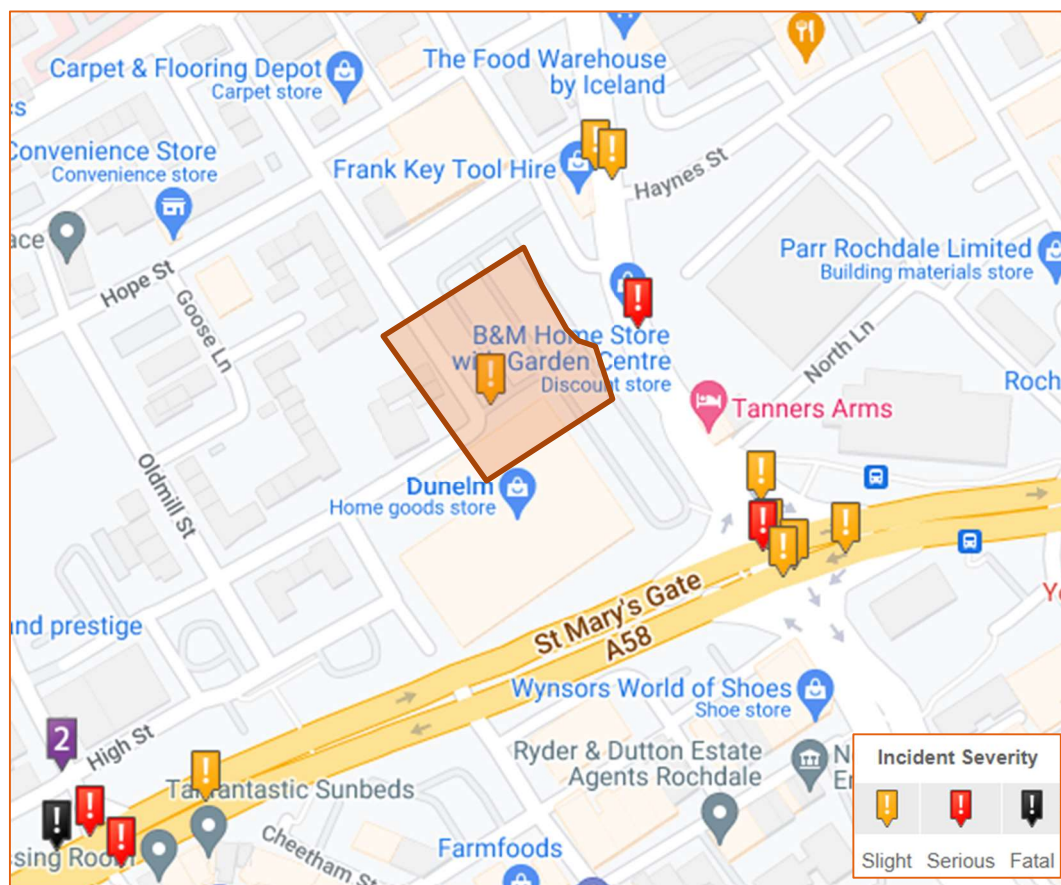


Table 1 – Summary of 5 Year Collision Data

Slight	Serious	Fatal	Total
10	4	1	15

One of the 'Slight' injuries took place within the site at the Whitehall Street entrance involving 2 vehicles (cars) and 1 casualty.

2.3 Pedestrian & Cycle Access

Access for pedestrians and cyclists to the wider site can be gained from the following locations:

- Whitworth Road via steps located on the southern boundary of the application site.
- Corner of St Mary's Gate & Whitworth Street.
- Alongside vehicular access from Whitehall Street.
- Alongside vehicular access from Duke Street.

2.4 Bus Network

Numerous bus routes pass the site along St Mary's Gate and Whitworth Road, namely:

- Whitworth Road – 464, 862, 885, 999, R1
- St Mary's Gate – 458, 587, 590

The nearest bus stops are located:

- Whitworth Road – 170m to the north either side of the junction of Whitworth Road with Howard Street.

Proposed Starbucks Drive-Thru, Land at Whitworth Road (Dunelm & Carpetright) Car Park, Rochdale

- St Mary's Gate – 160m south on the east side of the junction with Whitworth Road.
- Rochdale bus station is located 625m to the south.

3 Proposed Development

3.1 Proposed Development

In summary, the proposal is comprised of:

- The construction of a new 171sqm (GIA) drive-thru coffee building.
- Construction of a secure compound for external plant.
- Paved area for outdoor seating.
- A drive-thru lane to three sides of the proposed building.
- Local reconfiguration of the car parking area.
- Footpath connections to Whitehall Street and Duke Street / Whitworth Street.
- Perimeter landscaping to Whitehall Street boundary.
- Minor reconfiguration of Duke Street to prioritise access from the north for vehicles.

The coffee shop building itself adopts the operator's 'house-design' in its footprint, elevational treatments, massing and facing materials. Figure 6 shows the proposed layout of the drive-thru and associated car parking and access.

Figure 6 – Proposed Layout of Drive-Thru



3.2 Proposed Access & Egress Routes

3.2.1 Vehicular

The location and routes for access to the site are to remain unchanged with some minor additional lining at the junction of Duke Street with the site access to change priority with a give way and no right turn for northbound traffic. Figure 6 refers.

The Council are the process of developing the detailed designs for an upgrade of the junction of Redcross Street and St Mary's Gate (Figure 7 refers) from an existing eastbound left-in/left-out, to a three-arm signal-controlled junction with integrated pedestrian and cyclist crossing facilities.

The upgraded junction will provide an alternative route for Starbucks (and Dunelm) customers to egress from the site (right turn) with the benefit of reducing through the junction of Howard Road with Whitworth Road.

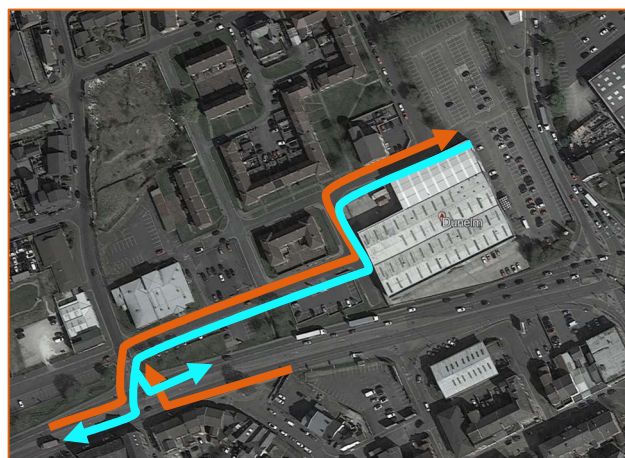
Figure 7 – Location of Junction Upgrade (Planned)



Figure 8 – Access & Egress Routes

Routes to and from the site will remain as those shown in Figure 3.

With the upgraded Redcross Street junction there will be an additional option to access and egress as shown in Figure 8. This will result in the further dissipation of the development related traffic, particularly at peak times, across the local network.



3.2.2 Pedestrians & Cyclists

The existing access points for both pedestrians and cyclists remain the same, with the additional access points provided from Duke Street and Whitehall Street that has connects directly to the store entrance and cycle parking for 6 bikes. Figure 6 refers.

3.2.3 Car Parking

There is an overall reduction in the number of car parking spaces within the boundary of the application from 129 standard spaces within the red line spaces to 69 standard spaces, 8 of which are designated for EV charging and 3 for Blue Badge bays. 2 additional spaces are dedicated for motorcycle parking bays. The total number of available car parking spaces across the whole of the site will be 185 spaces for all customers.

3.2.4 Deliveries

Deliveries to the site will be undertaken by 12m rigid HGV that typical call to sites through the night to avoid busy periods for both the drive-thru and the adjacent retail units. Vehicle will arrive via the Whitehall entrance and will circulate around the car park to service the buildings from directly outside or alternatively to the east of the building close to the exit from the drive-thru. The vehicle will then recirculate around to depart via the Whitehall Street exit.

Swept path analysis has been undertaken to demonstrate that this is achievable without blocking the entrance to the site from Whitworth Road. These are contained in Appendix A.

3.3 Trip Generation, Distribution & Assignment

The vehicular trip generation of the proposed drive-thru has been calculated using the TRICS database (V. 7.9.4) for drive-thru coffee shops.

In accordance with the advice within TRICS, we've sought to use Starbucks sites only based on the strong brand loyalty factor associated with such businesses. This was not possible for the Saturday, so we've used all surveyed drive-thru coffee shop sites.

For both weekday and Saturday, sites that were surveyed outside of the designated Covid national lockdown periods were used.

The outputs from TRICS are provided in Appendix B and Table 2 provides a summary of the vehicular trip rates and trips for weekday AM¹ and PM peaks and Saturday peak².

Table 2 – Peak Hour Vehicular Trip Rates & Generation³

Peak Period	Arrivals		Departures		Total	
	Trip Rate	Vehicle Trips	Trip Rate	Vehicle Trips	Trip Rate	Vehicle Trips
Weekday AM Peak (09:00 to 10:00)	15.982	27	19.635	34	35.617	61
Weekday PM Peak (17:00 to 18:00)	11.416	20	15.068	26	26.484	45
Saturday Peak (14:00 to 15:00)	25.714	44	25.238	43	50.952	87

3.4 Distribution & Assignment

The location of the drive-thru at the junction of 2 of the key routes into and around Rochdale town centre, it is reasonable to assume that the majority of customers will be travelling along St Mary's Gate and Whitworth Road.

To inform the distribution and assignment of customers during each peak period we have estimated this on the relative significance of each route within the road hierarchy of Rochdale. St Mary's Gate (A58) provides a strategic route through the borough linking settlements along the Calder Valley with the M62, Rochdale itself, and towns to the west such as Heywood and Bury. Whitworth Road collects traffic from the residential areas such as Whitworth and Shawclough to the north, along with Rochdale Infirmary and employment area accessed off Princess Street.

¹ AM Peak vehicular trips have used the highest total trips from the periods of 08:00 to 10:00, which in this case is 09:00 to 10:00.

² Traffic counts show the PM peak is 1730 to 1830. To provide a robust assessment we have used 17:00 to 18:00 which is the highest total vehicular trips in TRICS.

³ Vehicular trips have been automatically rounded to nearest whole number.

Our assumptions are:

- All trips are pass-by and already on the network, but new to the site.
- 70% customers are travelling along St Mary's Gate
 - AM Weekday Peak 60/40 westbound/eastbound
 - PM Weekday Peak 40/60 westbound/eastbound
 - Saturday Peak 50/50 westbound/eastbound
- 30% customers travelling along Whitworth Road
 - All peak periods are a 50/50 split northbound / southbound⁴
- All customers diverting from St Mary's Gate westbound turn right at St Mary's Gate onto Whitworth Road then left into Duke Street to access and turn right from Redcross Street onto St Mary's Gate to egress.
- All customers diverting from St Mary's Gate eastbound turn left into Redcross Street to access and right out of Redcross Street to egress.
- All customers heading southbound on Whitworth Road will access the site by turning right at Duke Street, as this has an existing safe righthand holding lane with the capacity for 2 large cars to avoid blocking through traffic⁵.

Combining the vehicular trip generation with the assumptions on distribution Figure 9, Figure 10, and Figure 11 are flow diagrams for the weekday AM, PM and Saturday peak hours respectively shows the assignment to the network of drive-thru flows.

⁴ Traffic counts confirm that the balance of flows on Whitworth Street throughout the survey periods are a 50/50 split.

⁵ It is noted, however, that vehicles could turn right earlier into Princes Street which would spread the loading across 2 junctions.

Figure 9 – Development Traffic Distribution: Weekday AM Peak Period

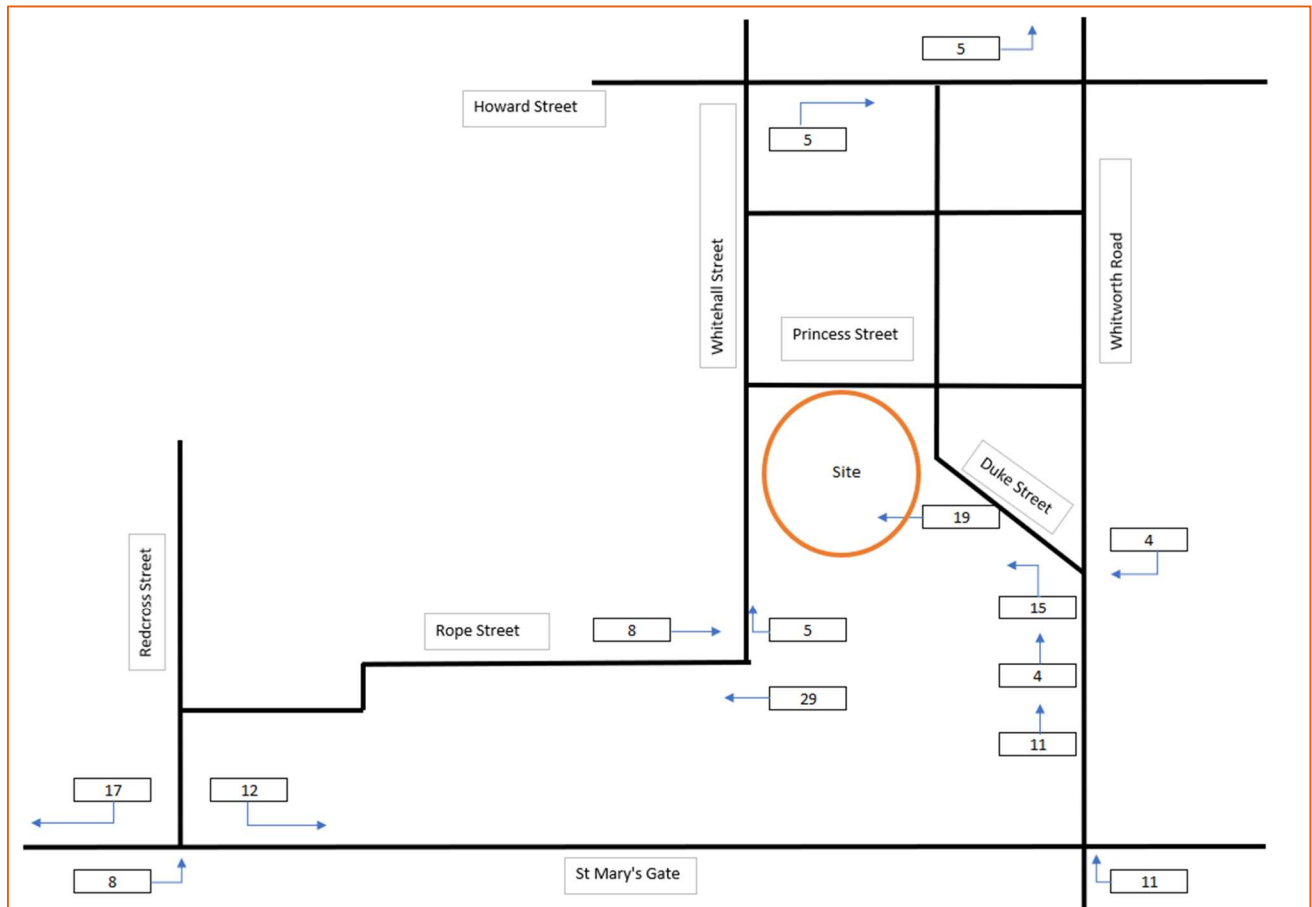


Figure 10 – Development Traffic Distribution: Weekday PM Peak Period

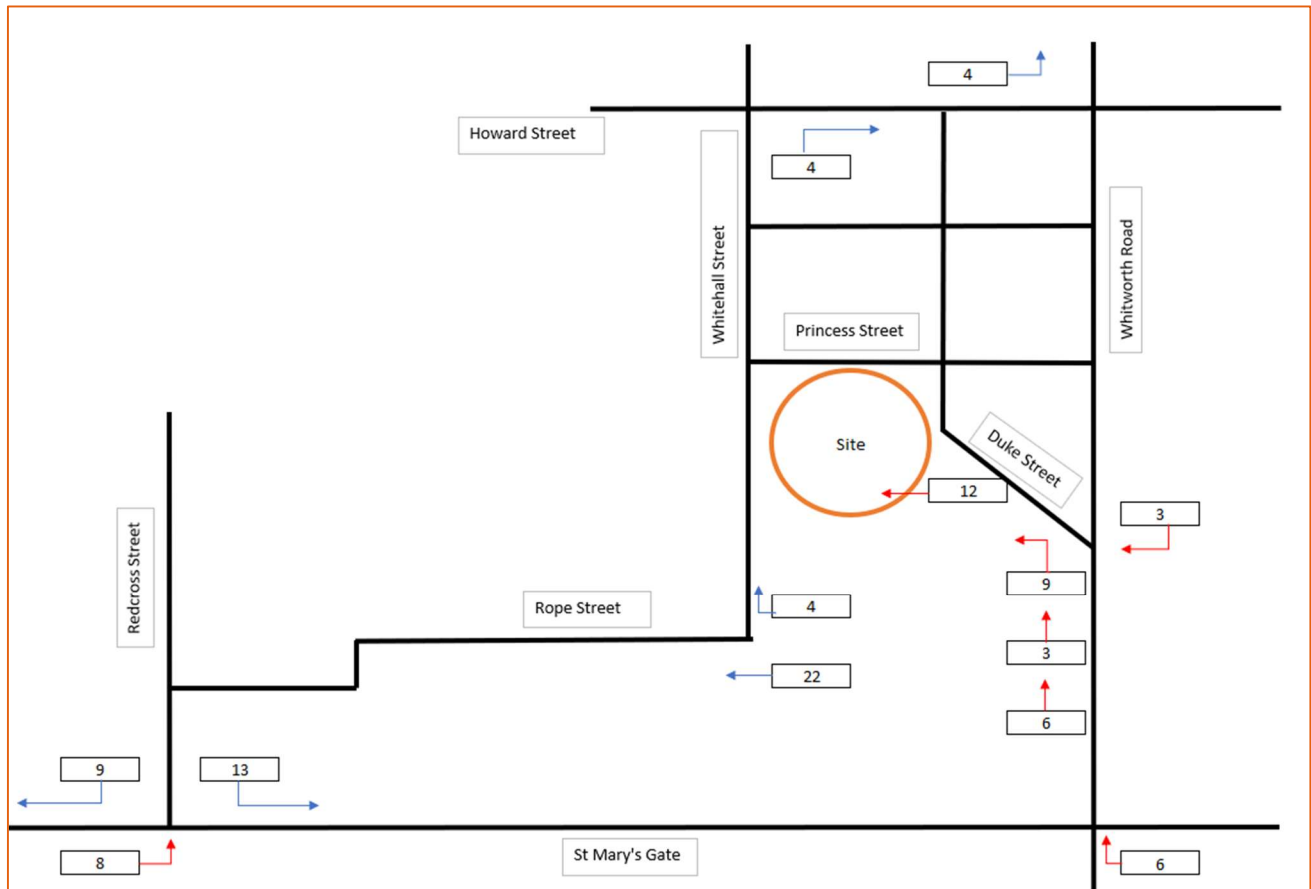
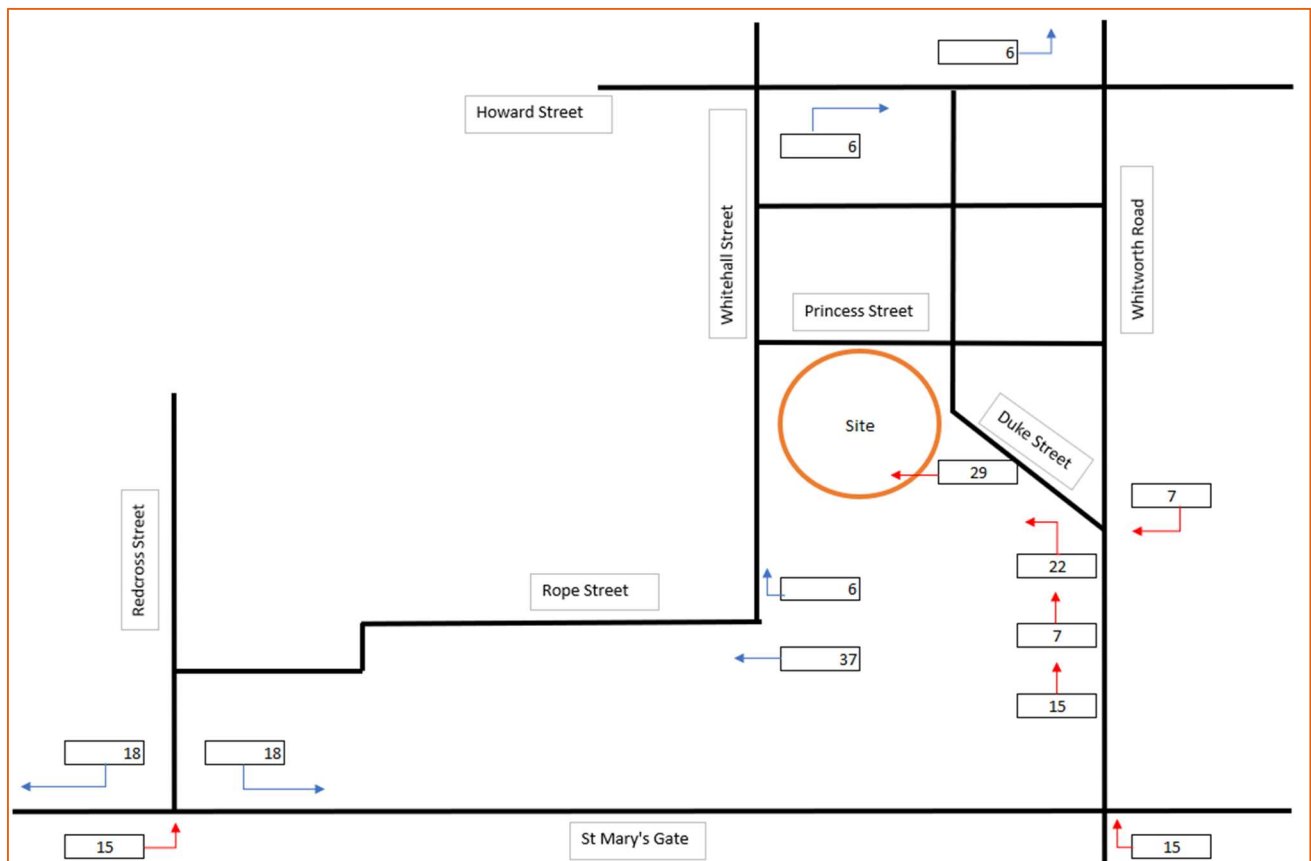


Figure 11 – Development Traffic Distribution: Saturday Peak Period



4 Assessment of Impact

This section of the report sets out our assessment of the impacts of the proposed development upon the local transportation network, in particular the highway network during its weekday and Saturday peak periods.

4.1 Local Highway Network

The trip generation exercise in section 3.3 shows that whilst the proposed development is likely to be popular during the network peak hours, the availability of vehicular access points from both Duke Street and Rope Street / Whitehall Street will spread the loading.

During preapplication discussions with the Local Highway Authority, there was a concern that there would not be sufficient stacking capacity to accommodate the accumulation of queueing vehicles within the site, particularly during peak periods. The concern was that queueing traffic would block back and would:

- Prevent vehicles from entering the wider Dunelm site causing delays along Duke Street; and
- This in turn result in blocking back onto Whitworth Street causing delays both north and southbound, which is also a safety concern.

There is 170m of stacking space back from the order collection point, which equates to the ability to accommodate approximately 28 standard cars⁶ before blocking vehicles turning left from Duke Street into the site.

Where large queues are occurring that extend back beyond the first approach aisle a further 25m of stacking space (4 cars) can be achieved by directing cars arriving from the west (Rope Street / Whitehall Street), by directing them down the middle aisle; however, this would be an extreme case.

The risk of non-Starbucks customers and sit-down customers prevented access to the car park by a lengthy queue has been mitigated by increasing the width of the eastern circulation lane being approximately 7.5m. This can allow for vehicles to stack whilst others can pass to find a parking space.

Figure 12 shows the queueing arrangements.

⁶ Based upon large car of 5.5m in width with 0.25m gap in front and behind each car giving a total of 6m per car.

Figure 12 – Circulation / Drive-Thru Queueing Routes



4.2 Parking

The proposed development is reducing the number of standard parking spaces to 60. This is considered to be a sufficient number of parking spaces to serve the proposed development during a typical day and likely to have reserve capacity.

4.3 Active Travel

There is a possibility that trips to the proposed development may be made either by walking and or cycling; particularly with the increasing popularity of e-bikes and e-scooters.

There are proposed new dedicated entry points on either side of the site that connect pedestrians and 'wheeled' used directly to the store and the dedicated parking for 6 bikes / scooters.

4.4 Public Transport

The proposed development is unlikely to general a significant number of public transport trips; particularly customers. The site is well served by public transport with stops nearby that are within acceptable walk distances (400m), with the Rochdale Interchange a relatively short walk in the town centre.

5 Summary & Conclusions

5.1 Summary

This Transport Assessment (TA) has been prepared by Arcadis Consulting UK Limited (Arcadis) on behalf of Glenbrook Investments Ltd to support the submission of a full planning application for the development of a new stand-alone E9B) Use Class drive-through coffee unit within an existing retail unit (Dunelm) car park off Whitworth Road, Rochdale.

In summary, the proposal is comprised of:

- The construction of a new 171sqm (GIA) drive-thru coffee building.
- Construction of a secure compound for external plant.
- Paved area for outdoor seating.
- A drive-thru lane to three sides of the proposed building.
- Local reconfiguration of the car parking area.
- Footpath connections to Whitehall Street and Duke Street / Whitworth Street.
- Perimeter landscaping to Whitehall Street boundary.
- Minor reconfiguration of Duke Street to prioritise access from the north for vehicles entering the site.

The drive-thru building is proposed to be located at the northern end of the existing car park, which is under-utilised throughout the year.

The proposed development is reducing the number of standard parking spaces to 60. This is considered to be a sufficient number of parking spaces to serve the proposed development during a typical day and likely to have reserve capacity.

There is 170m of stacking space back from the collection point which equates to the ability to accommodate approximately 28 standard cars⁷ before blocking vehicles turning left from Duke Street into the site.

The risk of non-Starbucks customers and sit-down customers prevented access to the car park by a lengthy queue has been mitigated by increasing the width of the eastern circulation lane being 7.5m. This can allow for vehicles to stack whilst others can pass to find a parking space.

There is an overall reduction in the number of available car parking spaces across the site of 59 spaces to 185 available car parking spaces, 8 of which are designated for EV charging and 3 for Blue Badge bays. 2 additional spaces are dedicated for motorcycle parking bays. The total number of available car parking spaces across the whole of the site will be 185 spaces for all customers.

During the network peak periods during a typical weekday and Saturday does not add any additional traffic to the network overall. Traffic diverting to the development and returning to the network during these peak periods is nominal compared to the overall flows.

5.2 Conclusions

The proposed development is predicted to not have a material impact upon the operation and safety of the existing highway network in the peak hours.

This is in terms of a modest change in turning movements at key local junctions and upon through traffic on busy links of Whitworth Road and St Mary's Gate.

⁷ Based upon large car of 5.5m in width with 0.25m gap in front and behind each car giving a total of 6m per car.

Appendix A

Swept Path Analysis Delivery Vehicle



NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED.

LEGENDS:
CHASSIS OUTLINE - FORWARD
VEHICLE BODY OUTER LINE - FORWARD

Rev	Date	Description	Prod	Chk	Rev	App
P01	23/02/23	First Issue				

GLENBROOK

Project: Starbucks Drive-Thru'

Site: Manchester

Client: Glenbrook Investments Limited
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Tel: 44 (0)161 245 8700

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Drawing Title: Starbucks Drive-Thru' Swept Path Analysis Sheet 1 of 1

Designed: H. Mufthah	Signed: Digitally Signed	Date: 23/02/23
Produced: H. Mufthah	Signed: Digitally Signed	Date: 23/02/23
Checked: H. Nicholas	Signed: Digitally Signed	Date: 23/02/23
Reviewed: H. Nicholas	Signed: Digitally Signed	Date: 23/02/23
Approved: H. Nicholas	Signed: Digitally Signed	Date: 23/02/23

Design Stage: Concept

Original Size: A1	Grid: OS	Datum: AOB
Suitability Code: S2	Scale: 1:200	Project Number: XXXXXXXX

Suitability Description: Suitable for Information

Drawing Number: XXXXXXXX - ARC - HGN ZZ - DR - HE - 00001	Revision: P01
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Appendix B

TRICS Data

Calculation Reference: AUDIT-111301-230222-0232

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
 Category : J - DRIVE THROUGH COFFEE SHOP
TOTAL VEHICLES

Selected regions and areas:

11 SCOTLAND
 PK PERTH & KINROSS 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: Gross floor area
 Actual Range: 219 to 219 (units: sqm)
 Range Selected by User: 125 to 420 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 15/05/22

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

Selected survey days:

Wednesday 1 days

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

Selected survey types:

Manual count 1 days
 Directional ATC Count 0 days

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

Selected Locations:

Edge of Town 1

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

Selected Location Sub Categories:

Industrial Zone 1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included X days - Selected
 Servicing vehicles Excluded 4 days - Selected

Secondary Filtering selection:

Use Class:

Not Known 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 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:

1,001 to 5,000 1 days

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

Population within 5 miles:

25,001 to 50,000 1 days

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

Car ownership within 5 miles:

1.1 to 1.5 1 days

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

Travel Plan:

No 1 days

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

PTAL Rating:

No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1 PK-06-J-01 STARBUCKS PERTH & KINROSS
 THE TRIANGLE
 PERTH
 INVERALMOND
 Edge of Town
 Industrial Zone
 Total Gross floor area: 219 sqm
 Survey date: WEDNESDAY 20/04/22 Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
HE-06-J-01	COVID
NM-06-J-01	NOT STARBUCKS
SF-06-J-01	COVID

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/J - DRIVE THROUGH COFFEE SHOP

TOTAL 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	1	219	2.283	1	219	1.370	1	219	3.653
07:00 - 08:00	1	219	5.479	1	219	5.936	1	219	11.415
08:00 - 09:00	1	219	15.982	1	219	11.872	1	219	27.854
09:00 - 10:00	1	219	15.982	1	219	19.635	1	219	35.617
10:00 - 11:00	1	219	15.068	1	219	15.982	1	219	31.050
11:00 - 12:00	1	219	12.785	1	219	13.699	1	219	26.484
12:00 - 13:00	1	219	12.785	1	219	9.589	1	219	22.374
13:00 - 14:00	1	219	9.589	1	219	10.959	1	219	20.548
14:00 - 15:00	1	219	8.676	1	219	7.306	1	219	15.982
15:00 - 16:00	1	219	10.502	1	219	7.763	1	219	18.265
16:00 - 17:00	1	219	10.502	1	219	11.872	1	219	22.374
17:00 - 18:00	1	219	11.416	1	219	15.068	1	219	26.484
18:00 - 19:00	1	219	8.676	1	219	9.132	1	219	17.808
19:00 - 20:00	1	219	9.589	1	219	6.849	1	219	16.438
20:00 - 21:00	1	219	5.479	1	219	6.849	1	219	12.328
21:00 - 22:00	1	219	2.740	1	219	3.653	1	219	6.393
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			157.533			157.534			315.067

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: 219 - 219 (units: sqm)
 Survey date range: 01/01/14 - 15/05/22
 Number of weekdays (Monday-Friday): 1
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 3

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

Calculation Reference: AUDIT-111301-230222-0204

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
 Category : J - DRIVE THROUGH COFFEE SHOP
TOTAL VEHICLES

Selected regions and areas:

09 NORTH
 CB CUMBRIA 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: Gross floor area
 Actual Range: 210 to 210 (units: sqm)
 Range Selected by User: 125 to 420 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 15/05/22

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:

Saturday 1 days

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

Selected survey types:

Manual count 1 days
 Directional ATC Count 0 days

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

Selected Locations:

Edge of Town 1

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

Selected Location Sub Categories:

No Sub Category 1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included X days - Selected
 Servicing vehicles Excluded 3 days - Selected

Secondary Filtering selection:

Use Class:

Not Known 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 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:

1,001 to 5,000 1 days

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

Population within 5 miles:

75,001 to 100,000 1 days

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

Car ownership within 5 miles:

1.1 to 1.5 1 days

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

Travel Plan:

No 1 days

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

PTAL Rating:

No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1	CB-06-J-01	COSTA COFFEE	CUMBRIA
	PARKHOUSE ROAD		
	CARLISLE		
	GATEWAY 44		
	Edge of Town		
	No Sub Category		
	Total Gross floor area:	210 sqm	
	Survey date: SATURDAY	16/10/21	Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BO-06-J-01	COVID
GS-06-J-01	COVID

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/J - DRIVE THROUGH COFFEE SHOP
 TOTAL 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	1	210	5.238	1	210	4.762	1	210	10.000
07:00 - 08:00	1	210	5.238	1	210	4.762	1	210	10.000
08:00 - 09:00	1	210	14.762	1	210	13.810	1	210	28.572
09:00 - 10:00	1	210	21.429	1	210	20.476	1	210	41.905
10:00 - 11:00	1	210	27.619	1	210	23.333	1	210	50.952
11:00 - 12:00	1	210	24.286	1	210	26.190	1	210	50.476
12:00 - 13:00	1	210	25.238	1	210	25.238	1	210	50.476
13:00 - 14:00	1	210	27.143	1	210	25.714	1	210	52.857
14:00 - 15:00	1	210	25.714	1	210	25.238	1	210	50.952
15:00 - 16:00	1	210	20.952	1	210	22.857	1	210	43.809
16:00 - 17:00	1	210	14.762	1	210	13.333	1	210	28.095
17:00 - 18:00	1	210	16.190	1	210	20.000	1	210	36.190
18:00 - 19:00	1	210	5.714	1	210	6.667	1	210	12.381
19:00 - 20:00	1	210	0.000	1	210	1.905	1	210	1.905
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		234.285			234.285			468.570	

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: 210 - 210 (units: sqm)
 Survey date range: 01/01/14 - 15/05/22
 Number of weekdays (Monday-Friday): 0
 Number of Saturdays: 1
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 2

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.

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