## A3100 London Rd, Stoke Park - Parking Analysis



## Aim

- Purpose:
- To understand typical vehicle parking behaviour on the A3100 London Rd Guildford, adjacent to Stoke Park, and the surrounding area.
- Objectives:
- Determine the classifications of vehicles parking
- Identify the purpose of vehicles occupying parking bays
- Determine the parking occupancy in time and quantity
- Outcome:
- To understand typical parking bay usage on A3100 London Rd Guildford, adjacent to Stoke Park and the impact of displaced vehicles on nearby parking bays.


## Methodology

- A mixture of survey techniques was used on a single Saturday and neutral weekday, Tuesday, in July 2022.
- A video survey of parking bays on A3100 London Rd, adjacent to Stoke Park was conducted from 00:00 through to 24:00 on each day, at minute intervals. Capturing the vehicle classification, probable purpose, bay location, arrival and departure time and therefore the duration of stay.
- A parking beat survey was conducted on nearby parking bays from 07:00 through to 19:00 on each day at hourly intervals. Partial number plates were recorded resulting in an hourly count of vehicles on each identified parking facility.
- A parking questionnaire was completed on the neutral weekday only from 07:00 through to 19:00 for the parking bays on A3100 London Rd Guildford, adjacent to Stoke Park. These were completed to ascertain the purpose of the visit, duration of stay and frequency of using these parking bays.
- Vehicle classification follows the COBA 7 class scheme which is predominantly used as standard in the UK. Useful information relating to these classes can be found in the following links. COBA 7 Vehicle Categories.pdf , Classification Scheme Examples .


## Study Area

The outer cordon is marked by the black line and identifies the parking beat survey area. All parking bays within this area are within a 10 minute walk of the A3100 London Rd parking bays which are identified by the light blue shaded area.

## Click here for TRO map view



## A3100 London Rd Video

Survey Site Plan


## Parking by Classification

Saturday Parking Count by Vehicle Classification


| Location | Car | LGV | MC | Grand Total |
| :--- | :---: | :---: | :---: | :---: |
| 1-PH/PB | 56 | 1 |  | 57 |
| 2-PH/PB | 49 | 2 | 1 | 52 |
| 5-PH/PB | 38 | 1 |  | 39 |
| 6-PH/PB | 13 | 1 |  | 14 |
| 7-PH/PB | 44 | 1 |  | 45 |
| 8-DIS | 19 | 2 |  | 21 |
| Grand Total | $\mathbf{2 1 9}$ | $\mathbf{8}$ | $\mathbf{1}$ | $\mathbf{2 2 8}$ |

Weekday Parking Count by Vehicle Classification


| Location | Car | LGV | MC | PSV | Grand Total |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 1-PH/PB | 48 | 1 | 4 | 1 | 54 |
| 2-PH/PB | 48 | 4 | 1 |  | 53 |
| 5-PH/PB | 26 | 2 |  |  | 28 |
| 6-PH/PB | 10 | 1 |  |  | 11 |
| 7-PH/PB | 46 |  |  | 46 |  |
| 8-DIS | 16 | 4 | 3 | 1 | 24 |
| Grand Total | $\mathbf{1 9 4}$ | $\mathbf{1 2}$ | $\mathbf{8}$ | $\mathbf{2}$ | $\mathbf{2 1 6}$ |
|  | $\mathbf{9 0 \%}$ | $\mathbf{6 \%}$ | $\mathbf{4 \%}$ | $\mathbf{1 \%}$ |  |
|  |  |  |  |  |  |

- The majority of vehicles using the parking bays were cars; Saturday $96 \%$ and on a weekday $90 \%$.
- Total numbers of vehicles on Saturday (228) and the weekday were similar (216).


## Duration and Purpose



Weekday Average Duration and Purpose


| Average of Duration (hh:mm:ss) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Arrival Time of Day (h) | Loading/u nloading | Maintenan ce | No activity | Parcel pick up/drop off | Parking | Passenger pick up/drop off | Waiting |
| 07 | 00:00:00 | 00:00:00 | 00:00:00 | 00:00:00 | 02:39:38 | 00:00:00 | 00:00:00 |
| 08 | 00:00:00 | 00:00:00 | 00:00:13 | 00:00:00 | 02:47:46 | 00:00:21 | 00:03:39 |
| 09 | 00:00:00 | 00:00:00 | 00:00:00 | 00:00:00 | 02:05:46 | 00:01:51 | 00:00:00 |
| 10 | 00:00:00 | 00:00:00 | 00:00:26 | 00:00:00 | 02:03:34 | 00:02:16 | 00:04:15 |
| 11 | 00:00:00 | 00:00:00 | 00:00:00 | 00:00:00 | 02:09:02 | 00:00:00 | 00:00:00 |
| 12 | 00:06:33 | 00:00:00 | 00:02:31 | 00:00:00 | 02:02:03 | 00:00:00 | 00:00:00 |
| 13 | 00:00:00 | 00:00:00 | 00:00:00 | 00:00:00 | 02:33:43 | 00:00:59 | 00:02:39 |
| 14 | 00:00:00 | 00:00:00 | 00:00:35 | 00:00:00 | 01:52:36 | 00:00:00 | 00:02:39 |
| 15 | 00:00:00 | 00:00:00 | 00:00:00 | 00:00:00 | 01:06:50 | 00:00:00 | 00:02:58 |
| 16 | 00:00:00 | 00:00:00 | 00:17:20 | 00:00:00 | 00:50:46 | 00:00:55 | 00:00:00 |
| 17 | 00:00:00 | 00:02:36 | 00:01:46 | 00:00:00 | 01:24:15 | 00:00:48 | 00:00:00 |
| 18 | 00:00:00 | 00:00:00 | 00:00:00 | 00:04:55 | 01:02:58 | 00:00:00 | 00:03:40 |
| Grand Total | 00:06:33 | 00:02:36 | 00:03:48 | 00:04:55 | 01:57:18 | 00:01:12 | 00:03:08 |

## Average of Duration (hh:mm:ss)

| Arrival Time of Day ( $\mathbf{h}$ ) | No activity | Parking | Passenger pick <br> up/drop off | Waiting |
| :---: | :---: | :---: | :---: | :---: |
| 07 | $00: 00: 00$ | $08: 13: 53$ | $00: 00: 00$ | $00: 00: 00$ |
| 08 | $00: 00: 40$ | $02: 20: 56$ | $00: 00: 00$ | $00: 00: 00$ |
| 09 | $00: 00: 26$ | $01: 31: 23$ | $00: 00: 00$ | $00: 02: 17$ |
| 10 | $00: 00: 32$ | $01: 41: 27$ | $00: 00: 00$ | $00: 00: 00$ |
| 11 | $00: 00: 40$ | $01: 28: 47$ | $00: 00: 00$ | $00: 03: 03$ |
| 12 | $00: 02: 06$ | $01: 19: 48$ | $00: 00: 40$ | $00: 00: 00$ |
| 13 | $00: 01: 15$ | $01: 07: 45$ | $00: 00: 00$ | $00: 03: 21$ |
| 14 | $00: 01: 12$ | $02: 26: 23$ | $00: 00: 00$ | $00: 01: 18$ |
| 15 | $00: 04: 38$ | $00: 42: 59$ | $00: 00: 00$ | $00: 02: 23$ |
| 16 | $00: 00: 00$ | $02: 40: 52$ | $00: 00: 00$ | $00: 00: 00$ |
| 17 | $00: 01: 45$ | $00: 53: 02$ | $00: 01: 46$ | $00: 00: 56$ |
| 18 | $00: 00: 00$ | $01: 25: 33$ | $00: 01: 22$ | $00: 00: 42$ |
| Grand Total | $\mathbf{0 0 : 0 1 : 1 1}$ | $\mathbf{0 3 : 1 1 : 2 3}$ | $\mathbf{0 0 : 0 1 : 0 6}$ | $\mathbf{0 0 : 0 2 : 0 7}$ |

- Parking is the largest proportion of purpose on both Saturday and weekday. With Saturday parking averaging around 2 hours and weekday parking around 3 hours.
- There were 9 vehicles that parked for more than 7 hours on the weekday arriving between 07:00 and 08:00, compared with only 2 vehicles on Saturday. This does skew the average hours parked on the weekday.
- On Saturday the average parking time was around 2 hours arriving between 07:00 to 14:00. This drops to around 1 hour when arriving after 14:00.
- On the weekday the average parking time was around 1 hour 30 min between 08:00 and 13:00. There are then periods of parking duration around 2 hours 30 min after this.


## Parking Occupancy

Parking Bay Occupancy


- Parking Occupancy is similar on both Saturday and the weekday.
- Saturday has a slight delay in the trend compared to the weekday approaching maximum capacity ( 48 spaces).
- Saturday maintains close to maximum capacity throughout the central part of the day.
- The weekday had an increase in occupancy again in the evening between 19:00 and 21:00.

|  | Saturday | Weekday |
| ---: | :---: | :---: |
| 24hr Parking Bay Occupancy | $57.2 \%$ | $53.3 \%$ |
| 12hr Parking Bay Occupancy |  |  |
| (7am-7pm) | $63.8 \%$ | $61.2 \%$ |

- Over 24 hrs (00:00-24:00) Parking bays were occupied $57.2 \%$ of the day on Saturdays and $53.3 \%$ on a weekday.
- Over 12 hrs (07:00-19:00) Parking bays were occupied $63.8 \%$ of the day on Saturdays and $61.2 \%$ on a weekday.


## Parking Availability within 10 min Walk

- The parking beat survey was conducted hourly between 07:00-19:00 on Saturday and Tuesday on roads within a 10 minute walk from the London Rd parking bays adjacent to Stoke Park. A summary of the findings are noted below, with the available parking bay counts on the following slide (Slide number 9).
- Total Parking Availability is similar on both Saturday and the weekday.
- 3 Disabled spaces and a car club space are located on this section of London Rd; the disabled spaces were used frequently throughout the day but the car club space was not occupied at any point.


## Saturday

- There were a greater number of available parking bays along Ennismore Ave (along the more residential part of the road that runs parallel to London Rd) on Saturday than there were on the weekday.
- The fewest number of total available bays (25) on Saturday within a 10 minute walk from London Rd parking bays was at 12:00.
- The greatest number of total available bays within a 10 minute walk from London Rd parking bays ( 50 ) on a Saturday was at 18:00.


## Weekday

- Avonmore Ave typically had a few more available bays on a weekday than Saturday and Berkley Crt had a few less.
- The fewest number of total available bays (28) on a weekday within a 10 minute walk from London Rd parking bays occurred at multiple times between 09:00 and 15:00.
- The greatest number of total available bays within a 10 minute walk from London Rd parking bays (46) on a weekday was at 17:00.
Q. What is the impact if all of the London Rd parking bays adjacent to Stoke Park were unavailable?
A. There is an insufficient number of available spaces on roads within a $5-10 \mathrm{~min}$ walk to accommodate all of the displaced vehicles. This can be observed during the period of 08:00-17:00 where an additional 19 barking bays would be required to accommodate displaced vehicles. In the evenings, through the night and into early morning there is sufficient available parking bays within a $5-10 \mathrm{~min}$ walk to accommodate any displaced vehicles. Slide 10 visualises this. The number of recorded total available spaces within a 5-10 minute walk are shown in orange and red, the maximum number of parked cars on London Rd adjacent to Stoke Park are shown in blue, and the number of spaces that would be available or be required if cars parked on London Rd were displaced to bays within a 5-10 minute walk are shown in grey.


## Parking Availability within 10 min Walk

| Saturday <br> Available <br> Spaces: |  | Parking availability within a 5 min walk |  |  |  |  | Parking availability within a 5-10min walk |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Time | Berkley Crt | Ennismore Ave <br> (1) | Ennismore Ave <br> (2) | Avonmore Ave | Total Available Spaces | Cross Lanes | Hilgay | Clandon Rd (East) | Lower Edgeborough Rd | Nightingale Rd | Total Available Spaces |
|  | 07:00 | 4 | 10 | 9 | 8 | 31 | 4 | 1 | 6 | 3 | 4 | 18 |
|  | 08:00 | 4 | 10 | 11 | 4 | 29 | 2 | 2 | 4 | 1 | 4 | 13 |
|  | 09:00 | 4 | 10 | 10 | 4 | 28 | 1 | 3 | 2 | 1 | 3 | 10 |
|  | 10:00 | 4 | 8 | 12 | 4 | 28 | 0 | 3 | 2 | 1 | 4 | 10 |
|  | 11:00 | 3 | 3 | 13 | 1 | 20 | 1 | 3 | 2 | 1 | 4 | 11 |
|  | 12:00 | 4 | 3 | 10 | 0 | 17 | 1 | 1 | 1 | 1 | 4 | 8 |
|  | 13:00 | 3 | 8 | 9 | 7 | 27 | 0 | 1 | 1 | 2 | 4 | 8 |
|  | 14:00 | 3 | 7 | 9 | 5 | 24 | 1 | 1 | 2 | 1 | 3 | 8 |
|  | 15:00 | 4 | 5 | 9 | 5 | 23 | 0 | 1 | 0 | 1 | 3 | 5 |
|  | 16:00 | 4 | 5 | 9 | 8 | 26 | 0 | 1 | 3 | 3 | 3 | 10 |
|  | 17:00 | 3 | 10 | 9 | 10 | 32 | 0 | 2 | 6 | 4 | 4 | 16 |
|  | 18:00 | 3 | 10 | 10 | 11 | 34 | 0 | 2 | 6 | 4 | 4 | 16 |
|  | Average | 4 | 7 | 10 | 6 | 27 | 1 | 2 | 3 | 2 | 4 | 11 |
|  | SD | 0.5 | 2.8 | 1.3 | 3.3 | 4.9 | 1.2 | 0.9 | 2.1 | 1.2 | 0.5 | 3.9 |
| Weekday Available Spaces: |  | Parking availability within a 5 min walk |  |  |  |  | Parking availability within a 5-10min walk |  |  |  |  |  |
|  | Time | Berkley Crt | Ennismore Ave <br> (1) | Ennismore Ave <br> (2) | Avonmore Ave | Total Available Spaces | Cross Lanes | Hilgay | Clandon Rd (East) | Lower Edgeborough Rd | Nightingale Rd | Total Available Spaces |
|  | 07:00 | 2 | 11 | 7 | 6 | 26 | 4 | 1 | 1 | 2 | 3 | 11 |
|  | 08:00 | 3 | 9 | 6 | 6 | 24 | 2 | 1 | 1 | 2 | 3 | 9 |
|  | 09:00 | 2 | 7 | 5 | 7 | 21 | 1 | 4 | 1 | 1 | 0 | 7 |
|  | 10:00 | 0 | 8 | 7 | 7 | 22 | 0 | 2 | 2 | 1 | 4 | 9 |
|  | 11:00 | 3 | 8 | 6 | 7 | 24 | 1 | 0 | 1 | 1 | 1 | 4 |
|  | 12:00 | 0 | 9 | 6 | 7 | 22 | 1 | 2 | 3 | 1 | 2 | 9 |
|  | 13:00 | 0 | 6 | 5 | 9 | 20 | 0 | 3 | 1 | 1 | 3 | 8 |
|  | 14:00 | 2 | 6 | 8 | 7 | 23 | 1 | 2 | 2 | 0 | 2 | 7 |
|  | 15:00 | 0 | 6 | 4 | 10 | 20 | 0 | 3 | 3 | 1 | 1 | 8 |
|  | 16:00 | 1 | 8 | 5 | 13 | 27 | 0 | 1 | 3 | 3 | 3 | 10 |
|  | 17:00 | 1 | 11 | 9 | 13 | 34 | 0 | 3 | 3 | 3 | 3 | 12 |
|  | 18:00 | 3 | 12 | 9 | 9 | 33 | 0 | 1 | 5 | 3 | 3 | 12 |
|  | Average | 1 | 8 | 6 | 8 | 25 | 1 | 2 | 2 | 2 | 2 | 9 |
|  | SD | 1.2 | 2.1 | 1.6 | 2.5 | 4.7 | 1.2 | 1.2 | 1.3 | 1.0 | 1.2 | 2.3 |

## Displaced Vehicles Parking Availability

Saturday Displaced Parking Availability



