London Borough of Bromley

Town Centre Parking Study

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This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

Issue	Date	Prepared by	Checked by	Approved by
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Comments

Comments

Disclaimer

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1. Introduction

1.1 General

Waterman Infrastructure & Environment Ltd (Waterman) has been instructed by the London Borough of Bromley (LBB) to review the existing parking provision within the town centre. The review considers both on street and off-street parking based on data held by LBB.

1.2 Objectives

The objectives of the study are detailed below:

- Review the pre- and post-COVID parking usage within the town centre;
- Review potential parking demand; and
- Review the potential to reduce parking provision.

1.3 Document Structure

Following this introduction, the document is structured as follows:

- Section 2: Off-street Parking;
- Section 3: On-street Parking;
- Section 4: Future Demand Review;
- Section 5: Combined Usage; and
- Section 6: Conclusions & Next Steps.

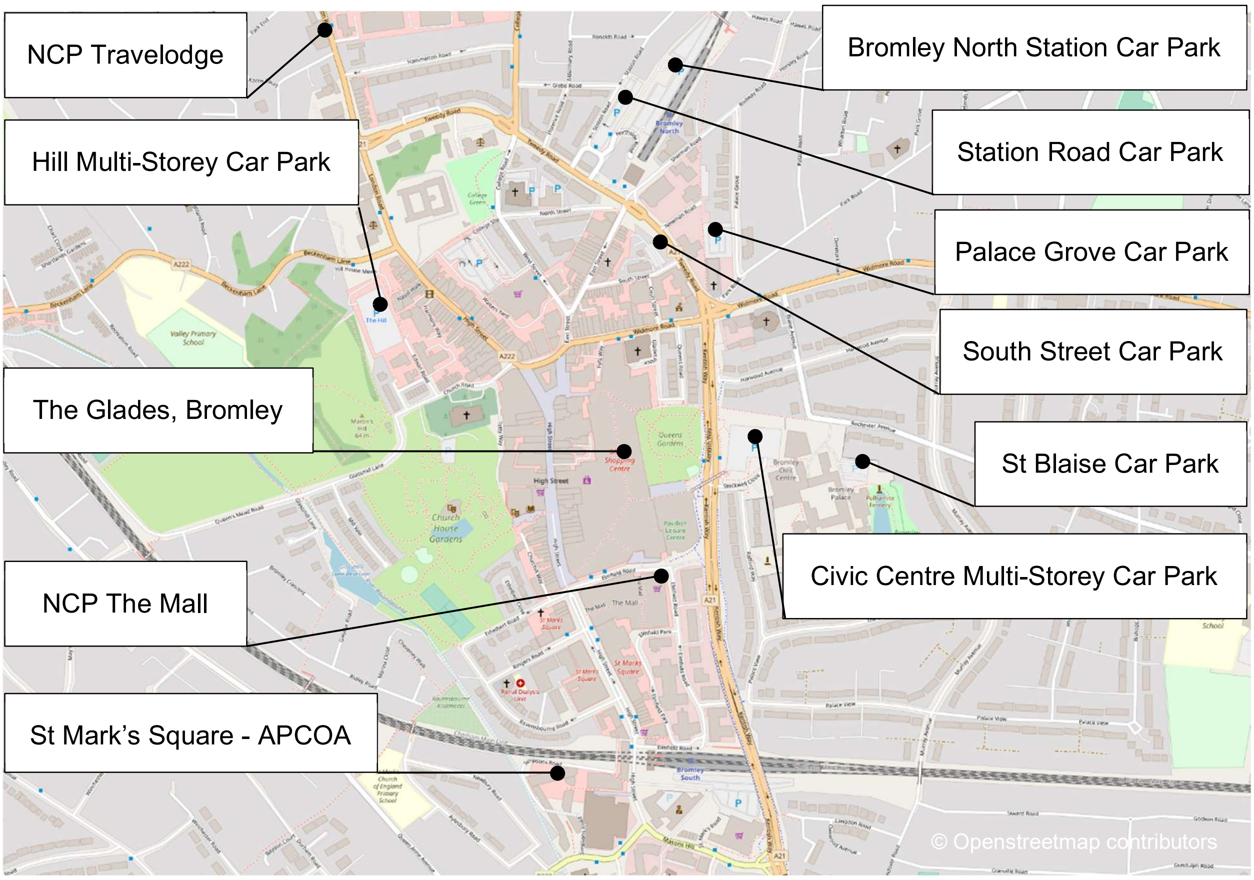
2. Off-street Parking

2.1 Existing car parks

2.1.1 Off-Street Car Park Locations

The off-street car park locations are shown on the figure below.

Figure 1: Car Park Locations



The off-street car parks within Bromley Town Centre are a combination of those operated by LBB and private operators. Car parks operated by LBB include:

- Civic Centre;
- The Hill;
- Mitre Close;
- St Blaise; and
- Station Road.

The largest car parks which are located within the town centre, but not operated by LBB, are:

- The Glades;
- The Mall (NCP); and

- St Mark's Square (APCOA Parking).

2.1.2 Car parking spaces

The number of spaces available for public parking are shown in the table below.

Table 1: Car Parking Spaces

Car Park	Spaces			Notes
	Mon - Fri	Sat – Sun	Disabled	
Civic Centre	491	691	19	Part used for COVID 19 vaccinations
The Hill	752	752	8	
Mitre Close	25	25	0	
St Blaise	0	120	3	
Station Road	83	83	2	
Palace Grove	0	97	2	
The Glades	1,140	1,500	64	
The Mall	255	255	2	
St Mark's	300	300	-	
Total	**3,046**	**3,823**	**100**	

2.1.3 Parking Charges

The parking charges and parking regime are summarised in the table below.

Table 2: Car Parking Charges

Car Park	Payment Method	Charges	Charges Apply
Civic Centre	24-hour Automatic Number Plate Recognition (ANPR)	7.30am to 6.29pm: £1.30 per hour, £14.00 for over 6 hours 6:30pm to 7.29am: single charge of £1.30	Monday to Sunday, 24 hours
The Hill	24 hour pay on foot car park	7.30am to 6.29pm: £1.30 per hour, £5.20 for over 3 hours, 6:30pm to 7.29am: single charge of £1.30	Monday to Sunday, 24 hours
Mitre Close	Pay and display surface car park	£1.30 per hour, £5.20 maximum	8.30am to 6.30pm, Monday to Sunday
St Blaise	Pay and display surface car park (weekend only)	£1.10 per hour, £5.20 over 4 hours	8.30am to 6.30pm, Saturday and Sunday only
Station Road	Pay and display surface car park	£1.30 per hour, £5.20 maximum	8.30am to 6.30pm, Monday to Sunday
Palace Grove	Pay and display surface car park	£1.30 per hour, £5.20 maximum	8.30am to 6.30pm, Saturday and Sunday only

2.2 Historical Usage Trends

Historical usage data have been provided between April 2014 and July 2021 for the following four car parks:

- Station Road;
- Palace Grove;
- St Blaise; and
- Mitre Close.

A summary for each car park is provided in the following sections and the data is within Appendix A.

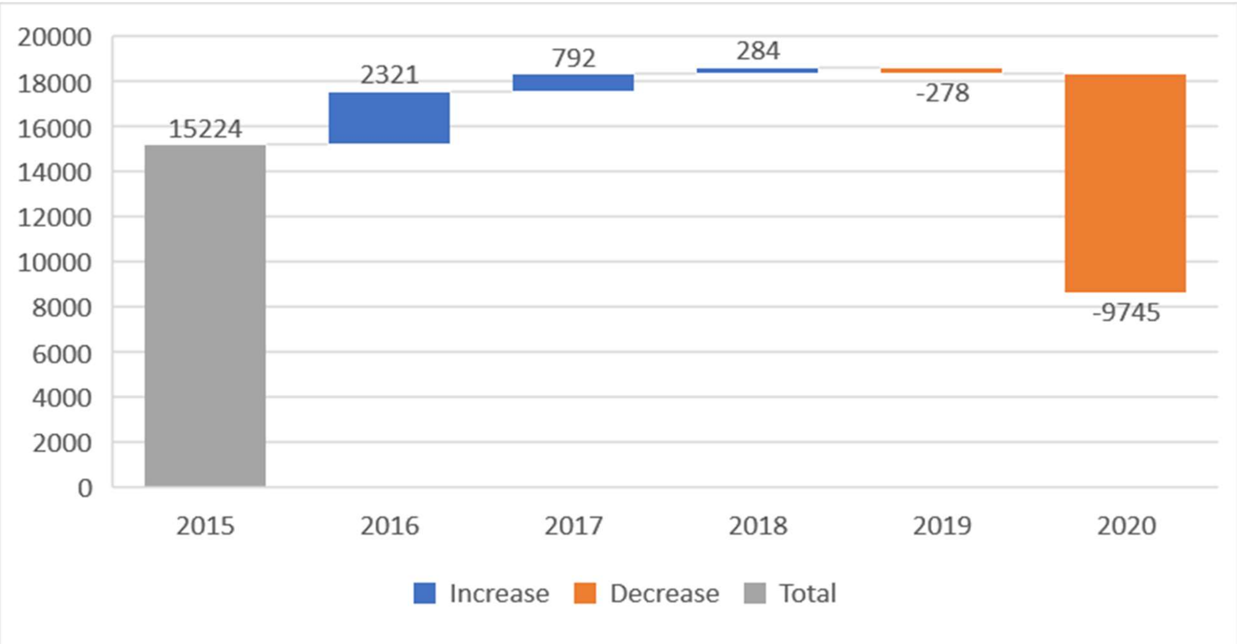
2.2.1 Station Road Car Park

Initial analysis of the car park usage has been undertaken on an annual basis for complete calendar years of data (2015-2020) within the above period. The table below summarises the data with the annual percentage change compared to the previous year. The annual usage figures are shown in Figure 2.

Table 3: Station Road Car Park Annual Usage

Year	Total Annual Usage	Percentage Change
2015	15,224	-
2016	17,545	+ 15.3%
2017	18,337	+ 4.5%
2018	18,621	+ 1.6%
2019	18,343	- 1.5%
2020	8,598	- 53.1%

Figure 2: Station Road Car Park Annual Flows

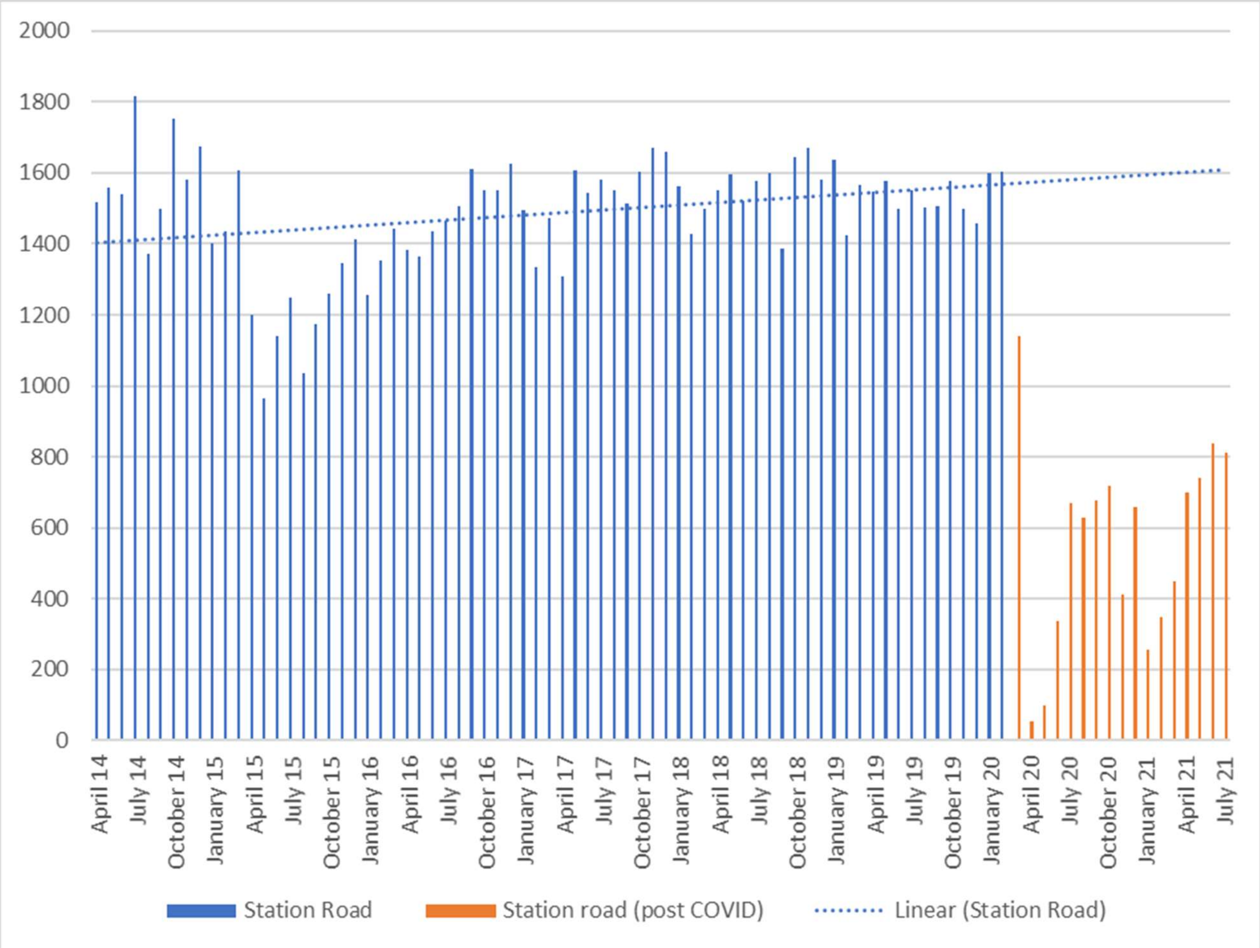


The table and figure above show the following key points:

- Large increase (from 15,224 to 17,545 or 15%) in usage between 2015 and 2016;
- Relatively steady usage between 2017 and 2019, with growth stalling at 1.5% in 2018 followed by a decline on 1.5% in 2019; and
- Significant reduction in 2020, linked to the introduction of COVID 19 restrictions.

To understand the large increase between the 2015 and 2016 usage, the monthly data provided for the whole period has been reviewed and summarised in the following figure.

Figure 3:Station Road Car Park Historical Trends



As can be seen from the figure above the car park has a reduction in usage during 2015 compared to the available data for 2014. The reason for this reduction is unknown but indicates to the large increase between 2015 and 2016 being more likely a return to normal conditions instead.

2.2.2 Palace Grove

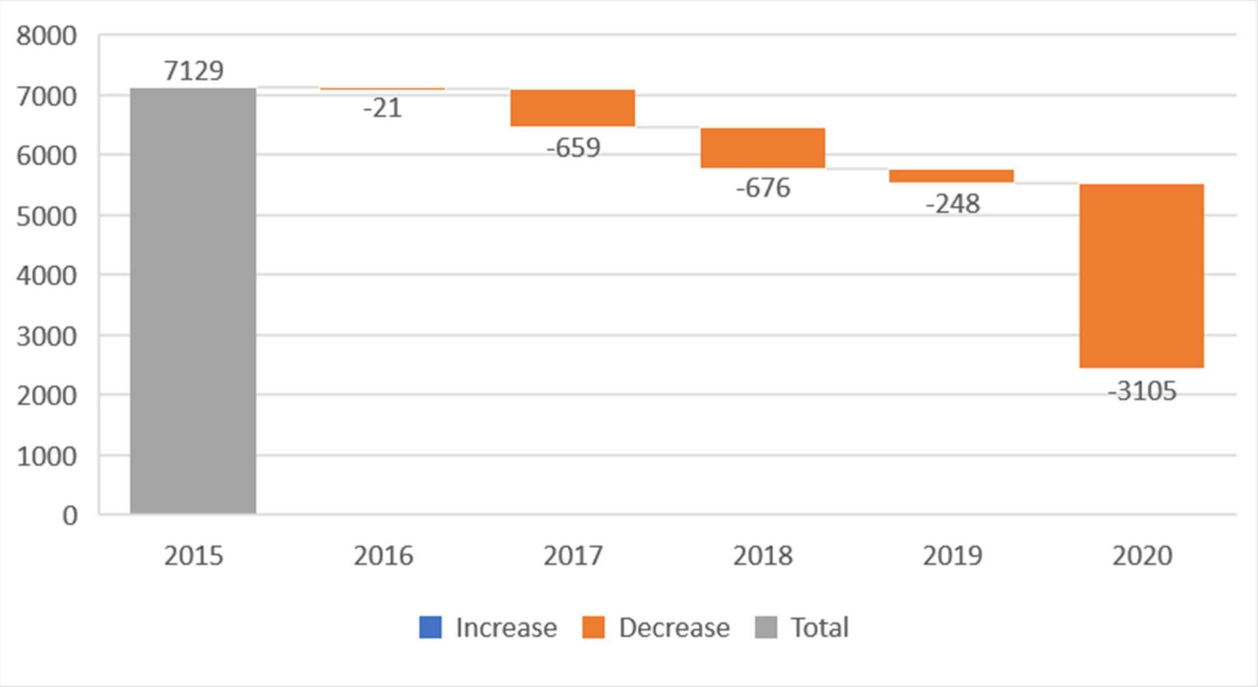
Initial analysis of the car park usage has been undertaken on an annual basis for complete years of data (2015-2020). The table below summarises the data with the annual percentage change compared to the previous year.

Table 4: Palace Grove Car Park Annual Usage

Year	Total Annual Usage	Percentage Change
2015	7,129	-
2016	7,108	-0.29%
2017	6,449	-9.27%
2018	5,773	-10.48%
2019	5,525	-4.30%
2020	2,420	-56.20%

The usage figures are also shown in the figure below with a trend line based on pre Covid data.

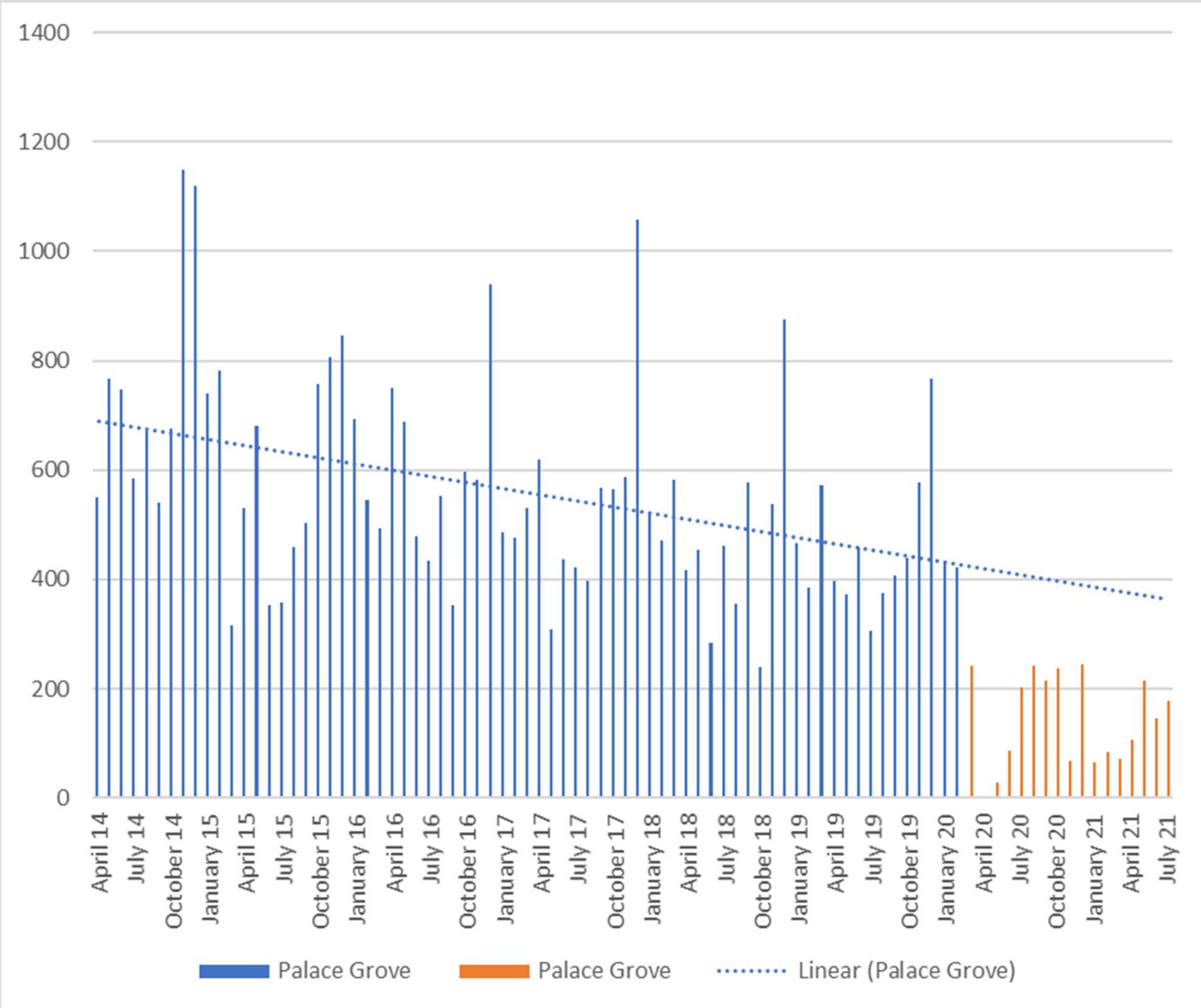
Figure 4: Palace Grove Car Park Annual Flows



As can be seen from the graph above during the period between 2015 and 2019 the car park usage sees a steep fall in use for 2017 (9%) and 2018 (10%) following by 4% in 2019 giving a total reduction of 22.5% over the period, showing the potential stabilisation starting to occur in the 2019 data (before Covid).

Due to the limited data available for 2021 the complete year could not be included in the Figure above; additional monthly analysis has been undertaken and is summarised in the Figure over the page.

Figure 5 Palace Grove Historical Trend



The 2021 usage levels have a significant reduction compared to the pre-Covid 2019 levels. The trend line shown is therefore based on the 2014 to 2019 data.

2.2.3 St Blaise

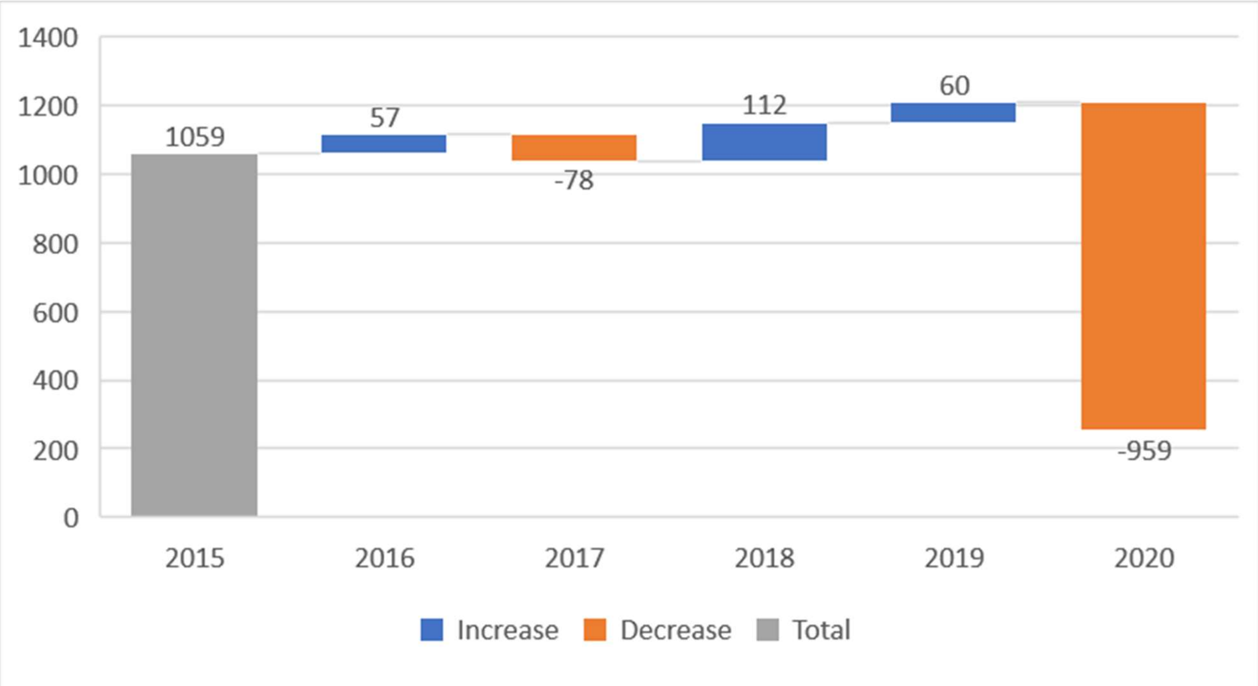
Initial analysis of the car park usage has been undertaken on an annual basis for complete years of data (2015-2020). The table below summarises the data with the annual percentage change compared to the previous year.

Table 5: St Blaise Car Park Annual Usage

Year	Total Usage	Percentage Increase
2015	1,059	-
2016	1,116	5.38%
2017	1,038	-6.99%
2018	1,150	10.79%
2019	1,210	5.22%
2020	251	-79.26%

The usage figures are also shown in the figure below with a trend line based on pre Covid data.

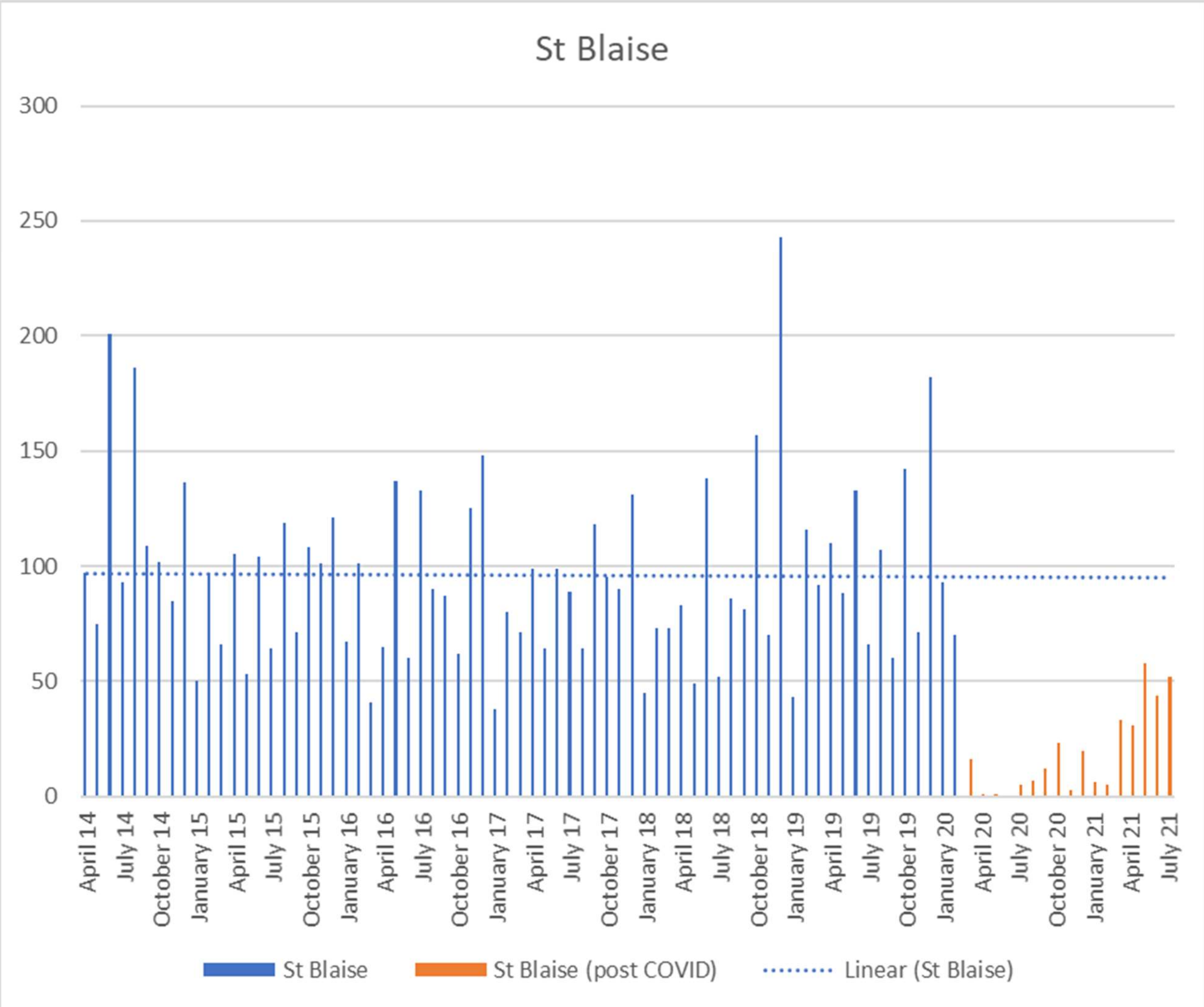
Figure 6: St Blaise Car Park Annual Flows



As can be seen from the graph above, during the period between 2015 and 2019 the car park usage sees a gradual increase, giving a total increase of 14.3% over the period. Some softening in the rate of increase is also observed in the 2019 data.

Additional monthly historical usage analysis has been undertaken based on available data and is summarised in the figure below.

Figure 7 St Blaise Historical Trend



Similar to Place Grove the 2021 parking levels are significantly reduced when compared to the pre-Covid 2019 levels.

2.2.4 Mitre Close

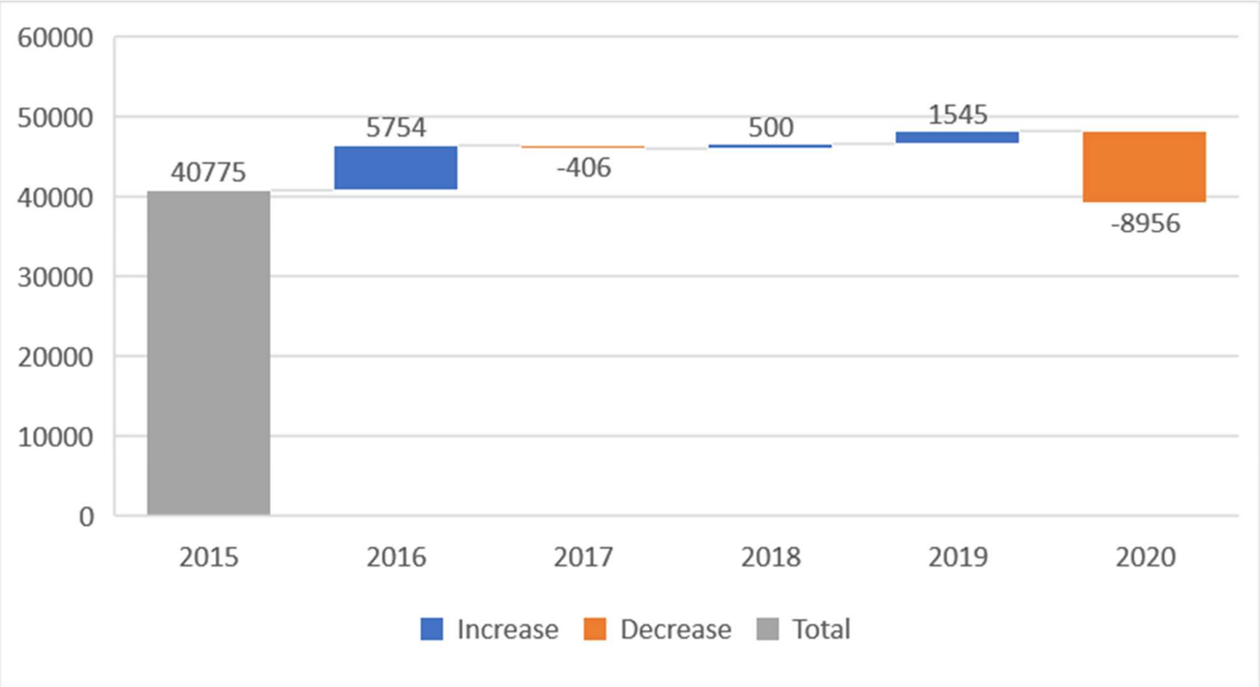
Initial analysis of the car park usage has been undertaken on an annual basis for complete years of data (2015-2020). The table below summarises the data with the annual percentage change compared to the previous year:

Table 6: Mitre Car Park Annual Usage

Year	Total Usage	Percentage Increase
2015	40,775	
2016	46,529	14.11%
2017	46,123	-0.87%
2018	46,623	1.08%
2019	48,168	3.31%
2020	39,212	-18.59%

The usage figures are also shown in the figure below with a trend line based on pre Covid data.

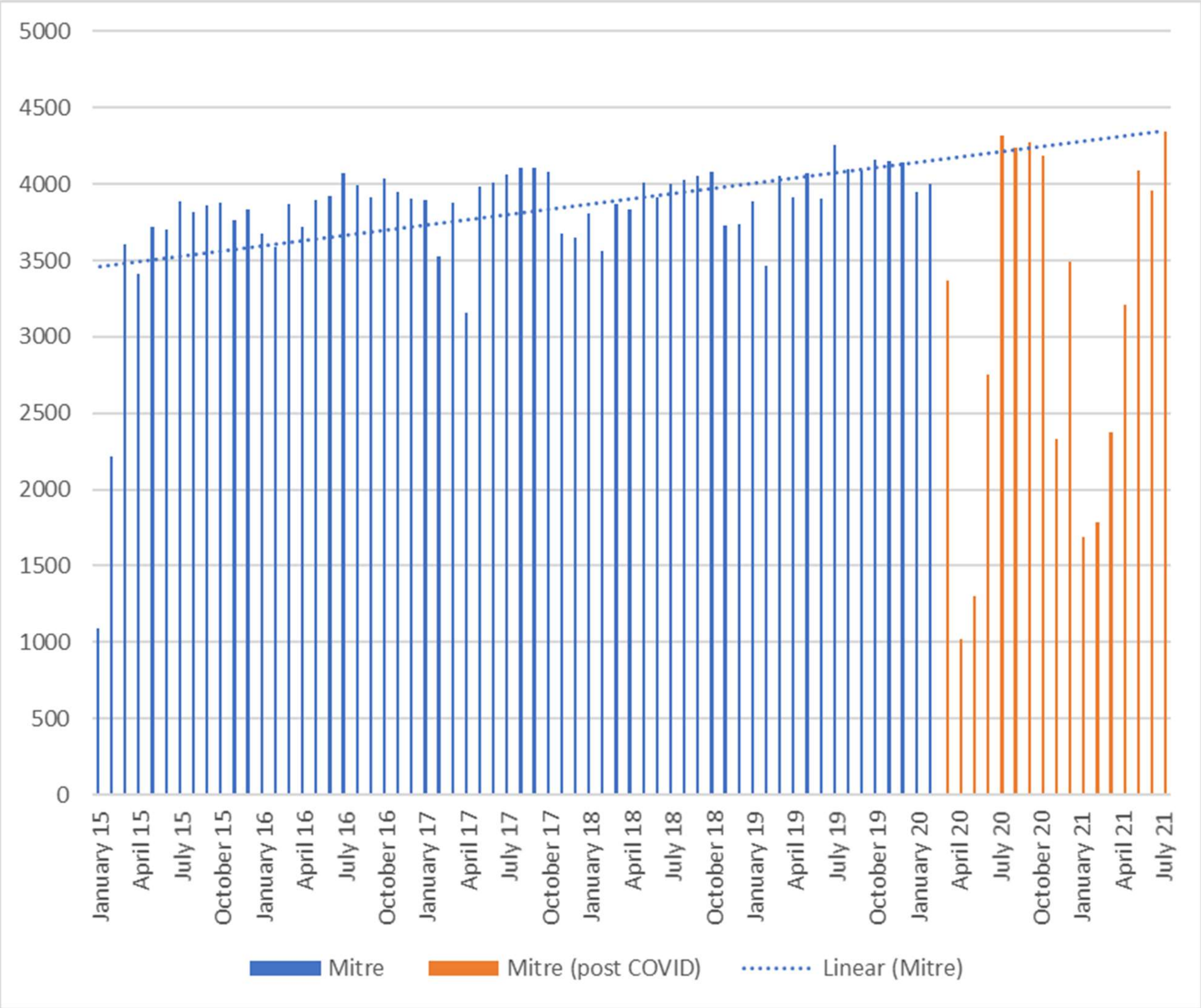
Figure 8: Mitre Close Car Park Annual Usage



Following an increase 14% between 2015 to 2016, the period between 2016 and 2019 the usage of the car park has seen a slight increase with a total increase of 1% over this period, with the highest use occurring in 2019.

Additional monthly historical usage analysis has been undertaken based on available data and is summarised in the figure below.

Figure 9: Mitre Close Historical Data



2.2.5 Combined Usage

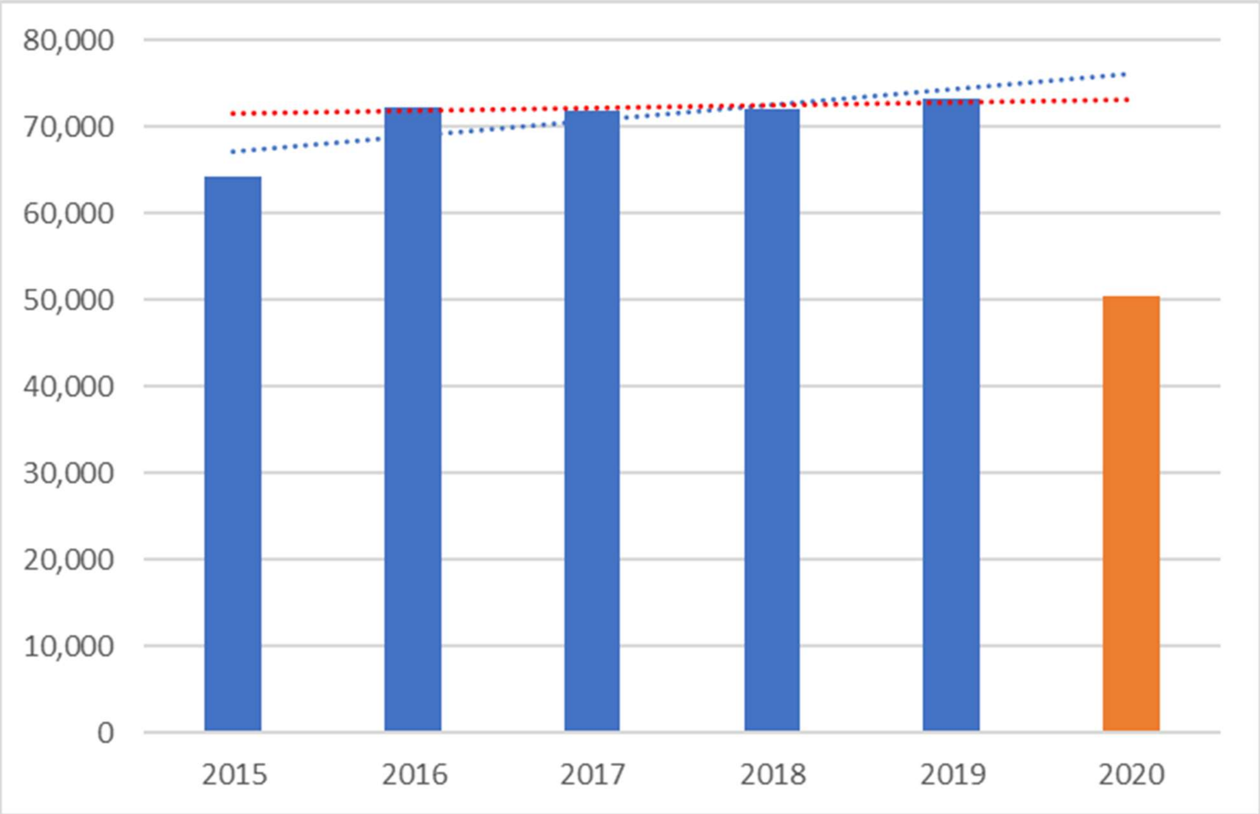
When the combined usage of the four car parks in assessed over the period, the usage and annual percentage increases are shown in the table below.

Table 7: Combined Historical usage

Year	Total Usage	Percentage Increase
2015	64,187	-
2016	72,298	12.64%
2017	71,947	-0.49%
2018	72,167	0.31%
2019	73,246	1.50%
2020	50,481	-31.08%

The usage figures are also shown in the figure below with a trend line based on pre Covid data.

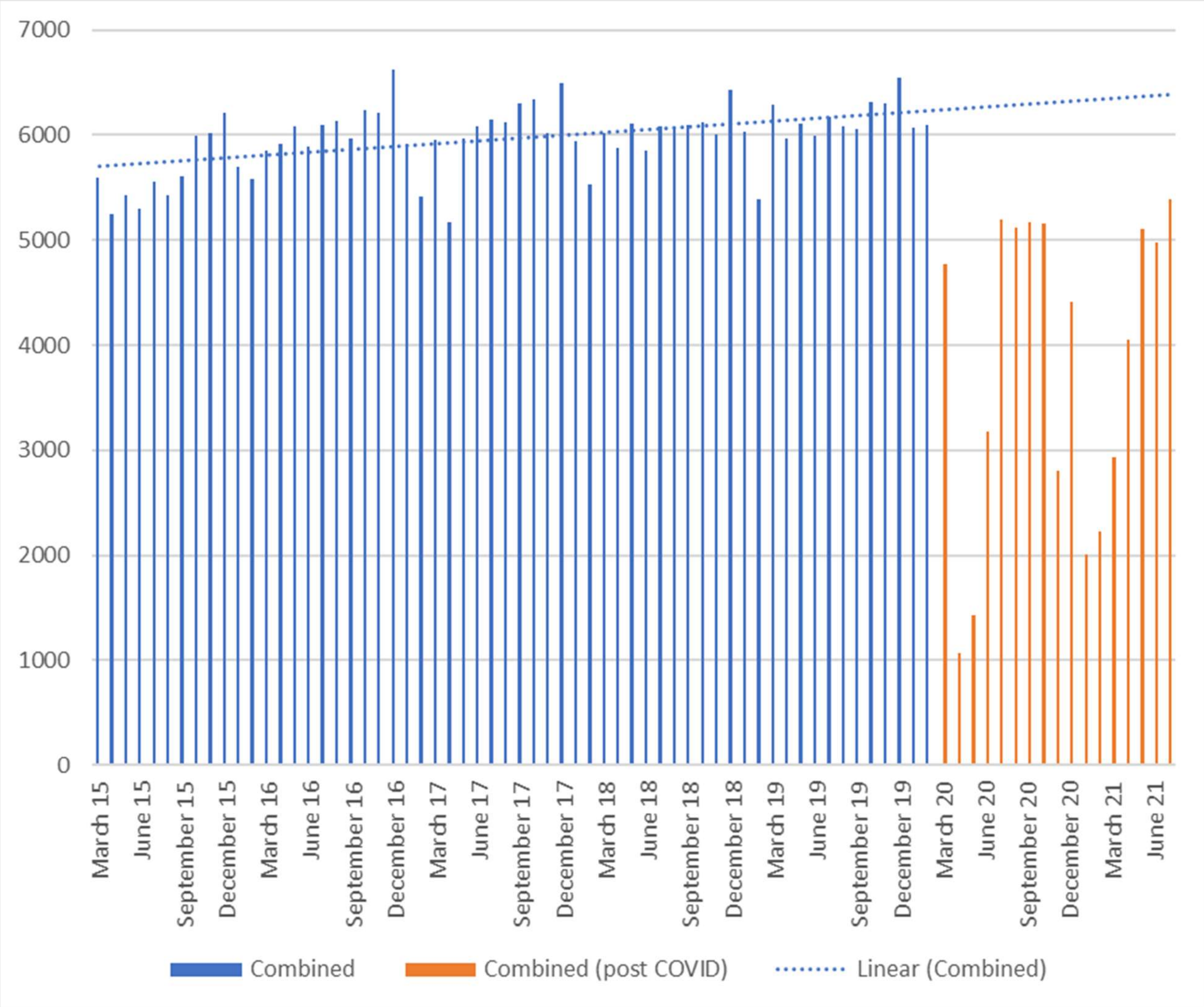
Figure 10: Combined Car Park Annual Usage



As can be seen in the figure above, 2015 data is affected by similar issues highlighted for the Station Road car park, which shows a considerable increase in users between 2015 and 2016. This is represented by an upward trend line (shown in blue in the figure above), which is based on the 2015 to 2019 data.

When 2015 is not considered, car park usage remains relatively constant between 2016 and 2019, with a slight increase over the period of 1.3%. The data shows a reasonably consistent trend of usage between 2016 and 2019 (shown by the red trend line in the figure above).

Figure 11: Combined Historical Trend



2.3 Seasonality Trends

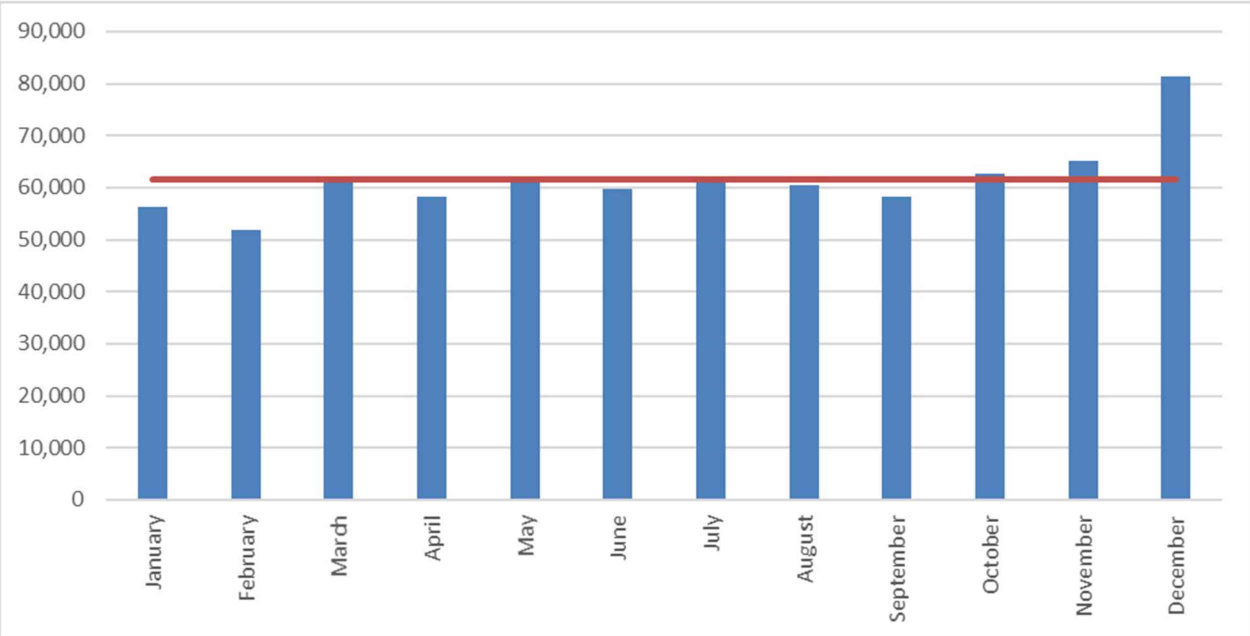
Based on the monthly usage data for 2019 the majority of car parks see a rise in usage during December, the monthly usage figures are shown in the table below.

Table 8: 2019 Seasonality

Month	Station Rd	Palace Gr	St Blaise	Mitre Cl	The Hill	Civic Ctr	Total
January	1,636	467	43	3,883	18,012	32,348	56,389
February	1,423	386	116	3,464	16,866	29,502	51,757
March	1,567	573	92	4,052	19,884	35,746	61,914
April	1,547	396	110	3,909	19,178	33,009	58,149
May	1,577	373	88	4,070	20,440	34,397	60,945
June	1,498	458	133	3,906	20,295	33,404	59,694
July	1,551	307	66	4,253	21,364	34,733	62,274
August	1,504	374	107	4,098	20,522	33,971	60,576
September	1,508	406	60	4,086	19,565	32,740	58,365
October	1,578	440	142	4,156	21,112	35,279	62,707
November	1,497	578	71	4,150	22,016	36,741	65,053
December	1,457	767	182	4,141	30,189	44,564	81,300
Total	**18,343**	**5,525**	**1,210**	**48,168**	**249,443**	**416,434**	**739,123**

The combined monthly totals are also shown in the figure below.

Figure 12: 2019 Monthly Usage



Overall, the December usage is 32% higher than the monthly average, the increase in December usage for each car park is shown below.

Table 9: 2019 December Comparison

Car Park	December percentage increase compared to average month
Station Road	-5%
Palace Grove	67%
St Blaise	80%
Mitre Close	3%
The Hill	45%
Civic Centre	28%
Overall	**32%**

December usage for Station Road car park has a reduction (5%) in usage compared to the monthly average and Mitre Close has a small increase of 3% indicating the likely usage by commuters. The percentage increase for St Blaise (80%) and Palace Grove (67%) are both against lower average usage of 101 and 460 respectively.

2.4 Occupancy Assessment

The methodology for the assessment of occupancy for the LBB car parks has been assessed based on the data available for each car park. The format of the available data for The Hill and Civic Centre car parks are different the other car parks due to the use of a different system for recording the data.

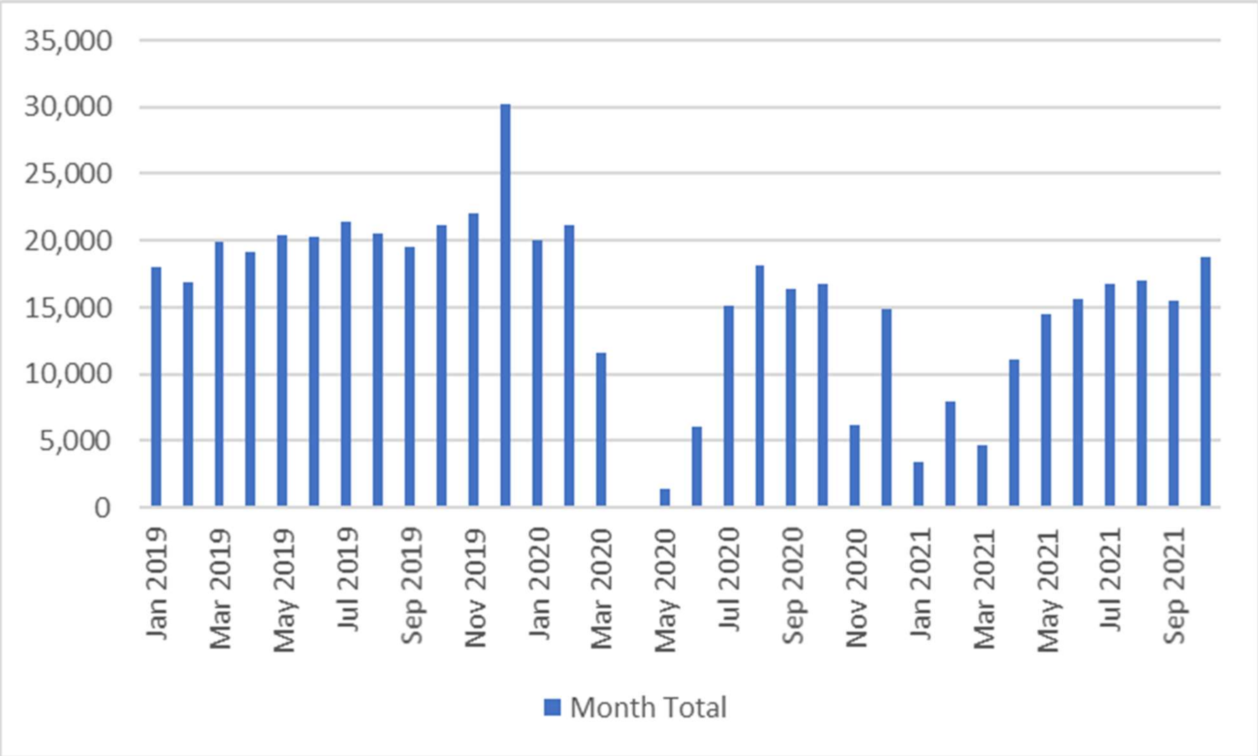
2.4.1 The Hill

Due to the operating system for The Hill car park, only monthly summarised data has been made available for the occupancy assessment. The data used for this assessment covers2019, 2020 and part of 2021; the data provided have been summarised below:

- Total monthly vehicles including profile of arrivals over the day; and
- Monthly duration of stay (number of vehicles in hourly time bands).

The monthly vehicle numbers have been used to produce the figure below.

Figure 13: The Hill Monthly Vehicles



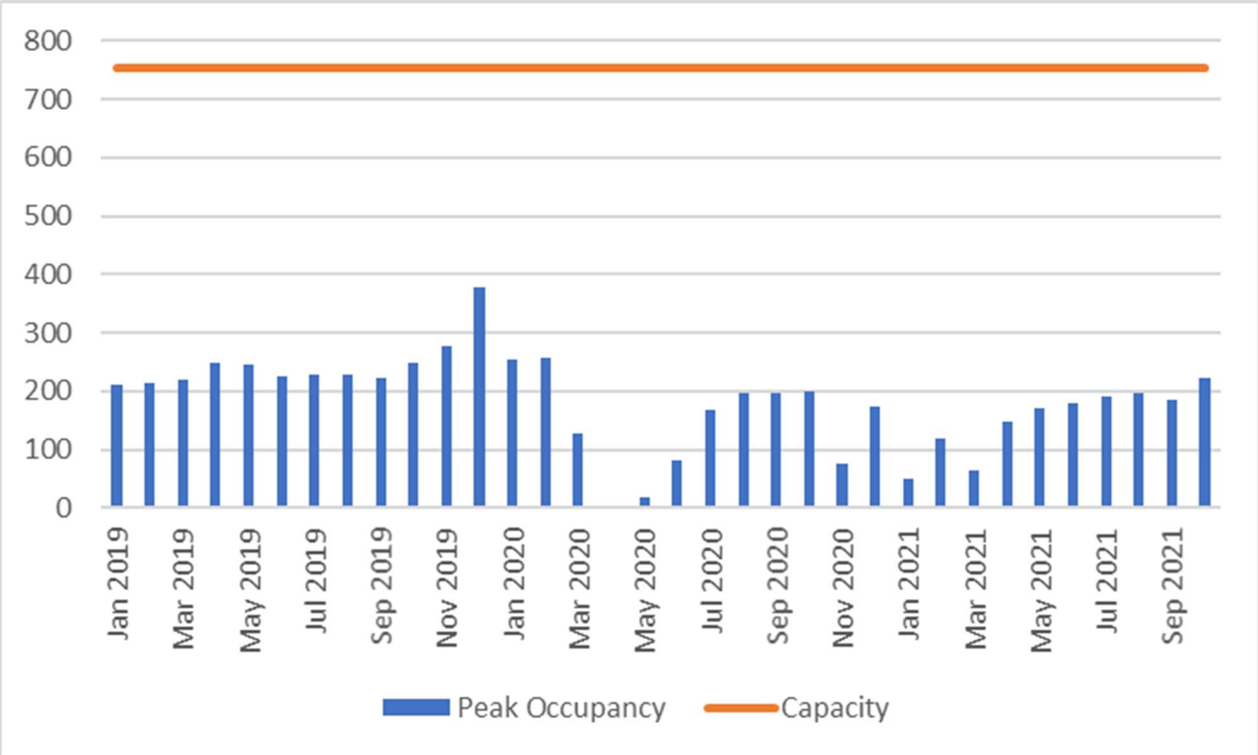
Combining the monthly total vehicles numbers, average duration of stay and car park capacity, the following figures have been produced.

As can be seen in the figure above, vehicle numbers using the car park were steady during 2019 with a Christmas-related peak in December. The 2020 figures were greatly affected by the two lockdowns and other COVID-related restrictions which explains the variation throughout the year.

During 2021 the total vehicles recovered to above 75% of 2019 levels from June onwards, with October reaching 89% of the October 2019 levels.

The occupancy assessment has been based on the above data, factored to produce an average daily profile of arrivals (this includes both weekday and weekends) and average duration of stay. These have then been combined to produce the following occupancy profile:

Figure 14: The Hill Average Peak Daily Occupancy Profile



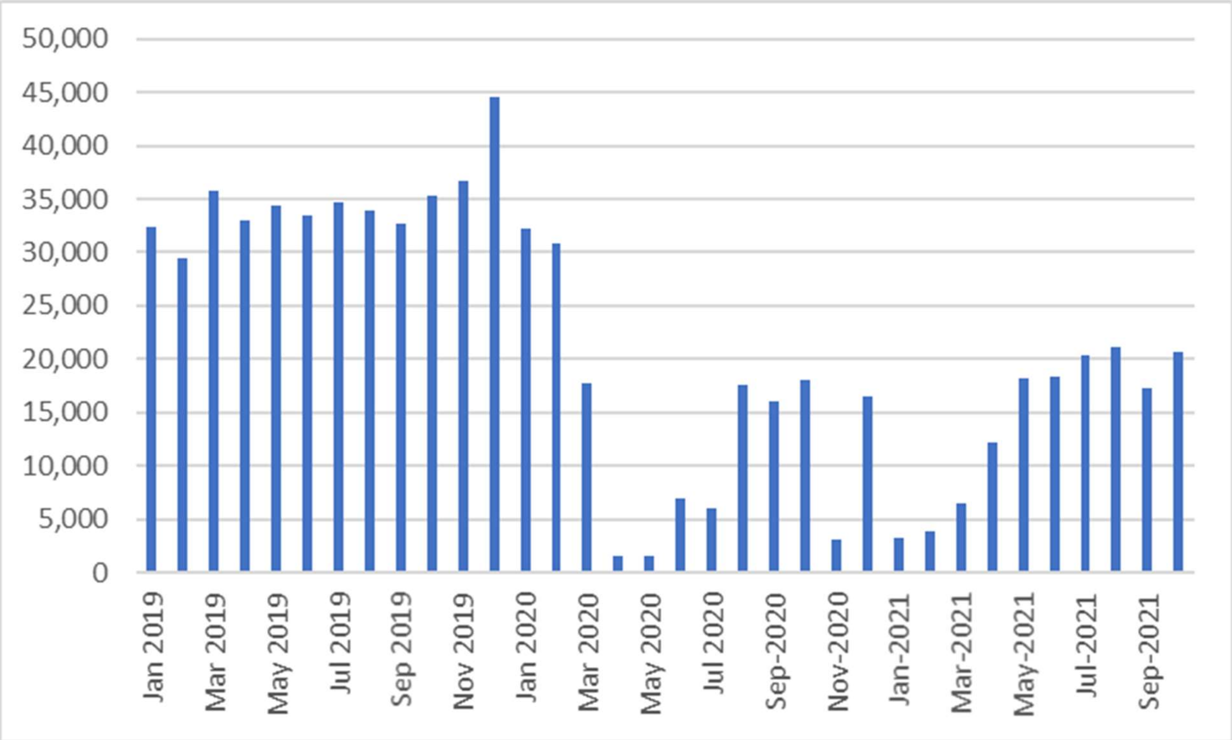
The peak occupancy was 379 which equates to 50% of the 752-space capacity during December 2019; the remaining months of 2019 had an average occupancy of 234 vehicles (31%), providing a potential additional capacity of 373 spaces in December or 518 spaces during the remainder of the 2019.

During the second half of 2021 the peak occupancy returned to over 80% of the 2019 levels with October levels at 89% of those in 2019.

2.4.2 The Civic Centre

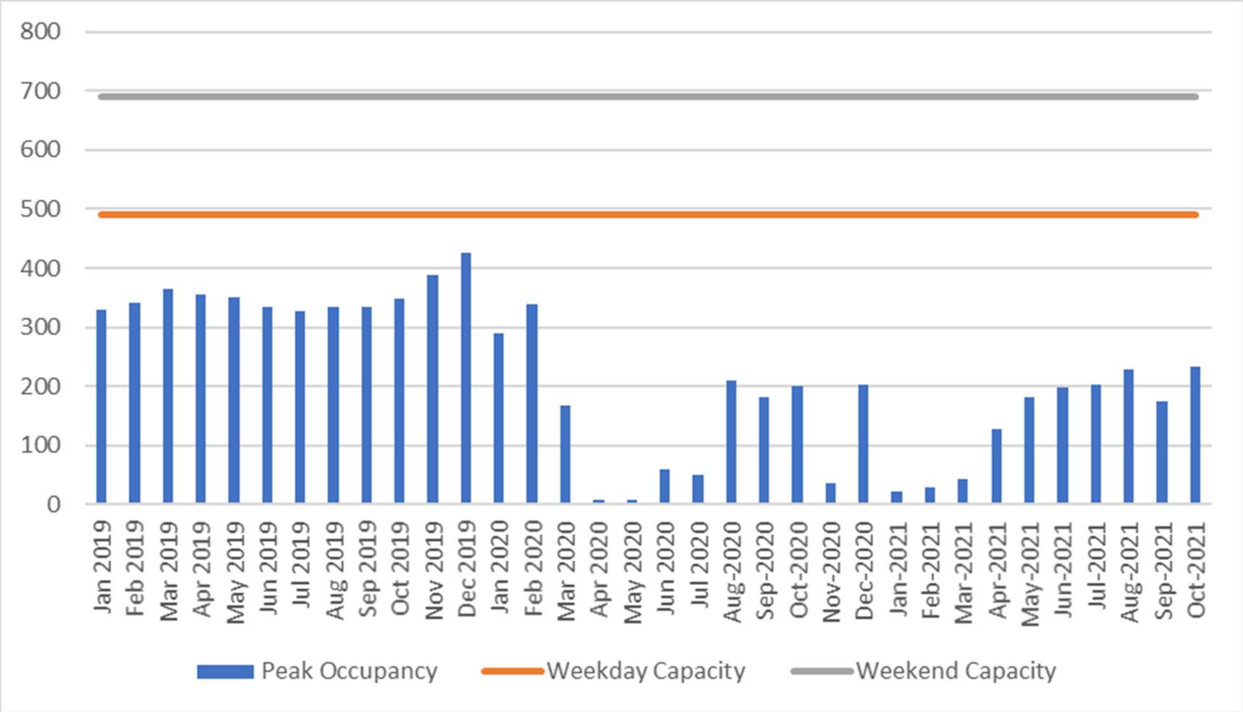
The data available for the Civic Centre is in the same format as for The Hill, so the methodology described above has also been used to analyse occupancy data for this car park. Monthly vehicle numbers have been assessed to produce the figure below. The data records a consistent level of use, with the expected peak activity occurring in December 2019.

Figure 15: The Civic Centre Average Peak Daily Monthly Vehicles



The occupancy assessment has been based on the above data being factored by the total number of days in each month to produce an average daily profile of arrivals (this includes both weekday and weekends) and average duration of stay. These have then been combined to produce the following occupancy profile (see overleaf).

Figure 16: The Civic Centre Average Peak Daily Occupancy Profile



The peak occupancy was 426 vehicles (which is 87% of the weekday capacity or 62% of the weekend capacity) in December 2019. The remainder of 2019 saw an average of 346 vehicles; this is in the context of 491 spaces on weekdays and 691 at weekends being available for public parking.

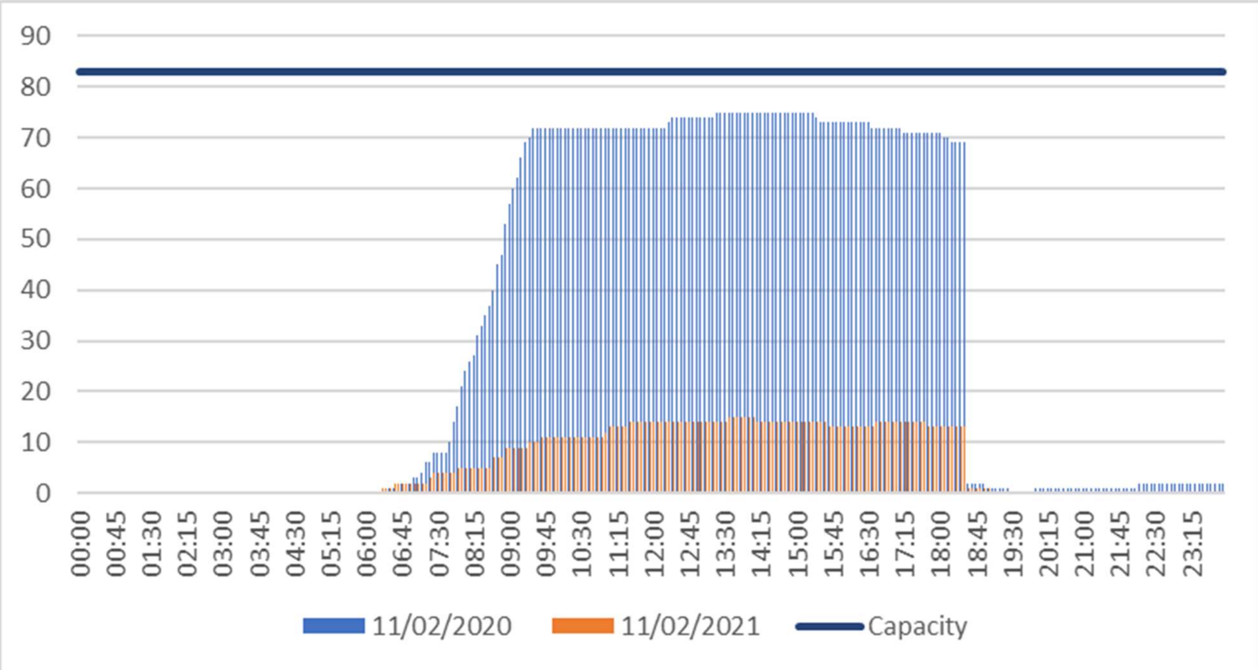
2.4.3 Station Road Car Park

Detailed data has been provided for the Station Road car park which contains arrival, departure time and duration for individual vehicles for both PayGo and ticket machines. This data has been provided for individual dates pre and post COVID; these are detailed below:

- Tuesday 11th February 2020;
- Thursday 11th February 2021;
- Monday 9th September 2019;
- Monday 7th September 2020;
- Monday 23rd December 2019; and
- Wednesday 23rd December 2020.

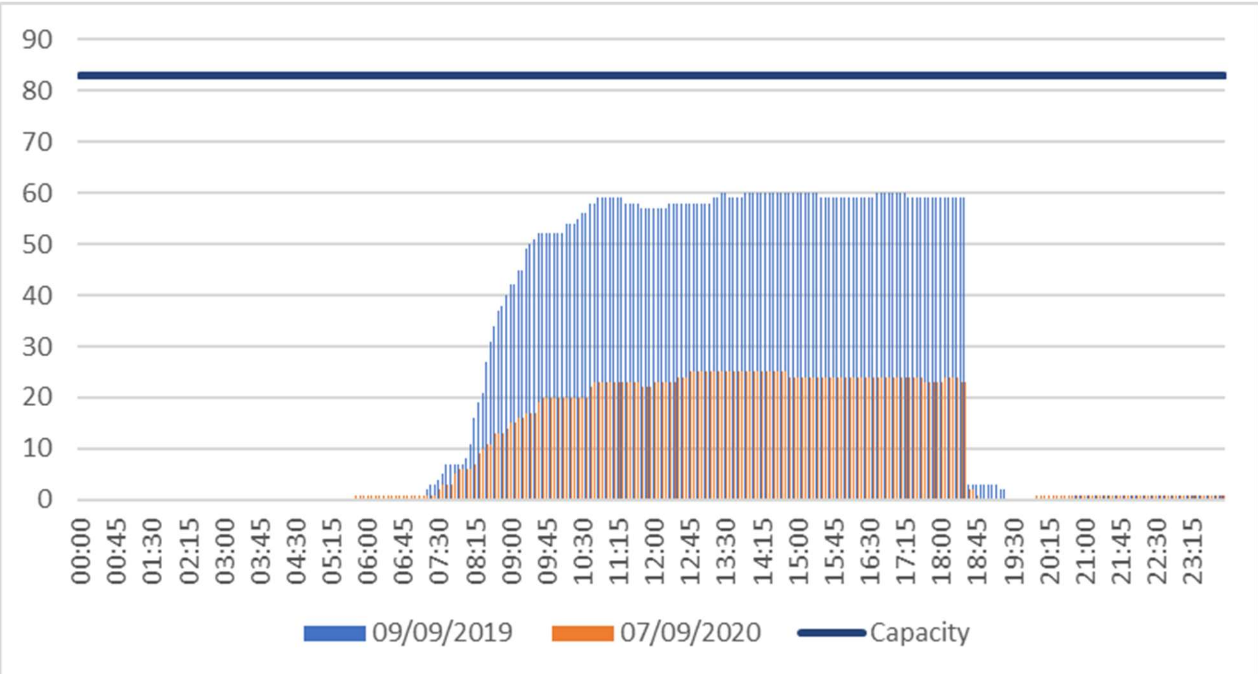
The available data has been processed to produce the following occupancy charts and to compare the pre- and -post COVID situation with the car park capacity.

Figure 17: Station Road February Occupancy



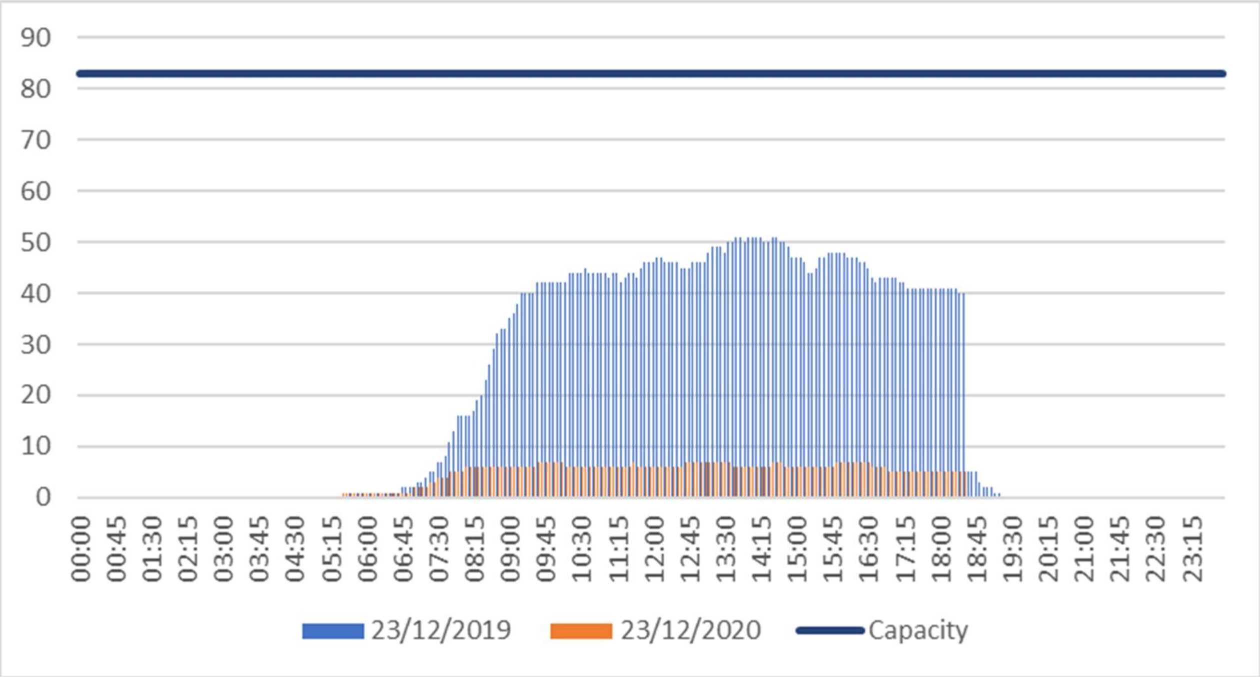
As can be seen above, for data captured from 11 February 2020, the car park was operating at the highest occupancy for the data available, with a maximum occupancy of 75 vehicles (90% of capacity) in 2020. The impact of COVID restrictions on the car park usage can also be seen above, with the maximum occupancy falling to 15 vehicles on 11 February 2021.

Figure 18: Station Road September Occupancy



During September, usage reduced, although (during COVID conditions) the car park usage increased over the equivalent period in the previous year.

Figure 19: Station Road December Occupancy

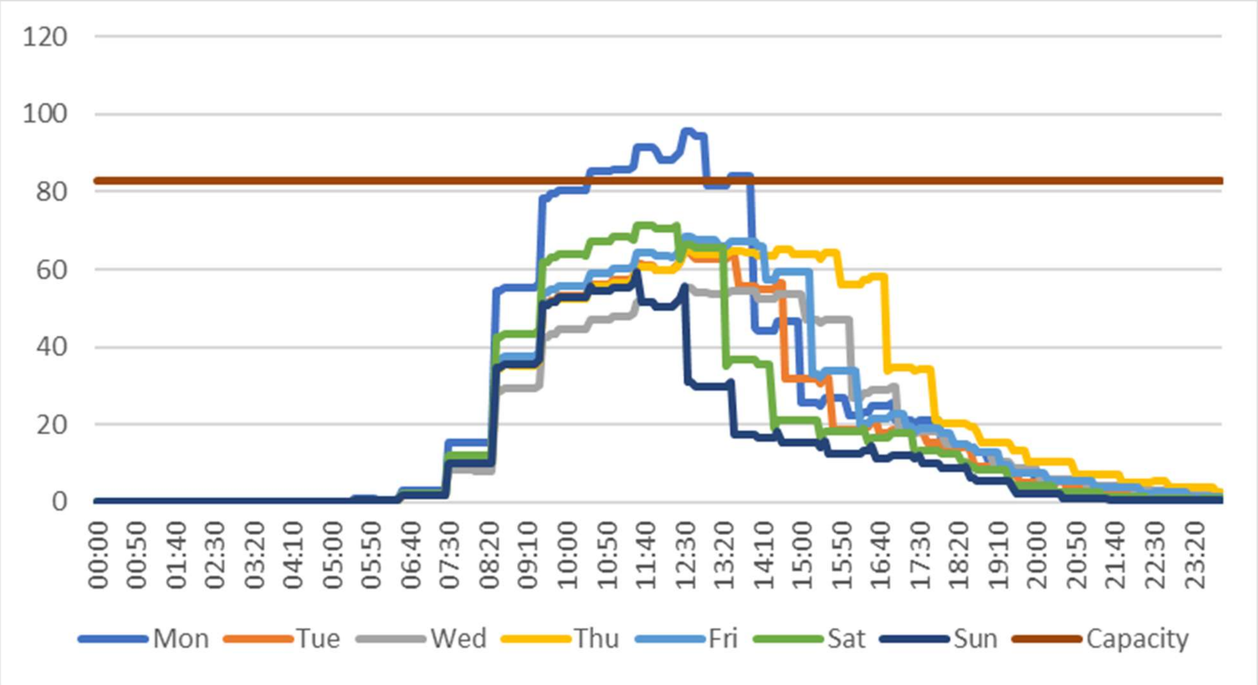


Additional data has been provided and processed for the period between 10 and 24 December 2019 to produce an average daily usage by day of the week. The data for this additional analysis contains detailed arrival profiles and duration for ticket machine sales; for the RingGo sales, only total sales have been provided.

Due to the data available, the RingGo data has been processed using the arrival profile and average duration of stay based on the ticket machine sales to produce the following charts showing occupancy for the average day during the period.

The occupancy for the average Monday appears to peak slightly over capacity; this could be caused by the assumption that the RingGo users have the same profile of arrivals and durations as the ticket-based users, or not fully representing the turnover of parking spaces. This can be seen in Figure below.

Figure 20: Station Road December 2019 Occupancy



2.4.4 Mitre Close

The data provided for Mitre Close car park was provided with the same format and dates as for the Station Road car park, so the analysis has been undertaken in the same format.

Figure 21: Mitre Close February Occupancy

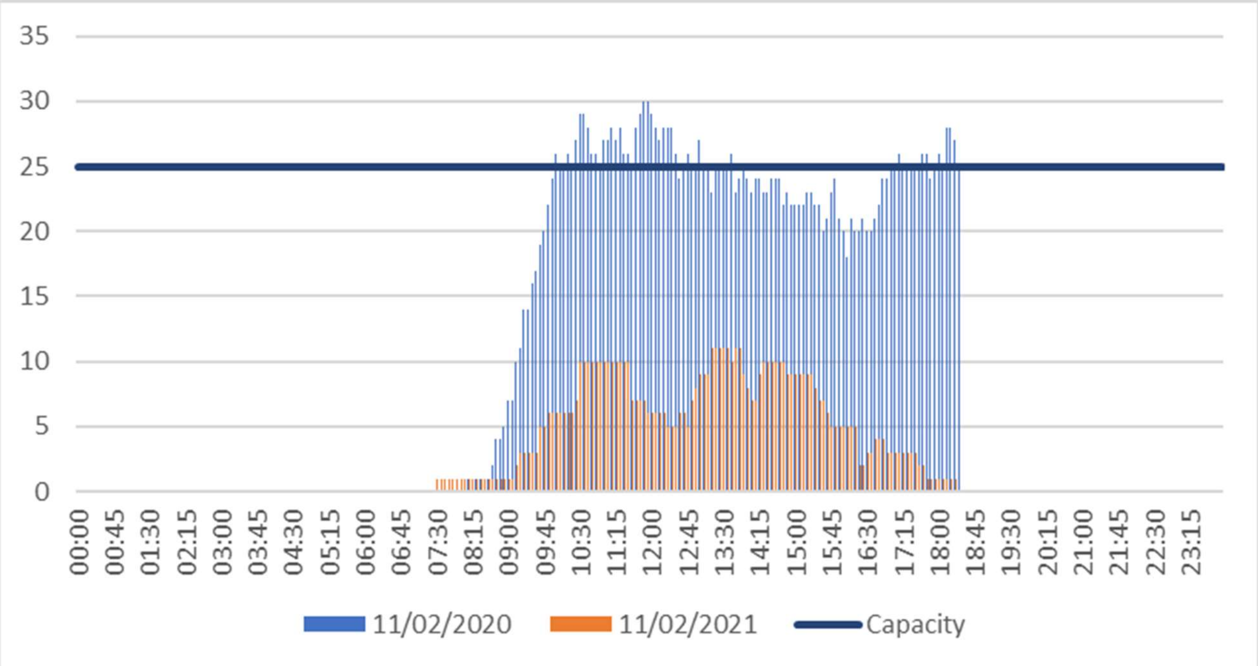


Figure 22: Mitre Close September Occupancy

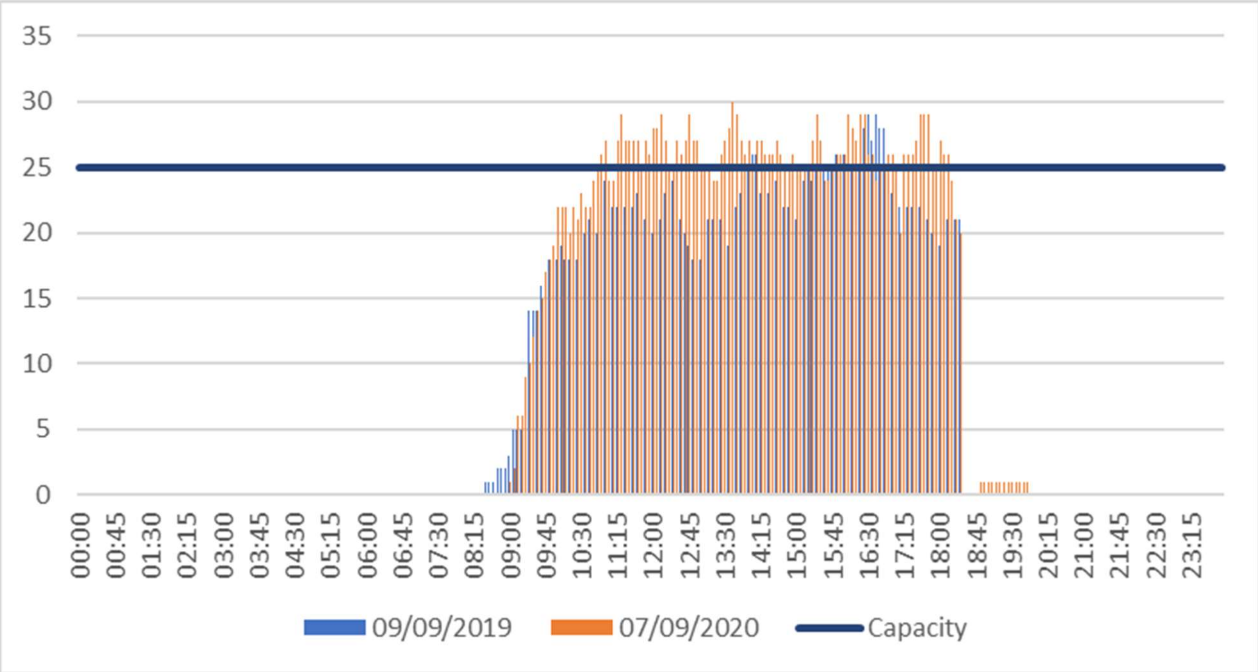
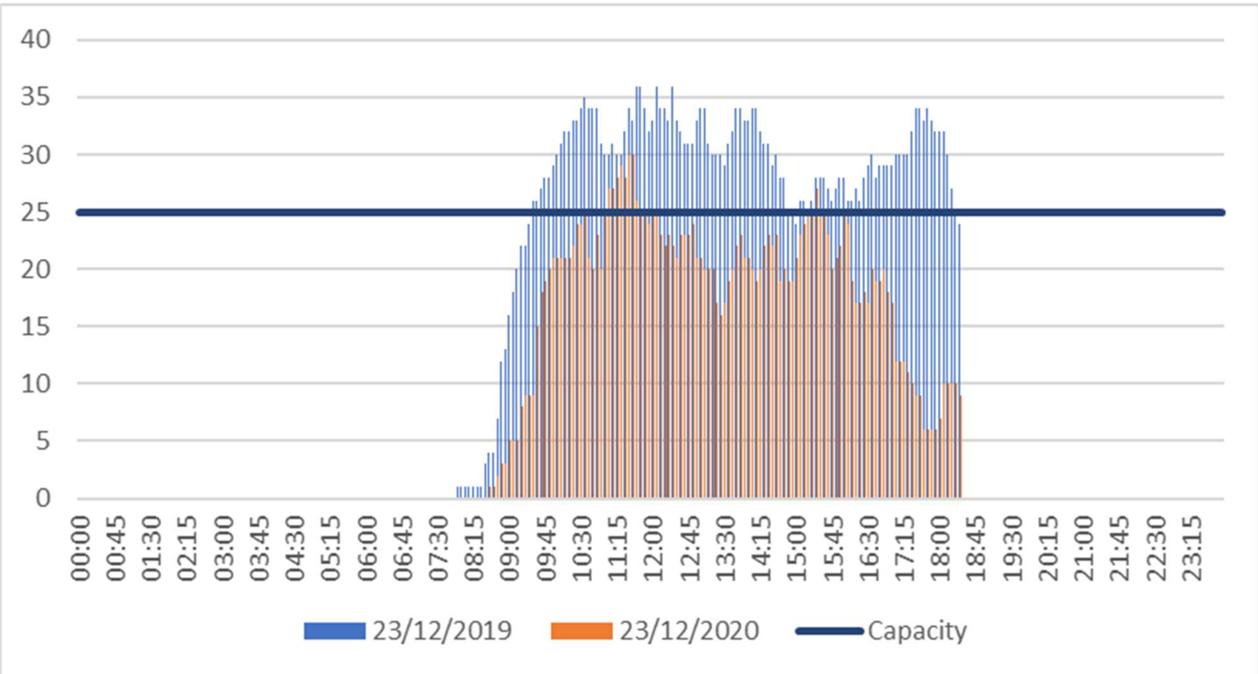


Figure 23: Mitre Close December Occupancy



As can be seen from the charts above, December 2019 data showed the highest occupancy rates, with the car park appearing over capacity by approximately 10 vehicles.

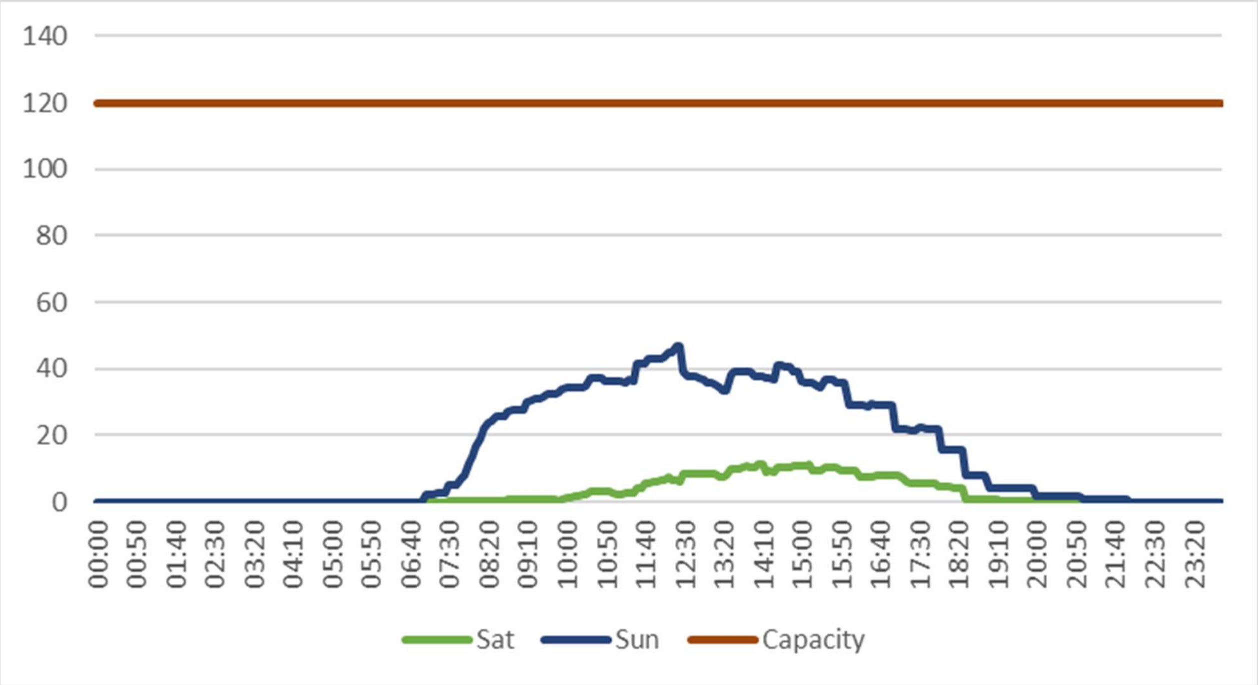
2.4.5 St Blaise

St Blaise car park is only car park available for public use at weekends (between Monday and Friday the car park is permit holders only); the data provided is similar to the additional data for the Station Road car park. The data has been provided and processed for the period between 10 and 24 December 2019 to produce an average daily usage by day of the week.

The data for this additional analysis contained detailed arrival profiles and duration for ticket machine sales, for the RingGo sales only total sales has been provided.

Due to the data available the RingGo data has been processed using the arrival profile and average duration of stay based on the ticket machine sales to produce the following charts showing occupancy for the average day during the period.

Figure 24: St Blaise December 2019 Occupancy

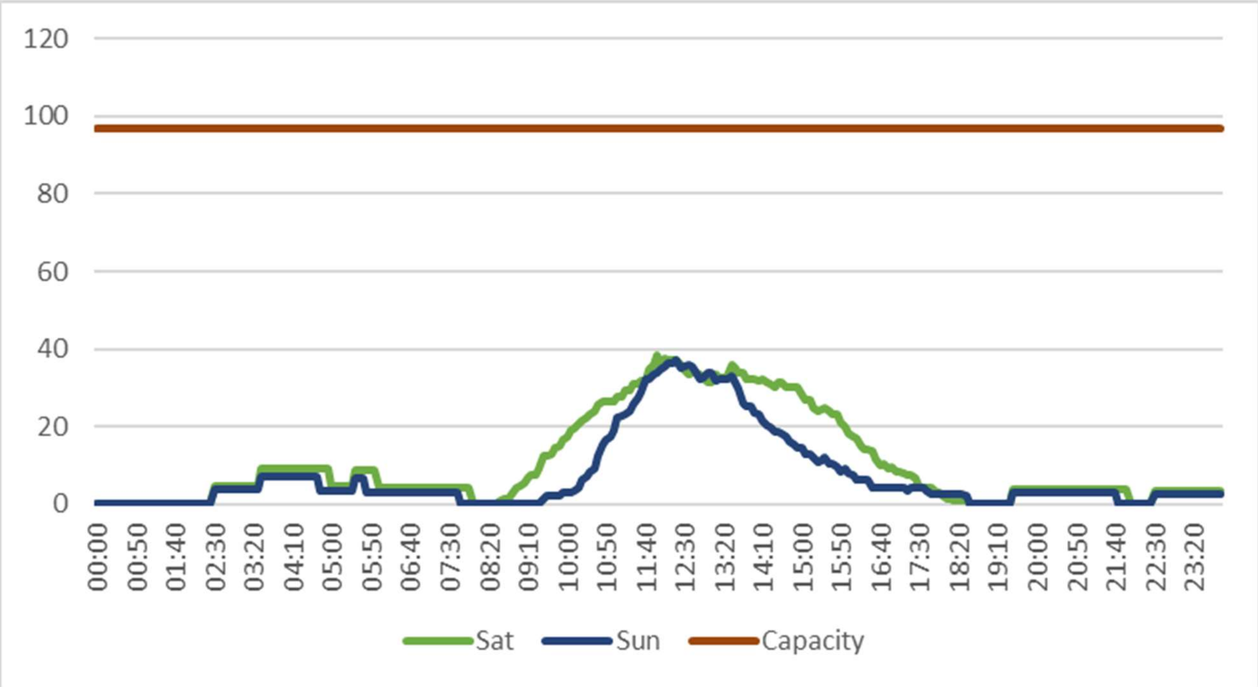


As can been seen from the chart above the peak occupancy of 47 vehicles which equates to 39% of capacity on the average Sunday during the period giving the potential spare capacity of at least 73 vehicles.

2.4.6 Palace Grove

The Palace Grove car park is only available for public use at weekends (Monday to Friday the car park is for the use of splash damage who occupy the Royal Court building); the data provided to is similar to the additional data for the Station Road car park. The data provided is the same format as for the St Blaise car park. The data has been processed to produce the occupancy chart overleaf:

Figure 25: Palace Grove December 2019 Occupancy



As can been seen from the chart above the peak vehicles are similar for both Saturday and Sundays with a peak of 38 vehicles which equates to 40% occupancy, giving a potential spare capacity of 59 spaces.

2.5 Duration of Stay

Analysis has been undertaken for the duration of stay for the individual car parks.

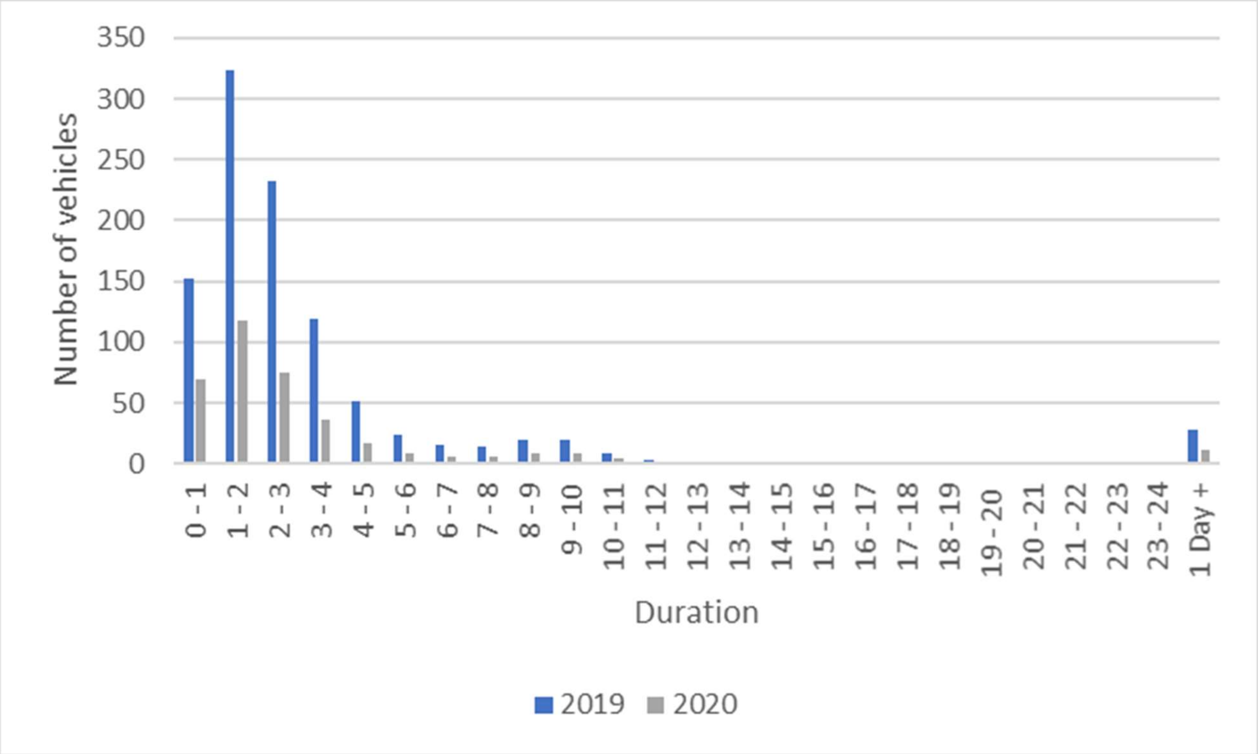
2.5.1 The Hill

The analysis for duration of stay for The Hill car park has been based on the available data for both 2019 and 2020 (January to July), the average day for each year is summarised below.

Table 10: The Hill Duration of Stay

Duration (hrs)	2019 Ave. Vehicles	Percent	2020 Ave. Vehicles	Percent	% Change
0 - 1	152	14.9%	69	18.6%	+3.70%
1 - 2	323	31.9%	118	31.8%	-0.10%
2 - 3	232	22.9%	75	20.2%	-2.70%
3 - 4	119	11.8%	37	9.8%	-2.00%
4 - 5	51	5.0%	16	4.3%	-0.70%
5 - 6	24	2.3%	9	2.3%	+0.00%
6 - 7	16	1.5%	6	1.7%	+0.20%
7 - 8	14	1.4%	6	1.6%	+0.20%
8 - 9	20	2.0%	9	2.4%	+0.40%
9 - 10	20	2.0%	9	2.3%	+0.30%
10 - 11	8	0.8%	4	1.0%	+0.20%
11 - 12	3	0.3%	1	0.4%	+0.10%
12 - 13	1	0.1%	1	0.1%	-
13 - 14	1	0.1%	0	0.1%	-
14 - 15	1	0.1%	0	0.0%	-0.10%
15 - 16	0	0.0%	0	0.0%	-
16 - 17	0	0.0%	0	0.0%	-
17 - 18	0	0.0%	0	0.0%	-
18 - 19	0	0.0%	0	0.0%	-
19 - 20	0	0.0%	0	0.0%	-
20 - 21	0	0.0%	0	0.0%	-
21 - 22	0	0.0%	0	0.0%	-
22 - 23	0	0.0%	0	0.0%	-
23 – 24	0	0.0%	0	0.0%	-
1 Day +	28	2.7%	12	3.1%	+0.40%

Figure 26: The Hill Duration of Stay



As shown above the majority of vehicles have a short duration of stay with 81.5% staying less than 4 hours in 2019 and 80.4% in 2020.

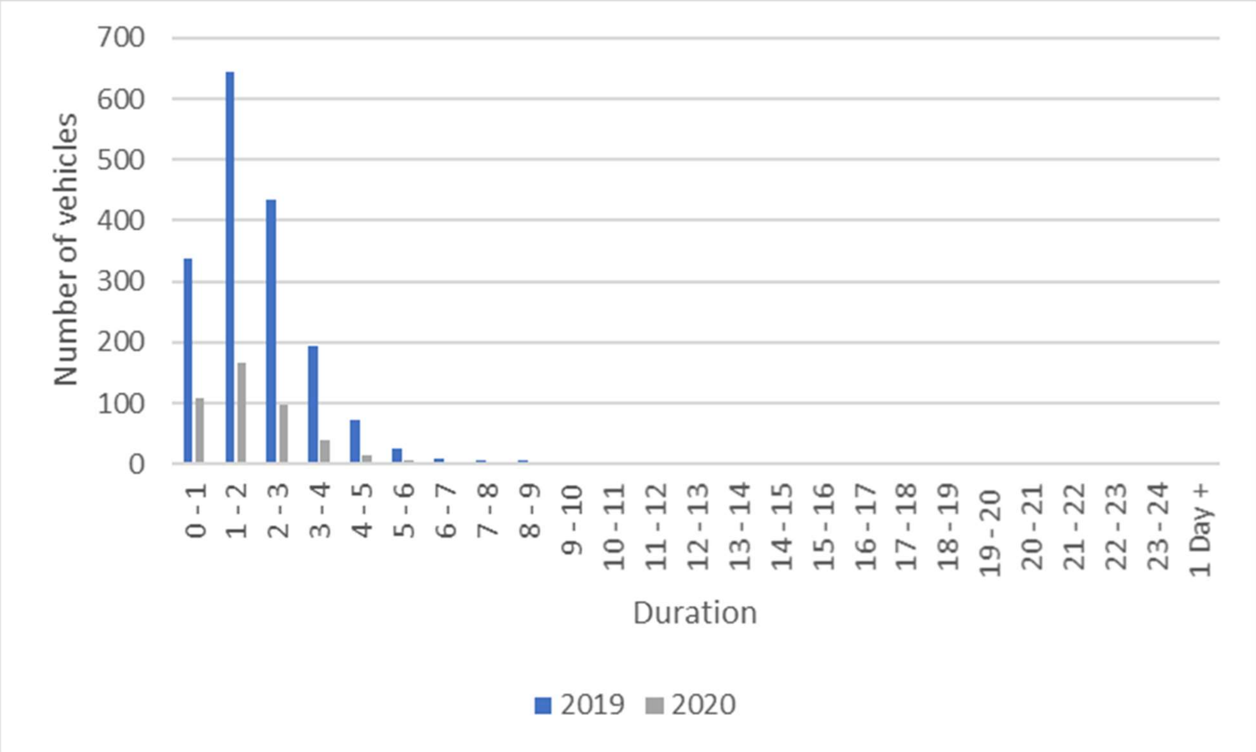
2.5.2 The Civic Centre

The analysis for the Civic Centre has been undertaken with the same method as for The Hill car park.

Table 11: The Civic Centre Duration of Stay

Duration (hrs)	2019 Ave. Vehicles	Percent	2020 Ave. Vehicles	Percent	% Change
0 - 1	338	19.5%	108	24.8%	+5.30%
1 - 2	644	37.1%	165	37.8%	+0.70%
2 - 3	433	24.9%	96	22.0%	-2.90%
3 - 4	194	11.1%	39	9.0%	-2.10%
4 - 5	73	4.2%	14	3.2%	-1.00%
5 - 6	25	1.4%	5	1.1%	-0.30%
6 - 7	9	0.5%	2	0.4%	-0.10%
7 - 8	5	0.3%	1	0.3%	-
8 - 9	5	0.3%	1	0.3%	-
9 - 10	4	0.2%	1	0.1%	-0.10%
10 - 11	1	0.1%	0	0.1%	-
11 - 12	1	0.0%	0	0.0%	-
12 - 13	1	0.0%	0	0.0%	-
13 - 14	1	0.0%	0	0.0%	-
14 - 15	0	0.0%	0	0.0%	-
15 - 16	0	0.0%	0	0.0%	-
16 - 17	0	0.0%	0	0.0%	-
17 - 18	0	0.0%	0	0.0%	-
18 - 19	0	0.0%	0	0.0%	-
19 - 20	0	0.0%	0	0.0%	-
20 - 21	0	0.0%	0	0.0%	-
21 - 22	0	0.0%	0	0.0%	-
22 - 23	0	0.0%	0	0.0%	-
23 – 24	0	0.0%	0	0.0%	-
1 Day +	4	0.2%	3	0.7%	0.50%

Figure 27: The Civic Centre Duration of Stay



The pattern of duration of stay is similar to The Hill with the majority of vehicles staying less than 4 hours, 92.6% in 2019 and 93.7% in 2020.

2.5.3 Station Road

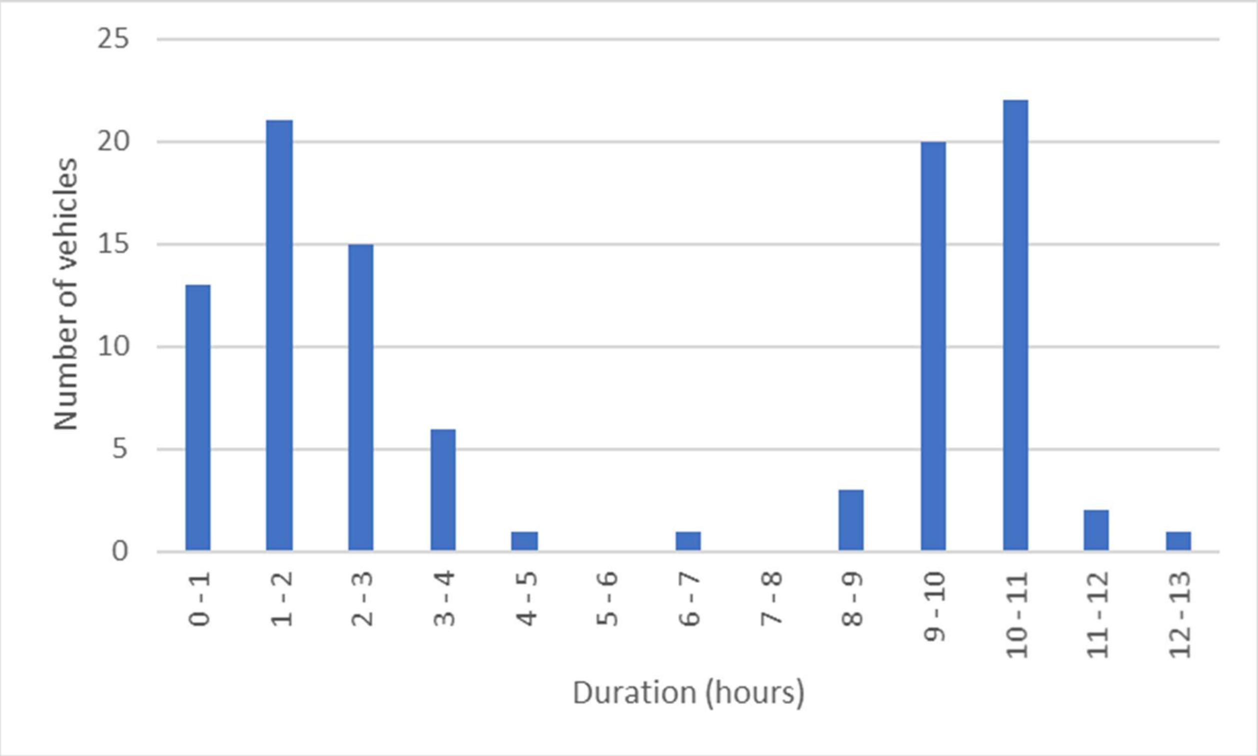
The duration of stay has been assessed for Station Road car park on the data provided a number of the days of data provided for the 23rd December 2019 data

Table 12: Station Road Car Park Duration of Stay

Duration (hrs)	Vehicles	Percentage
0 - 1	13	12.4%
1 - 2	21	20.0%
2 - 3	15	14.3%
3 - 4	6	5.7%
4 - 5	1	1.0%
5 - 6	0	0.0%
6 - 7	1	1.0%
7 - 8	0	0.0%
8 - 9	3	2.9%
9 - 10	20	19.0%
10 - 11	22	21.0%

11 - 12	2	1.9%
12 - 13	1	1.0%

Figure 28: Station Road Duration of Stay



The majority 52.4% of vehicles have a duration of stay of less than 4 hours, however there is significant (45.7%) of vehicles with durations of stay of over 8 hours, which indicates the use by commuters.

2.5.4 Mitre Close

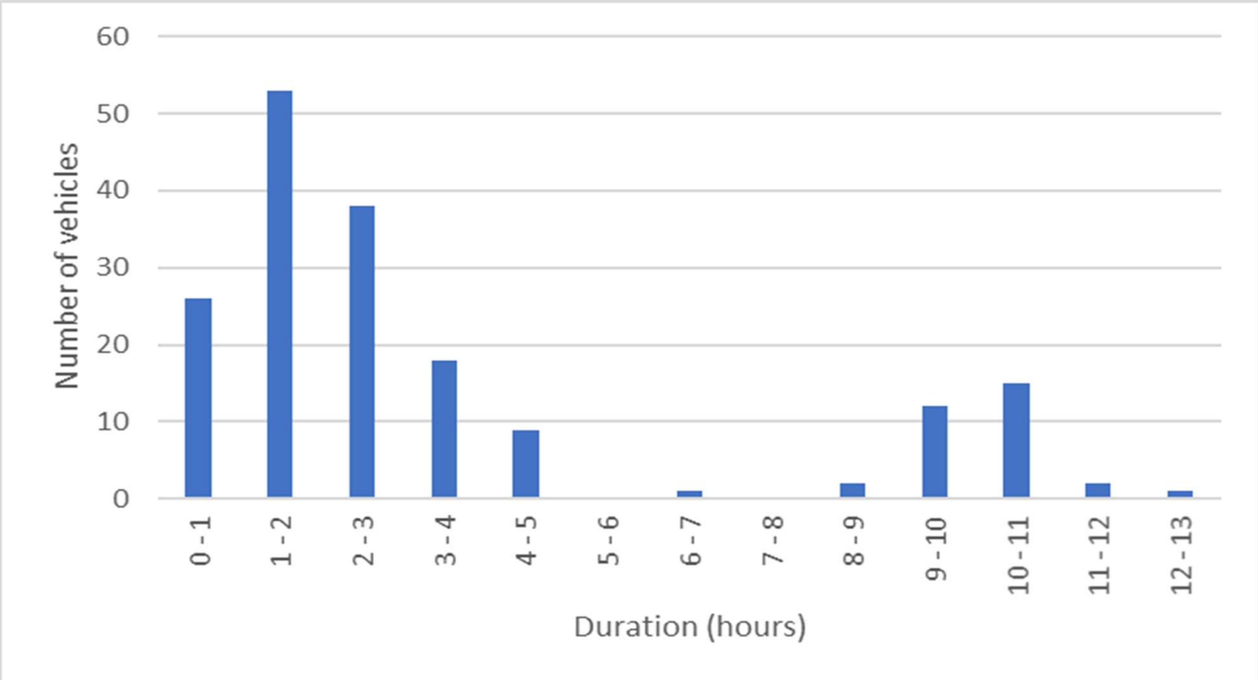
The analysis for Mitre Close car park uses the same methodology as Station Road.

Table 13: Mitre Close Car Park Duration of Stay

Duration (hrs)	Vehicles	Percentage
0 - 1	26	14.7%
1 - 2	53	29.9%
2 - 3	38	21.5%
3 - 4	18	10.2%
4 - 5	9	5.1%
5 - 6	0	0.0%
6 - 7	1	0.6%
7 - 8	0	0.0%
8 - 9	2	1.1%

9 - 10	12	6.8%
10 - 11	15	8.5%
11 - 12	2	1.1%
12 - 13	1	0.6%

Figure 29: Mitre Close Car Park Duration of Stay



The majority 76.3% of vehicles have a duration of stay of less than 4 hours, however there is significant (18.1%) of vehicles with durations of stay of over 8 hours which would indicate the use of the car park by commuters.

2.5.5 St Blaise

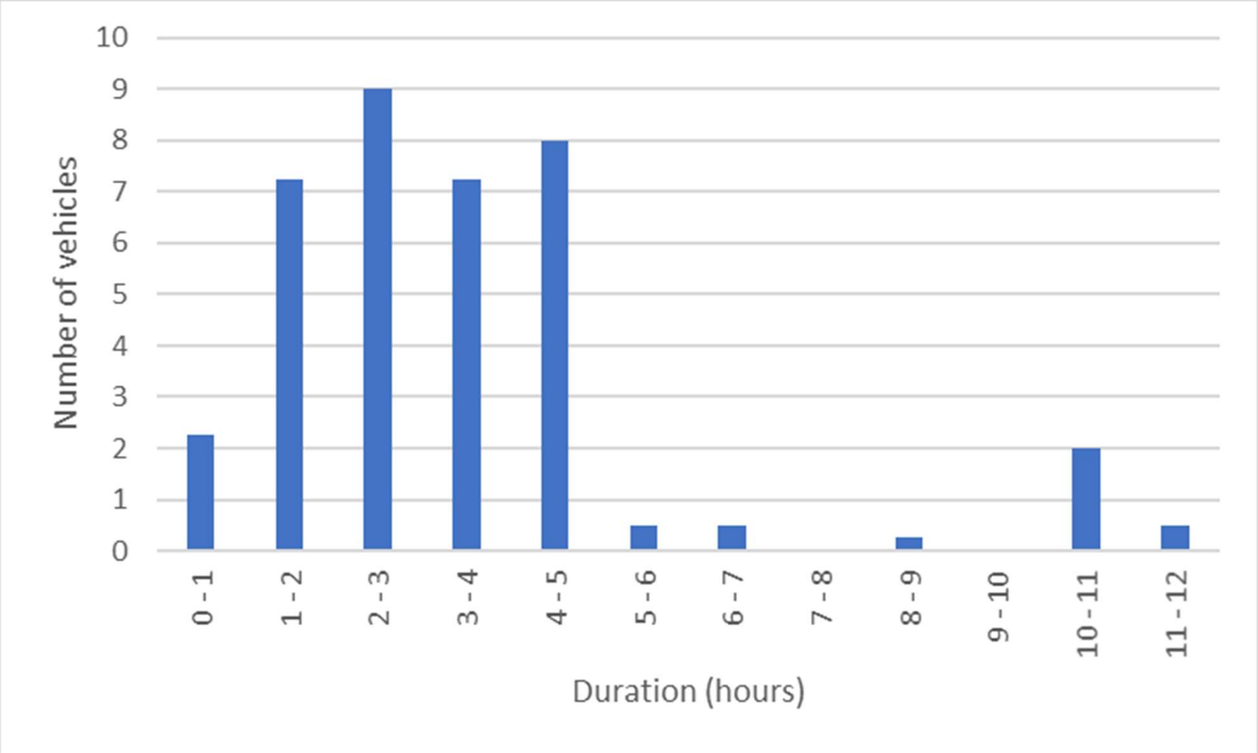
The analysis for St Blaise car park is based data available for the period between the 10th and 24th December 2019. An average of the 4 days the car park is operational during this period has been calculated and summarised in the table below, due to the available data this is based on the pay at machine vehicles only.

Table 14: St Blaise Car Park Duration of Stay

Duration (hrs)	Vehicles	Percentage
0 - 1	2	6.0%
1 - 2	7	19.3%
2 - 3	9	24.0%
3 - 4	7	19.3%
4 - 5	8	21.3%
5 - 6	1	1.3%

Duration (hrs)	Vehicles	Percentage
6 - 7	1	1.3%
7 - 8	0	0.0%
8 - 9	0	0.7%
9 - 10	0	0.0%
10 - 11	2	5.3%
11 - 12	1	1.3%

Figure 30: St Blaise Car Park Duration of Stay



As shown above the majority 68.7% of vehicles stay less than 4 hours with an additional 21.3% staying between 4 and 5 hours, and 7.3% staying over 8 hours. This indicates a proportion of users are commuters.

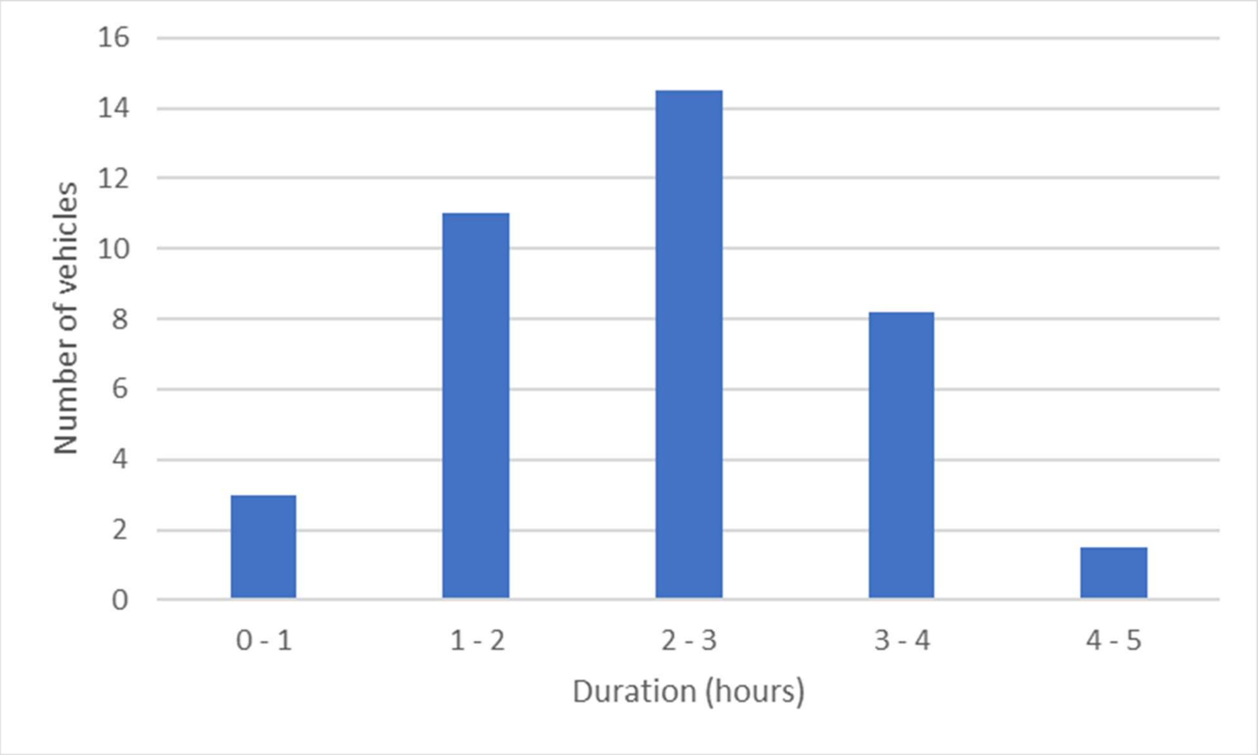
2.5.6 Palace Grove

The analysis for Palace Grove has been undertaken based on the average day for the period between the 10th and 24th December 2019 using the pay at machine data.

Table 15: Place Grove Duration of Stay

Duration (hrs)	Vehicles	Percentage
0 - 1	3	7.9%
1 - 2	11	28.8%
2 - 3	15	37.9%
3 - 4	8	21.5%
4 - 5	2	3.9%

Figure 31: Place Grove Duration of Stay



All vehicles have a duration of stay of less than 5 hours with the majority 96.1% staying less than 4 hours.

2.5.7 Duration Summary

The duration of stay for the majority of the car parks is generally relatively short with stays generally less than hours. Station Street car park is the exception to this with 45% of vehicles staying over 8 hours.

3. On-street Parking

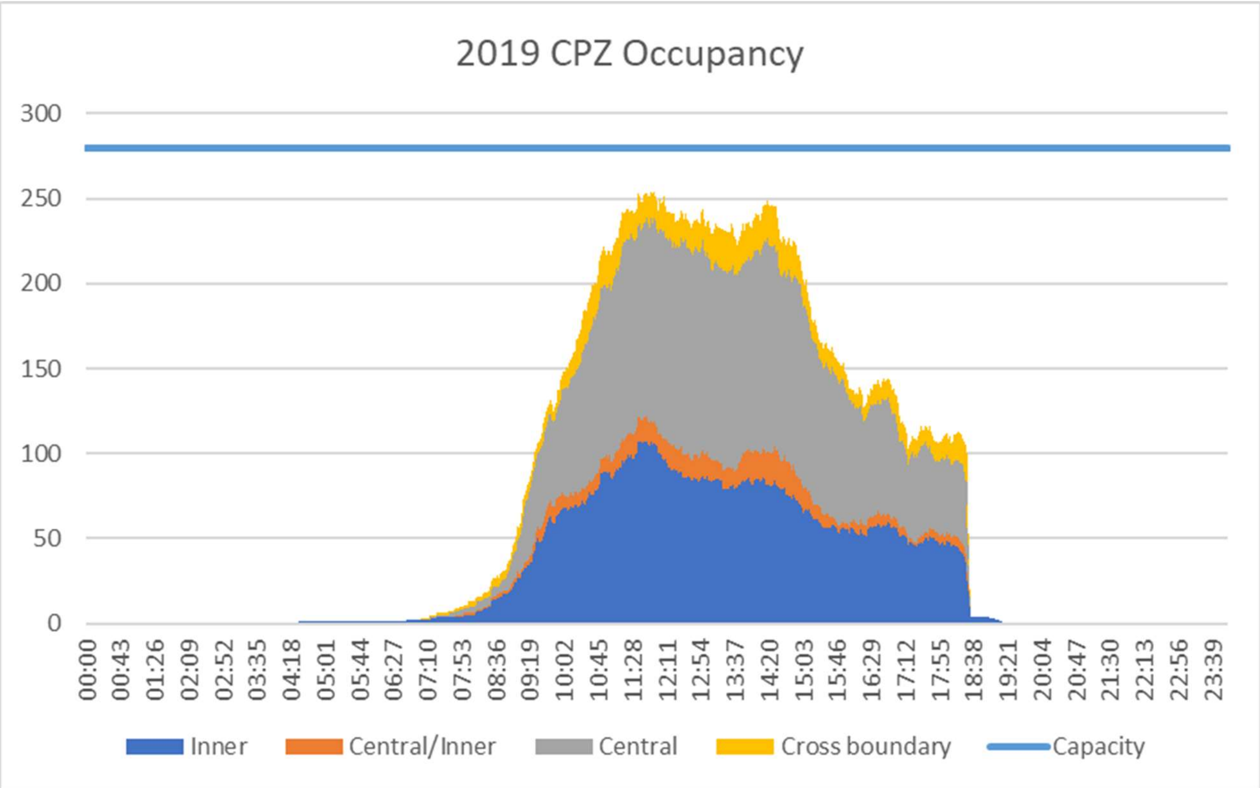
The availability of street parking within Bromley Town Centre provides ample alternative options for parking. The majority of roads are covered by a Controlled Parking Zone (CPZ), which includes spaces for both permit holders and pay and display parking. The area covered by the CPZ are shown in Appendix A.

Data has been provided for the paid-for parking; the Zone A Inner area of the CPZ contains 280 on street paid-for bays, but currently there is no information on numbers of permit holders.

Based on the available data provided, an assessment of the occupancy of the on-street paid for bays within the inner zone has been undertaken for 24 September 2019 and 22 September 2020 (both Tuesdays).

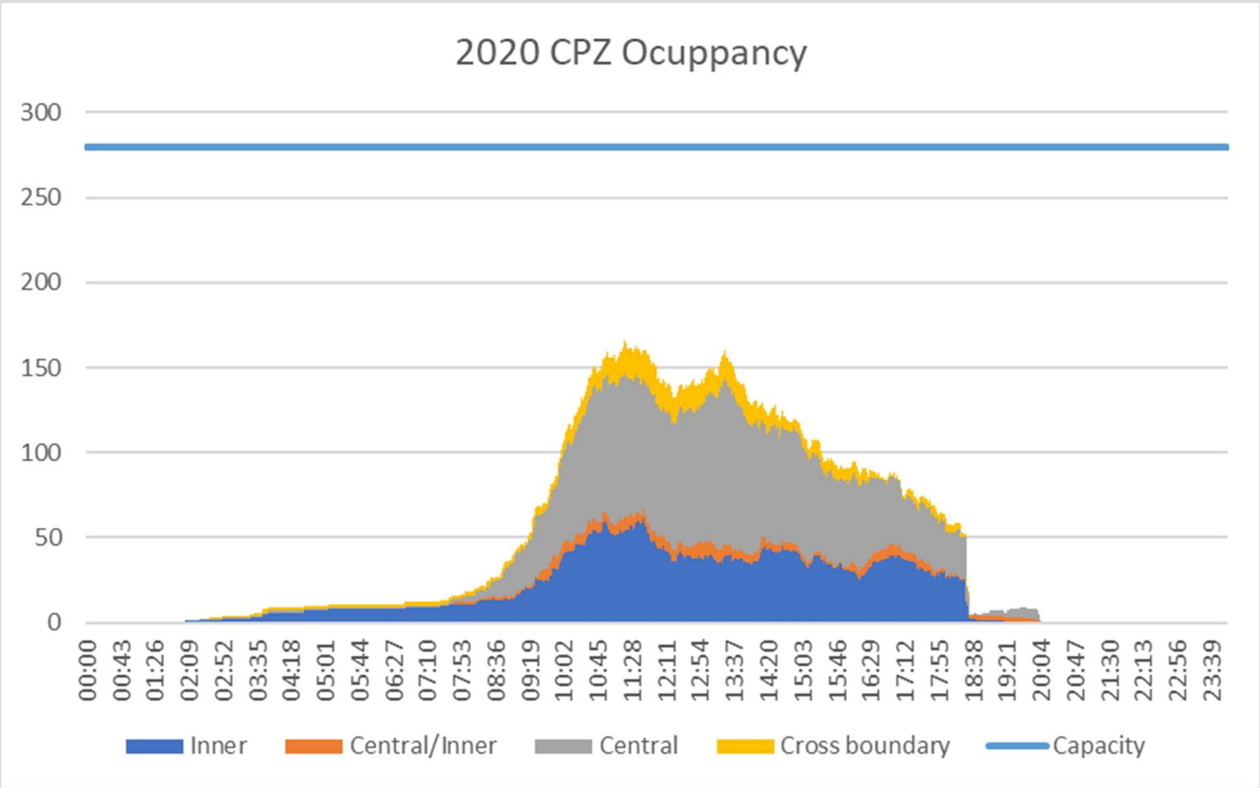
The parking information for highways within Zone A have been extracted from the data provided. Where a road crosses a boundary, it has been included to provide a robust assessment (the roads included are listed in Appendix B).

Figure 32: 2019 CPZ Occupancy – Paid-for Bays



The calculated peak occupancy of 254 (91% occupancy) as shown above would give a spare capacity of 26 spaces; due to the inclusion of the cross-boundary highways there is the potential for a slight overestimate of the peak occupancy,

Figure 33: 2020 CPZ Occupancy – Paid-for Bays



The occupancy calculations for 2020 show a peak of 166 (59% of capacity), which shows a 35% reduction in occupancy when compared to 2019.

4. Future Demand Review

This section of the report contains a review of published data to gain an understanding of the potential future demand for parking.

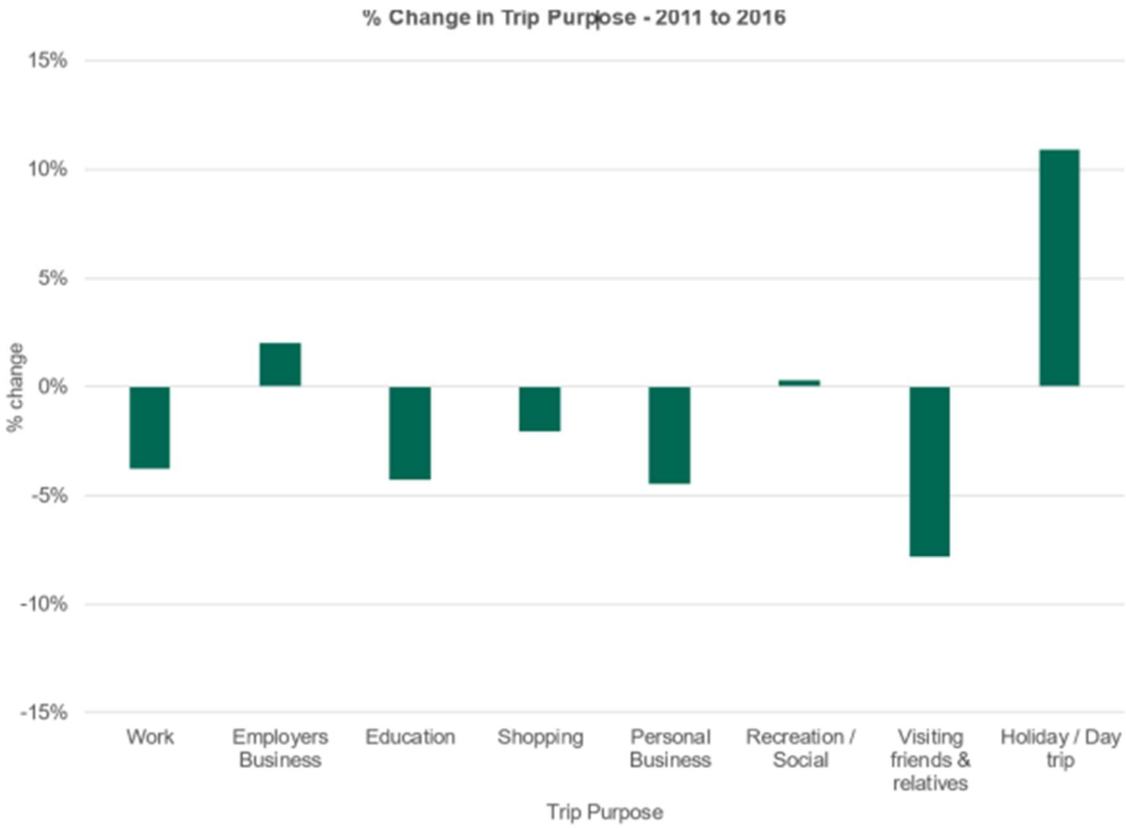
4.1 TRICS Guidance Note on Changes in Travel Behaviour August 2019

The TRICS Guidance Note on Changes in Travel Behaviour August 2019 (TRICS Guidance Note on Changes in Travel Behaviour August 2019) states that there are '*a number of trends that should be taken into account in development planning*.'

With regards to retail, it states that (pre-Covid) online '…*shopping is growing at around 10-12% per annum and now represents 17% of total UK retail sales. There has been a 25% decrease in physical shopping trips over the past two decades and 16% decline in distance travelled*.'

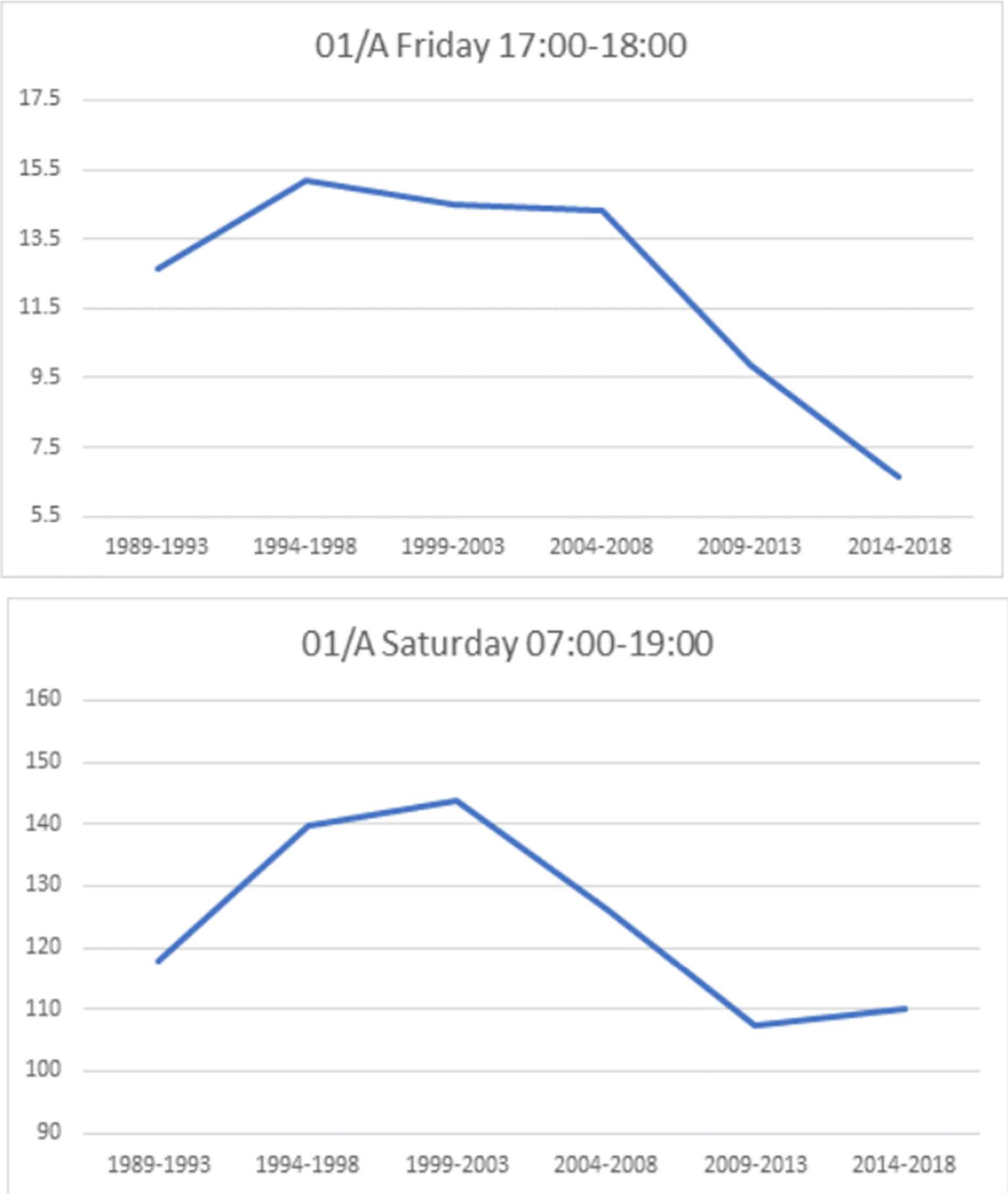
This change in retail trips can be seen in the figure below.

Figure 34: Change in trips by purpose



The report continues to state that the '…*supermarket shopping results (just showing Friday PM and Saturday AM for reasons of space) seem to mimic the NTS. There is first, a plateauing of trip rates from 1994-1998 and then a decline in trip rates from 1999-2003 (most similar to the NTS comparator of 2002) to 2014-2018 is a 51% reduction for Friday evening and 24% across Saturday*.' This is presented in the following figures.

Figure 35: Supermarket shopping trips Friday PM peak



The report continues to state that there '*has been a marked decline in total person trip rates and total vehicle trip rates on a Friday AM and PM peak. The daily trip rate is set out below in table 1. This is reflective of the trends shown in the All-Change Report regarding the reduction in retail trips.*'

Table 1: Retail: Food Superstore (01/A) Friday Multi-modal Daily Trip Rate Trends

01/A FRIDAY DAILY (07:00-19:00) TRIP RATE BY MODE & YEAR				
MODE	1999-2003	2004-2008	2009-2013	2014-2018
Total Vehicles (TV)	139.242	158.072	102.688	68.962
Total People (TP)	231.851	275.760	156.303	113.595
Pedestrians (P)	21.097	45.916	15.775	15.607
Public Transport Users (PTU)	4.013	7.098	0.947	3.466
Cyclists (C)	1.291	1.923	0.714	0.886

Source: TRICS® 2019

'*The Saturday AM and PM peak again show a decline in total person trips and total vehicle trips from the year 2000 then an increase in the afore mentioned trips from around 2010 but total person trips and total vehicle trips are less than the period 2004 -2008. Public transport trips are slightly increased, and walking shows a slight increase in the period 2014 -2018. This appears to reflect the increase in walking as discussed earlier in the report. Table 2 below sets out daily trip rates for retail Food Superstore*.'

Table 2: Retail: Food Superstore (01/A) Saturday Multi-modal Daily Trip Rate Trends

01/A SATURDAY DAILY (07:00-19:00) TRIP RATE BY MODE & YEAR				
MODE	1999-2003	2004-2008	2009-2013	2014-2018
Total Vehicles (TV)	137.964	127.272	114.320	111.650
Total People (TP)	253.059	234.507	199.527	206.859
Pedestrians (P)	25.908	26.812	16.608	16.787
Public Transport Users (PTU)	4.967	4.532	2.490	6.688
Cyclists (C)	1.757	1.400	1.057	0.889

Source: TRICS® 2019

Furthermore, the report also notes equivalent declines in residential trip rates over the same periods, echoing the circumstances of people travelling less often and less far.

4.2 All Change Commission

The All-Change Commission '*presents analysis and headline findings from a UK-wide survey commissioned by the Department for Transport and undertaken during May-June 2020*.'

It's findings on the effects of the Covid lockdown measures are summarised in the following bullet points:

- '*In addition to travelling for food shopping and recreation/keeping fit, working from home was also an important reason for changes in behaviour. Of those in work, 53% say they worked from home during lockdown (significantly higher than the 38% who said their employers allowed home working before coronavirus) and 47% said they didn't. A third (33%) travelled to their place of work.*
- *People also shopped differently. Eight in ten, 82%, say they generally did fewer shopping trips while 59% shopped online to purchase products they would normally buy in-store and 29% recalled using home delivery for supermarket shopping more than they would normally do (19% said they did this on behalf of others).*
- *Six in ten, 60%, said that during lockdown they shopped closer to home more than they would normally do although 46% recall making fewer local trips overall during lockdown – suggesting perhaps that they were doing larger shops less frequently – with a third, 34%, making more local trips.*

45% say they avoided travel at peak times.

- *Lockdown caused significant disruption to people's existing travel plans. More than a third of adults said they had plans to fly abroad (35%) or to make a long-distance car journey in the UK (34%) which they had either cancelled or postponed or had had their plans cancelled by a travel company. One in five (20%) had plans to travel by train for leisure cancelled or postponed in this way too. Smaller proportions had plans cancelled or postponed this way for travel within the UK (12%), coach (9%), ferry (8%) or going on a cruise (6%).*'

4.3 Department for Transport Road Traffic Forecasts 18

The Department for Transport Road Traffic Forecasts 18 (Road Traffic Forecasts 2018 (publishing.service.gov.uk)) '*present the latest forecasts for traffic demand, congestion and emissions in England and Wales up to the year 2050. These are produced using the Department for Transport's National Transport Model (NTM).*'

The Department for Transport Road Traffic Forecasts 18 states that traffic in '*England and Wales are forecast to increase across all scenarios, but the size of that growth depends on the assumptions made about the key drivers of future road demand. From 2015 traffic is forecast to grow by between 17% and 51% by 2050. The growth in traffic levels is predominately driven by the projected growth in population levels (and thus the number of trips) and changes to vehicle running costs*.'

Within this, car traffic growth '*…by 2050 ranges between 4% and 36% on principal roads and between 2% and 37% on minor roads as opposed to 33% and 61% on motorways and 23% and 52% on trunk roads*.

4.4 Mayor's Transport Strategy

The Mayor's Transport Strategy (Mayor's Transport Strategy (london.gov.uk))sets out the Mayor of London's visions for London which is for a '*fairer, greener, healthier and more prosperous city.*'

The Strategy states that the '*proportion of traffic in congested conditions in 2050 is forecast to range from 8% to 16% depending on the scenario, with the most congested periods being the weekday peak period. This is compared to 7% of traffic in congested conditions in 2015.*'

It identifies that buses '*provide essential local transport links, getting people to high streets and town centres and supporting local economic vitality. They can also reduce traffic levels and congestion in and around town centres, which can blight the experience of spending time in these areas. Allowing buses access to places that are not open to cars, and providing well-designed stations, interchanges and stops, creates more people-friendly environments where people want to stop and spend time.*'

The Strategy identifies that there will be a '*reduction in traffic of about 10-15 per cent (6-7 million kilometres per day) by 2041 is required to keep congestion in check, while also achieving the aims of this strategy.*'

With regard to the congestion charge, it was '*introduced in 2003,*' and '*it was very effective in reducing traffic levels and congestion in the Congestion Charge zone (CCZ). The immediate impact was a 30 per cent reduction in congestion and 15 per cent less circulating traffic*.' It is forecast that by '*2041 the aim is to have 80% of all journeys on public transport.*'

4.5 Summary

As shown above it is anticipated that overall traffic will continue to grow, although the element for retail and employment will potentially reduce.

Given the increase in on-line shopping and working from home during the pandemic, it is uncertain as to the future demand for retail and employment travel, the pre pandemic reduction is likely to remain or possibly increase.

5. Combined Usage

5.1 Car Park Usage

Table 16 below shows where the occupancy of the car parks has been combined and assessed for the peak month of 2019 (December):

Table 16: LBB Car Park Summary

Car Park	Weekday			Weekend		
	Peak Use	Capacity	Occupancy	Peak Use	Capacity	Occupancy
The Hill	379	752	50%	379	752	50%
Civic Centre	426	491	87%	426	691	62%
St Blaise	-	-	-	47	120	39%
Palace Grove	-	-	-	38	97	39%
Station Road	95	83	114%	71	83	86%
Mitre Close	49	25	196%	54	25	216%
Total	**949**	**1,351**		**1,015**	**1,768**	
Occupancy (%)	**70.2%**	**-**		**57.4%**	**-**	
Spare Capacity (%)	**29.8%**	**-**		**42.6%**	**-**	

This assessment shows that during the peak month of 2019 (December), for weekdays, the council operated car parks have 402 more spaces than required. During the weekend there are 753 more spaces than required.

It should be noted the potential effect of seasonality, discussed in section 2.3 above. For The Hill car park, the December 2019 figures are 45% higher than the annual average and the annual average occupancy is 246 compared to the 379 reported for December. For the Civic Centre car park, December is 20% higher than the annual average, with an annual average peak occupancy of 353, compared to the 426 reported above.

COVID 19 has also had significant impacts on the number of vehicles using The Hill for the Civic Centre when compared with the two-week period prior to Christmas in 2019 to 2020 the number of vehicles parking has fallen by 52%, and the Civic Centre had fallen by 65%.

The surplus capacity could be significantly higher if parking demand does not return to pre COVID levels as can be seen in the table below for the weekday assessment. For the analysis of the return to pre COVID parking demand, the data for The Hill and the Civic Centre has been used to determine the basis for the scenarios, due to the size of these car parks and additional data available (up to October 2021). The comparison between October 2019 and October 2021 usage is summarised in the table below.

Table 17 October 2019 and 2021 Comparison

	The Hill	Civic Centre	Total
2019	21.112	35,279	56,391
2021	18,777	20,697	39,474
% of 2019 Usage	89%	59%	70%

As can be seen in the table above the combined usage for The Hill and Civic Centre had returned to 70% of the pre COVID levels for October, this has been used as the lowest level of demand for all the scenario tests.

Table 18: Car Park Surplus Capacity by Scenario (% of pre-Covid Conditions)

Scenario	Peak Occupancy	Surplus Capacity
Pre COVID (December 2019)	949	402
90%	854	497
80%	759	592
75%	712	639
70%	664	687

When considered with any potential surplus capacity at the non-council operated car parks capacities are significant.

5.2 On Street Usage

As can be seen from Figure 32 the surplus capacity for the inner CPZ zone pre-covid during September was 26 spaces (with this potentially being and underestimate because of the cross-boundary highways). The surplus spaces rose to 114 in September 2020 with demand falling by 35% when compared to 2019.

The table below shows the surplus spaces with parking at the pre-covid levels and also if the parking numbers return to a percentage.

Table 19: On-street Surplus Capacity

Scenario	Peak Occupancy	Surplus Capacity
Pre COVID (December 2019)	254	26
90%	229	51
80%	203	77
75%	190	90
70%	178	102

With the on-street data being based on September data, if the seasonality effect is in line with the off-street parking it is anticipated that the surplus would be utilised during the busy period during December.

5.3 Combined Usage

The car park and on street parking has been combined to provide the table below showing the four possible scenarios for parking demand returning to pre-covid levels.

Table 20: Combined Parking Surplus Capacity

Scenario	Peak Occupancy	Surplus Capacity
Pre COVID (December 2019)	1,173	428
90%	1056	545
80%	962	669
75%	902	729
70%	842	789

As can be seen from the table above there is surplus parking available within the parking accounts operated by LBB.

The surplus capacity of 428 spaces along with the static level of combined parking demand shown in Figure 10for the period between 2016 and 2019. With the capacity assessment being based on the busy period (December) for the car parks which is 32% higher than monthly average this surplus for the average month would be in the region of 700 spaces.

Based on the information above there is potential to reduce capacity at either The Hill or Civic Centre even during the peak month and a return to pre COVID levels of parking,.

With the 80% return to pre COVID levels scenario there is potential to remove all public parking from the Civic Centre, if the parking demand remained at the October 2021 levels there is potential to remove either The Hill or Civic Centre car parks. There are a number of additional elements which should be considered before the final amount of any reduction in parking is confirmed, these include: -

- Use of private car parks has not been included in the assessment as data has not been available, if data can be obtained any potential surplus within these car parks could enable further reduction of LBB parking provision;
- Further analysis should be undertaken for The Hill and Civic Centre as the only data available for this study was monthly summaries, if further detailed information is made available an analysis of daily variation across the week should be undertaken;
- Further analysis could be undertaken to assess the weekday usage of the elements of the council car parks which are only available to the public at weekends.

6. Conclusions & Next Steps

From the analysis of December 2019 information, there appears to be surplus parking capacity of approximately 402 spaces during weekdays and 753 spaces at weekend in council operated car parks. It should also be noted that December's figures are significantly higher than for other months, and during the remainder of the year, an additional surplus of circa 200 spaces was available.

There is the potential to reduce off-street parking capacity and still provide for the peak month of December. It is therefore prudent to consider further analysis in the following areas:

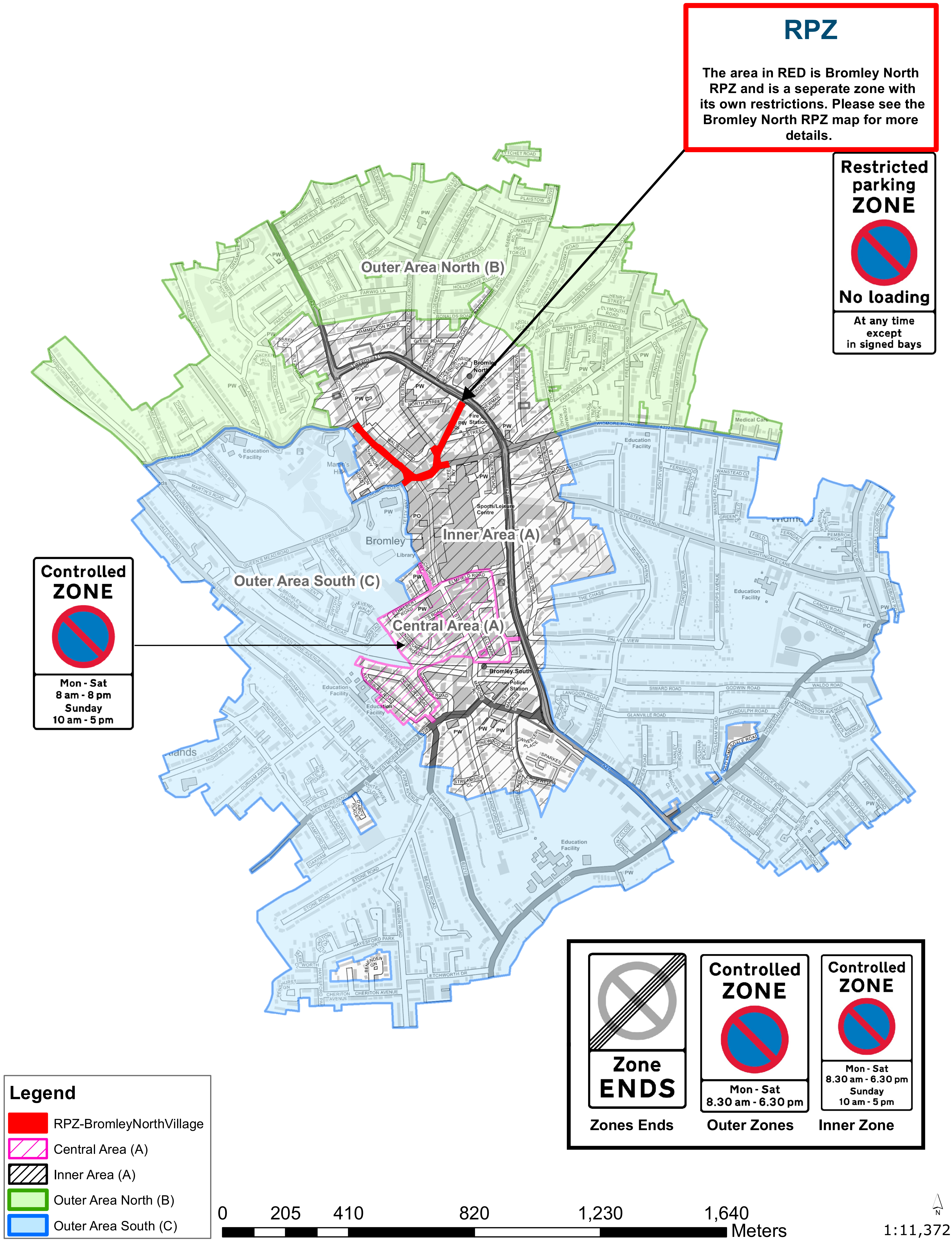
- The Hill and Civic Centre analysis has been undertaken using averages based on monthly flows; further detailed analysis should be considered to clarify the profile of usage across the week. At present the detailed information has not been made available for this to be fully undertaken;
- Discussions should be entered into with private car park operators, to confirm usage numbers of private car parks, and to explore opportunities for a town centre-wide managed approach;
- The analysis of on-street parking has currently been undertaken for a September base; further analysis could be considered for December to ensure robustness of the combined assessment if the information is made available; and
- A review of the potential impacts of car park pricing/tariffs and the impacts on usage should be undertaken.

The review of the data available shows a static parking demand between 2016 and 2019, with a significant decrease during 2020 with the introduction of Covid restrictions. During 2021 demand has shown an increase in usage compared to 2020 figure but is generally significantly below the pre-Covid (2019) data.

APPENDICES

A. Bromley Town Centre CPZ Map

Bromley Town Centre CPZ



B. Inner CPZ Highways

Highway	Assigned Zone
1022 - East Street	Inner
1023 - East Street	Inner
1002 - St Blaise Avenue	Inner
1003 - St Blaise Avenue	Inner
1018 - Palace Grove	Inner
1021 - Palace Grove	Inner
1037 - North Street	Inner
1040 - Queens Road	Inner
1047 - South Street	Inner
1048 - West Street	Inner
1065 - Cromwell Close	Inner
1067 - Florence Road (REMOVED)	Inner
1073 - Hammelton Road	Inner
1077 - Hammelton Road	Inner
1083 - Rafford Way	Inner
1085 - Rafford Way	Inner
1087 - Rafford Way	Inner
1088 - Sherman Road	Inner
1089 - Sherman Road	Inner
1092 - Station Road	Inner
1094 - Streamside Close	Inner
1097 - Station Road Car Park	Inner
1098 - Station Road Car Park	Inner
1102 - High Street North	Inner
1103 - High Street North	Inner
1104 - High Street North	Inner
2055 - Queens Road (REMOVED)	Inner
2510 - Park Road (Bottom) REMOVED	Inner
7006 - Station Road	Inner
7007 - Station Road	Inner
8002 - Station Road	Inner
Blyth Road Bromley C (6003)	Inner
Cromwell Close Bromley C - Cromwell Rover (6020)	Inner
East Street Bromley A (6009)	Inner
Florence Road Bromley C (6014)	Inner
Glebe Road Bromley C (6015)	Inner
North Street Bromley A (6008)	Inner
Palace Grove Bromley B (6012)	Inner
Park Road Bromley B (6021)	Inner
Queens Road Bromley A (6025)	Inner
Queens Road Clock House (6090)	Inner
Sherman Road Bromley B (6032)	Inner
South Street Bromley A (6037)	Inner
St Blaise Avenue Bromley B (6029)	Inner
Station Road Bromley C (6035)	Inner
Station Road Car Park Bromley (26202)	Inner
Streamside Close Bromley C (6036)	Inner
1004 - Harwood Avenue	Cross boundary
1011 - Sandford Road	Cross boundary
1012 - Sandford Road	Cross boundary
1017 - Harwood Avenue	Cross boundary
1039 - Palace View	Cross boundary
1049 - Aldermary Road	Cross boundary

1059 - College Road	Cross boundary
1062 - Cromwell Avenue	Cross boundary
1064 - Cromwell Avenue	Cross boundary
1079 - Park Road	Cross boundary
1080 - Park Road	Cross boundary
Aldermary Road Bromley C (6000)	Cross boundary
College Road Bromley B (6006)	Cross boundary
Cromwell Avenue Bromley C - Cromwell Rover (6007)	Cross boundary
Harwood Avenue Bromley B (6017)	Cross boundary
Palace View Bromley B (6023)	Cross boundary
Palace View Bromley C (6034)	Cross boundary
The Chase Bromley C (6038)	Cross boundary
Park Road Copers Cope - Road Rover (6097)	Cross boundary
1027 - Elmfield Road	Central/Inner
1029 - Elmfield Road	Central/Inner
1030 - Elmfield Road	Central/Inner
Elmfield Road Bromley A (6011)	Central/Inner
Elmfield Road Bromley A (6022)	Central/Inner
1025 - Elmfield Park	Central
1026 - Elmfield Park	Central
1033 - Ethelbert Road	Central
1035 - High Street Bromley	Central
1099 - High Street Bromley	Central
4001 - High Street	Central
4003 - High Street	Central
4004 - High Street	Central
4005 - High Street	Central
4006 - High Street	Central
4801 - High Street	Central
4802 - High Street	Central
7004 - High Street	Central
7005 - High Street	Central
Churchill Way Bromley A (6004)	Central
Elmfield Park Bromley A (6010)	Central
Ethelbert Road Bromley A (6013)	Central
High Street Bromley A (6019)	Central
High Street Bromley A (6030)	Central
High Street North Bromley A (A (5996)	Central

UK and Ireland Office Locations