Auchterarder & Aberuthven Connected Traffic and Public Transport Working Group



Auchterarder Parking Survey 2023/2024

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1 Acknowledgements

Auchterarder & Aberuthven Connected (A&A Connected) Traffic and Public Transport Working Group (T&PTWG) is extremely grateful to the members of our community who volunteered their time and energy to assist in the data gathering process for this survey.

T&PTWG would also like to acknowledge the tremendous help provided by the Grant Wilson Consultancy, which volunteered its time and resources to conduct an extensive analysis of parking data. More details of the Grant Wilson Consultancy and the services it offers can be found in the following website:

GRANT WILSON CONSULTANCY
DATA COLLECTION + CONSULTANCY

It would not have been possible to complete this survey without the help of the community volunteers and the work carried out by the Grant Wilson Consultancy.

2 Introduction

2.1 Background

A Community Action Plan (CAP) is a process aimed at finding aspects of a town or village that the community would like improved and identifying the actions required to achieve this. It has been conducted in numerous communities across Scotland, including Auchterarder and Aberuthven in 2021/22.

The development of the Auchterarder and Aberuthven CAP was well supported, with over 750 people providing feedback from a questionnaire that was circulated throughout the community and over 300 people attending associated consultation days. Analysis of the information provided by members of the community found that over 70% of respondents believed parking in Auchterarder was a problem that required to be improved.

As a result, the finalised CAP Action Plan 2022-2027 included an action to prepare a parking strategy document for the centre of Auchterarder. Development of this would be overseen by the newly formed T&PTWG, a sub-group of A&A Connected, one of whose priorities is to address traffic management in Auchterarder, focusing on making our road network safer, better managed and more effective.

2.2 Parking Survey Objectives

In order to inform the development of the parking strategy mentioned above, it was necessary to gain a greater understanding of parking behaviour within the centre of Auchterarder.

A parking survey of the area had been undertaken on behalf of Perth and Kinross Council (PKC) in 2017, which provided some useful information to the group. However, the T&PTWG noted that the survey was undertaken some time ago, prior to the recent expansion of Auchterarder, whilst the driving habits of many have changed in the intervening period, predominantly due to the ongoing impact of the COVID19 lockdowns on working arrangements. Consequently, the data in the survey may not accurately reflect current parking trends. In addition, it was not possible to see the parking patterns in each individual parking area due to the way the data was presented in the report. Therefore, parking behaviour in the centre of the High Street could not be analysed in detail.

As a result of the above, the T&PTWG decided to carry out an updated parking survey, with the following objectives:

1. To provide data that accurately and objectively reflects current parking patterns on Auchterarder High Street, to a level of detail whereby it can be used to inform the development of a parking strategy for the area; and
2. To create a parking database that can be used as a benchmark against which the effectiveness of any future changes to parking provision implemented can be measured.

2.3 Parking Survey Methodology and Extents

The parking survey employed the 'Lambeth Parking Survey Methodology,' which is considered a standard approach within the parking industry. Originally used by Lambeth Council, it is a process designed to determine the level of 'stress' of parking areas by comparing the number of parking spaces occupied against the maximum capacity. Areas with an occupancy level of 85% or greater are generally considered to be under high stress. In such situations, users typically have difficulty in finding a parking spaces, potentially leading to:

- increased anxiety for the individual drivers as they seek a parking opportunity,
- a possible reduction in road safety due the higher levels of driver distraction as they search for a space, which may then lead to collisions with non-motorised users or other vehicles; and
- a potential drop in business for surrounding retailers as visitors to the area who fail to find a space may decide to abandon their attempts and continue their journey.

In addition to occupancy levels, the survey also considered parking durations to determine how long vehicles were parking in the survey area. This factor provides a deeper understanding of how the parking areas are serving the surrounding community and, importantly, how they are supporting the business community and facilitating access to central Auchterarder. As an example, a parking area may have a high occupancy level, but if the parking durations of individual vehicles are low (and therefore turnover is high) then drivers will be more likely to find a space in a reasonable period of time. However, where parking is under high stress and the parking durations of vehicles are generally longer, then there is less chance of a space becoming available and therefore customer/visitor turnover levels will drop. In simple terms, a parking space can service 24 potential visitors over a 12-hour period if they stay for 30 minutes or less but will only cater for one potential visitor if that person parks for the full 12 hours. Analysis of parking durations is therefore key to understanding the balance between the necessary long-term parking needs of residents and workers within the area, and the short-term parking availability for leisure and retail customers.

The parking data for the survey was gathered over a 12-hour period on both Wednesday, 20th September 2023 and Saturday, 23rd September 2023. The 12-hour period was chosen as this comfortably covers a working day for most businesses, whilst gathering data for a weekday and during the weekend is normal practice due to the contrasting parking trends during these periods. No significant local events that may have impacted upon parking behaviour were taking place in the general vicinity of Auchterarder on these days.

To enable a detailed analysis of parking behaviour, the High Street parking (and the Crown Car Park) was split into individual parking zones, the extents of which are described in **Table 1** and shown in **Figure 1** to **Figure 4**.

Table 1 Parking Zone Extents

Parking Zone Reference	Zone Extents	Side of Carriageway
A	The Old Dairy to Castleton Road	North
B	Castleton Road to Rossie Place	North
C	Rossie Place to St Kessog's Place	North
D	St Kessog's Place to access by the Auchter Larder	North
E	Access by the Auchter Larder to North Crofts	North
F	Sydney Crescent to Rossie Place	South
G	Rossie Place to Orchil Towers School access	South
H	Orchil Towers School Access to Co-op Access	South
J	North Crofts to Chapel Wynd	North
K	Chapel Wynd to New School Lane	North
L	Crown Car Park Access to Ruthven Street	South
N/A	Crown Inn Access	South
N/A	Crown Inn Car Park	South
M	New School Lane to Castle Wynd	North
N	Castle Wynd to John Law Court	North
O	John Law Court to Hunter Street	North
P	Ruthven Street to Montrose Road	South
Q	Montrose Rose to Abbotsfield Terrace	South
R	Abbotsfield Terrace to Abbey Road	South



Figure 1 Parking Zone Location Plan (1 of 4)

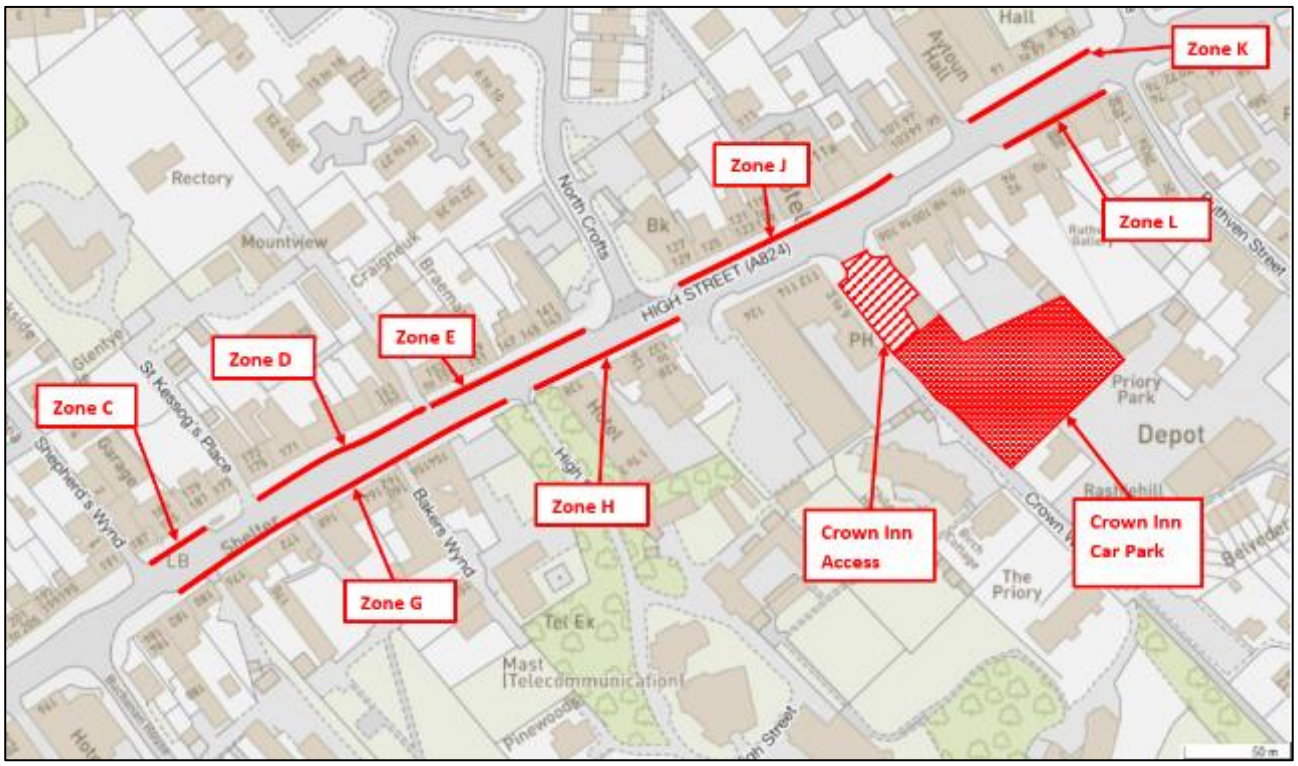


Figure 2 Parking Zone Location Plan (2 of 4)

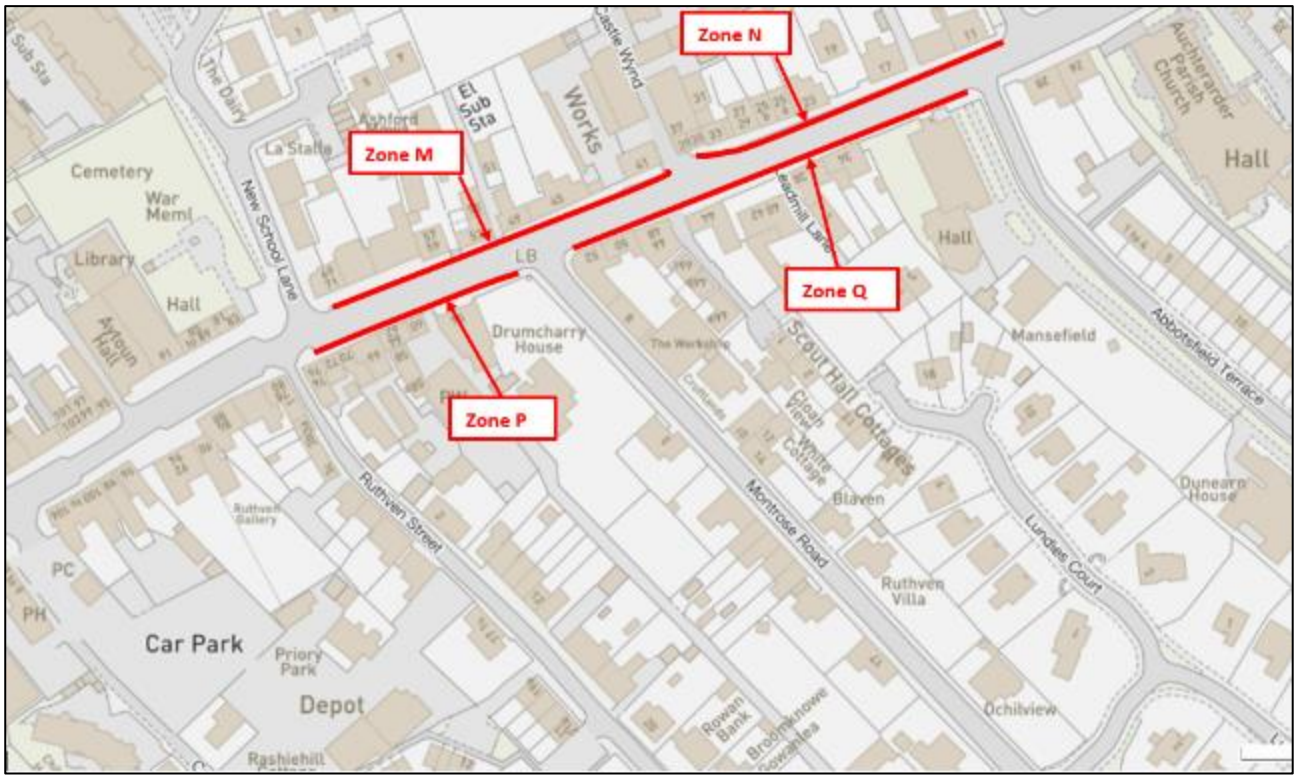


Figure 3 Parking Zone Location Plan (3 of 4)



Figure 4 Parking Zone Location Plan (4 of 4)

Each zone was then surveyed every 30 minutes during the survey periods with the partial number plates of each parked vehicles recorded each time. This approach provided sufficient information to calculate approximate parking durations and turnovers whilst ensuring the data gathered was sufficiently anonymous to comply with the General Data Protection Regulation (GDPR).

Once the data had been gathered, the hand-written information was transferred onto electronic spreadsheets, which were then analysed to provide the survey results.

2.4 Parking Survey Limitations and Omissions.

Under normal circumstances, the undertaking of a parking survey would not be publicised as this may influence parking behaviour. However, as the T&TWG required volunteers to carry out the data-gathering for the survey, it was necessary to advise the community of this in advance. Consequently, this may have caused some variation from normal parking habits. To evaluate this, the T&TWG undertook an additional survey of selected zones on Wednesday 20th March 2024 that was not publicised beforehand. This recorded parking occupancies and durations that were generally consistent with those previously found, indicating the effect of advertising the original survey on parking habits was minimal.

The focus of the responses to the CAP consultation activity was parking on Auchterarder High Street and the survey was limited to this area due, in part, to the number of volunteers available for the data collection. However, the T&TWG acknowledges that this forms part of a larger parking network in Auchterarder. Consequently, any changes proposed to parking arrangements based upon the findings of this report will potentially have impacts beyond the survey extents.

It is necessary to determine parking capacities when considering parking stress levels. This is straightforward when an area contains individually marked parking bays, but less so when parking zones are unmarked, as was the case of Auchterarder High Street when the data-gathering for this survey was undertaken. In such situations, it is normal practice to measure the overall length of each parking area and divide this by five metres (the approximate length of a regular parking bay) to find the capacity. However, this process does not consider the quality of parking, which can reduce capacities significantly, e.g. some drivers may decide to occupy an area that could contain two vehicles, instantly reducing parking availability.

The T&PTWG validated the on-street parking capacity figures that were calculated using the five-metre process mentioned above by observing the parking areas when full and comparing the vehicle frequencies found to those calculated. It found that the five-metre process consistently over-estimated parking availability in this area, which was more in line with dividing the overall parking length by six metres. Consequently, the parking capacities used for data analysis in this report are based upon six-metre bays.

The parking capacities used do not include disabled bays as the sometimes-sporadic use of these can affect the calculated parking occupancy levels. The survey did however record the usage of these marked bays and commentary on this is provided in section **3.5**.

It was noted during the data collection on Wednesday 20th September 2024 that ongoing public service works had reduced the capacity of Zone G and this is reflected in the data analysis.

The original data-gathering process did not distinguish between the use of standard and electric charging bays in the Crown Inn Car Park. It was noted during the data analysis process that this approach did not allow the calculation of accurate occupancy levels for standard bays as observed by the survey volunteers due to the lower typical use of the electric bays. The subsequent survey on Wednesday 20th March 2024 recorded the occupancy of these parking bay types separately and found that, on average, approximately one electric charging space (out of eight) was occupied throughout the day. Consequently, it was decided to omit the electric charging bays from the analysis, by reducing the car park capacity by eight and reducing recorded occupancy levels by one throughout the day. It is recognised that this variation will not provide completely accurate results, due to fluctuation of electric bay use during each of the original survey days, but it provides indicative occupancy level of standard bays in this car park that are generally consistent with surveyor observations.

Based upon the above, the Parking Zone capacities used for the data analysis is detailed in **Table 2**.

Table 2 Parking Zone capacities used in survey analysis.

Zone	Standard Parking Capacity
Zone A	33
Zone B	8
Zone C	3
Zone D	8
Zone E	8
Zone F	33
Zone G (Wed)	12
Zone G (Sat)	16
Zone H	6
Zone J	10
Zone K	2
Zone L	6
Crown Inn Access	6
Crown Inn Car Park (Standard Bays Only)	33
Zone M	13
Zone N	16
Zone O	11
Zone P	8
Zone Q	19
Zone R	21



PKC installed marked parking bays in most of the High Street zones covered by the survey in summer 2024. A comparison of the number of marked bays in each affected zone (excluding disabled bays) against the calculated capacities used in the survey analysis process is shown in **Table 3**.

Table 3 Comparison of High Street parking zone capacities against associated number of marked parking bays

Zone	Parking Zone Capacities Used in Survey Analysis	Number of Marked Bays per Zone	Difference
Zone A	33	23*	N/A
Zone B	8	7	-1
Zone C	3	3	0
Zone D	8	9	1
Zone E	8	9	1
Zone F	33	27	-6
Zone G	16	15	-1
Zone H	6	6	0
Zone J	10	10	0
Zone K	2	1	-1
Zone L	6	6	0
Zone M	13	13	0
Zone N	16	14	-2
Zone O	11**	8***	N/A
Zone P	8	7	-1
Zone Q	19	18	-1
Zone R	21	19	-2

* - Zone partially marked
** - Including lay-by at Police Station
*** - Not including lay-by at Police Station

It can be seen from **Table 3** that the zone capacities used for the survey analysis are very similar to the number of marked bays in most cases, with the majority of zones differing in number by no more than one.

Zone F, which has six less marked bays than the survey capacity used, is the only zone with a significant difference. This may be as a result of the frequency and position of private accesses, and updated extents of double yellow lines/hatched areas that may have reduced the achievable number of bays. However, it should be noted that the survey has used a higher parking capacity in this case and so the survey results for this zone will be conservative.



3 Parking Survey Data Analysis

3.1 Overall Parking Survey Extents

Over the course of two surveys days, a total of 7,872 data entries were recorded by the surveyors, covering 1,766 individual vehicles. Slightly more entries were recorded on the Wednesday (4,028 in comparison 3,844), however this covered slightly less vehicles (853 compared to 913) indicating that the average parking durations of vehicles on the Wednesday was slightly longer (2.37 hours compared to 2.12 hours).

Table 4 contains total figures per day for vehicle numbers, vehicle durations and data entries per survey day, along with a breakdown of these for each zone.

Table 4 Vehicle numbers and durations, and data entry numbers

	Wednesday 20th September 2023				Saturday 23rd September 2023			
	Combined durations (hours)	Average duration per vehicle (hours)	Total vehicles (number)	Total data entries (number)	Combined durations (hours)	Average duration per vehicle (hours)	Total vehicles (number)	Total data entries (number)
Zone A	202	2.62	77	403	262	4.22	62	524
Zone B	65	1.47	44	129	66	2.85	23	125
Zone C	38	4.22	9	76	32	1.43	22	63
Zone D	87	2.81	31	174	77	1.33	58	152
Zone E	79	1.87	42	157	79	1.43	55	157
Zone F	215	1.89	114	429	214	1.89	113	425
Zone G	112	2.49	45	224	141	2.20	64	282
Zone H	52	3.43	15	103	65	2.15	30	117
Zone J	100	1.75	57	199	99	1.38	72	198
Zone K	23	1.61	14	45	23	1.02	22	45
Zone L	67	2.31	29	134	54	2.33	23	107
Zone M	123	2.93	42	246	103	2.63	39	205
Zone N	135	3.28	41	256	77	2.47	31	153
Zone O	66	2.52	26	131	66	2.43	27	131
Zone P	78	2.44	32	156	77	3.08	25	154
Zone Q	142	2.14	66	280	94	3.02	31	187
Zone R	104	2.04	51	208	96	1.78	54	191
Crown Car Park Access	60	2.59	23	119	63	1.69	37	125
Crown Car Park	280	2.94	95	559	253	2.02	125	503
Total	2023	2.37	853	4028	1935	2.12	913	3844

The pattern of parked vehicle numbers throughout each day, shown in **Figure 5**, is similar for both days, with numbers increasing from 7am before levelling out at around 10 to 10:30 am. They then steadily decrease throughout the afternoon, with the numbers falling off slightly more sharply on the Saturday.

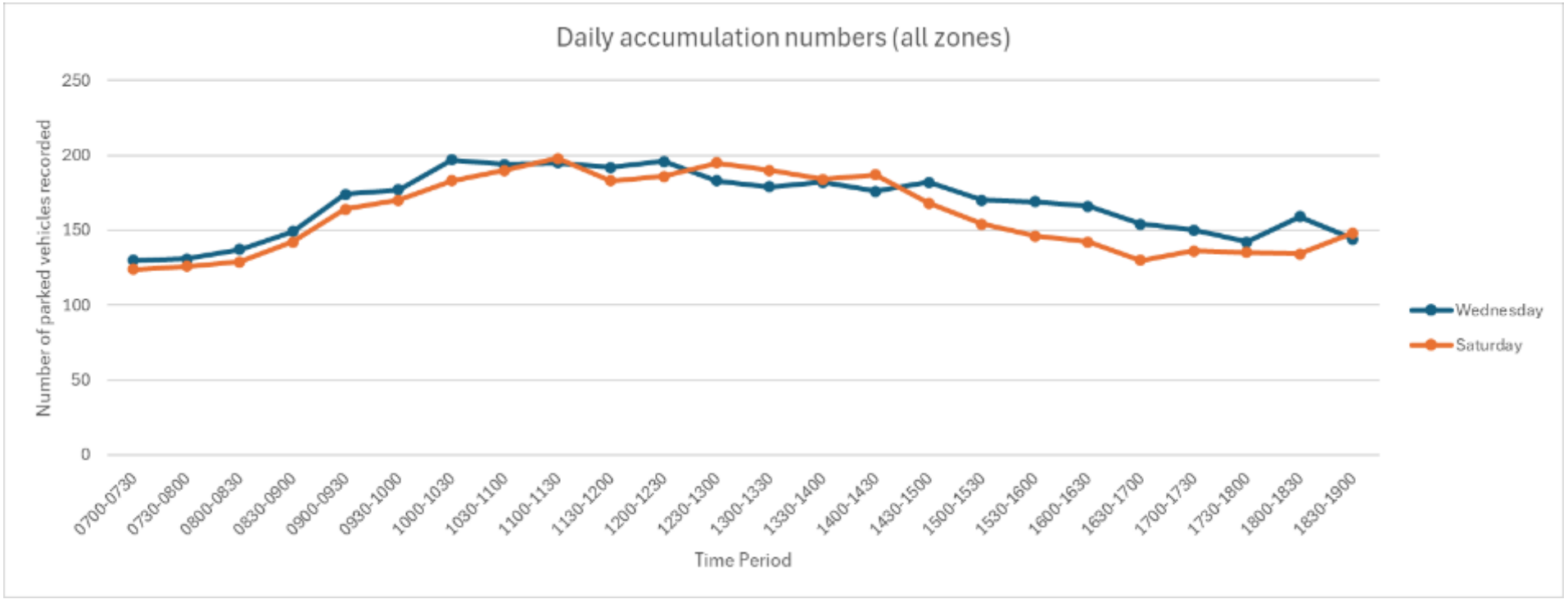
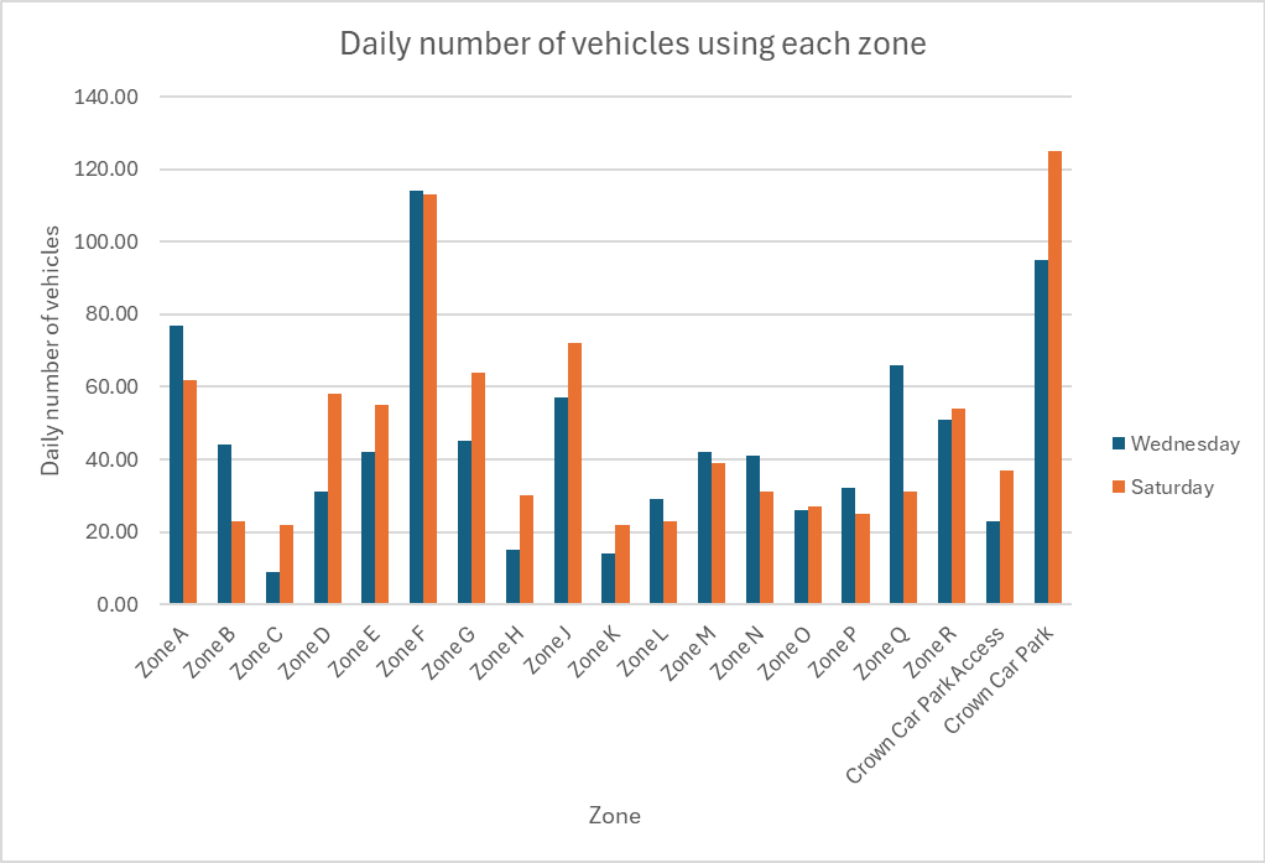


Figure 5 Daily accumulation Numbers (all zones)

The distribution of the parked vehicles over the parking zones is shown in **Figure 6**. It can be seen from this that more vehicles typically tended to use the zones furthest from the centre of the High St (Zones A, B and F and Zones M to R) during Wednesday, with Zones A, B and Q accommodating significantly more during the weekday. Conversely, the more central zones catered for higher vehicle numbers on the Saturday, with most of these zones showing a marked increase at the weekend.

Figure 6 Daily number of vehicles using each zone.



3.2 Parking Accumulation and Occupation (Stress) Levels

A summary of the parking accumulation levels (the number of parked vehicles recorded per zone during each survey time period) for both survey days are shown in **Table 5** and **Table 6**, and graphs comparing the daily figures for each zone are contained in **Appendix A.** The graphs show that the usage pattern in each zone can vary substantially, possibly reflecting the differing user types over both days. It should also be noted that many of the zone capacities can be identified from the graphs as the parking figures plateau at this level.

Table 5 Parking accumulations per zone - Wednesday

Wednesday 20th September 2023	Zone Capacity	Time Period																						
		0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
Zone A	33	22	19	17	16	16	17	20	18	16	16	16	14	16	17	15	16	14	16	17	16	16	15	19	19
Zone B	8	6	4	3	4	6	6	6	6	5	7	10	6	6	5	6	5	5	5	5	5	4	3	6	5
Zone C	3	4	4	4	4	3	3	3	3	4	4	4	3	2	3	2	3	3	3	3	3	3	2	3	3
Zone D	8	5	4	5	6	8	8	8	8	8	8	8	8	8	8	7	8	7	6	7	7	7	9	9	7
Zone E	8	2	4	5	8	8	8	8	8	7	7	8	7	8	8	6	6	7	8	6	7	8	7	5	1
Zone F	33	22	21	16	16	18	17	19	19	23	20	20	20	19	18	18	19	17	19	16	15	14	13	16	14
Zone G	12	4	4	9	8	9	10	10	10	10	11	11	9	10	10	10	9	10	8	10	11	11	11	10	9
Zone H	6	3	4	4	5	5	5	5	5	5	5	5	5	5	4	5	4	4	5	4	5	4	3	2	2
Zone J	10	5	4	5	6	11	10	9	10	10	9	10	8	7	10	10	10	9	8	9	7	8	7	10	7
Zone K	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2	1	4	1	2	2	1	1	1	5	1
Zone L	6	5	5	6	5	6	6	6	6	6	6	6	6	5	6	5	6	6	6	6	5	4	5	5	6
Zone M	13	8	7	8	7	11	12	12	12	11	10	11	11	10	11	10	11	11	10	8	8	12	12	12	11
Zone N	16	7	7	7	7	9	10	12	12	12	11	13	14	13	12	12	11	13	12	11	11	10	10	10	10
Zone O	11	3	3	5	5	7	8	8	8	8	8	9	7	6	6	6	7	5	4	4	3	2	2	3	4
Zone P	8	5	5	3	5	6	6	7	8	8	8	7	7	7	8	6	8	7	7	7	7	6	6	6	6
Zone Q	19	7	8	8	11	11	12	15	16	15	16	14	14	14	13	12	11	10	11	12	12	11	9	9	9
Zone R	21	2	2	2	2	5	5	13	13	14	11	11	9	11	11	12	11	9	10	10	9	10	11	8	7
Crown Car Park Access	6	2	2	4	6	6	6	7	6	6	6	6	6	6	6	6	6	7	5	6	2	2	1	4	5
Crown Car Park	33	16	23	25	26	27	26	27	24	25	27	25	27	24	24	27	27	25	24	23	20	17	15	17	18

Table 6 Parking accumulations per zone - Saturday

Saturday 23rd September 2023	Zone Capacity	Time Period																						
		0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
Zone A	33	25	25	25	24	24	21	20	19	22	22	23	26	27	25	25	21	19	19	20	19	19	17	17	20
Zone B	8	4	4	4	5	6	5	6	6	6	6	6	6	0	6	5	6	5	6	4	6	6	5	6	6
Zone C	3	2	2	2	2	2	4	4	4	4	4	3	3	3	2	2	2	1	3	1	3	3	1	3	3
Zone D	8	4	4	4	4	7	7	7	8	9	7	7	8	8	8	6	7	6	7	8	4	5	4	6	7
Zone E	8	3	3	3	4	7	7	8	8	8	8	8	7	8	8	8	8	7	8	4	5	5	7	7	8
Zone F	33	18	16	16	16	16	19	17	25	26	21	20	23	17	18	23	19	17	14	13	12	12	17	14	16
Zone G	16	5	7	7	8	9	9	16	16	16	14	15	13	15	15	14	15	12	11	13	12	10	10	10	10
Zone H	6	5	5	5	5	5	5	6	6	6	6	6	6	6	4	6	6	4	4	3	4	4	4	2	4
Zone J	10	5	3	4	7	6	10	10	10	10	10	10	10	9	9	10	10	10	8	8	7	7	9	8	8
Zone K	2	1	2	1	2	2	2	2	2	5	2	2	2	2	2	2	2	2	2	2	1	1	2	0	2
Zone L	6	1	1	2	4	6	6	6	5	6	6	6	6	6	6	6	4	6	5	4	4	2	2	3	4
Zone M	13	8	7	7	7	9	10	10	9	10	10	12	13	12	10	10	7	7	6	8	6	7	6	7	7
Zone N	16	8	8	8	8	7	7	5	6	7	7	5	8	9	7	6	5	4	6	6	5	5	5	4	7
Zone O	11	2	2	2	2	3	3	4	5	5	4	8	9	10	7	9	5	6	6	6	4	7	8	8	6
Zone P	8	5	5	5	6	7	7	7	7	7	7	7	7	7	7	7	6	6	5	7	7	6	7	7	5
Zone Q	19	8	8	10	10	10	11	10	10	10	9	8	7	10	7	6	6	6	6	5	7	5	6	6	6
Zone R	21	5	5	5	5	6	6	13	10	9	8	8	9	11	9	8	8	9	6	9	6	8	9	9	10
Crown Car Park Access	6	2	4	4	5	6	6	7	6	6	6	6	6	5	6	6	6	6	6	4	4	5	3	5	5
Crown Car Park	33	13	15	15	18	26	25	25	28	26	26	26	26	25	28	28	25	21	18	17	14	19	13	12	14

Table 7 and **Table 8** provide a summary of parking occupation (stress) levels (the proportion of the parking capacity used) throughout each survey day. As mentioned previously, it is generally accepted that occupation levels of 85% and over indicate that the associated parking area is under high stress. To aid the visual identification of such instances, the tables below have been colour-coded, with occupation levels of 85% and above highlighted in red and those approaching this level (between 70% and 85%) shown in orange. All periods with an occupation level of less than 70% are coloured green.

Table 7 Parking occupation (stress) levels per zone - Wednesday

Wednesday 20th September 2023	Time Period																						Average	Average 08:30 - 16:30
	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900		
Zone A	67%	58%	52%	48%	48%	52%	61%	55%	48%	48%	48%	42%	48%	52%	45%	48%	42%	48%	52%	48%	48%	45%	58%	58%	51%	49%
Zone B	75%	50%	38%	50%	75%	75%	75%	75%	63%	88%	125%	75%	75%	63%	75%	63%	63%	63%	63%	63%	50%	38%	75%	63%	67%	73%
Zone C	133%	133%	133%	133%	100%	100%	100%	100%	133%	133%	133%	100%	67%	100%	67%	100%	100%	100%	100%	100%	100%	67%	100%	100%	106%	104%
Zone D	63%	50%	63%	75%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	88%	100%	88%	75%	88%	88%	88%	113%	113%	88%	91%	95%
Zone E	25%	50%	63%	100%	100%	100%	100%	100%	88%	88%	100%	88%	100%	100%	75%	75%	88%	100%	75%	88%	100%	88%	63%	13%	82%	92%
Zone F	67%	64%	48%	48%	55%	52%	58%	58%	70%	61%	61%	61%	58%	55%	55%	58%	52%	58%	48%	45%	42%	39%	48%	42%	54%	56%
Zone G	33%	33%	75%	67%	75%	83%	83%	83%	83%	92%	92%	75%	83%	83%	83%	75%	83%	67%	83%	92%	92%	92%	83%	75%	78%	81%
Zone H	50%	67%	67%	83%	83%	83%	83%	83%	83%	83%	83%	83%	67%	83%	67%	67%	67%	83%	67%	83%	67%	50%	33%	33%	72%	79%
Zone J	50%	40%	50%	60%	110%	100%	90%	100%	100%	90%	100%	80%	70%	100%	100%	100%	90%	80%	90%	70%	80%	70%	100%	70%	83%	91%
Zone K	100%	50%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	200%	50%	100%	100%	50%	50%	50%	250%	50%	94%	100%
Zone L	83%	83%	100%	83%	100%	100%	100%	100%	100%	100%	100%	100%	83%	100%	83%	100%	100%	100%	100%	83%	67%	83%	83%	100%	93%	97%
Zone M	62%	54%	62%	54%	85%	92%	92%	92%	85%	77%	85%	85%	77%	85%	77%	85%	85%	77%	62%	62%	92%	92%	92%	85%	79%	81%
Zone N	44%	44%	44%	44%	56%	63%	75%	75%	75%	69%	81%	88%	81%	75%	75%	69%	81%	75%	69%	69%	63%	63%	63%	63%	67%	72%
Zone O	27%	27%	45%	45%	64%	73%	73%	73%	73%	73%	82%	64%	55%	55%	55%	64%	45%	36%	36%	27%	18%	18%	27%	36%	50%	60%
Zone P	63%	63%	38%	63%	75%	75%	88%	100%	100%	100%	88%	88%	88%	100%	75%	100%	88%	88%	88%	88%	75%	75%	75%	75%	81%	88%
Zone Q	37%	42%	42%	58%	58%	63%	79%	84%	79%	84%	74%	74%	74%	68%	63%	58%	53%	58%	63%	63%	58%	47%	47%	47%	61%	68%
Zone R	10%	10%	10%	10%	24%	24%	62%	62%	67%	52%	52%	43%	52%	52%	57%	52%	43%	48%	48%	43%	48%	52%	38%	33%	41%	47%
Crown Car Park Access	33%	33%	67%	100%	100%	100%	117%	100%	100%	100%	100%	100%	100%	100%	100%	100%	117%	83%	100%	33%	33%	17%	67%	83%	83%	101%
Crown Car Park	39%	56%	61%	63%	66%	63%	66%	59%	61%	66%	61%	66%	59%	59%	66%	66%	61%	59%	56%	49%	41%	37%	41%	44%	57%	62%
Crown Car Park Excluding Electric Bays (indicative)	45%	67%	73%	76%	79%	76%	79%	70%	73%	79%	73%	79%	70%	70%	79%	79%	73%	70%	67%	58%	48%	42%	48%	52%	68%	74%

Table 8 Parking occupation (stress) levels per zone - Saturday

Saturday 23rd September 2023	Time Period																						Average	Average 09:00 - 16:30
	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900		
Zone A	76%	76%	76%	73%	73%	64%	61%	58%	67%	67%	70%	79%	82%	76%	76%	64%	58%	58%	61%	58%	58%	52%	52%	61%	66%	67%
Zone B	50%	50%	50%	63%	75%	63%	75%	75%	75%	75%	75%	75%	0%	75%	63%	75%	63%	75%	50%	75%	75%	63%	75%	75%	65%	66%
Zone C	67%	67%	67%	67%	67%	133%	133%	133%	133%	133%	100%	100%	100%	67%	67%	67%	33%	100%	33%	100%	100%	33%	100%	100%	88%	93%
Zone D	50%	50%	50%	50%	88%	88%	88%	100%	113%	88%	88%	100%	100%	100%	75%	88%	75%	88%	100%	50%	63%	50%	75%	88%	79%	92%
Zone E	38%	38%	38%	50%	88%	88%	100%	100%	100%	100%	100%	88%	100%	100%	100%	100%	88%	100%	50%	63%	63%	88%	88%	100%	82%	93%
Zone F	55%	48%	48%	48%	48%	58%	52%	76%	79%	64%	61%	70%	52%	55%	70%	58%	52%	42%	39%	36%	36%	52%	42%	48%	54%	58%
Zone G	31%	44%	44%	50%	56%	56%	100%	100%	100%	88%	94%	81%	94%	94%	88%	94%	75%	69%	81%	75%	63%	63%	63%	63%	73%	85%
Zone H	83%	83%	83%	83%	83%	83%	100%	100%	100%	100%	100%	100%	100%	67%	100%	100%	67%	67%	50%	67%	67%	67%	33%	67%	81%	88%
Zone J	50%	30%	40%	70%	60%	100%	100%	100%	100%	100%	100%	100%	90%	90%	100%	100%	100%	80%	80%	70%	70%	90%	80%	80%	83%	93%
Zone K	50%	100%	50%	100%	100%	100%	100%	100%	250%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	50%	100%	0%	100%	94%	110%
Zone L	17%	17%	33%	67%	100%	100%	100%	83%	100%	100%	100%	100%	100%	100%	100%	67%	100%	83%	67%	67%	33%	33%	50%	67%	74%	93%
Zone M	62%	54%	54%	54%	69%	77%	77%	69%	77%	77%	92%	100%	92%	77%	77%	54%	54%	46%	62%	46%	54%	46%	54%	54%	66%	73%
Zone N	50%	50%	50%	50%	44%	44%	31%	38%	44%	44%	31%	50%	56%	44%	38%	31%	25%	38%	38%	31%	31%	31%	25%	44%	40%	40%
Zone O	18%	18%	18%	18%	27%	27%	36%	45%	45%	36%	73%	82%	91%	64%	82%	45%	55%	55%	55%	36%	64%	73%	73%	55%	50%	55%
Zone P	63%	63%	63%	75%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	75%	75%	63%	88%	88%	75%	88%	88%	63%	80%	84%
Zone Q	42%	42%	53%	53%	53%	58%	53%	53%	53%	47%	42%	37%	53%	37%	32%	32%	32%	32%	26%	37%	26%	32%	32%	32%	41%	42%
Zone R	24%	24%	24%	24%	29%	29%	62%	48%	43%	38%	38%	43%	52%	43%	38%	38%	43%	29%	43%	29%	38%	43%	43%	48%	38%	41%
Crown Car Park Access	33%	67%	67%	83%	100%	100%	117%	100%	100%	100%	100%	100%	83%	100%	100%	100%	100%	100%	67%	67%	83%	50%	83%	83%	87%	98%
Crown Car Park	32%	37%	37%	44%	63%	61%	61%	68%	63%	63%	63%	63%	61%	68%	68%	61%	51%	44%	41%	34%	46%	32%	29%	34%	51%	60%
Crown Car Park Excluding Electric Bays (indicative)	36%	42%	42%	52%	76%	73%	73%	82%	76%	76%	76%	76%	73%	82%	82%	73%	61%	52%	48%	39%	55%	36%	33%	39%	60%	72%

It is clear from these tables that a parking stress level are high over a considerable proportion of the zones and time periods surveyed on both survey days. Further visual analysis of these figures has identified that the high stress levels were most prevalent between 08:30 and 16:30 on the Wednesday from 09:00 to 16:30 on the Saturday. Average occupation levels for these time periods have therefore been included in the tables.

It should also be noted that the zones most affected by the high stress levels are those closest to the centre of the High Street (approximately from Rossie Place to Castle Wynd, including the Crown Car Park).

3.3 Parking durations and proportions of long-term parking

The parking durations of vehicles in each zone of the survey period are summarised in **Table 9** and **Table 10**.

To understand the trend of parking durations across the survey zones, the total number of survey entries, and the proportion of these associated with shorter- and longer-term parking (0 to 3 hours and 3 to 12 hours), are also shown in the tables below. The final column in each table, which contains the proportion of survey entries associated with longer-term parking, is colour-coded to highlight zones where this proportion was 60% or more (purple). Zones with a proportion of less than 60% are shaded blue.

An explanation of how the proportions of total survey entries were calculated is contained in **Appendix C**, along with graphs comparing the parking duration data between the survey days.

Table 9 Parking durations per zone - Wednesday

Wednesday 20th September 2023	Time Period																								Total vehicles	Total survey entries recorded	Proportion of survey entries relating to up to 3 hours parking duration	Proportion of survey entries relating to 3 - 12 hour parking duration
	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00				
Zone A	24	14	7	4	4	5	2	3	1	2	0	1	2	0	0	1	1	2	1	0	0	0	0	3	77	404	27%	73%
Zone B	21	10	1	2	4	1	1	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	44	129	56%	44%
Zone C	1	2	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	9	76	16%	84%
Zone D	12	3	4	3	1	0	0	0	1	0	0	0	1	2	0	0	0	1	1	2	0	0	0	0	31	174	27%	73%
Zone E	18	9	4	5	0	0	0	1	0	0	2	0	0	0	0	1	0	0	0	1	0	0	1	0	42	157	43%	57%
Zone F	59	16	12	6	1	4	3	0	0	1	0	1	0	0	1	4	1	0	1	1	0	0	0	3	114	430	36%	64%
Zone G	23	3	2	3	1	3	0	2	0	0	0	0	1	1	0	1	1	2	0	1	0	1	0	0	45	224	23%	77%
Zone H	7	1	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	1	15	103	16%	84%
Zone J	33	11	1	1	0	1	2	0	1	3	0	0	0	0	0	1	0	0	1	0	1	1	0	0	57	199	31%	69%
Zone K	10	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	14	45	31%	69%
Zone L	13	5	3	0	1	0	2	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	29	134	28%	72%
Zone M	17	5	6	1	0	0	2	1	0	0	0	2	1	1	0	1	1	0	0	0	0	2	1	1	42	246	20%	80%
Zone N	16	10	3	0	0	0	1	0	0	1	0	0	0	0	2	1	0	0	1	0	0	1	0	5	41	269	17%	83%
Zone O	11	5	2	0	2	0	0	0	0	0	0	1	1	1	0	0	2	0	0	0	1	0	0	0	26	131	28%	72%
Zone P	13	8	4	1	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	1	0	0	2	32	156	29%	71%
Zone Q	27	14	4	7	3	0	1	0	1	1	0	1	0	1	0	0	1	2	0	1	0	0	0	2	66	283	39%	61%
Zone R	17	14	7	3	3	1	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	2	51	208	45%	55%
Crown Car Park Access	14	2	0	1	0	0	0	0	0	0	1	0	0	0	1	0	2	1	1	0	0	0	0	0	23	119	18%	82%
Crown Car Park	33	16	7	5	5	2	4	2	1	2	1	1	0	2	0	2	2	1	0	0	1	2	1	5	95	559	23%	77%

Table 10 Parking durations per zone – Saturday

Saturday 23rd September 2023	Time Period																								Total vehicles	Total survey entries recorded	Proportion of survey entries relating to up to 3 hours parking duration	Proportion of survey entries relating to 3 - 12 hour parking duration
	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00				
Zone A	13	6	4	6	5	2	5	1	0	1	0	1	3	0	0	4	1	0	0	0	0	0	0	10	62	523	16%	84%
Zone B	11	1	1	0	1	3	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	1	23	131	16%	84%
Zone C	8	7	0	1	3	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	63	65%	35%
Zone D	33	10	5	4	0	1	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	58	154	55%	45%
Zone E	26	10	10	2	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	55	157	57%	43%
Zone F	74	10	7	1	3	1	2	0	2	0	0	2	1	0	0	1	2	0	0	0	0	0	0	7	113	427	31%	69%
Zone G	31	10	5	4	2	1	0	1	0	1	0	3	0	0	0	0	1	0	1	0	0	0	2	2	64	282	33%	67%
Zone H	14	3	2	2	2	1	1	0	0	0	1	1	1	0	0	0	1	0	1	0	0	0	0	0	30	129	34%	66%
Zone J	45	6	8	3	3	1	0	2	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	1	72	198	55%	45%
Zone K	17	2	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	45	47%	53%
Zone L	9	3	2	1	2	0	1	1	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	23	107	33%	67%
Zone M	18	6	2	1	0	3	0	0	2	1	0	0	0	0	0	0	1	2	0	1	0	1	0	1	39	205	20%	80%
Zone N	8	4	3	3	2	2	3	0	1	2	1	1	0	0	0	0	0	0	0	0	1	0	0	0	31	153	31%	69%
Zone O	11	2	8	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	27	131	34%	66%
Zone P	9	4	0	3	0	1	0	0	1	0	0	3	0	0	1	1	0	0	1	0	0	0	0	1	25	154	19%	81%
Zone Q	13	4	1	1	1	1	0	2	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	3	31	187	18%	82%
Zone R	19	13	7	4	2	2	1	1	0	1	0	1	0	1	0	1	0	0	0	0	1	0	0	0	54	192	48%	52%
Crown Car Park Access	24	3	4	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	37	125	34%	66%
Crown Car Park	66	15	13	3	6	3	1	0	2	1	1	1	0	1	1	3	1	0	0	1	0	1	3	2	125	506	35%	65%

Analysis of the tables above and graphs contained in the appendix show that generally there was a lower proportion of short-term parkers in the central area of the High Street (including the Crown Car Park and access) on the Wednesday than the Saturday and vice versa for the zones located at either end of the survey extents This suggests a lower turnover of parked vehicles in the centre of the High Street (including the Crown Car Park and access) during the weekday and is consistent with the pattern of vehicle numbers shown in **Figure 6** (lower turnover equals lower vehicle numbers).

The colour coding clearly shows that the majority of zones have a high proportion of survey entries associated with longer-term parking. As mentioned in section **2.3,** this in itself may not highlight a problem as occupation levels may be low enough to accommodate the longer-term parking whilst allowing short-term parking opportunities. However, where occupation levels are high, then longer parking durations will significantly affect potential turnover and further limit parking opportunities.

3.4 Parking Occupancy/Duration matrix

To better understand the combined effect of parking occupancy rates and durations, the matrix shown in **Figure 7** has been used. This recognises that longer-term parking durations do not create a problem where occupancy rates are low, however they may contribute towards lack of parking opportunity as the occupancy rate rises, with those zones under highest overall parking stress highlighted in red.

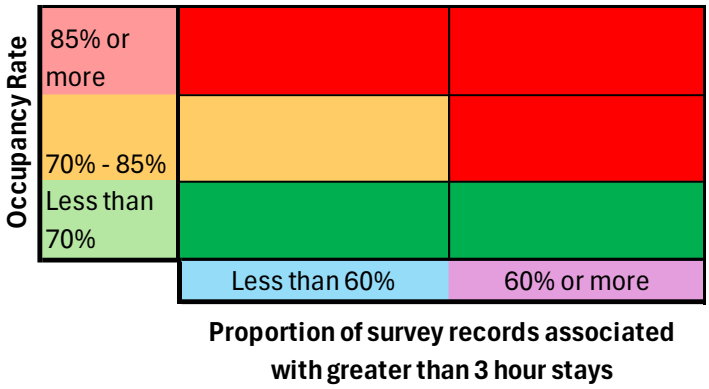


Figure 7 Parking occupancy/duration matrix.

The results of applying this matrix to the zone data (using occupancy rates for the busiest periods of the days, as explained in section **3.3**) are shown in **Table 11** and map-based results are contained in **Appendix D**. This data highlights high overall stress levels throughout the centre of the High Street, including Crown Car Park and access, during the busiest periods of both days.

Table 11 Overall parking stress levels

	Wednesday 20th September 2023			Saturday 23rd September 2023		
	Average Occupancy Rate 08:30 - 16:30	survey entries relating to 3 - 12 hour parking duration	Overall Stress Level	Average Occupancy Rate 09:00 - 16:30	3 - 12 hour duration proportion (used)	Overall Stress Level
Zone A	49%	73%		67%	84%	
Zone B	73%	44%		66%	84%	
Zone C	104%	84%		93%	35%	
Zone D	95%	73%		92%	45%	
Zone E	92%	57%		93%	43%	
Zone F	56%	64%		58%	69%	
Zone G	81%	77%		85%	67%	
Zone H	79%	84%		88%	66%	
Zone J	91%	69%		93%	45%	
Zone K	100%	69%		110%	53%	
Zone L	97%	72%		93%	67%	
Zone M	81%	80%		73%	80%	
Zone N	72%	83%		40%	69%	
Zone O	60%	72%		55%	66%	
Zone P	88%	71%		84%	81%	
Zone Q	68%	61%		42%	82%	
Zone R	47%	55%		41%	52%	
Crown Car Park Access	101%	82%		98%	66%	
Crown Car Park	74%	77%		72%	65%	

3.5 Disabled Bay Parking

Disabled bay use was not included in the analysis process as the sporadic use of these would skew overall occupancy results. However, use of these was recorded during the survey and the results are summarised in **Table 12**, which provides the number of occasions that a vehicle was appropriately occupying each disabled bay during the survey period. It also provides the number of individual vehicles recorded during the survey process as the same vehicle could be recorded in a disabled bay on multiple occasions.

Disabled bay provision can be instigated by an individual who requires such a facility in close proximity to their place of residence. Alternatively, disabled bays can be provided for more widespread use in areas where there is potential demand for these. The disabled bays covered by the survey are likely to be a combination of both types and therefore it is reasonable for an individual vehicle to occupy a bay over a considerable proportion of the day, whilst other bays accommodate a greater turnover.

Table 12 Disabled Bay use during survey period.

Zone	Disabled Bays			
	Wednesday		Saturday	
	Number of occasions bay(s) was recorded as occupied.	Number of Individual cars using bay(s) throughout survey period	Number of occasions bay(s) was recorded as occupied.	Number of Individual cars using bay(s) throughout survey period
Zone B	22	1	23	1
Zone J	9	2	5	1
Zone K	3	3	8	3
Crown Inn Access	5	2	21	3
Zone M	14	1	3	3
Zone P	5	2	3	3

3.6 Illegal/Inappropriate Parking

Whilst not included in the survey analysis (as it does not affect the normal parking capacity) instances of illegal/inappropriate parking was recorded during the survey. These totalled 280 instances and included, but were not limited to, behaviours such as parking on double-yellow lines, parking across accesses, pavement parking and inappropriately using disabled bays. **Table 13** provides a summary of the occasions that illegal/inappropriate parking was recorded in each zone, with some significant differences in numbers between the Wednesday and Saturday results.

Table 13 Instances of illegal/inappropriate parking recorded during survey.

Zone	Illegal/Inappropriate Parking	
	Wednesday	Saturday
Zone A	6	11
Zone B	23	48
Zone C	0	0
Zone D	1	1
Zone E	0	0
Zone F	17	10
Zone G	6	3
Zone H	0	0
Zone J	3	3
Zone K	9	11
Zone L	5	2
Crown Inn Access	3	22
Crown Inn Car Park	15	16
Zone M	3	24
Zone N	4	14
Zone O	1	0
Zone P	8	9
Zone Q	2	0
Zone R	0	0

Instances where vehicles were inappropriately using a disabled bay were recorded as part of the process. This behaviour was limited to three zones (K, P and Crown Inn Access) and the number of instances that this was recorded is shown in **Table 14**.

Table 14 Instances of inappropriate use of a disabled bay

Zone	Inappropriate use of a disabled bay	
	Wednesday	Saturday
Zone K	1	4
Crown Inn Access	1	2
Zone P	1	2

No other individual illegal/inappropriate behaviour was specifically recorded during the survey; however, **Table 15** notes the prevailing trends observed by the survey team in some of the zones.

Table 15 Observed trends of illegal/inappropriate parking behaviour (excluding use of a disabled bay)

Zone	Observed illegal/inappropriate parking trends
Zone A	Parking over an access (obstruction)
Zone B	Pavement parking
Zone F	Parking on double yellow lines / hatched markings
Zone G	Parking over an access (obstruction)
Zone J	Parking over an access (obstruction)
Zone K	Parking in bus bay
Crown Inn Access	Parking outside bays
Crown Inn Car Park	Parking outside bays
Zone M	Parking on double yellow lines

4 Conclusions and Recommendations

4.1 Conclusions

It is clear from the parking occupation and duration data analysis above that the parking zones in the centre of the High Street, including the Crown Car Park and access, are under severe pressure during normal working hours throughout the week (08:30 to 16:30) and weekends (09:00 to 16:30); a finding that is consistent with the observations of the community over many years.

The parking areas between Sydney Crescent and Castle Wynd are fully occupied, or close to this, during these periods, making it very difficult for drivers to find a space and creating the chaos of slow moving and turning vehicles witnessed in this area on a daily basis. Not only is this stressful for those seeking a parking space, but it is also potentially impacts upon the safety of other roads users in this area, including the considerable number of pedestrians and cyclists present, due the distraction of the drivers in question.

In addition, over two-thirds of the survey records for each zone in this area related to vehicles that were parked for longer than three hours. This indicates a very restricted parking turnover. which reduces the potential number visitors/customers substantially, thus impacting negatively on trade for local businesses as well as undermining the aspirations of the town to become a tourist destination in its own right.

The combination of the high occupancy and low turnover rates creates a situation that is unappealing and potentially dangerous to those wishing to drive/walk/cycle to the centre of the High Street. Consequently, it severely limits the commercial, cultural and community potential of the area.

It is therefore crucial to create a situation where parking opportunity is improved by increasing parking availability and reducing parking durations in general. It is impractical to expect a significant physical increase in parking provision around the High Street in the short to medium term and therefore improvements to parking provision will require better management of the existing facilities.

There is evidence from the data summarised in **Table 11** that there are lower occupancy levels and lower overall parking stress rates in the zones slightly further from the centre of the High Street. Longer term parkers should therefore be encouraged to use these areas, particularly as they lie within a five- to ten-minute walk of the Aytoun Hall as shown in **Figure 8** (based upon a typical average walking speed of three miles per hour).

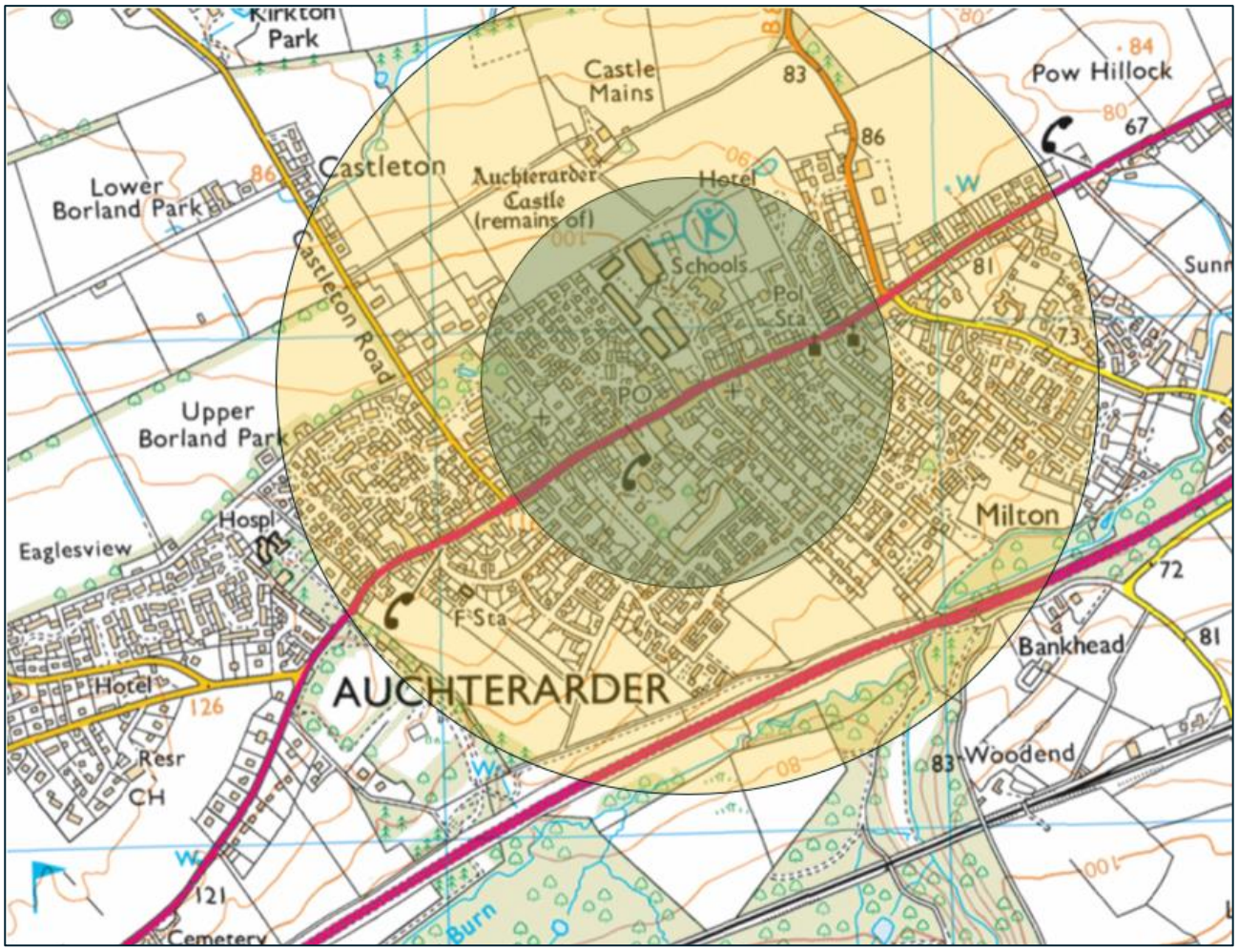


Figure 8 Approximate 5-minute (blue) and 10-minute (yellow) walking distances from Aytoun Hall

The most obvious means to do this would be to introduce parking time restrictions to the central High Street zones, including the Crown Car Park and access, thereby allowing drivers to park for a relatively brief period in this area whilst pushing the longer-term parkers to the periphery. Such a restriction would require a legal Order to enforce and, as such, can only be promoted by PKC as the Roads Authority. However, the findings of this report provide compelling evidence for the consideration of such an Order and discussions between T&PTWG and PKC to further assess the feasibility of this should take place at the earliest opportunity.

It is extremely important that the Auchterarder community are given the opportunity to consider and comment on any proposals that will introduce restrictions before any legal Order is processed or changes take place. In addition, any alterations to parking control must reasonably accommodate the genuine need for longer term parking by High Street residents and individuals associated with the businesses in this area.

It is also important that the employers in the Town Centre, and particularly those with a substantial number of employees, make every effort to maximise staff parking on their respective sites in order to minimise the impact on the High Street and Crown CarPark.

It should also be recognised that there are numerous congested residential streets in close proximity to the High Street (such as Montrose Road and North Crofts) and any alterations to High Street parking must not result in a further migration of parking to these areas.

It would also be beneficial to highlight, through advertising and improved signage, the presence of parking facilities in The Community School of Auchterarder and St Margaret's Health Centre that could be used by the general public during the evenings and weekends.

The aspiration of society to create a more sustainable future is acknowledged and a modal shift for locals from cars to walking, cycling and/or public transport must be part of the overall strategy to reduce parking demand within the town (and this should be encouraged wherever and however possible). However, it is also recognised that Auchterarder is in a rural location and many who are served by the town have no option but to use their cars and therefore parking provision is extremely important necessity for them.

Section **3.6** identifies 280 instances of illegal/inappropriate parking recorded during the survey, including 11 occasions when disabled parking bays were being used incorrectly. It also highlights trends in other illegal/inappropriate behaviours in certain zones. Such activity can be inconvenient for other users and, in certain circumstances, can be dangerous (e.g. blocking junction visibility splays or driving on the footway in proximity to vulnerable road users). Consequently, it is extremely important to minimise these instances, particularly regarding those that increase safety risk to others. So, the details of the trends in illegal/inappropriate parking, and information of the zones where these are occurring, will be passed onto PKC to allow them to consider future action.

The Transport (Scotland) Act 2019 prohibits pavement parking, double parking, and parking across dropped kerbs and PKC will start enforcing this ban from January 2025. This is welcome news as it will address some of the inappropriate parking recorded during the survey (and particularly on Zone B), making footways more accessible and safer for pedestrians. However, it is likely that the enforcement will intensify demand for appropriate parking opportunities along the High Street, further increasing the need for improved parking management.

Marked parking bays were recently installed along the High Street by PKC. This is seen as a positive step by T&PTWG as it formalises the areas to make better use of the available space. However, this change will not fully resolve the issues described above.

The information contained in section **2.4**, and in particular **Table 3**, highlights a close correlation between zone capacities used for the survey and the number of parking bays that were marked in these areas subsequently. This proves that the findings of this survey are still entirely valid, despite these recent alterations.

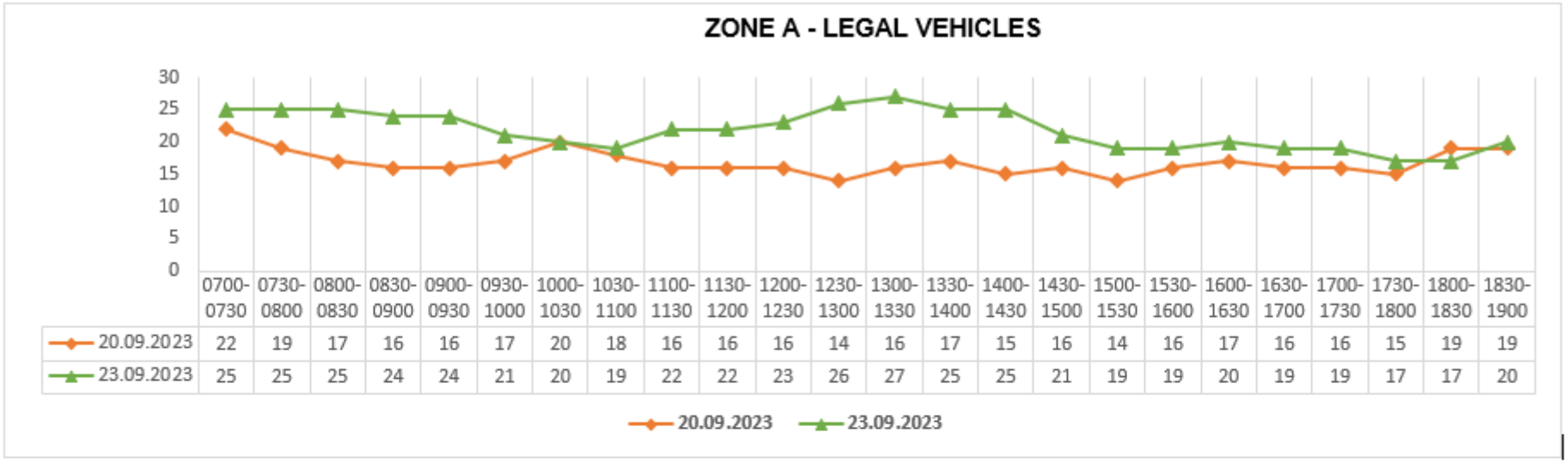
4.2 Recommendations

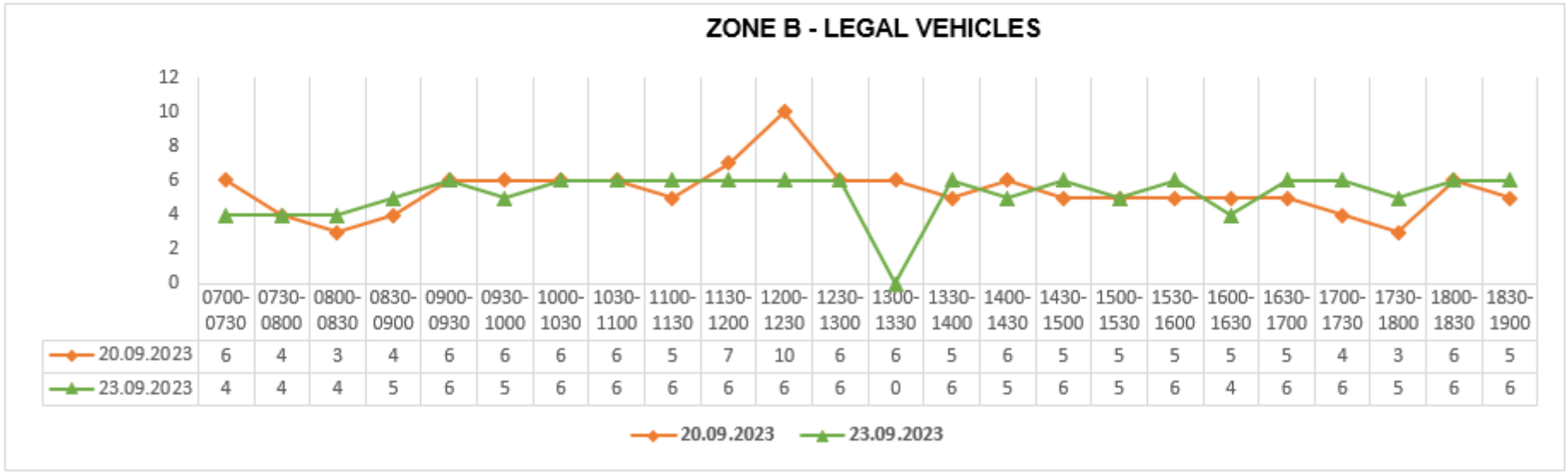
Based on the findings of this report, the following initial recommendations are proposed:

- The results of the Parking Survey be shared with PKC, Auchterarder & District Community Council and the Strathallan Councillors.

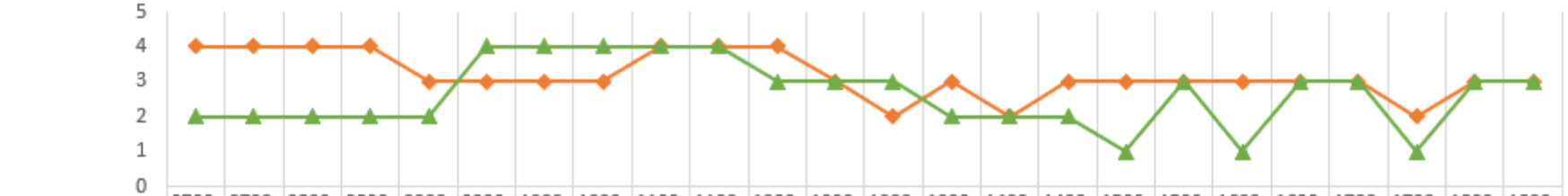
- The Parking Survey be published and made available via A&A Connected social media.
- The Council be asked to formally address parking restrictions being introduced in central Auchterarder, including, if required, on adjacent streets. The draft proposals being subject to detailed community engagement prior to the Council seeking Committee approval.
- The Council, in conjunction with A&A Connected, Auchterarder & District Community Council and the Strathallan Councillors draft an all-embracing Parking Strategy for Auchterarder, which incorporates road and pedestrian safely, as well as walking, cycling, public transport and Park&Ride within its scope.
- T&PTWG and the Council proactively engage with key town centre employers to check that their practices maximise staff parking on their respective sites, and we then look to collaborate with them to address any parking overflow requirements.
- T&PTWG and the Council look to better promote the availability of all car parking resources within Auchterarder.
- The Council be asked to address instances of illegal/inappropriate parking and particularly where there are safety concerns or clear abuse of disabled parking bays.

Appendix A Parking Accumulation Graphs



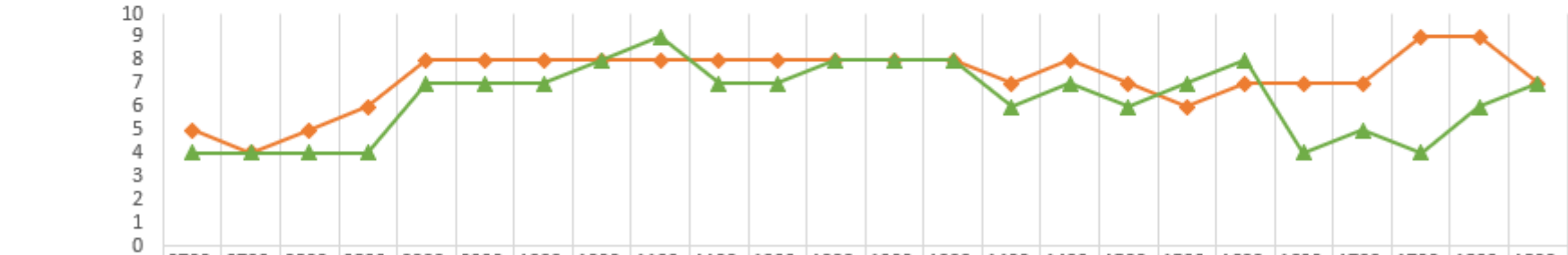


ZONE C - LEGAL VEHICLES



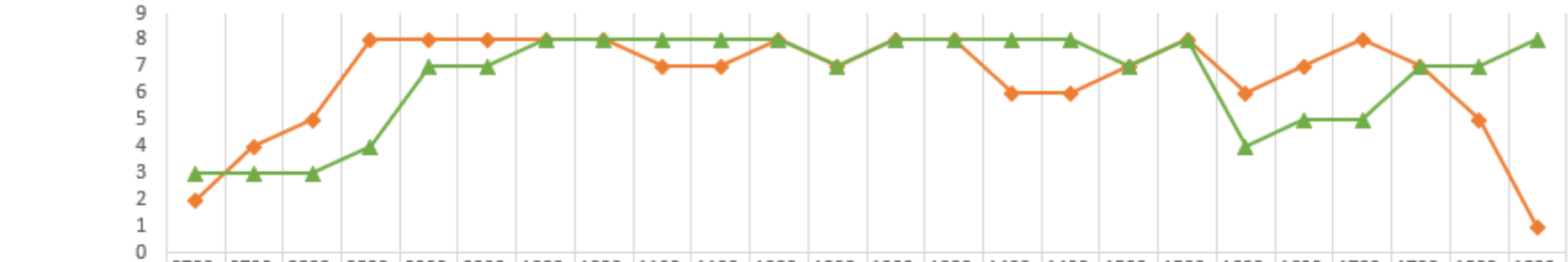
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20.09.2023	4	4	4	4	3	3	3	3	4	4	4	3	2	3	2	3	3	3	3	3	3	2	3	3
23.09.2023	2	2	2	2	2	4	4	4	4	4	3	3	3	2	2	2	1	3	1	3	3	1	3	3

ZONE D - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	5	4	5	6	8	8	8	8	8	8	8	8	8	8	7	8	7	6	7	7	7	9	9	7
23.09.2023	4	4	4	4	7	7	7	8	9	7	7	8	8	8	6	7	6	7	8	4	5	4	6	7

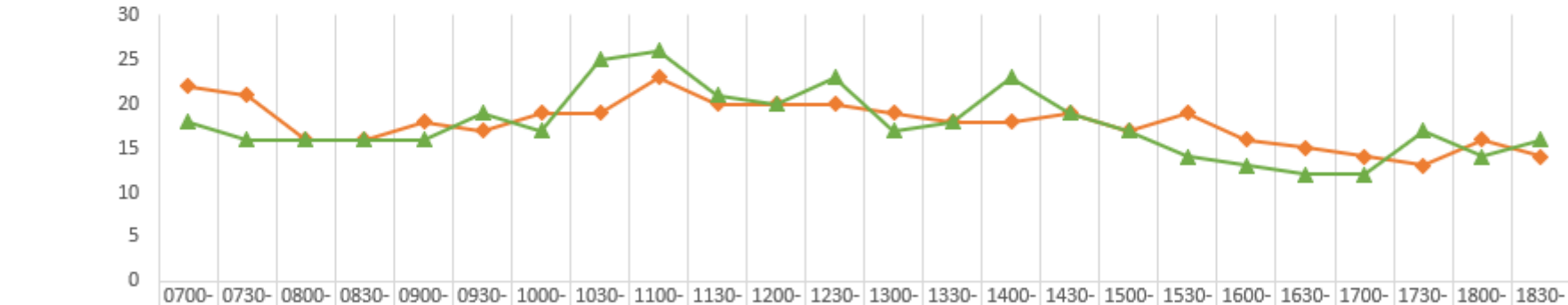
ZONE E - LEGAL VEHICLES



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20.09.2023	2	4	5	8	8	8	8	8	7	7	8	7	8	8	6	6	7	8	6	7	8	7	5	1
23.09.2023	3	3	3	4	7	7	8	8	8	8	8	7	8	8	8	8	7	8	4	5	5	7	7	8

20.09.2023 23.09.2023

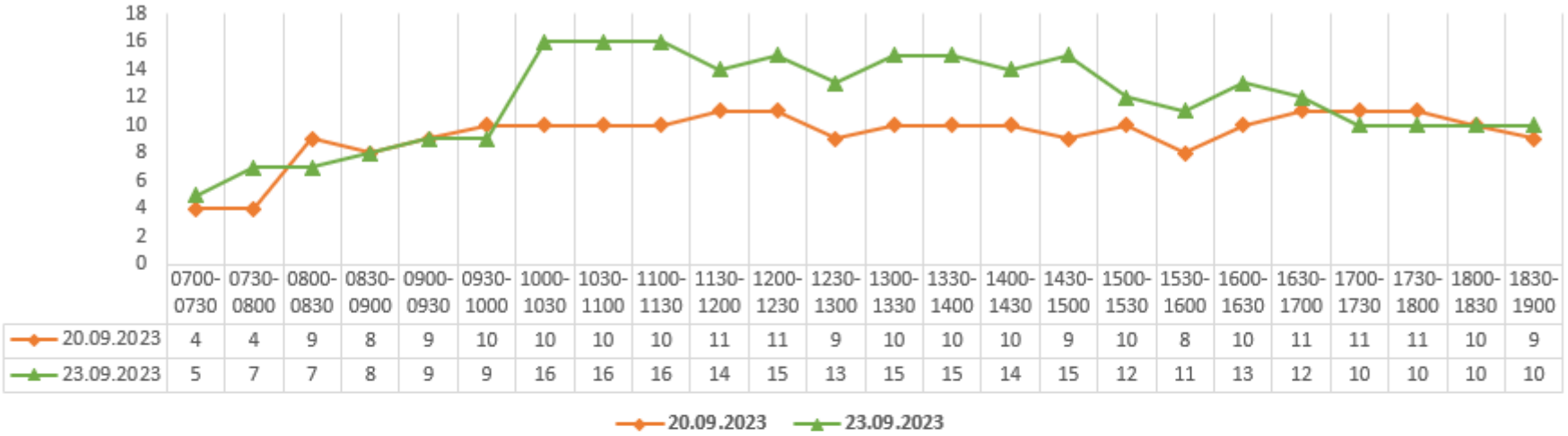
ZONE F - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	22	21	16	16	18	17	19	19	23	20	20	20	19	18	18	19	17	19	16	15	14	13	16	14
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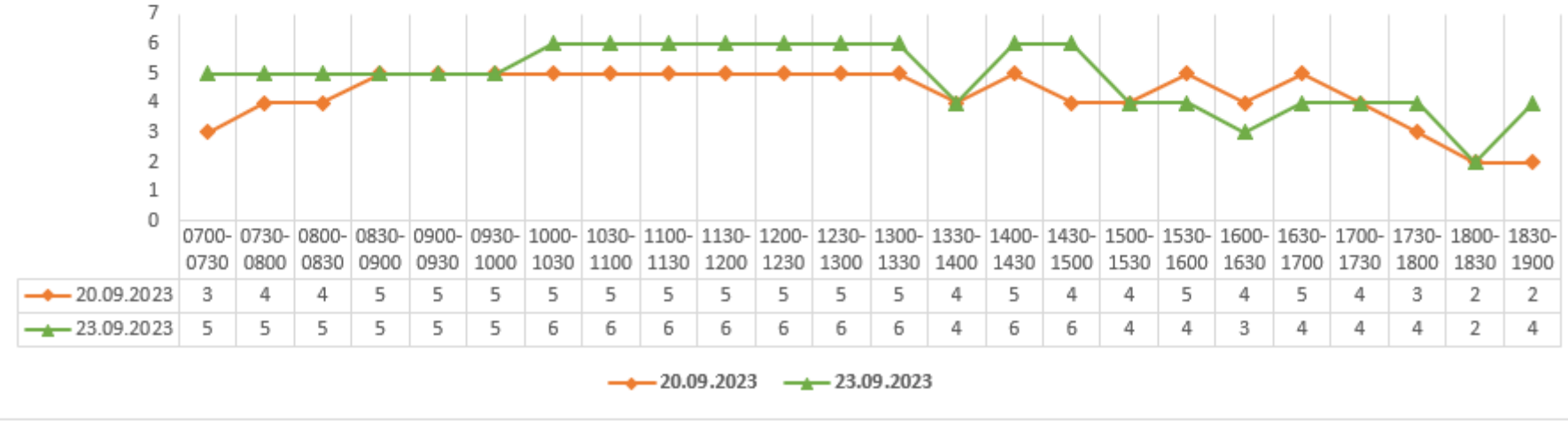
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ZONE G - LEGAL VEHICLES



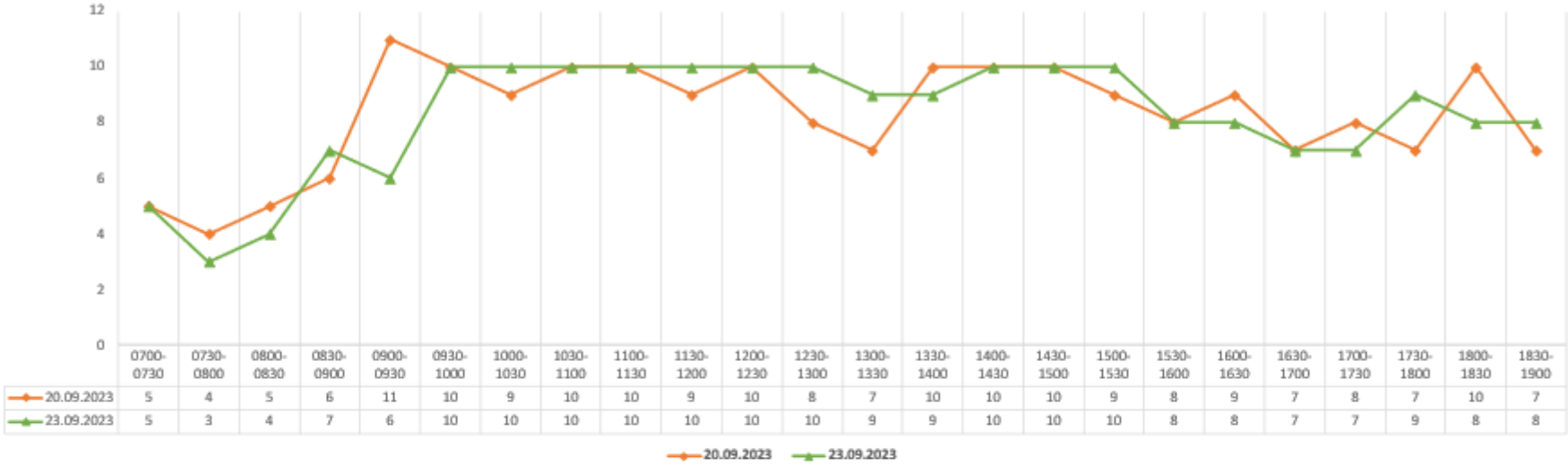
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20.09.2023	4	4	9	8	9	10	10	10	10	11	11	9	10	10	10	9	10	8	10	11	11	11	10	9
23.09.2023	5	7	7	8	9	9	16	16	16	14	15	13	15	15	14	15	12	11	13	12	10	10	10	10

ZONE H - LEGAL VEHICLES



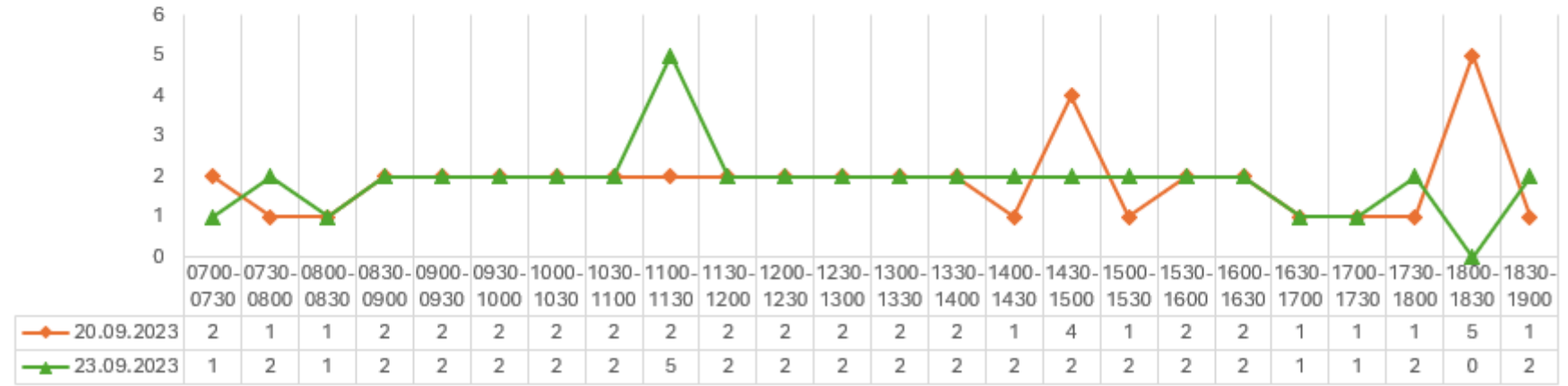
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20.09.2023	3	4	4	5	5	5	5	5	5	5	5	5	5	4	5	4	4	5	4	5	4	3	2	2
23.09.2023	5	5	5	5	5	5	6	6	6	6	6	6	6	4	6	6	4	4	3	4	4	4	2	4

ZONE J - LEGAL VEHICLES



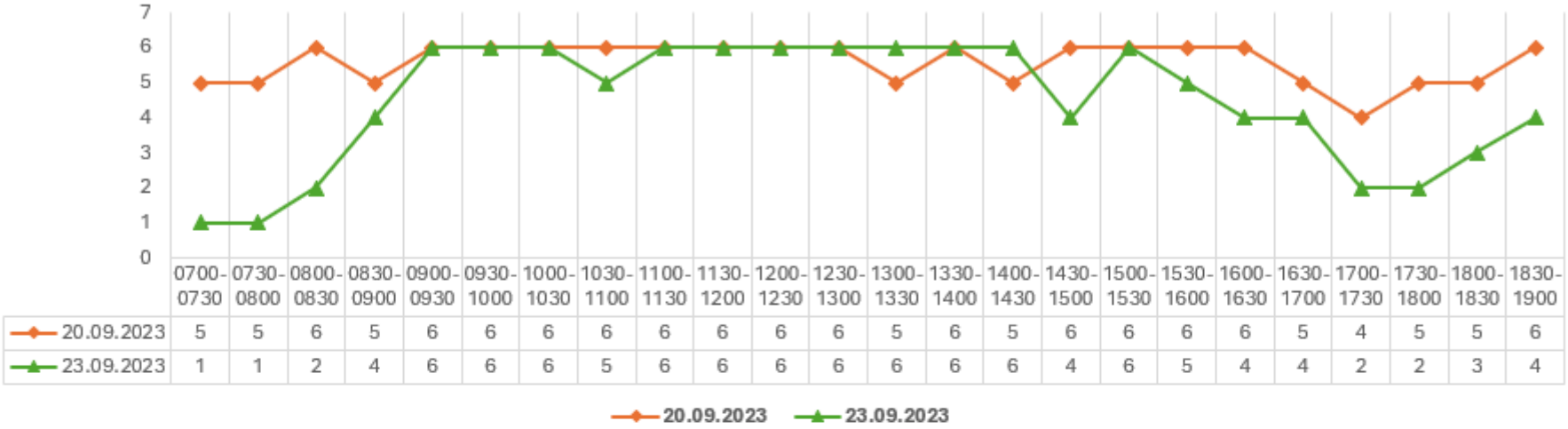
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20.09.2023	5	4	5	6	11	10	9	10	10	9	10	8	7	10	10	10	9	8	9	7	8	7	10	7
23.09.2023	5	3	4	7	6	10	10	10	10	10	10	10	9	9	10	10	10	8	8	7	7	9	8	8

ZONE K - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	2	1	1	2	2	2	2	2	2	2	2	2	2	2	1	4	1	2	2	1	1	1	5	1
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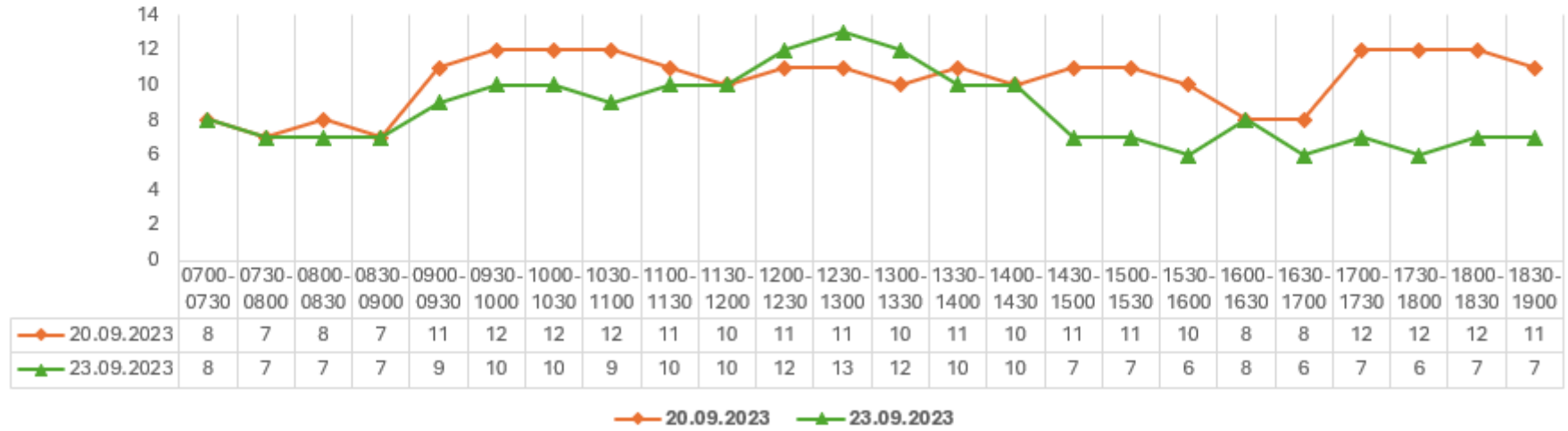
ZONE L - LEGAL VEHICLES



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20.09.2023	5	5	6	5	6	6	6	6	6	6	6	6	5	6	5	6	6	6	6	5	4	5	5	6
23.09.2023	1	1	2	4	6	6	6	5	6	6	6	6	6	6	6	4	6	5	4	4	2	2	3	4

20.09.2023 23.09.2023

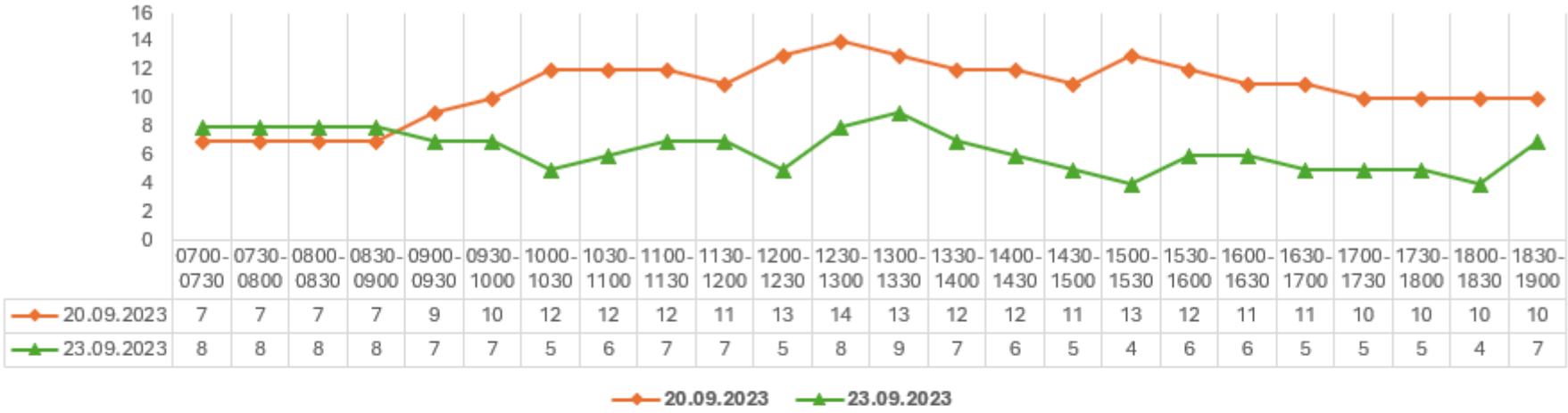
ZONE M - LEGAL VEHICLES



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20.09.2023	8	7	8	7	11	12	12	12	11	10	11	11	10	11	10	11	11	10	8	8	12	12	12	11
23.09.2023	8	7	7	7	9	10	10	9	10	10	12	13	12	10	10	7	7	6	8	6	7	6	7	7

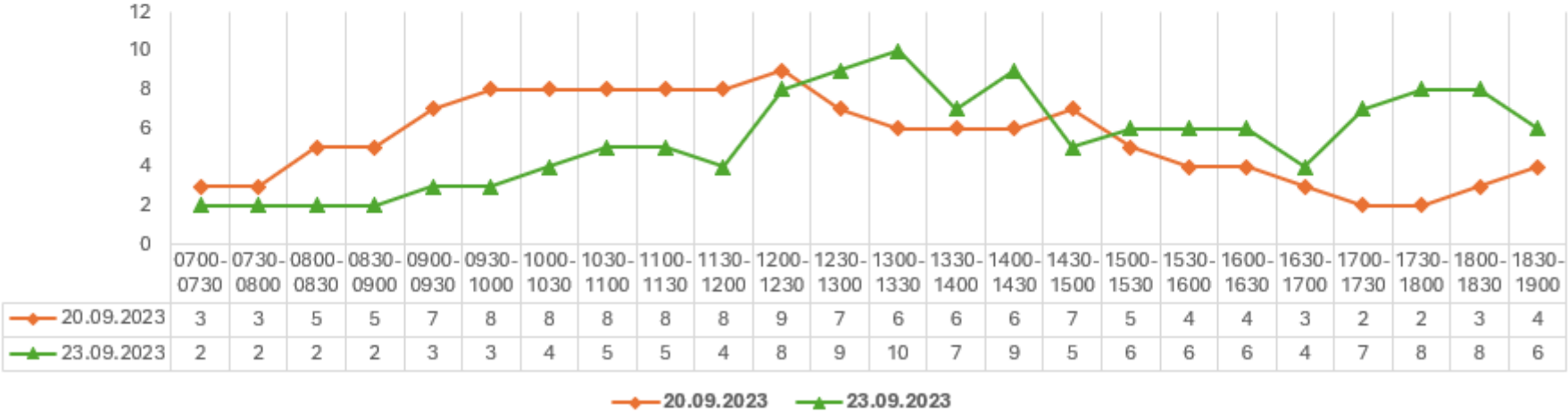
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ZONE N - LEGAL VEHICLES



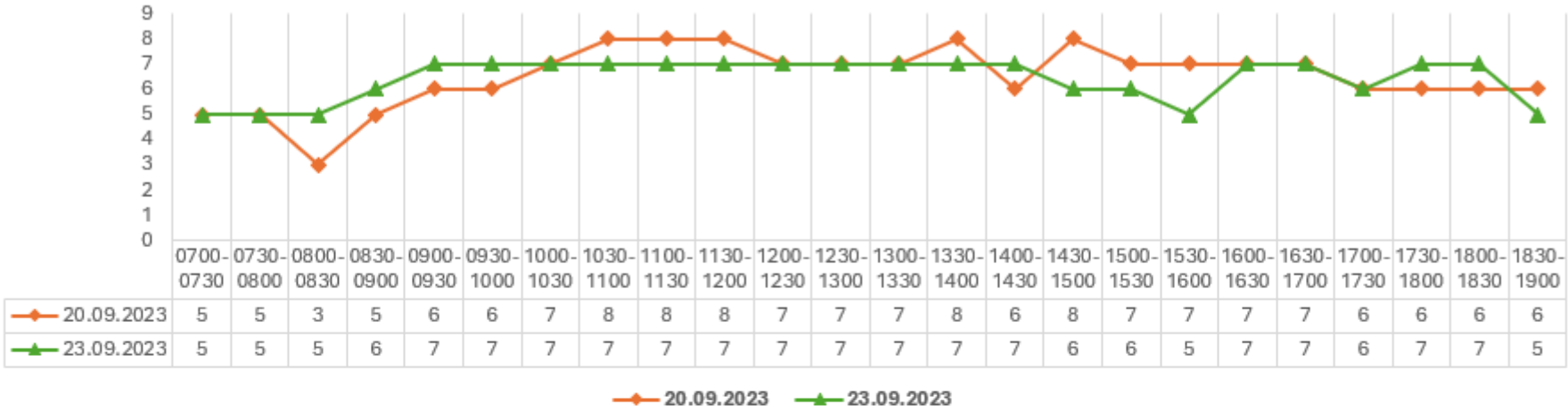
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20.09.2023	7	7	7	7	9	10	12	12	12	11	13	14	13	12	12	11	13	12	11	11	10	10	10	10
23.09.2023	8	8	8	8	7	7	5	6	7	7	5	8	9	7	6	5	4	6	6	5	5	5	4	7

ZONE O - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	3	3	5	5	7	8	8	8	8	8	9	7	6	6	6	7	5	4	4	3	2	2	3	4
23.09.2023	2	2	2	2	3	3	4	5	5	4	8	9	10	7	9	5	6	6	6	4	7	8	8	6

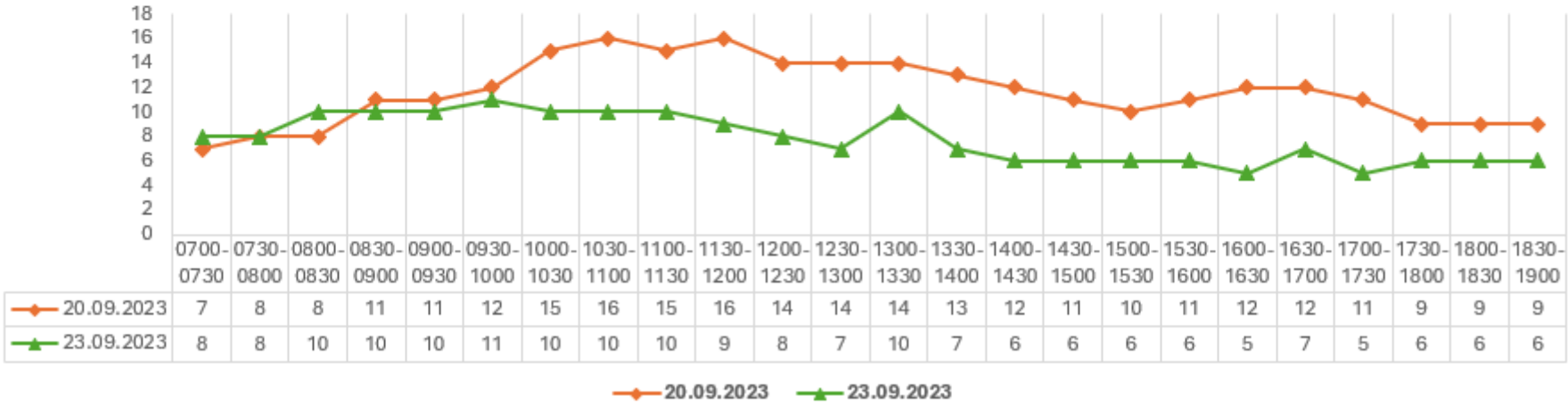
ZONE P - LEGAL VEHICLES



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20.09.2023	5	5	3	5	6	6	7	8	8	8	7	7	7	8	6	8	7	7	7	7	6	6	6	6
23.09.2023	5	5	5	6	7	7	7	7	7	7	7	7	7	7	7	6	6	5	7	7	6	7	7	5

20.09.2023 23.09.2023

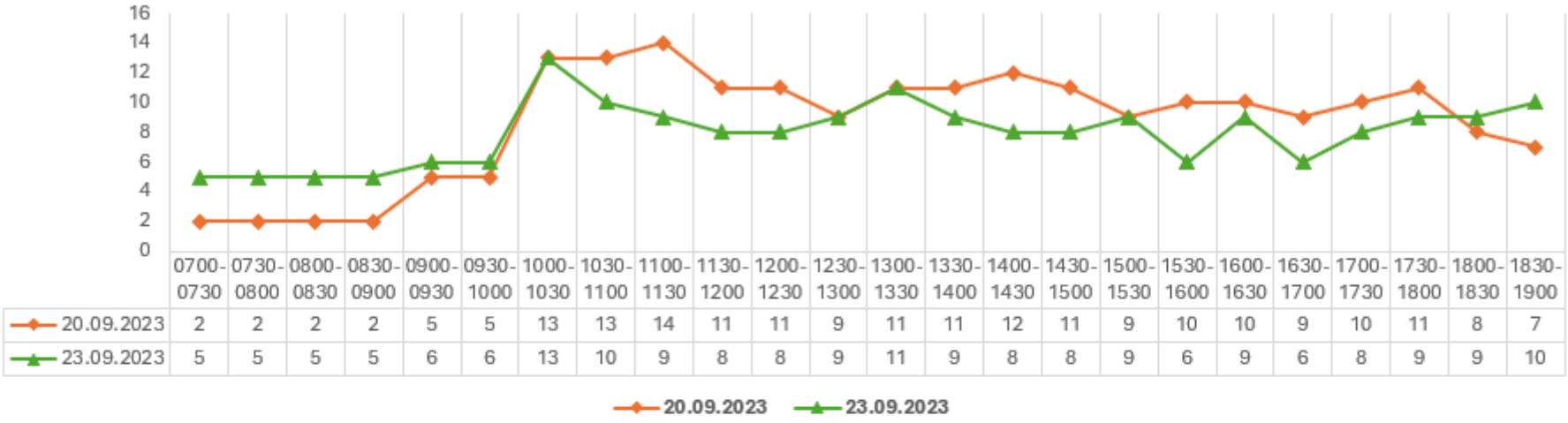
ZONE Q - LEGAL VEHICLES



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20.09.2023	7	8	8	11	11	12	15	16	15	16	14	14	14	13	12	11	10	11	12	12	11	9	9	9
23.09.2023	8	8	10	10	10	11	10	10	10	9	8	7	10	7	6	6	6	6	5	7	5	6	6	6

20.09.2023 23.09.2023

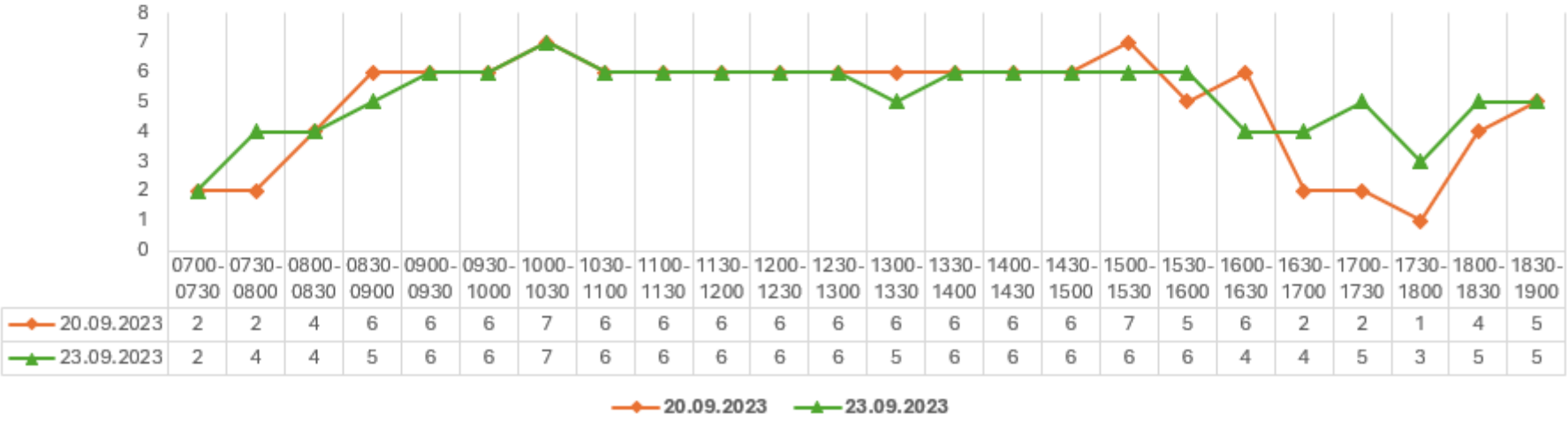
ZONE R - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	2	2	2	2	5	5	13	13	14	11	11	9	11	11	12	11	9	10	10	9	10	11	8	7
23.09.2023	5	5	5	5	6	6	13	10	9	8	8	9	11	9	8	8	9	6	9	6	8	9	9	10

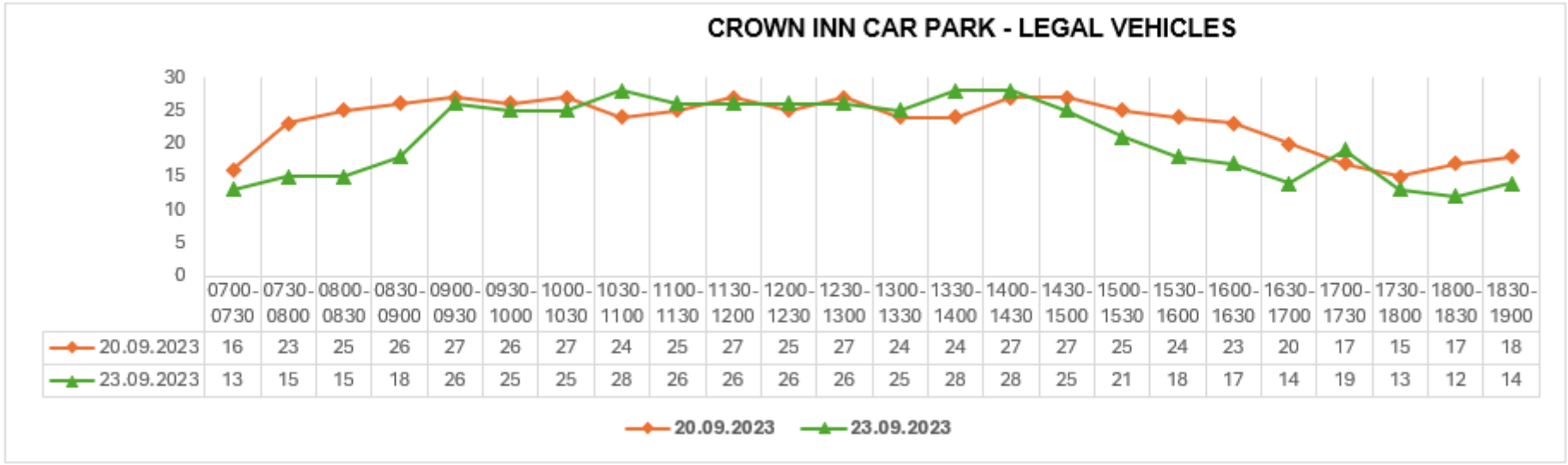
20.09.2023 23.09.2023

CROWN INN ACCESS - LEGAL VEHICLES



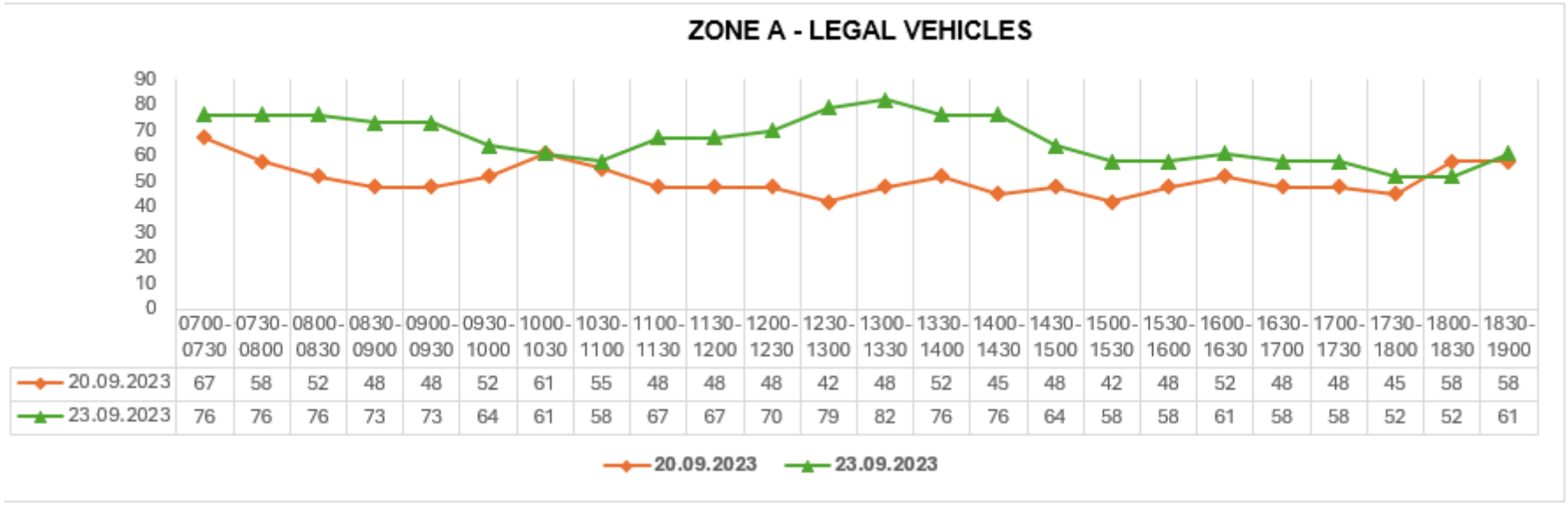
	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	2	2	4	6	6	6	7	6	6	6	6	6	6	6	6	6	7	5	6	2	2	1	4	5
23.09.2023	2	4	4	5	6	6	7	6	6	6	6	6	5	6	6	6	6	6	4	4	5	3	5	5

20.09.2023 23.09.2023

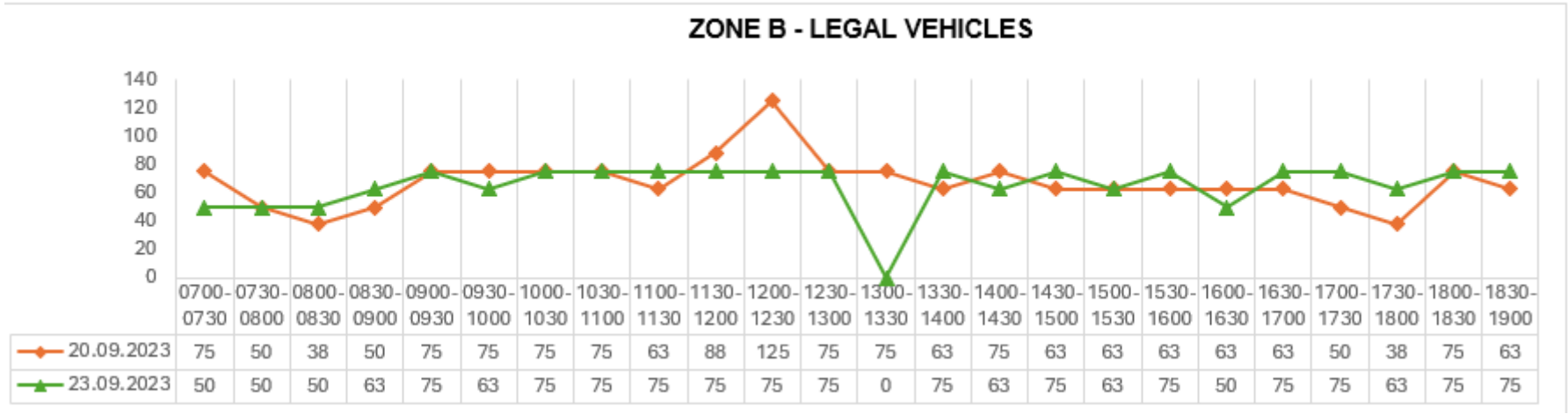


	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	16	23	25	26	27	26	27	24	25	27	25	27	24	24	27	27	25	24	23	20	17	15	17	18
23.09.2023	13	15	15	18	26	25	25	28	26	26	26	26	25	28	28	25	21	18	17	14	19	13	12	14

Appendix B Parking Occupancy Graphs

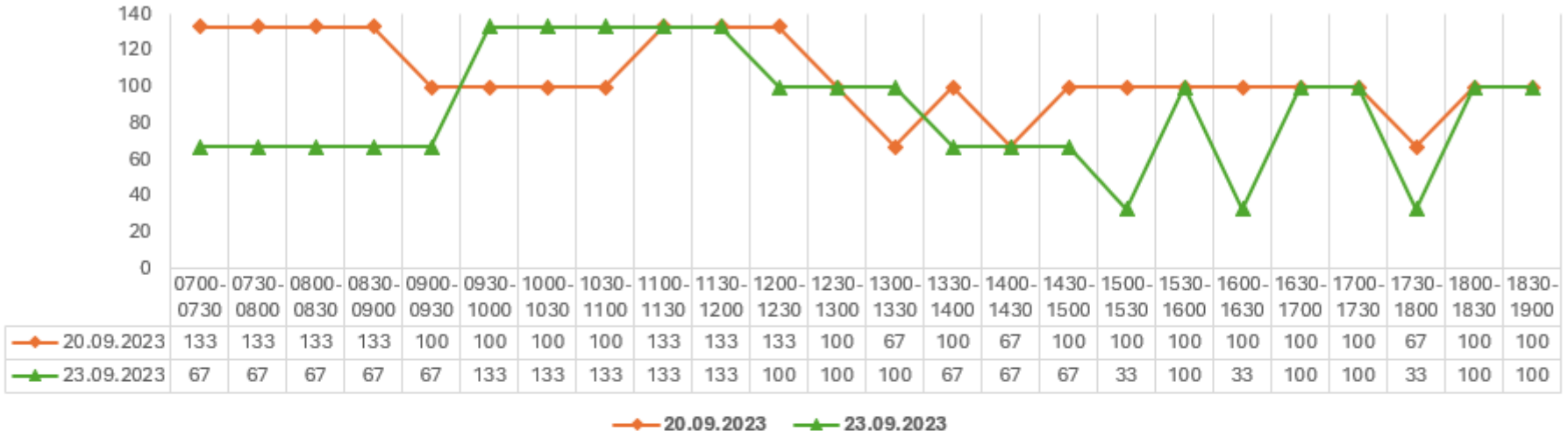


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20.09.2023	67	58	52	48	48	52	61	55	48	48	48	42	48	52	45	48	42	48	52	48	48	45	58	58
23.09.2023	76	76	76	73	73	64	61	58	67	67	70	79	82	76	76	64	58	58	61	58	58	52	52	61



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	75	50	38	50	75	75	75	75	63	88	125	75	75	63	75	63	63	63	63	63	50	38	75	63
23.09.2023	50	50	50	63	75	63	75	75	75	75	75	75	0	75	63	75	63	75	50	75	75	63	75	75

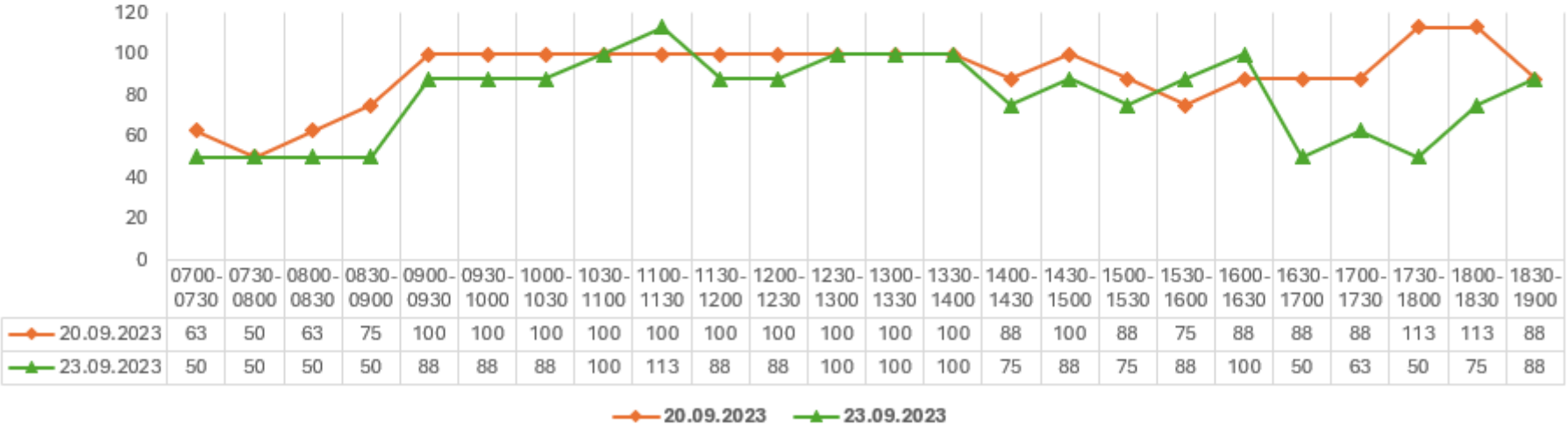
ZONE C - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	133	133	133	133	100	100	100	100	133	133	133	100	67	100	67	100	100	100	100	100	100	67	100	100
23.09.2023	67	67	67	67	67	133	133	133	133	133	100	100	100	67	67	67	33	100	33	100	100	33	100	100

20.09.2023 23.09.2023

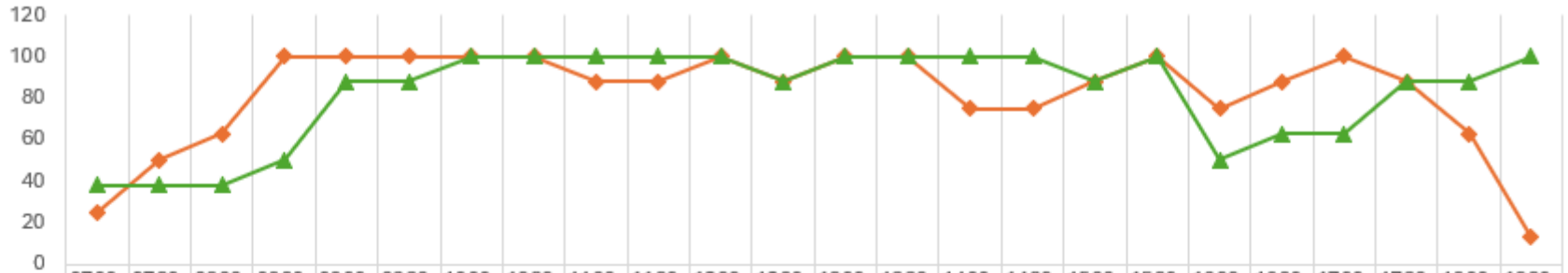
ZONE D - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	63	50	63	75	100	100	100	100	100	100	100	100	100	100	88	100	88	75	88	88	88	113	113	88
23.09.2023	50	50	50	50	88	88	88	100	113	88	88	100	100	100	75	88	75	88	100	50	63	50	75	88

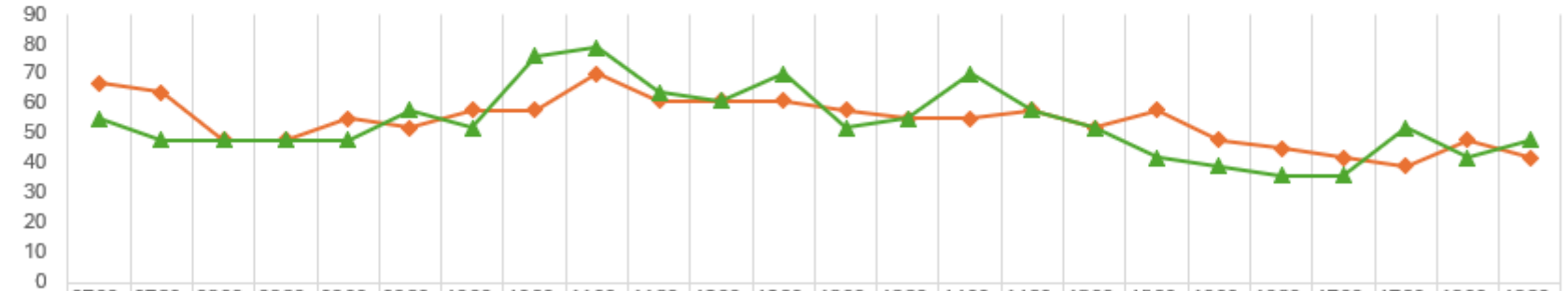
20.09.2023 23.09.2023

ZONE E - LEGAL VEHICLES



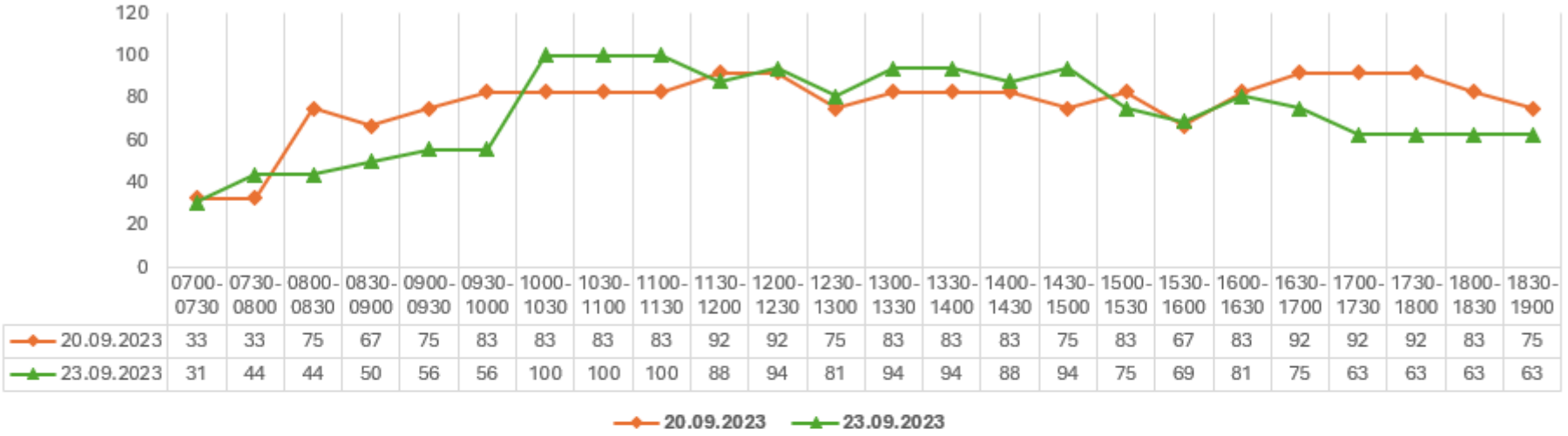
	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	25	50	63	100	100	100	100	100	88	88	100	88	100	100	75	75	88	100	75	88	100	88	63	13
23.09.2023	38	38	38	50	88	88	100	100	100	100	100	88	100	100	100	100	88	100	50	63	63	88	88	100

ZONE F - LEGAL VEHICLES



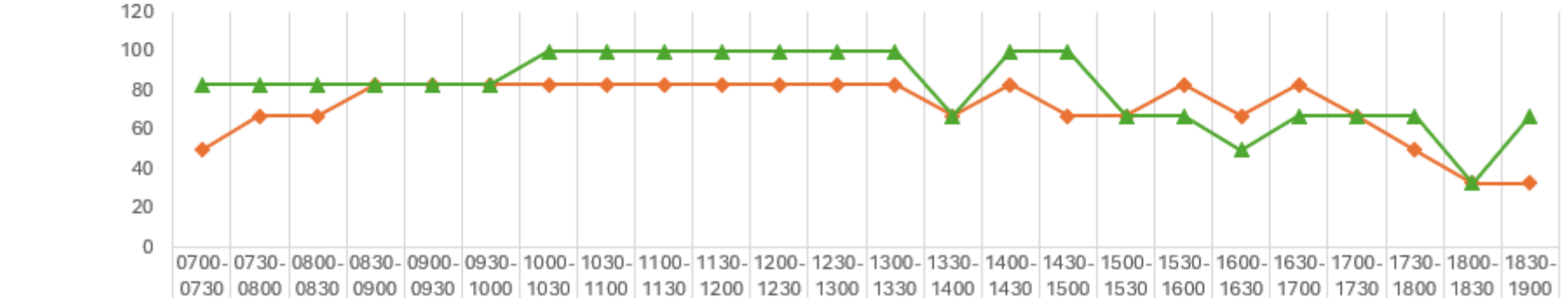
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20.09.2023	67	64	48	48	55	52	58	58	70	61	61	61	58	55	55	58	52	58	48	45	42	39	48	42
23.09.2023	55	48	48	48	48	58	52	76	79	64	61	70	52	55	70	58	52	42	39	36	36	52	42	48

ZONE G - LEGAL VEHICLES



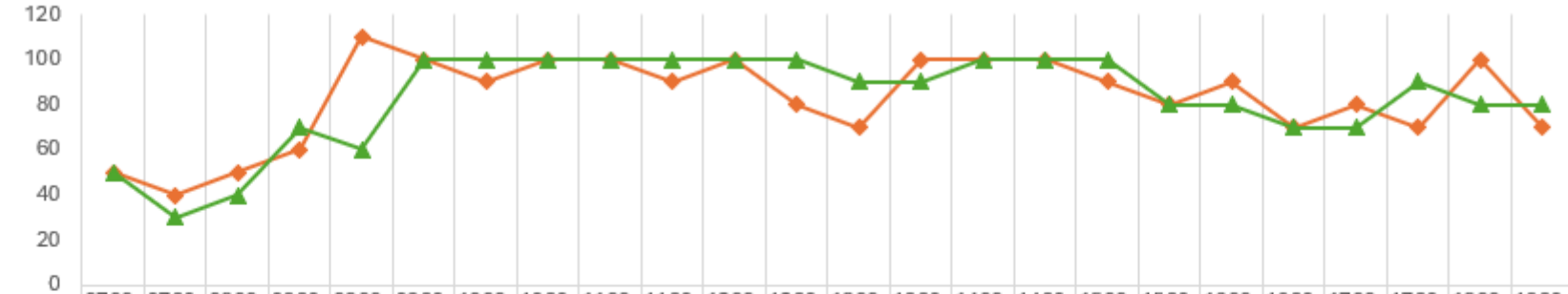
	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	33	33	75	67	75	83	83	83	83	92	92	75	83	83	83	75	83	67	83	92	92	92	83	75
23.09.2023	31	44	44	50	56	56	100	100	100	88	94	81	94	94	88	94	75	69	81	75	63	63	63	63

ZONE H - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	50	67	67	83	83	83	83	83	83	83	83	83	83	67	83	67	67	83	67	83	67	50	33	33
23.09.2023	83	83	83	83	83	83	100	100	100	100	100	100	100	67	100	100	67	67	50	67	67	67	33	67

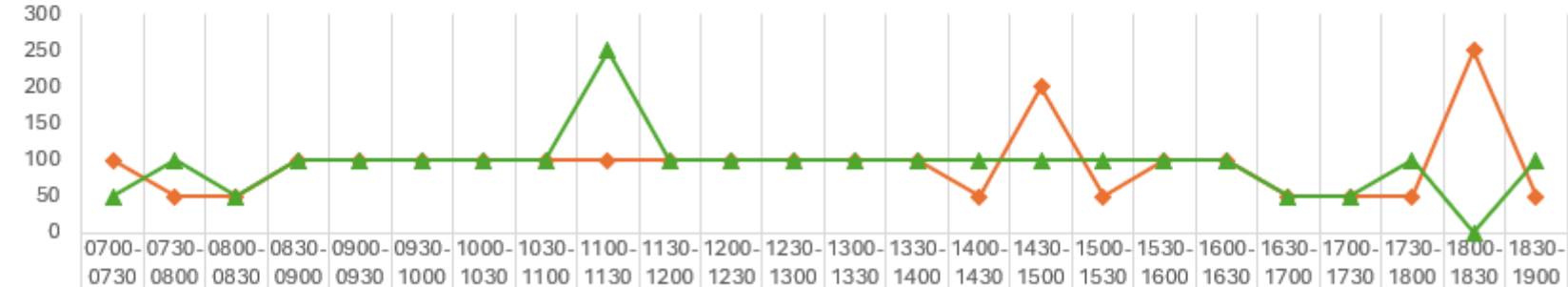
ZONE J - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	50	40	50	60	110	100	90	100	100	90	100	80	70	100	100	100	90	80	90	70	80	70	100	70
23.09.2023	50	30	40	70	60	100	100	100	100	100	100	100	90	90	100	100	100	80	80	70	70	90	80	80

20.09.2023 23.09.2023

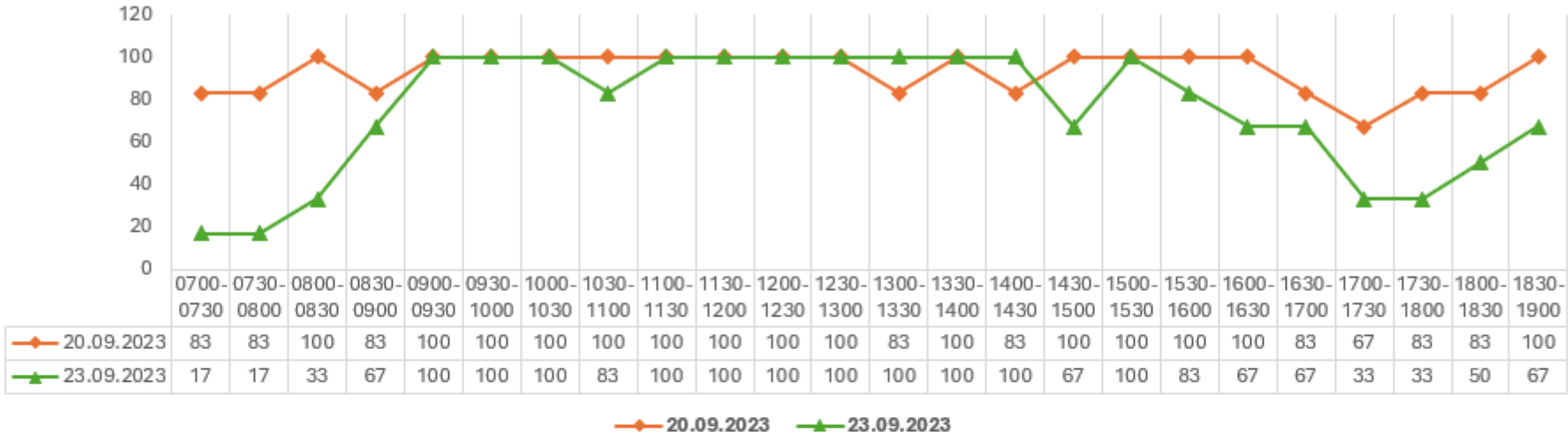
ZONE K - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	100	50	50	100	100	100	100	100	100	100	100	100	100	100	50	200	50	100	100	50	50	50	250	50
23.09.2023	50	100	50	100	100	100	100	100	250	100	100	100	100	100	100	100	100	100	100	50	50	100	0	100

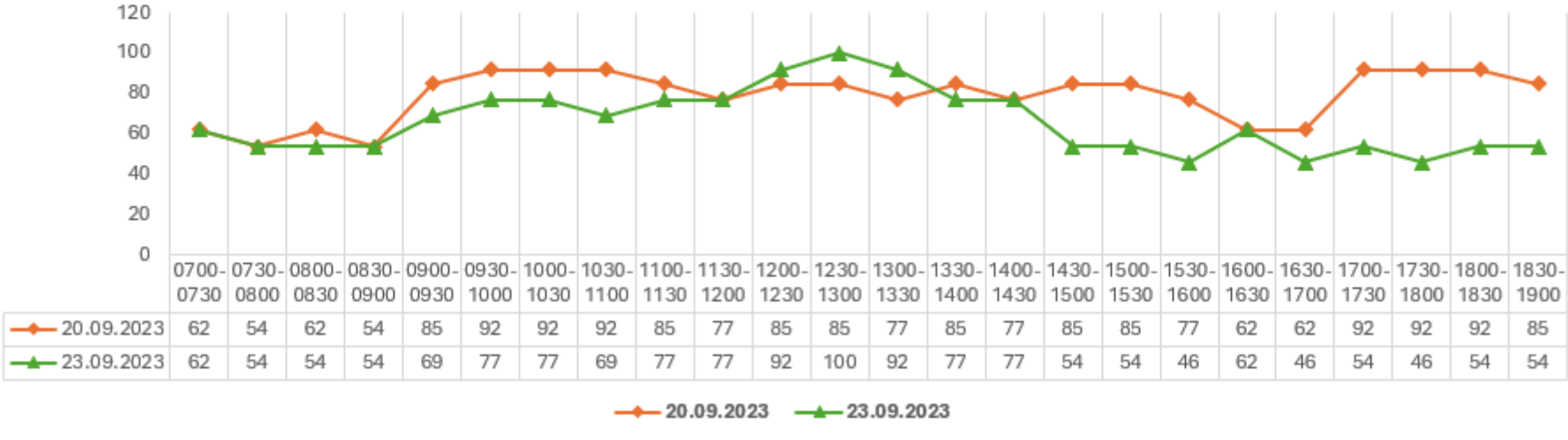
20.09.2023 23.09.2023

ZONE L - LEGAL VEHICLES



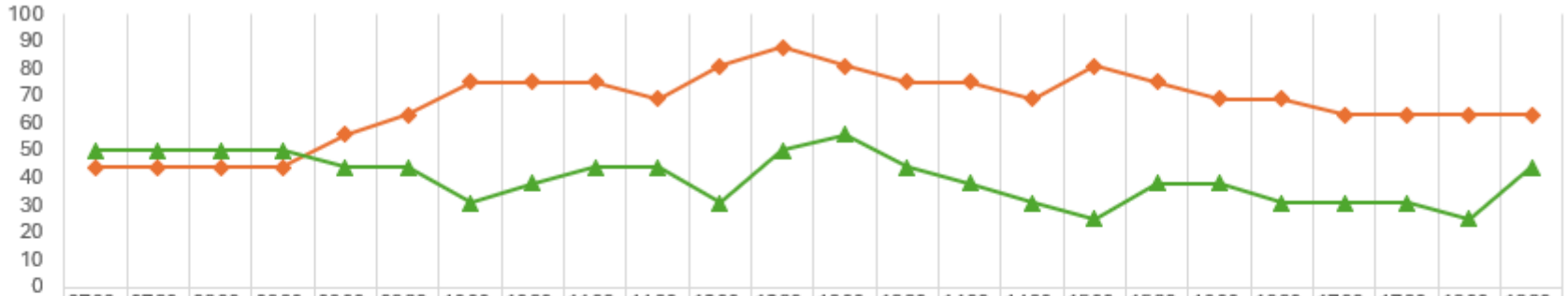
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20.09.2023	83	83	100	83	100	100	100	100	100	100	100	100	83	100	83	100	100	100	100	83	67	83	83	100
23.09.2023	17	17	33	67	100	100	100	83	100	100	100	100	100	100	100	67	100	83	67	67	33	33	50	67

ZONE M - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	62	54	62	54	85	92	92	92	85	77	85	85	77	85	77	85	85	77	62	62	92	92	92	85
23.09.2023	62	54	54	54	69	77	77	69	77	77	92	100	92	77	77	54	54	46	62	46	54	46	54	54

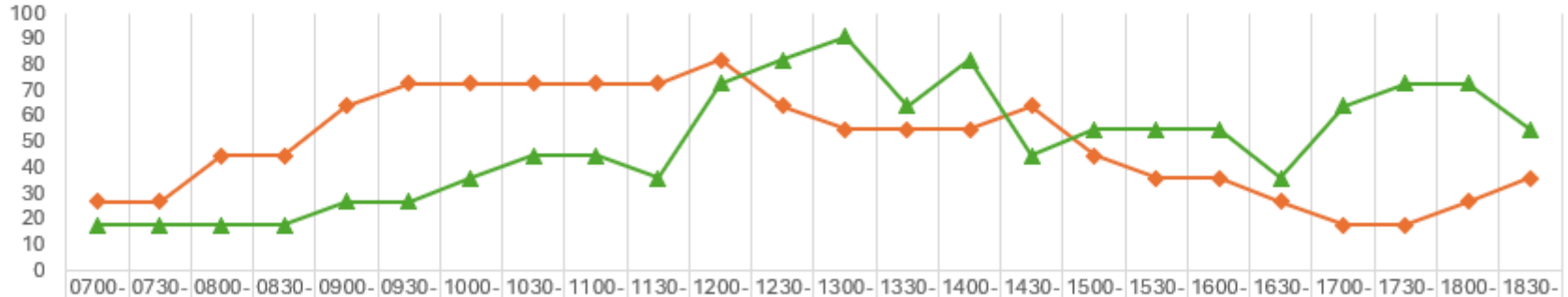
ZONE N - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	44	44	44	44	56	63	75	75	75	69	81	88	81	75	75	69	81	75	69	69	63	63	63	63
23.09.2023	50	50	50	50	44	44	31	38	44	44	31	50	56	44	38	31	25	38	38	31	31	31	25	44

20.09.2023 23.09.2023

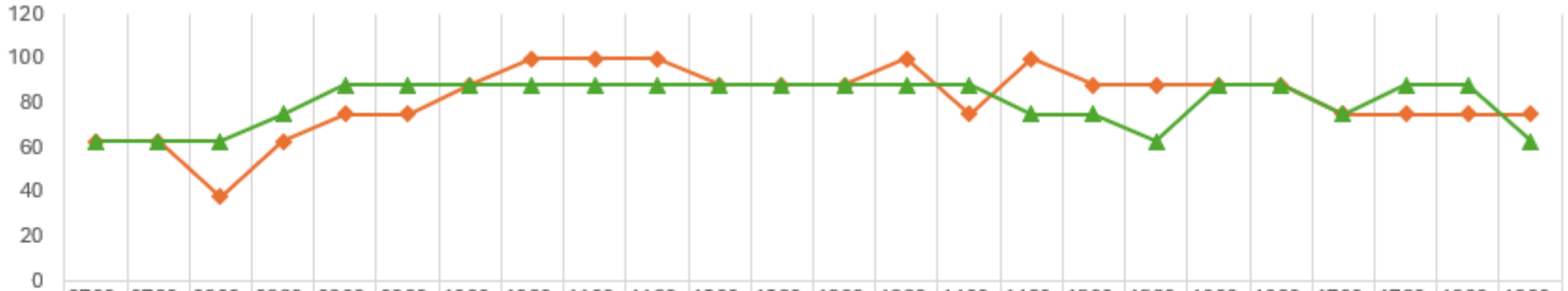
ZONE O - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	27	27	45	45	64	73	73	73	73	73	82	64	55	55	55	64	45	36	36	27	18	18	27	36
23.09.2023	18	18	18	18	27	27	36	45	45	36	73	82	91	64	82	45	55	55	55	36	64	73	73	55

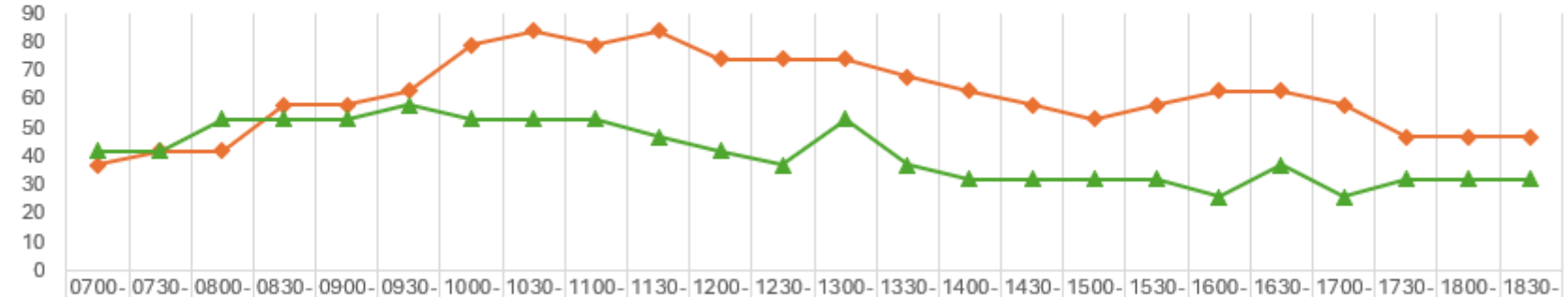
20.09.2023 23.09.2023

ZONE P - LEGAL VEHICLES



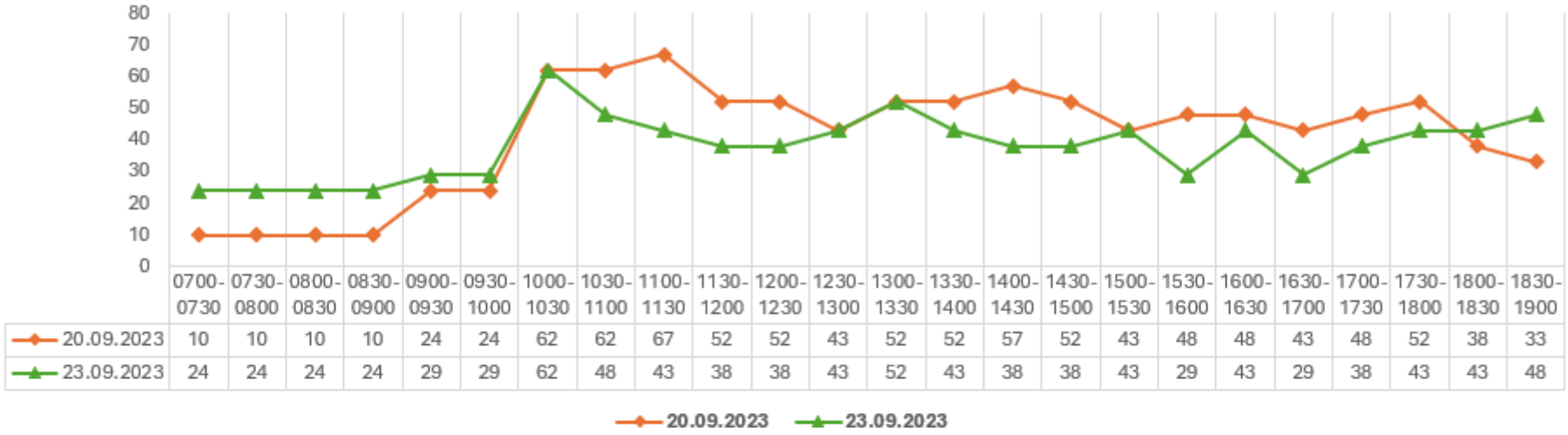
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20.09.2023	63	63	38	63	75	75	88	100	100	100	88	88	88	100	75	100	88	88	88	88	75	75	75	75
23.09.2023	63	63	63	75	88	88	88	88	88	88	88	88	88	88	88	75	75	63	88	88	75	88	88	63

ZONE Q - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	37	42	42	58	58	63	79	84	79	84	74	74	74	68	63	58	53	58	63	63	58	47	47	47
23.09.2023	42	42	53	53	53	58	53	53	53	47	42	37	53	37	32	32	32	32	26	37	26	32	32	32

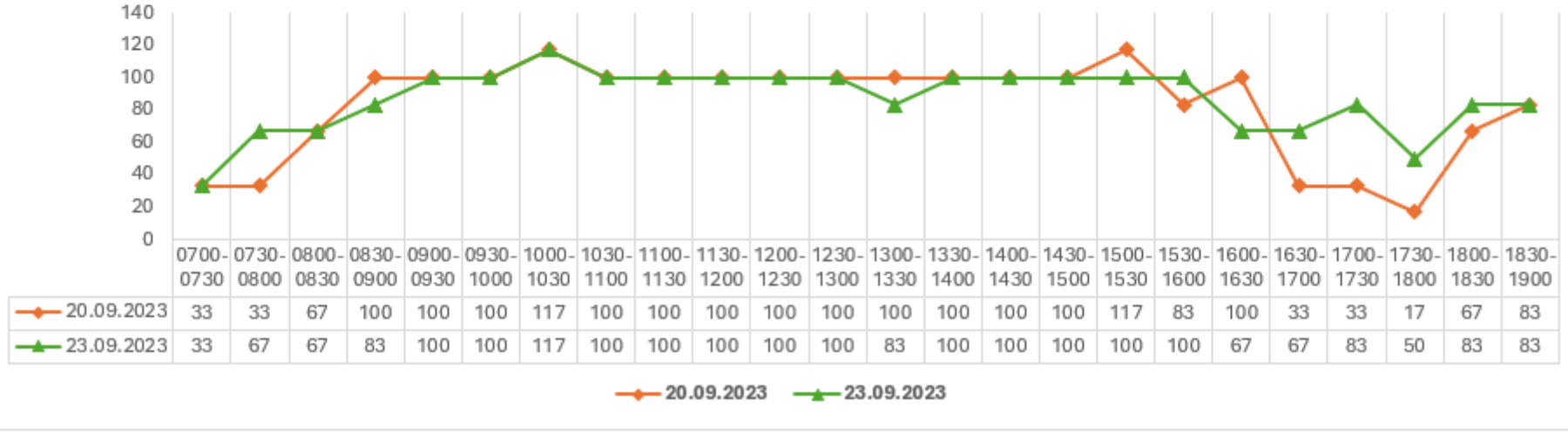
ZONE R - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	10	10	10	10	24	24	62	62	67	52	52	43	52	52	57	52	43	48	48	43	48	52	38	33
23.09.2023	24	24	24	24	29	29	62	48	43	38	38	43	52	43	38	38	43	29	43	29	38	43	43	48

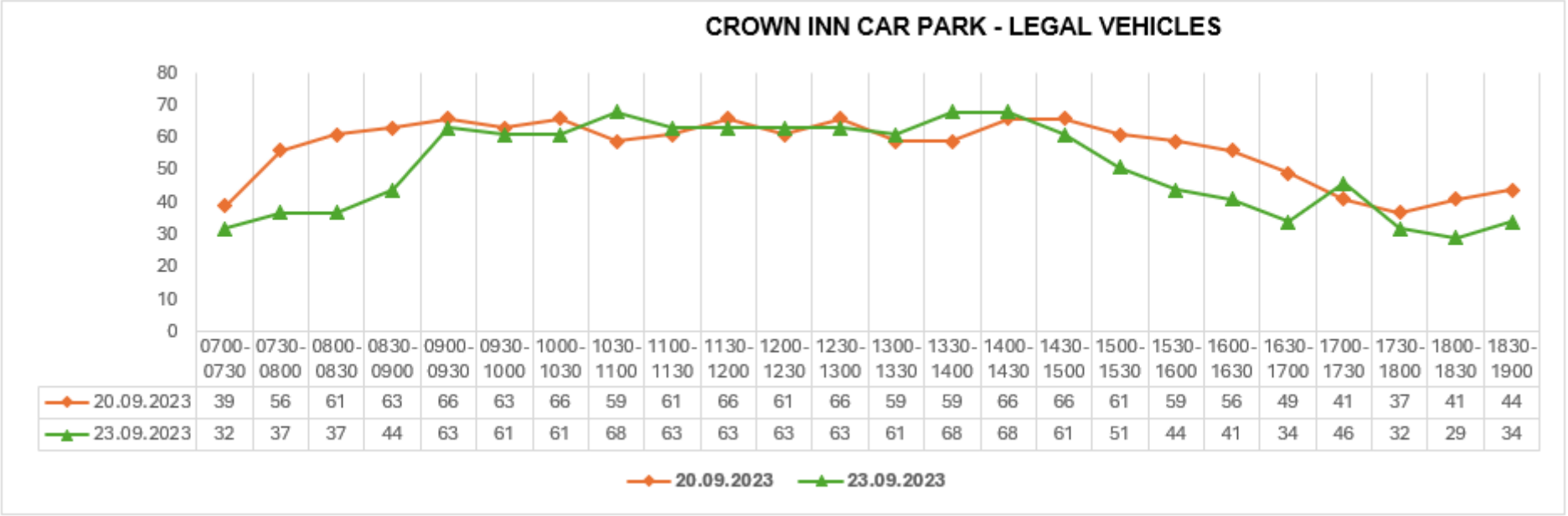
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CROWN INN ACCESS - LEGAL VEHICLES



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	33	33	67	100	100	100	117	100	100	100	100	100	100	100	100	100	117	83	100	33	33	17	67	83
23.09.2023	33	67	67	83	100	100	117	100	100	100	100	100	83	100	100	100	100	100	67	67	83	50	83	83

20.09.2023 23.09.2023



	0700-0730	0730-0800	0800-0830	0830-0900	0900-0930	0930-1000	1000-1030	1030-1100	1100-1130	1130-1200	1200-1230	1230-1300	1300-1330	1330-1400	1400-1430	1430-1500	1500-1530	1530-1600	1600-1630	1630-1700	1700-1730	1730-1800	1800-1830	1830-1900
20.09.2023	39	56	61	63	66	63	66	59	61	66	61	66	59	59	66	66	61	59	56	49	41	37	41	44
23.09.2023	32	37	37	44	63	61	61	68	63	63	63	63	61	68	68	61	51	44	41	34	46	32	29	34

Appendix C Total Survey Entries Calculation Methodology and Parking Duration Tables

The total survey entries figures used in section **3.3** is derived from combining the number of survey entries associated with each time duration period. This can be calculated using the figures in **Table 9** and **Table 10** as every individual car that stays for 30 minutes will be recorded once and every car that stays for one hour will be recorded twice, and so on. So, the total number of survey entries will ([number of cars staying for 30 minutes] x 1) + ([number of cars staying for 1 hour] x 2) + ……. ([number of cars staying for 12 hour]) x 24.

The following worked examples are the calculations for Zone A (Wednesday 20th September 2023)

Total survey entries
=(24x1)+(14x2)+(7x3)+(4x4)+(4x5)+(5x6)+(2x7)+(3x8)+(1x9)+(2x10)+(1x12)+(2x13)+(1x16)+(1x17)+(2x18)+(1x19)+(3x24).

=24+28+21+16+20+30+14+24+9+20+12+26+16+17+36+19+72

=404.

The figures highlighted in red above (totalling 109) relate to parking duration of up to 3 hours, so the proportion of the total survey entries is

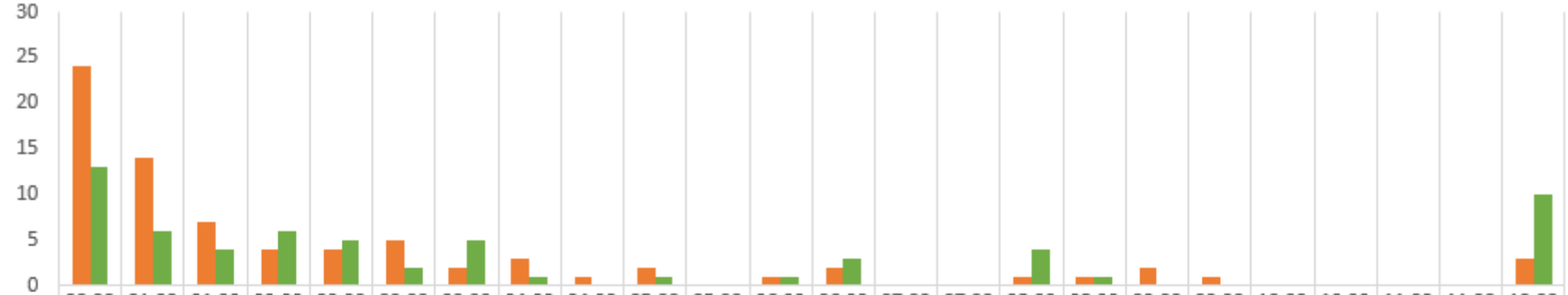
109/404 = 27%

The remaining figures, highlighted in blue (totalling 295) relate to parking durations greater than 3 hours, so the proportion of the total survey is

295/404=73%

Wednesday 20th September 2023	Time Period																								Total vehicles	Total survey entries recorded	Proportion of survey entries relating to up to 3 hours parking duration	Proportion of survey entries relating to 3 - 12 hour parking duration
	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00				
Zone A	24	14	7	4	4	5	2	3	1	2	0	1	2	0	0	1	1	2	1	0	0	0	0	3	77	404	27%	73%

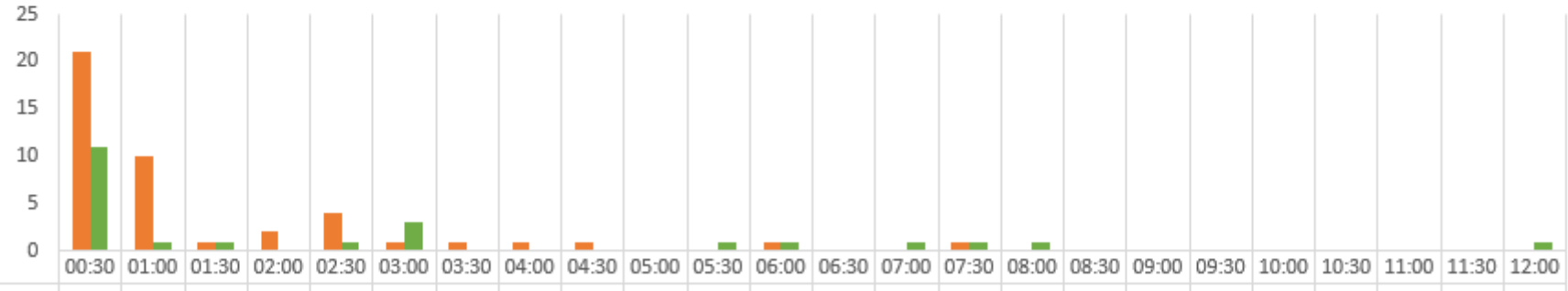
ZONE A - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	24	14	7	4	4	5	2	3	1	2	0	1	2	0	0	1	1	2	1	0	0	0	0	3
23.09.2023	13	6	4	6	5	2	5	1	0	1	0	1	3	0	0	4	1	0	0	0	0	0	0	10

20.09.2023 23.09.2023

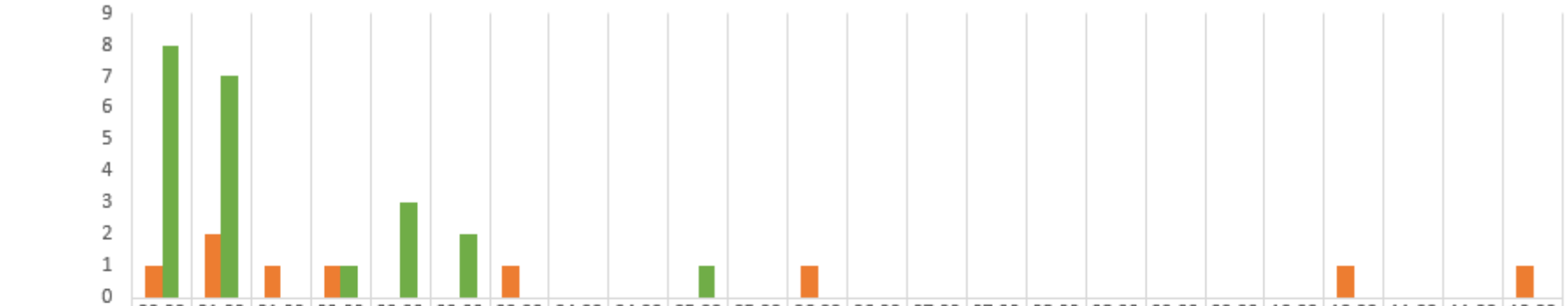
ZONE B - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	21	10	1	2	4	1	1	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
23.09.2023	11	1	1	0	1	3	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	1

20.09.2023 23.09.2023

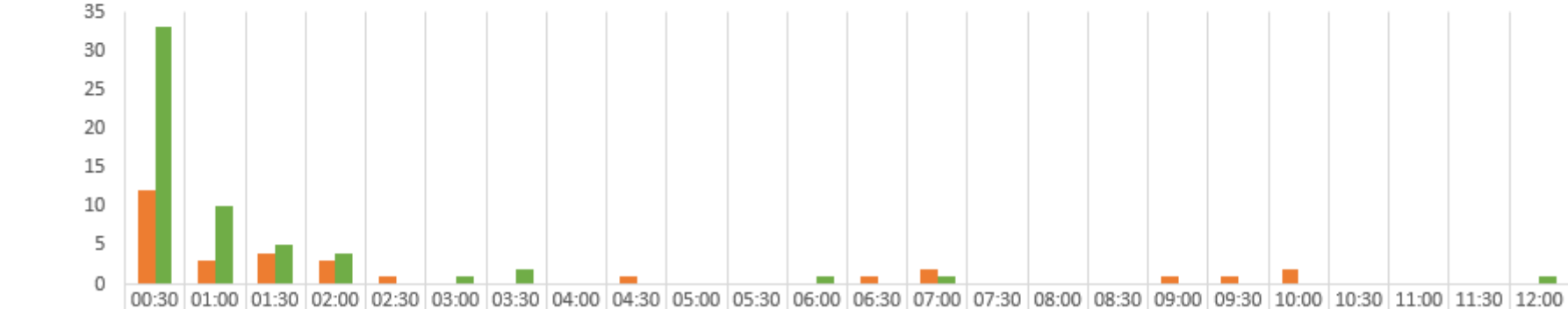
ZONE C - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	1	2	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
23.09.2023	8	7	0	1	3	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

20.09.2023 23.09.2023

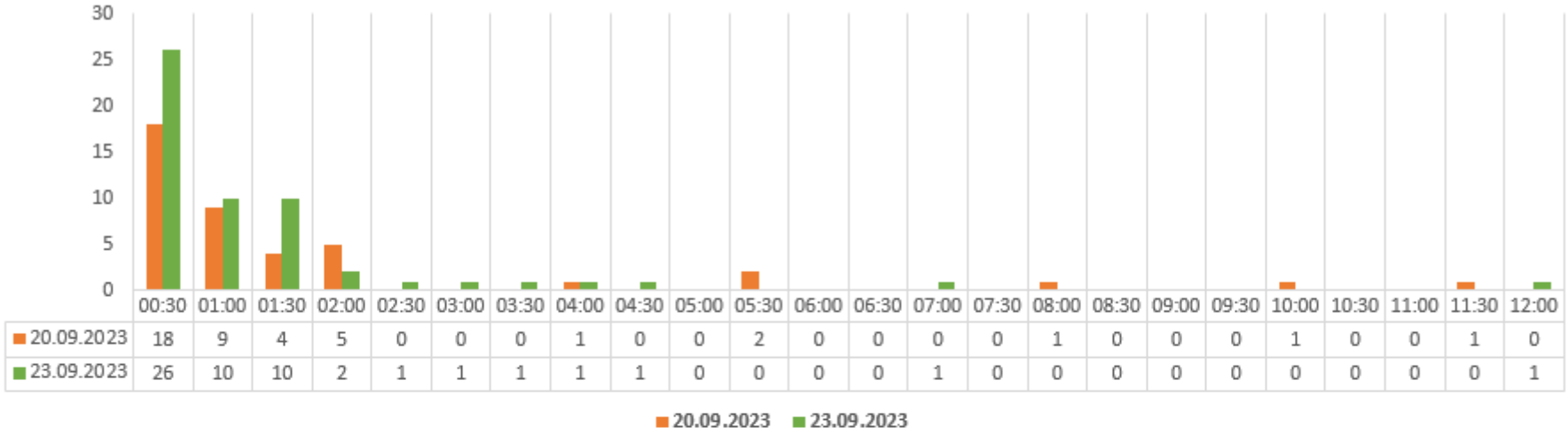
ZONE D - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	12	3	4	3	1	0	0	0	1	0	0	0	1	2	0	0	0	1	1	2	0	0	0	0
23.09.2023	33	10	5	4	0	1	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1

20.09.2023 23.09.2023

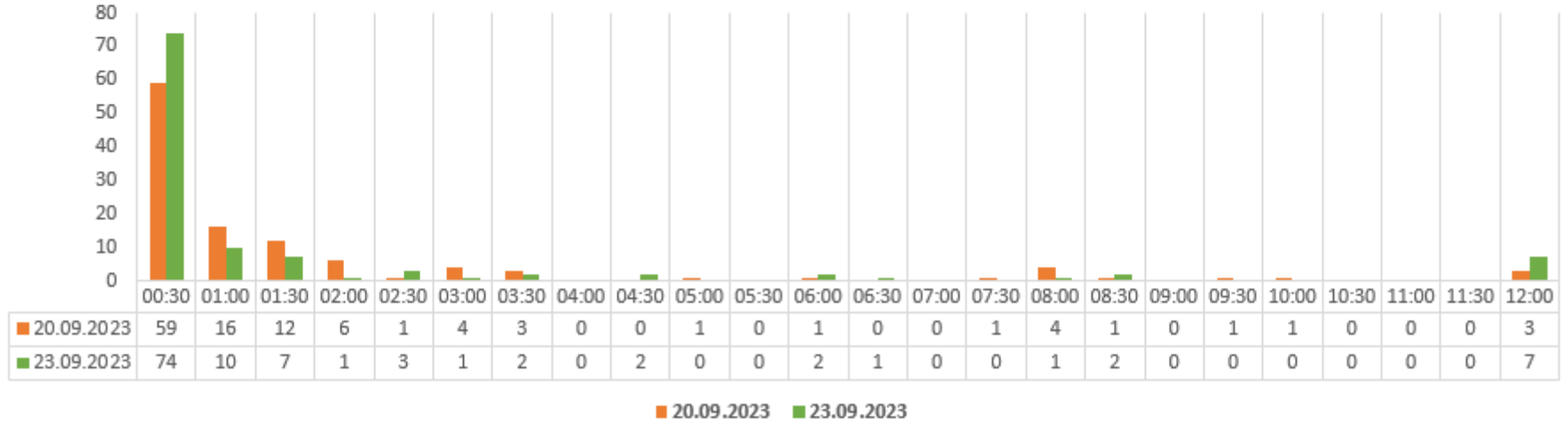
ZONE E - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	18	9	4	5	0	0	0	1	0	0	2	0	0	0	0	1	0	0	0	1	0	0	1	0
23.09.2023	26	10	10	2	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1

20.09.2023 23.09.2023

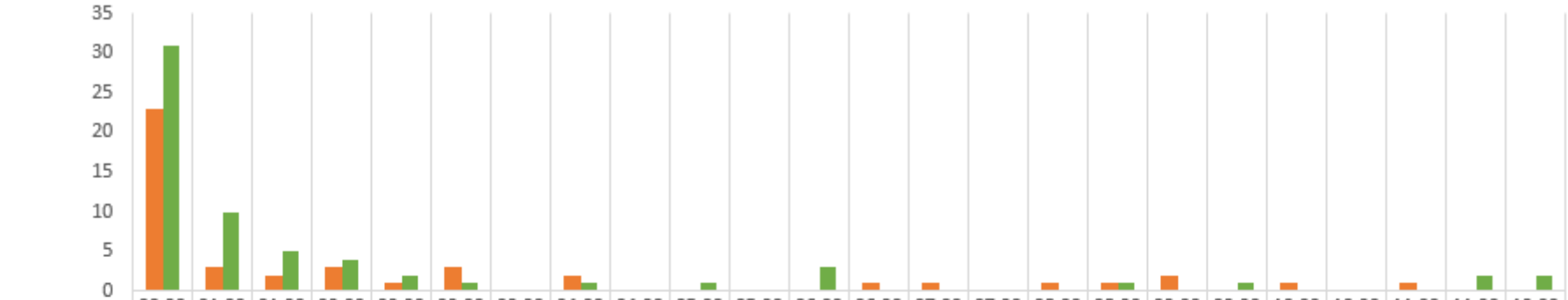
ZONE F - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	59	16	12	6	1	4	3	0	0	1	0	1	0	0	1	4	1	0	1	1	0	0	0	3
23.09.2023	74	10	7	1	3	1	2	0	2	0	0	2	1	0	0	1	2	0	0	0	0	0	0	7

20.09.2023 23.09.2023

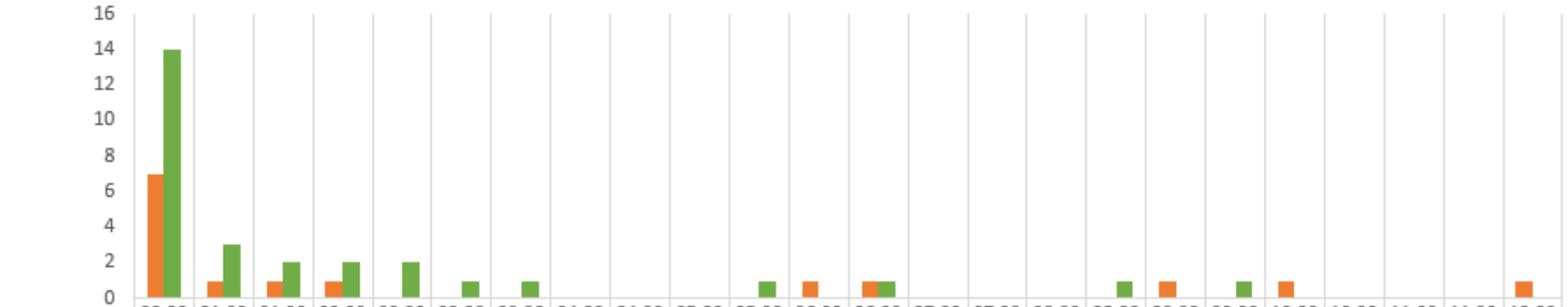
ZONE G - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	23	3	2	3	1	3	0	2	0	0	0	0	1	1	0	1	1	2	0	1	0	1	0	0
23.09.2023	31	10	5	4	2	1	0	1	0	1	0	3	0	0	0	0	1	0	1	0	0	0	2	2

20.09.2023 23.09.2023

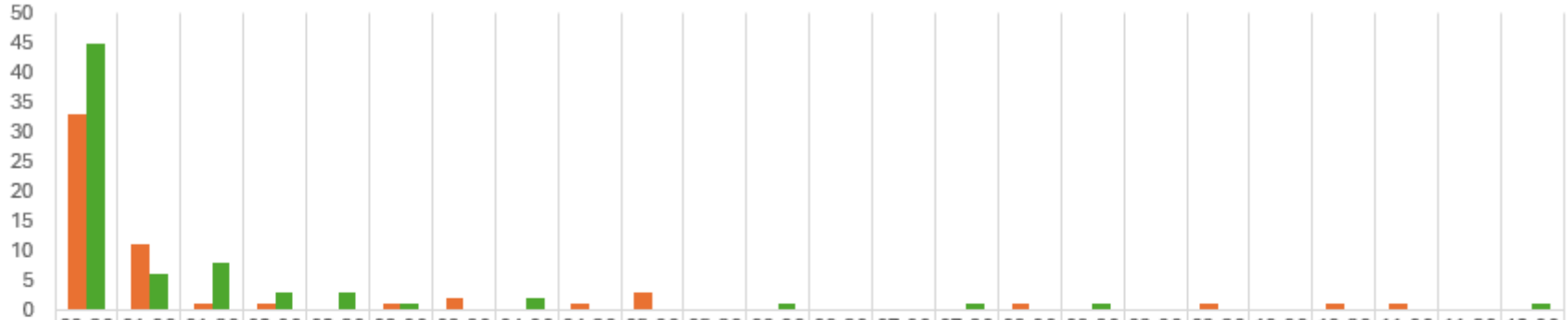
ZONE H - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	7	1	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	1
23.09.2023	14	3	2	2	2	1	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0

20.09.2023 23.09.2023

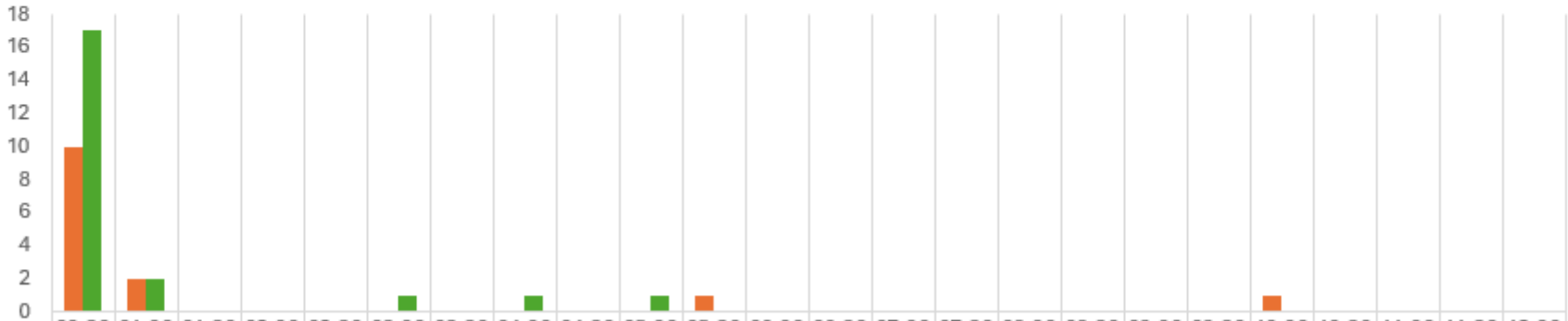
ZONE J - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	33	11	1	1	0	1	2	0	1	3	0	0	0	0	0	1	0	0	1	0	1	1	0	0
23.09.2023	45	6	8	3	3	1	0	2	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	1

20.09.2023 23.09.2023

ZONE K - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	10	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
23.09.2023	17	2	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

20.09.2023 23.09.2023

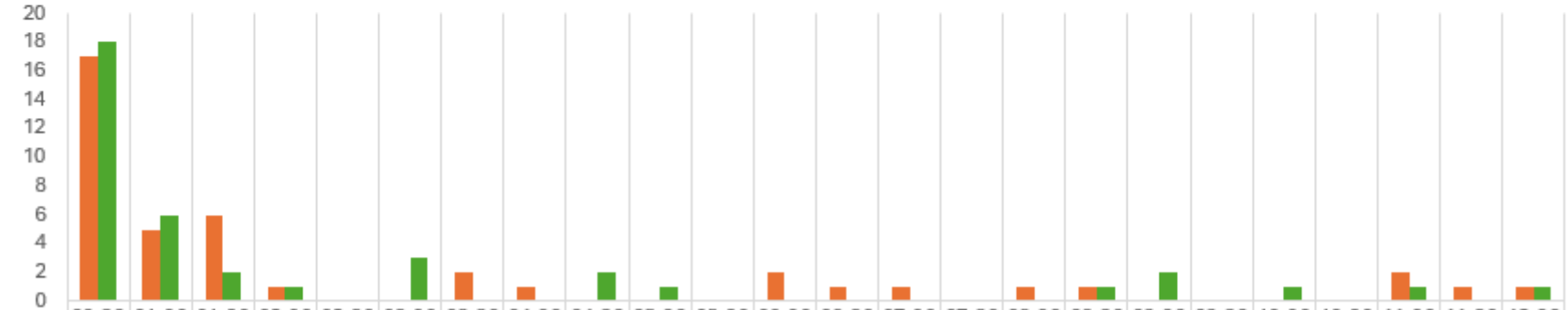
ZONE L - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	13	5	3	0	1	0	2	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
23.09.2023	9	3	2	1	2	0	1	1	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0

20.09.2023 23.09.2023

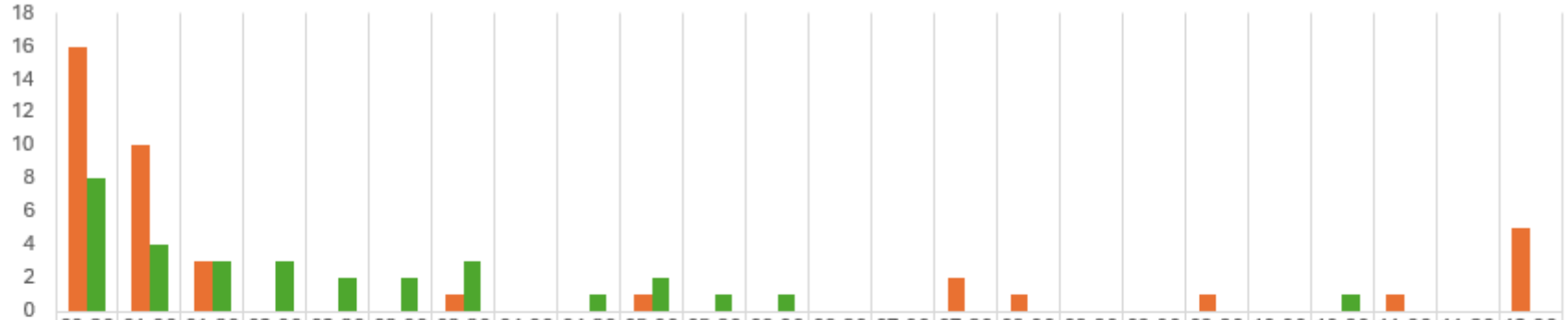
ZONE M - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	17	5	6	1	0	0	2	1	0	0	0	2	1	1	0	1	1	0	0	0	0	2	1	1
23.09.2023	18	6	2	1	0	3	0	0	2	1	0	0	0	0	0	0	1	2	0	1	0	1	0	1

20.09.2023 23.09.2023

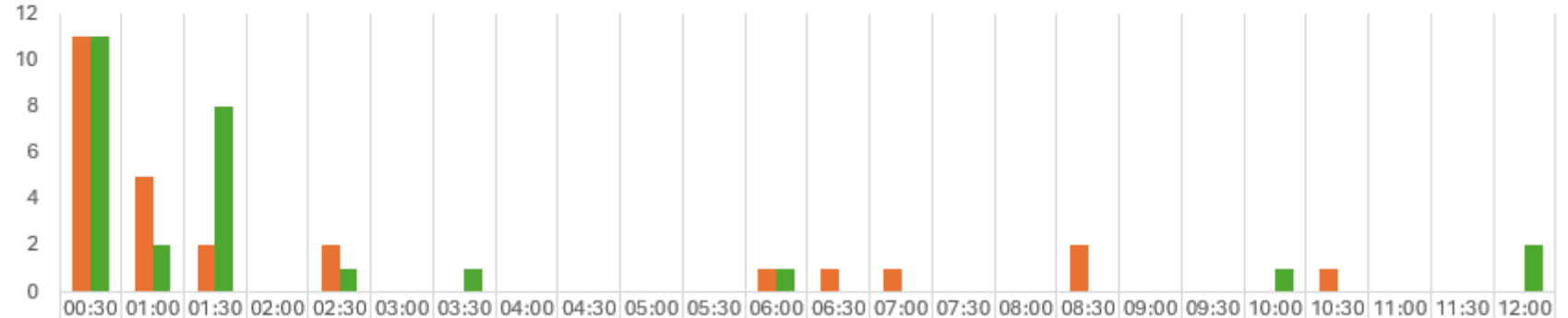
ZONE N - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	16	10	3	0	0	0	1	0	0	1	0	0	0	0	2	1	0	0	1	0	0	1	0	5
23.09.2023	8	4	3	3	2	2	3	0	1	2	1	1	0	0	0	0	0	0	0	0	1	0	0	0

20.09.2023 23.09.2023

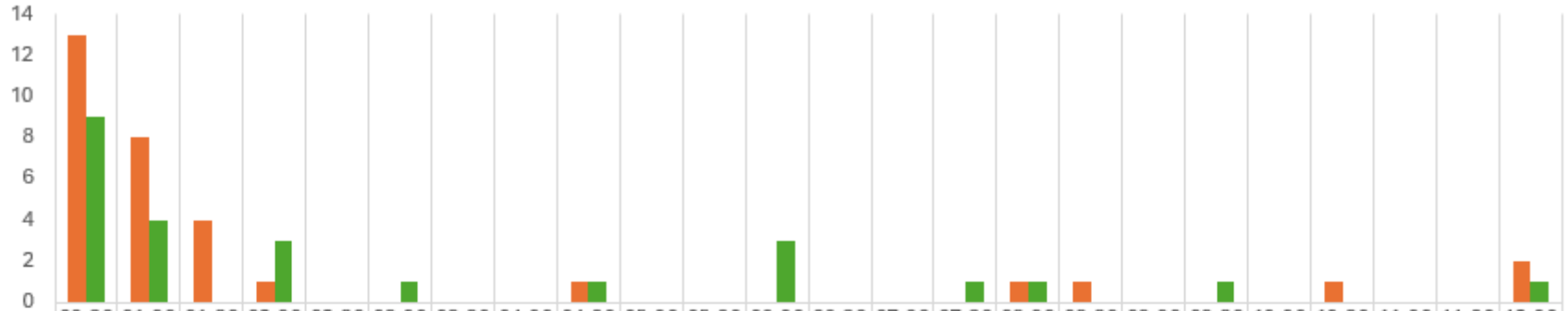
ZONE O - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	11	5	2	0	2	0	0	0	0	0	0	1	1	1	0	0	2	0	0	0	1	0	0	0
23.09.2023	11	2	8	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2

20.09.2023 23.09.2023

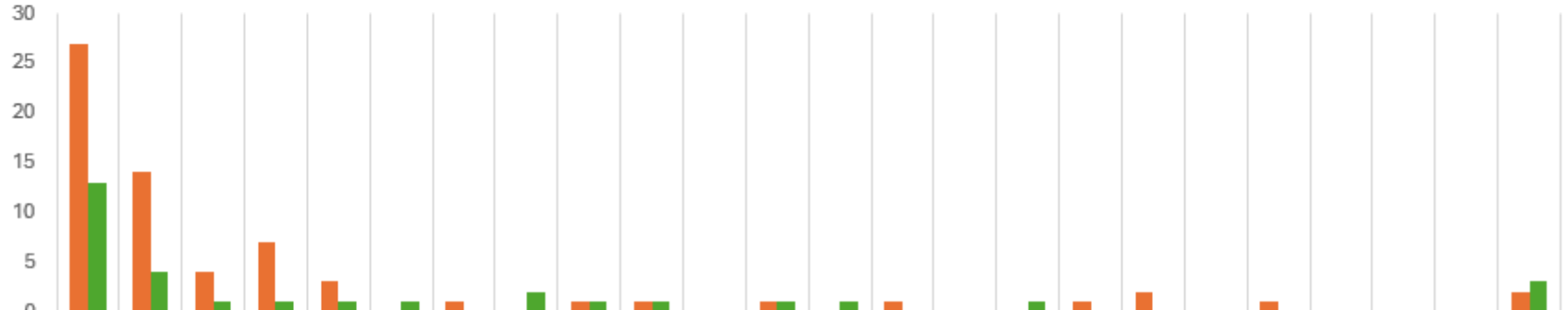
ZONE P - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	13	8	4	1	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	1	0	0	2
23.09.2023	9	4	0	3	0	1	0	0	1	0	0	3	0	0	1	1	0	0	1	0	0	0	0	1

20.09.2023 23.09.2023

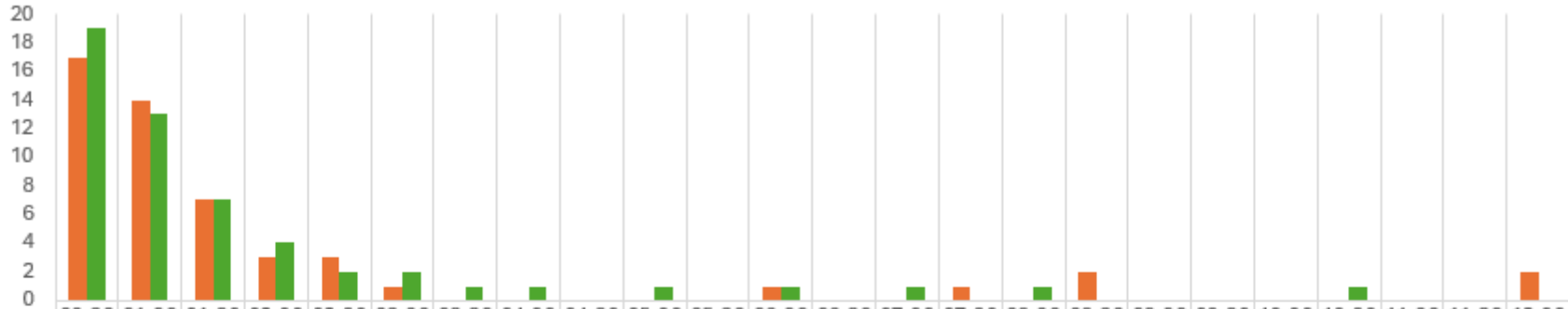
ZONE Q - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	27	14	4	7	3	0	1	0	1	1	0	1	0	1	0	0	1	2	0	1	0	0	0	2
23.09.2023	13	4	1	1	1	1	0	2	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	3

20.09.2023 23.09.2023

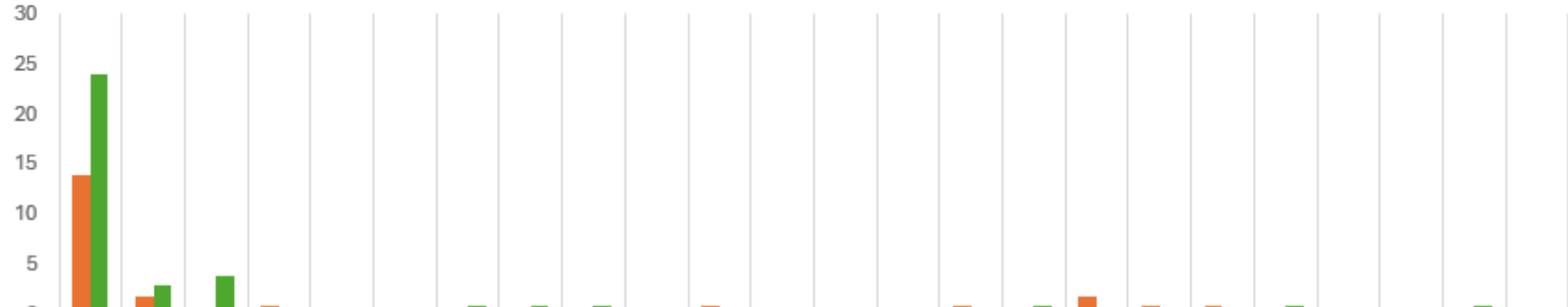
ZONE R - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	17	14	7	3	3	1	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	2
23.09.2023	19	13	7	4	2	2	1	1	0	1	0	1	0	1	0	1	0	0	0	0	1	0	0	0

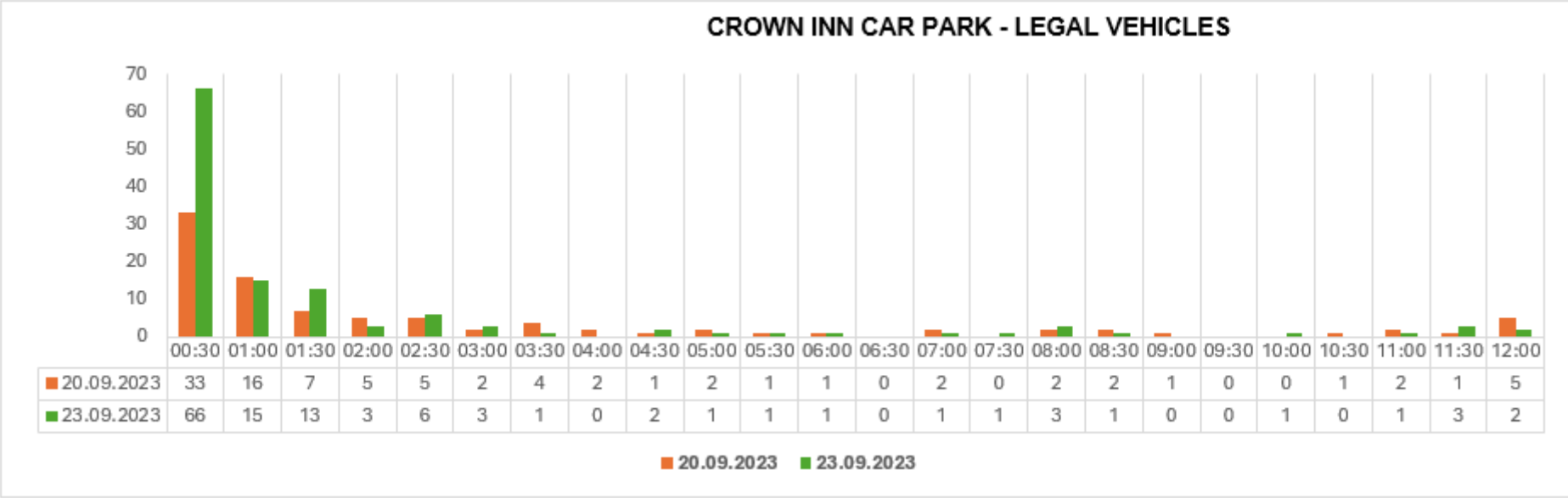
20.09.2023 23.09.2023

CROWN INN ACCESS - LEGAL VEHICLES



	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	14	2	0	1	0	0	0	0	0	0	1	0	0	0	1	0	2	1	1	0	0	0	0	0
23.09.2023	24	3	4	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0

20.09.2023 23.09.2023

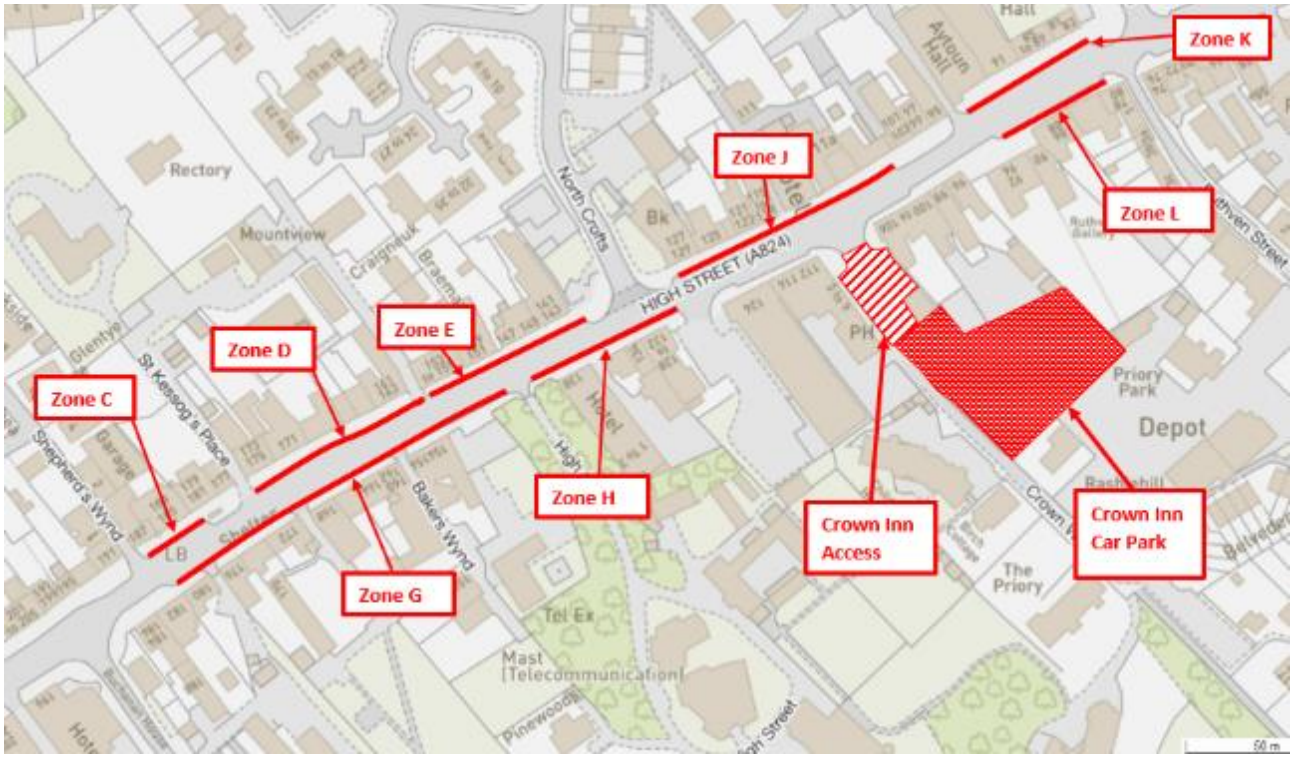


	00:30	01:00	01:30	02:00	02:30	03:00	03:30	04:00	04:30	05:00	05:30	06:00	06:30	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00
20.09.2023	33	16	7	5	5	2	4	2	1	2	1	1	0	2	0	2	2	1	0	0	1	2	1	5
23.09.2023	66	15	13	3	6	3	1	0	2	1	1	1	0	1	1	3	1	0	0	1	0	1	3	2

Appendix D Overall stress levels per Zone.



Wednesday 20th September 2023 (Plan 1 of 4)



Wednesday 20th September 2023 (Plan 2 of 4)



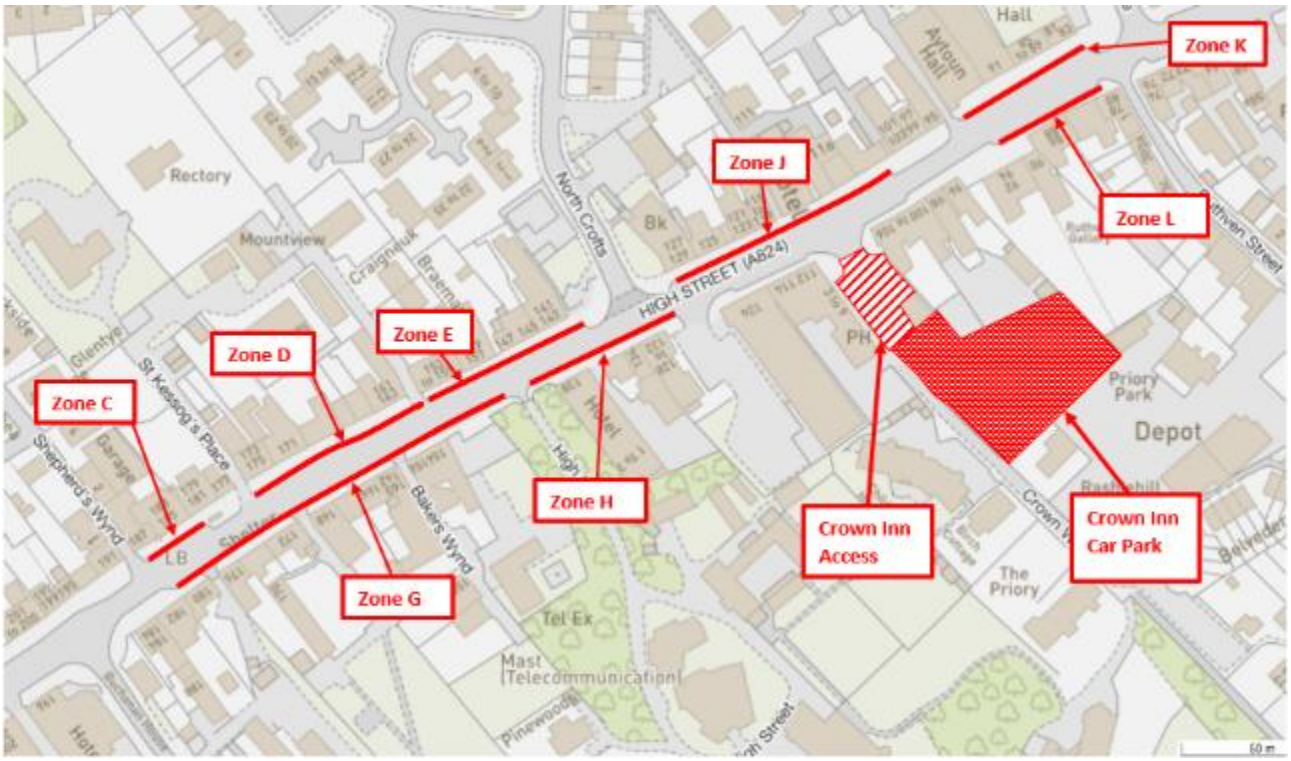
Wednesday 20th September 2023 (Plan 3 of 4)



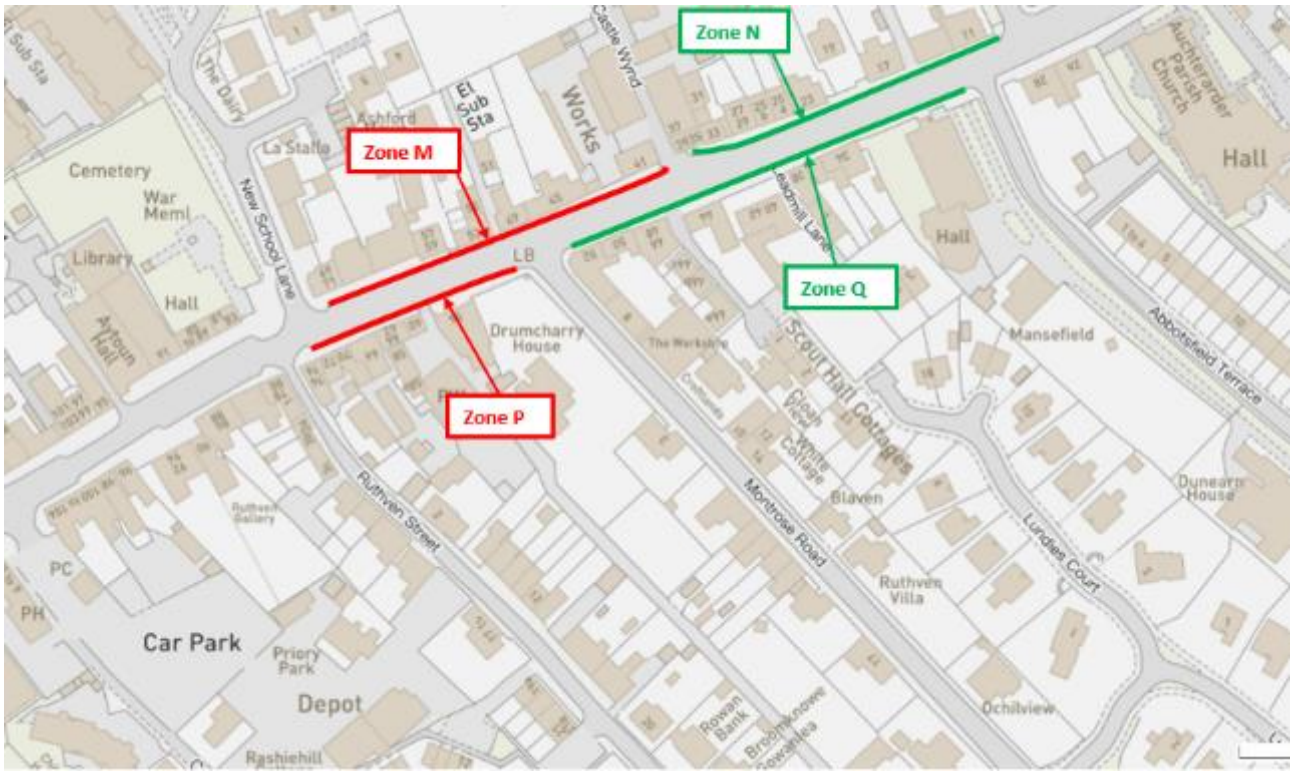
Wednesday 20th September 2023 (Plan 4 of 4)



Saturday 23rd September 2023 (Plan 1 of 4)



Saturday 23rd September 2023 (Plan 2 of 4)



Saturday 23rd September 2023 (Plan 3 of 4)



Saturday 23rd September 2023 (Plan 4 of 4)