

DEVON COUNTY COUNCIL

DARTMOUTH RESIDENTS' PARKING FEASIBILITY STUDY

Final Report

Report No. HPE91508A/1

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Dartmouth Residents' Parking Feasibility Study Final Report

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1 INTRODUCTION

1.1 Background

- 1.1.1 Parsons Brinckerhoff Limited were commissioned by Devon County Council to carry out a Residents' Parking Feasibility Study in the town of Dartmouth. The initial phase of study involved collecting a range of existing and new data to be used to assess the current situation within the town. Following this, the data was analysed and conclusions drawn.
- 1.1.2 In conjunction with this Feasibility Study Devon County Council (DCC) instructed Parsons Brinckerhoff to prepare a preliminary design for a Pay and Display Scheme to be operated in the harbour side area of Dartmouth. Details of the proposed Pay and Display Scheme are shown on drawings HPE91508A /01 /02 /03 /04.

1.2 Study Area

- 1.2.1 The study area covered central Dartmouth. It primarily enclosed the region encompassed by Victoria Road to the Harbour. Following discussions with Devon County Council, the study will focus on eight specific areas. Each area comprises of a number of surveyed roads, where residents parking has been proposed. Each area will be individually addressed in this report. Details of the study area are shown on Figure 1.1.
- 1.2.2 The objective of this study is to establish the level of parking within the identified areas in order to assess the effectiveness of implementing a Residents' Parking and associated Pay and Display Scheme.

2 RESIDENTS' PARKING SCHEMES

2.1 Components

- 2.1.1 Permit parking is used to enable preferential parking to be allocated to a specific user group, in this case residents and businesses. A Residents' Parking Zone could incorporate the following:
- 24-hour resident permits for use by residents;
 - Business permits allowing parking in the controlled zone for vehicles essential to the operation of businesses;
 - Visitor permits for vehicles staying for an extended periods at a bed and breakfasts or guest houses
 - 2-hour limited waiting for use during the day by visitors and during the night by residents;
 - Disabled parking for residents issued with Residents' Parking Permits;

2.2 Advantages of Residents' Parking Schemes

- 2.2.1 The advantages of installing a Residents' Parking Scheme include:
- Residents are more likely to be able to park in the zone closer to their home throughout the day. This will be dependent on the number of permits issued; if permits exceed spaces, parking can not be guaranteed;

- Traffic in the residential areas within the controlled zone could be reduced due to the restricted parking and elimination of traffic searching for parking spaces;
- Restrictions on parking within the town could encourage commuters, shoppers or visitors to the town to use alternative travel modes such as public transport or park and ride.

2.3 Disadvantages of Residents' Parking Schemes

2.3.1 There are disadvantages of Residents' Parking Schemes; these apply to any area where such a scheme would be introduced. They include:

- Limited waiting areas will, by necessity, be designated outside some residential properties. As such, they are often viewed as unacceptable to the residents of those properties;
- Where appropriate limited waiting areas are located at gable ends to avoid any unnecessary inconvenience as outlined above. However, these locations may not be convenient for some short-term visitors;
- Notwithstanding the above, genuine short-term visitors or residents usually experience some difficulty in parking because of lack of space;
- Commuters will continue to find and use restricted parking spaces therefore necessitating close and continuous enforcement of restricted zones;
- Problems could be created for genuine visitors throughout the day because of the restrictions imposed through the extent of the provision of limited waiting bays;
- There may be some migration of parking into areas not covered by the Residents' Parking Scheme.

The listed disadvantages are not all applicable in Dartmouth and certainly do not apply to the same extent as towns and cities with large commuter populations.

2.4 Enforcement of Residents' Parking Scheme

2.4.1 For daytime enforcement of Residents' Parking Schemes, a 2-hourly traffic warden beat would be preferable to ensure commuters, visitors or long-term shoppers do not abuse limited waiting areas. At night, this need is reduced but the roads would still need to be systematically checked to prevent residents' spaces being occupied by non-residents.

2.4.2 The cost of this enforcement must be taken into account during the completion of any pricing of the scheme. Fines and permit charges are usually set to balance these costs.

3 CURRENT SITUATION

3.1 Demographics

3.1.1 Dartmouth is located within a designated area of outstanding natural beauty around a deepwater port. It is a busy town and a popular destination for visitors throughout the year. Census, figures indicate that, in 1996, the estimated population of Dartmouth was 5,744.

3.2 Parking

3.2.1 Information extracted from the 'Dartmouth Transport Plan Issues Report', which was also commissioned by Devon County Council gives details of the current parking situation in Dartmouth. Parking in Dartmouth is limited by the topography of the town and the width of the streets. The majority of parking is on-street with a mixture of restricted and non-restricted available.

On-Street Parking

3.2.2 Dartmouth as a whole has some restrictions applied to the road network to manage on-street parking. These mainly involve marked bays of waiting restricted parking in select areas along with double and single yellow lines. Several areas of unrestricted parking exist, with permit parking in some very limited locations.

Off-Street Parking

3.2.3 The only full-time car park in the town centre is Mayors Avenue, although other areas are made available during the busy summer and regatta seasons.

Car Park	Maximum Waiting	Seasonal Opening
1. Mayors Avenue Car Park	<i>All Day</i>	<i>All Year</i>
2. Park and Ride - charged per vehicle and includes travel on the Park and Ride bus	<i>All Day</i>	<i>Bus Service runs from Easter to October</i>
3. Park and Ride - Car Park Only	<i>All Day</i>	<i>All Year</i>
4. Dartmouth Leisure Centre	<i>4 Hours</i>	<i>All Year</i>
5. Coronation Park	<i>All Day</i>	<i>Dartmouth Regatta and Carnival</i>
6. Dartmouth Castle	<i>3 Hours</i>	<i>All Year</i>
7. Dartmouth Market Square	<i>All Day</i>	<i>All Year – No parking on Tuesdays and Fridays</i>

Table 3.1 – Public Car Parks

4 SURVEY METHODOLOGY

4.1 Introduction

4.1.1 In order to assess the impact of a Residents' Parking Scheme a survey of current parking behaviour was undertaken. Eight areas were assessed and are detailed in Figure 1.1. The data collection performed for this study consisted of the following surveys, which are described in detail later in this section:

- *Parking Beat Surveys*
- *Postal Surveys*

4.2 Parking Beat Surveys

Survey Procedure

4.2.1 Surveyors covered each beat at regular half hour or hour intervals recording details of each parked vehicle. Information was recorded regarding vehicle type, registration number, location and the time the vehicle was observed. This information allowed an estimation of the length of stay of each vehicle.

4.2.2 The parking beats were carried out for each of the areas. Beats covered each area of available legal parking. Roads surveyed are listed in Table 2.1.

Beat	Surveyed Roads
01	Sandquay Road
02	Keep Lane, Clarence Hill, Clarence Street, Ridge Hill, Mount Boone, Mount Boone Hill, Coombe Close
03	Ferndale, Vicarge Hill, Town Close, North Ford Road, Newport Street, Roseville Street, Lake Street, Victoria Place
04	Jawbones Hill, Crowther's Hill, Above Town
05	Mount Boone Way, Redwalls Meadow, Townstal Hill, The Keep Gardens, Thurlestone Gardens, Fair View Road
06	Lower Fairview Road, Ford Valley
07	Victoria Road, Lower Broad Park
08	Rock Park

Table 4.1 – Beat coverage

4.2.3 The beat surveys were carried out on two consecutive days on the 05th / 06th July 2006 between the hours of 07:00 and 19:00.

4.3 Postcard Surveys

Survey Procedure

4.3.1 The postcard surveys were performed in the same locations as the beat surveys. This was to try and understand whom was using on-street parking and for what purpose. Windscreen questionnaires were put on each parked vehicle at approximately 10:00 and 14:00. This was to try and get as large a cross-section of usage as possible. These surveys were also carried out on the 05th / 06th July 2006. Two hundred and forty four postcards were placed on vehicles during the survey period. Ninety six completed postcards were returned.

5 RESULTS

5.1 Introduction

5.1.1 Table 6.1 indicates the amount of residential on-street parking spaces available in each of the areas. This data was collected at the time of the beat and postcard surveys.

Beat	Surveyed No. of On-Street Parking Spaces
01	18
02	32
03	55
04	36
05	117
06	22
07	25
08	49

Table 5.1 – On-Street Parking

5.2 Area 01 - Sandquay Road

Beat Survey

5.2.1 Beat 01 is on average 56% full with peak occupancy being observed between 18:30 and 17:00 when 72% of parking capacity is reached. 52% of vehicles stay for 2 hours or less. Examining the time periods when the majority of vehicles park in Beat 01, it can be seen 14% park between 07:00 and 18:30. These results suggest that parking in Beat 01 is predominantly residential with some short stay parking also being observed.

5.2.2 Figures 1.5 to 1.8 represent this data graphically.

Postcard Survey

4.3.3 All returned questionnaires were from residents in this area.

5.3 Area 02 - Keep Lane, Clarence Hill, Clarence Street, Ridge Hill, Mount Boone, Mount Boone Hill, Coombe Close

Beat Survey

5.3.1 Beat 02 is operating with an average capacity of 74%. The peak usage was observed between 09:00 and 10:00 where 84% capacity was reached. It maintains high occupancy levels for all times but the end of the day. Length of stay figures show an equal split between short and long stay parking 39% and 47% respectively. A high percentage of the vehicles in this area park between 07:00 – 18:00 hours, this suggests a high residential presence.

5.3.2 Figures 1.9 to 1.12 represent this data graphically.

Postcard Survey

- 5.3.3 The vehicle postcards received were predominantly from residents. Only one non-residential response was received with this journey attributed to social purposes.

5.4 Area 03 - Ferndale, Vicarge Hill, Town Close, North Ford Road, Newport Street, Roseville Street, Lake Street, Victoria Place

Beat Survey

- 5.4.1 Short stay parking is prevalent in this area with 54% of vehicles staying for 2 hours or less. Given the proximity of this area to the town centre then this could largely be attributed to shopping or leisure activities. Capacity in this area was variable throughout the day; full capacity was reached between 09:00 – 09:30 hours with only 38% capacity being observed between 18:30 – 19:00 hours. When examining the time periods over which vehicles parked 18% parked between 07:30 – 18:30 suggesting there is also a residential presence in this area.

- 5.4.2 Figures 1.13 to 1.16 represent this data graphically.

Postcard Survey

- 5.4.3 86% of the vehicle postcards received in this area were from residents, other reasons given for parking were leisure and commuting activities.

5.5 Area 04 - Jawbones Hill, Crowther's Hill, Above Town

Beat Survey

- 5.5.1 The difficult accessibility of this area from the town centre may make the area covered by Beat 04 less attractive to passing shoppers and commuters. It is however at 100% of its parking capacity between the hours of 17:30 and 18:00 and remains around 65% full at other times of the day. Lengths of stay times in this area are variable. 28% of vehicles are parked for between 6 and 11 hours. Examining the time periods when the majority of vehicles park in Beat 04, it can be seen 23% park between 07:00 and 18:30.

- 5.5.2 Figures 1.17 to 1.20 represent this data graphically.

Postcard Survey

- 5.5.3 Vehicle postcards show that 79% of parked vehicles in the area were associated with residents. The non-residential responses gave tourism and leisure activities as the purpose for their trips.

5.6 Area 05 - Mount Boone Way, Redwalls Meadow, Townstal Hill, The Keep Gardens, Thurlestone Gardens, Fair View Road

Beat Survey

- 5.6.1 Beat 05 is operating below capacity for much of the day, being on average 43% full. Length of stay figures show a high rate of short stay parking, 52% of parking is for 2 hours or less. Figures show 12% of vehicles parking between 07:00 and 18:00 hours this suggests some residential parking in this area.

- 5.6.2 Figures 1.21 to 1.24 represent this data graphically.

Postcard Survey

- 5.6.3 The vehicle postcards show a residential and non-residential parking split of 76% and 24% respectively.

5.7 Area 06 - Lower Fairview Road, Ford Valley

Beat Survey

- 5.7.1 Short stay parking is prevalent in this area with 53% of vehicles staying for 2 hours or less. Parking capacity figures are variable, only 36% of capacity was observed between 07:00 and 08:00 hours with peak capacity being reached between 17:00 and 18:00 hours.
- 5.7.2 Figures 1.25 to 1.28 represent this data graphically.

Postcard Survey

- 5.7.3 All returned questionnaires were from residents in this area.

5.8 Area 07 - Victoria Road, Lower Broad Park

Beat Survey

- 5.8.1 The further distance to the town centre may make the area covered by Beat 07 less attractive to shoppers and commuters. Length of stay figures show however that short stay parking is prevalent in this area with 58% of vehicles staying for 2 hours or less. Capacity levels are stable throughout the day at on average 60%.
- 5.8.2 Figures 1.29 to 1.32 represent this data graphically.

Postcard Survey

- 5.8.3 All returned questionnaires were from residents in this area.

5.9 Area 08 - Rock Park

Beat Survey

- 5.9.1 The distance to the town centre also makes the area covered by Beat 08 unlikely to attract parking from shoppers and commuters. Short stay parking is prevalent in this area with 61% of vehicles staying for 2 hours or less. This area is operating at below capacity throughout the day being on average 42% full.
- 5.9.2 Figures 1.33 to 1.36 represent this data graphically.

Postcard Survey

- 5.9.3 All returned questionnaires were from residents in this area.

5.10 Summary of Survey Statistics

5.10.1 The surveys depicts the study area of Dartmouth considered as being busy for most of the day. When considering all roads studied these are at on average at 74% capacity. The lengths of stay are predominantly short, with the average percentage of parked cars staying for 2 hours or less being 50% of the total parked vehicles. The level of empty spaces would seem to suggest that a Residents' Parking Scheme in certain areas would have a knock on effect with the displacement of vehicles to other areas of the town, where it to be implemented in a few zones rather than across the whole study area.

5.10.2 Figures 1.2 to 1.4 summarise these survey results.

5.10.3 The results from the postcard survey gave a residential / non-residential split of 86% and 14% respectively. It should be recognised however that only 39% of postcards were returned. Many non-residential parkers may have chosen not to respond.

Displacement

5.10.4 In order to assess the impact of a Residents' Parking Scheme a classification of parked vehicles was required. Vehicles have been divided into Resident and Non-Resident on the basis of parking behaviour. Vehicles parked from early in the morning or throughout the survey period have been assumed to belong to residents. Vehicles arriving from the am peak and throughout the day have been assumed to belong to Non-Residents. The reasoning behind this division was that Residents would have parked over night in the vicinity of their properties and therefore their vehicles would be observed from the start of the survey period. In contrast Non-Resident vehicles will have had to travel from other areas and will therefore not be observed arriving until later in the survey period.

5.10.5 If a Residents' Parking Scheme were to be introduced on each of the roads in the study, the vehicles that would be most affected, due to their length of stay, would be vehicles parking for shorter periods for example shoppers, short-stay tourists and visitors. Examination of the results for % Vehicles per time period across the beats gave an indicative pattern of typical residential behaviour. A bulk departure of vehicles is observed between 07:00 and 08:00 hours which can be attributed to commuters leaving for work. This is paralleled by vehicles which were observed to remain over the length of the survey period, 07:00 to 19:00 hours. Towards the end of the survey period vehicles are observed to return although this is spread over a longer time period than the morning departure.

5.10.6 If it is assumed that non-residential parking is attributed to any vehicle being observed arriving to park, for the first time that day, between 08:00 and 17:00, then approximate displacement is shown in Table 3.2.

Area	% Non-Residential	Maximum Unrestricted Parking Capacity	Displaced Vehicles
01	21	18	4
02	34	32	11
03	43	55	24
04	25	36	9
05	35	117	41
06	57	22	13
07	32	25	8
08	34	49	17
Area Totals		354	127

Table 5.2 – Short Stay Parking Displacement

5.10.7 If a Resident's Parking Scheme for the study area was introduced it is considered that approximately 127 vehicles could be displaced.

5.10.8 The displaced vehicles could use other streets or car parks or use different transport methods to get into Dartmouth, for example, public transport provided by the park and ride, car-sharing or walking.

5.11 Off Street Parking

5.11.1 Parking ticket transaction data has been utilised to obtain car park usage figures over the survey period with this data being obtained for the following car parks:

Car park	Vehicular Capacity
1. Park and Ride	175
2. Mayor's Avenue Car park	195
3. Dartmouth	10

Table 5.3 – Off-Street Car Park Capacity

5.11.2 Hourly number of ticket transactions were analysed to determine the number of vehicles in each of the off-street car parks. It has been assumed that on the purchase of a ticket that each vehicle will stay in the car park for the total time period purchased. It should be noted that no data was available on the number of permit holder vehicles using the off-street car parks. The total number of parking permits of various different types issued in the South Hams area from April to October 2006 was 2,490; approximately 250 of these were issued to Dartmouth residents.

5.12 Park and Ride

5.12.1 During the two days of the survey the Park and Ride was on average 50% and 67% full. The occupancy of the Park and Ride car park was also checked by the surveyors at 07:00 and 10:00 hours. It was estimated that 15% of capacity was occupied at these times. It is noted that only full or half day tickets are available for purchase at the Park and Ride site. The assumption made that vehicles will stay in the car park for the total ticket time period purchased may therefore not be fully representative of vehicle parking behaviour. It is recommended that the estimated occupancy figures are verified through future survey work.

5.12.2 Figures 1.37 to 1.40 represent this data graphically.

5.13 Mayor's Avenue

5.13.1 Based on parking ticket sales the Mayor's Avenue car park was on average 34% and 26% full on the days of the survey. Peak capacity was generally observed in the middle period of the day where 51% and 42% of capacity was utilised. Anecdotal observations however suggested that competition for permits in the Mayors Avenue Car Park is an issue. Therefore the surveyors checked the occupancy of the main town centre car park at both 07:00 and 10:00 hours. The approximate occupancy was as follows:

Time Period	Wednesday Capacity % Occupied	Thursday Capacity % Occupied
07:00	75	75
10:00	92	75

Table 5.4 – Mayor's Avenue observed % occupancy

5.13.2 Figures 1.41 to 1.44 represent this data graphically.

5.14 Dartmouth Castle

5.14.1 On the days of the survey the Dartmouth Castle car park was on average 58% and 40% full. Peak observed capacity usage was 100% and 80% over the two days.

5.14.2 Figures 1.45 to 1.48 represent this data graphically.

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

6.1.1 From the data analysed, it appears that if a Residents' Parking Scheme were introduced in the study area considered then a substantial displacement of vehicles would be observed. Areas 03, 04 and 06 would show most benefit from the introduction of residents parking. The parking levels in these areas were observed to reach capacity during the survey period.

6.1.2 If anticipated displacement levels are reached then this would go a long way toward offering the residents of Dartmouth, without off-road parking facilities, an opportunity to park in the vicinity of their properties. Due to the lack of space in certain streets it is not considered feasible to provide properties with marked parking bays. This would involve converting areas of unrestricted parking to restricted which would be unacceptable given the already limited capacity within the town. As a compromise solution a Residents' Parking Zone could be provided in which all permit holders are legalised to park.

6.1.3 The introduction of a Residents' Parking Zone does however present a number of issues these are outlined in section 2.3. Displacement of vehicles from the study area will put pressure on parking facilities in Dartmouth town centre unless complementary measures are considered. The introduction of a Pay and Display Scheme to enable the control of current waiting restricted and unrestricted parking is considered to offer the most benefit in terms of addressing the issue of parking in Dartmouth as a whole.

6.1.4 The introduction of charged parking in the town centre is of course a contentious step there is a possibility that visitors and commuters are priced out of using the parking facilities doing damage to the prosperity of the town. The County District and Town Councils should consult and agree on appropriate price levels. Commuters and visitors will therefore need to be offered a viable and affordable alternative to parking in the town centre. If implemented correctly the Pay and Display Scheme does offer a range of benefits and could be used to encourage the use of more sustainable means of transport driving down congestion in Dartmouth.

6.1.5 The revenue received from the Pay and Display Scheme would provide authorities with the means to fund a range of developments within the town. The economics associated with the introduction of any Residents Parking Scheme needs to be considered. The number of permits that could feasibly be requested by residents in each area will need to be assessed and a determination made of whether these numbers are attainable. Enforcement of the Residents' Parking Zone will also require funding.

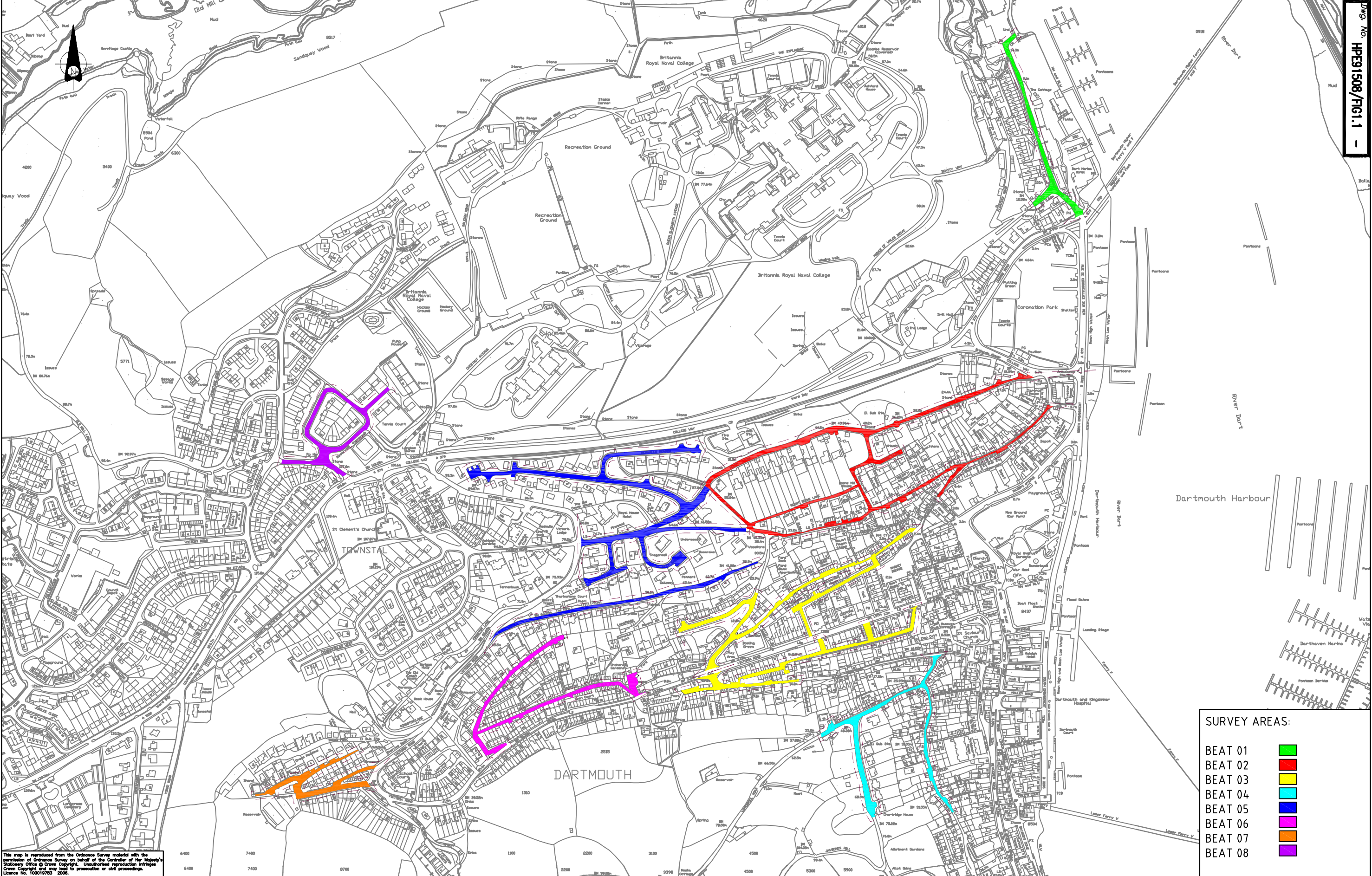
- 6.1.6 The Park and Ride service located at Norton could potentially be a major factor in solving the parking difficulties experienced in Dartmouth. The service however has never been profitable and is only run in the summer tourist season as this limits the amount of subsidy it requires. It is estimated that the revenue generated from a Pay and Display Scheme would be of sufficient amount to fund this service on a full time yearly basis. This would in turn provide commuters and short stay visitors with the means to access Dartmouth without parking in town centre. Increased patronage levels may also allow the operator to further improve this service over time.
- 6.1.7 There could be significant benefits to businesses in the town by allowing the displaced vehicles to be replaced by visitors and tourists staying in the town centre (Bed and Breakfasts, Guest Houses and Hotels) who bring money into the local economy.

6.2 Recommendations

- 6.2.1 On the basis of capacity issues, likely displacement figures and available public transport services within the Dartmouth it is recommended that a package of measures be introduced to improve the current situation. Namely establishment of Residents' Parking Zone, Pay and Display Scheme and full time yearly operation of the Park and Ride Service.
- 6.2.2 The pricing of Pay and Display, Off-Street Car Parks and the Park and Ride will need to be considered collectively. If the aim of encouraging commuters and short term visitors to utilise Public Transport services is to be achieved then the price of the Park and Ride should be lower than parking facilities within the town centre.
- 6.2.3 It is recommended that the Scheme is prepared and taken forward to public exhibition. It is recognised that parking is an emotive issue for residents of Dartmouth and that further consultation should be considered as public support will be required to progress any proposed scheme.



FIGURES



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SURVEY AREAS:

BEAT 01	■
BEAT 02	■
BEAT 03	■
BEAT 04	■
BEAT 05	■
BEAT 06	■
BEAT 07	■
BEAT 08	■



Edward Chorlton
 Director of Environment, Economy and Culture

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 Carnegie House, Westam Way, Exeter, Devon, EX1 2DB
 Tel: 44-(0)1392 229700 Fax: 44-(0)1392 229701

JOB

DARTMOUTH RESIDENT'S PARKING STUDY

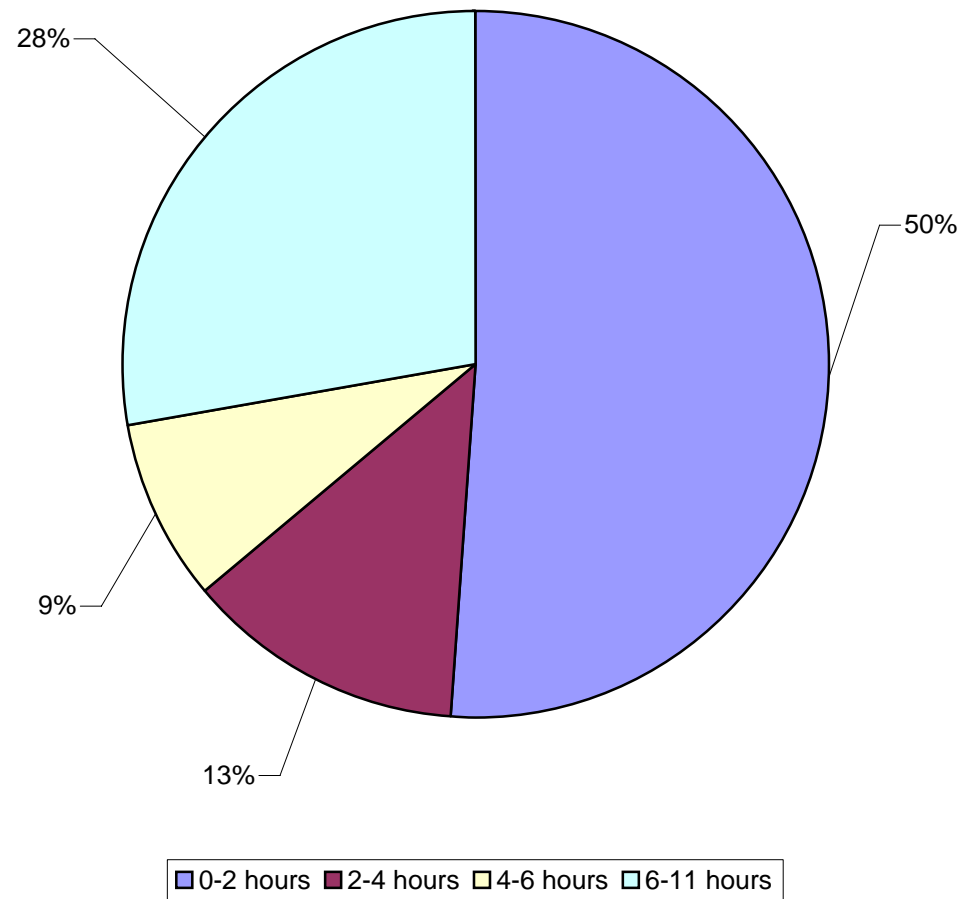
DRAWING TITLE

STUDY AREA

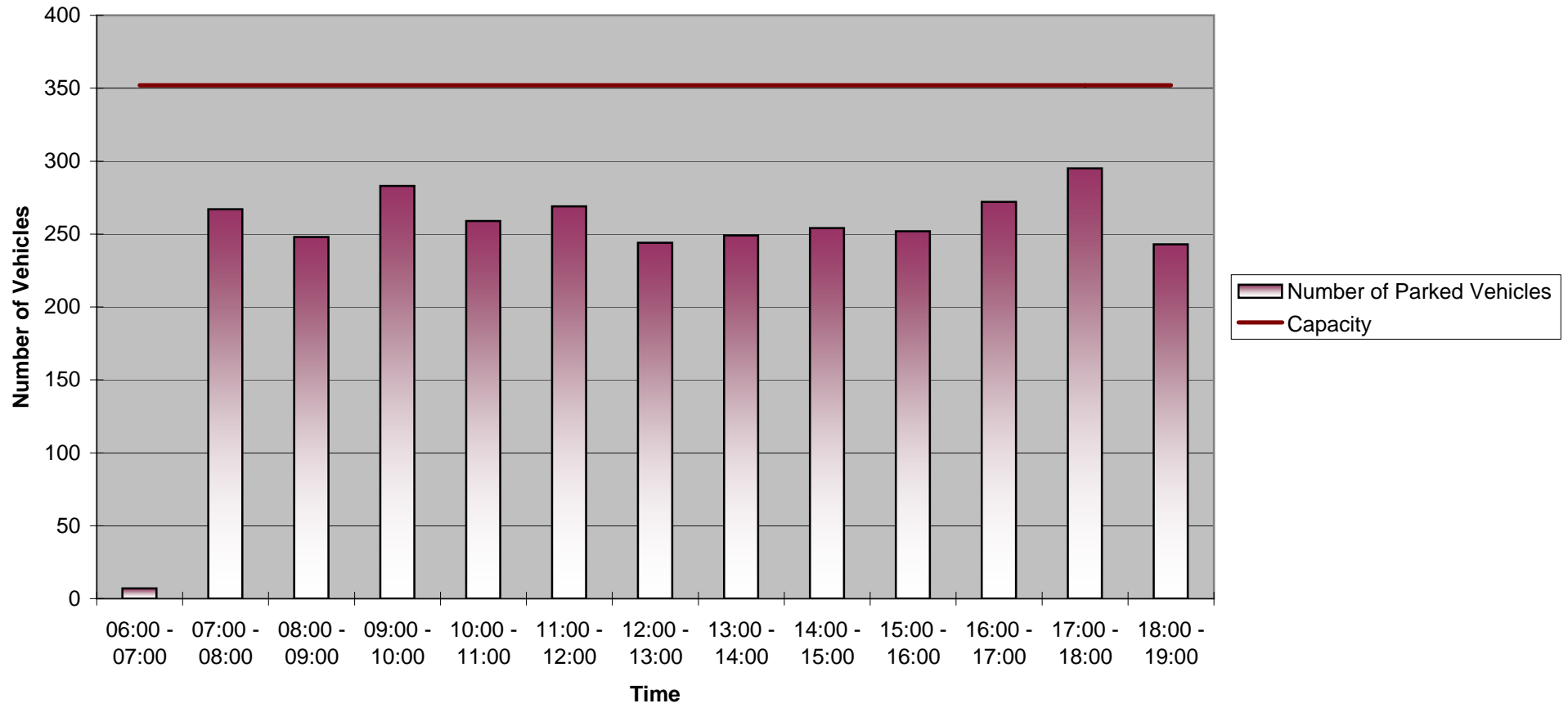
No.	Date	Revisions

date	14/08/06	designed	TJ
scale(s)	1:5000	produced	TJ
		checked	DC
		approved	DC
ACAD ref	G:\HPE\91508\ACAD		
drawing number	HPE91508/FIG.1 -		

Figure 1.2
Dartmouth Study Area - % Length of Stay



**Figure 1.3 -
Total Number of Vehicles Parked in Dartmouth
Study Area**



**Figure 1.4 -
Parking Space % Occupancy - Dartmouth
Study Area**

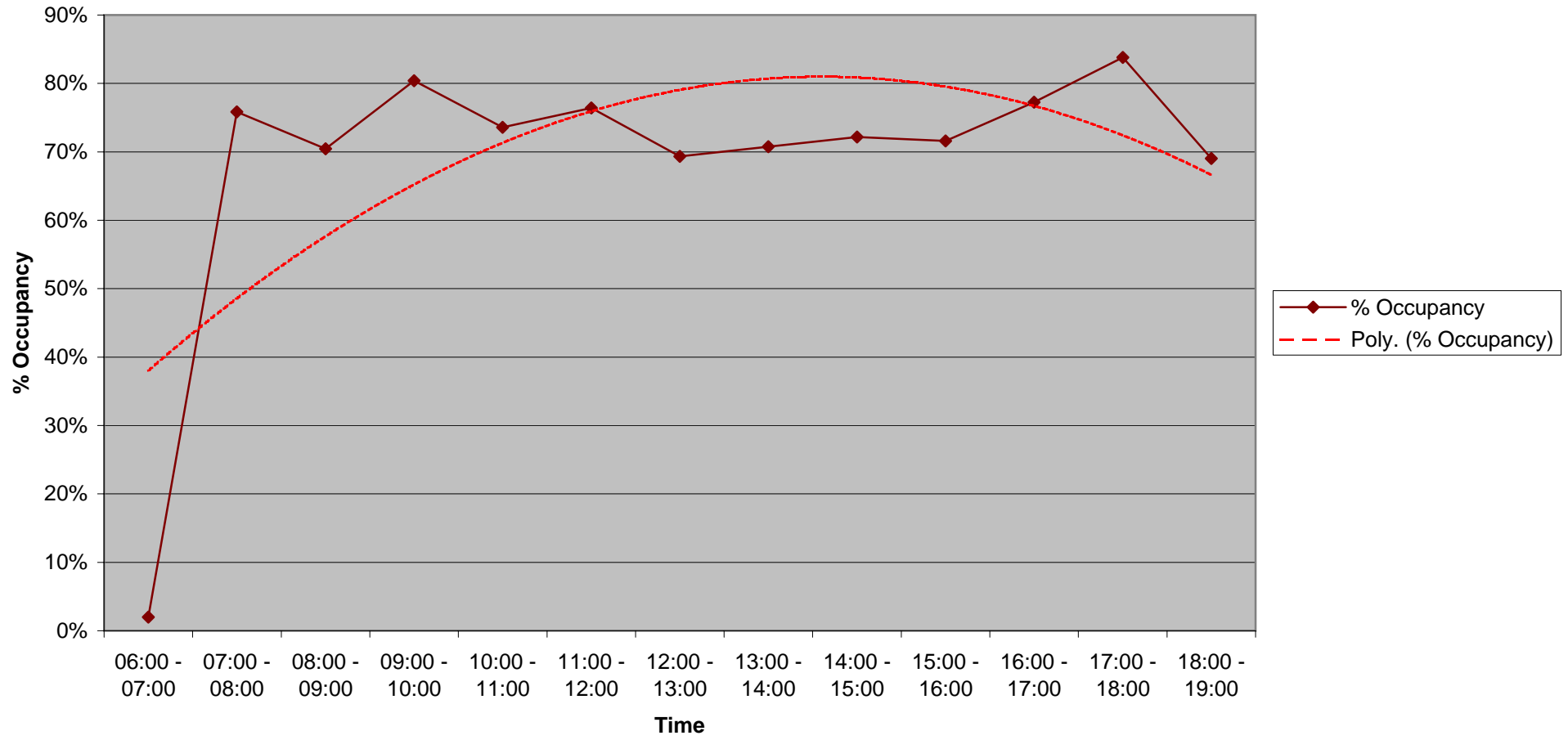
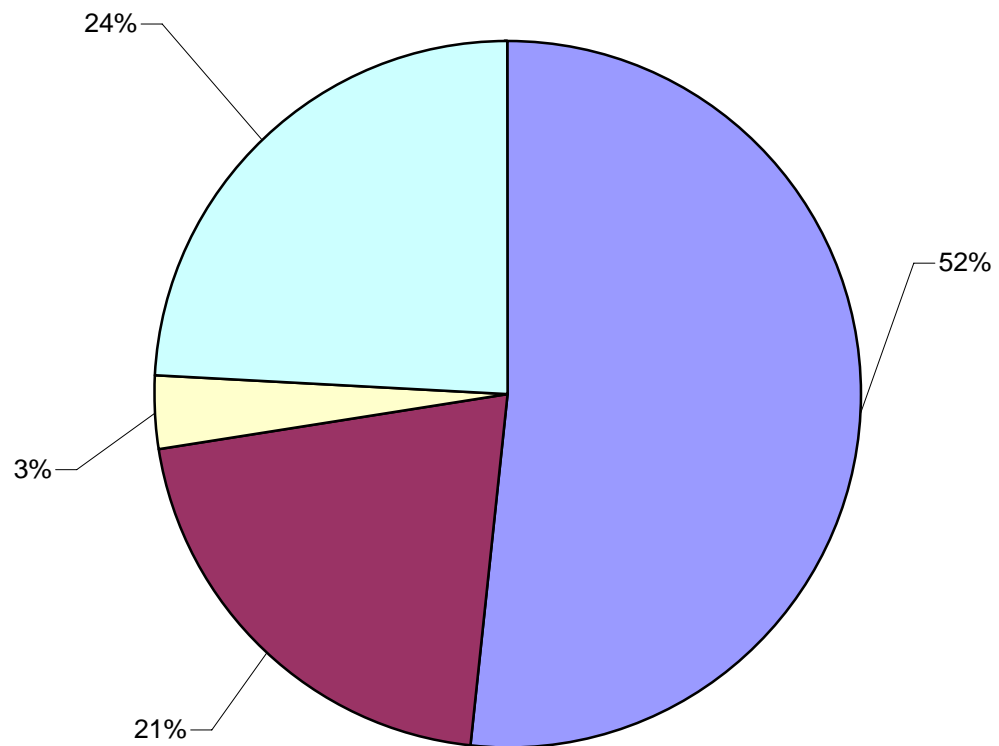


Figure 1.5 -
Beat 01 - % Length of Stay



■ 0-2 hours ■ 2-4 hours ■ 4-6 hours ■ 6-11 hours

**Figure 1.6 -
Total Number of Vehicles Parked on Beat 1**

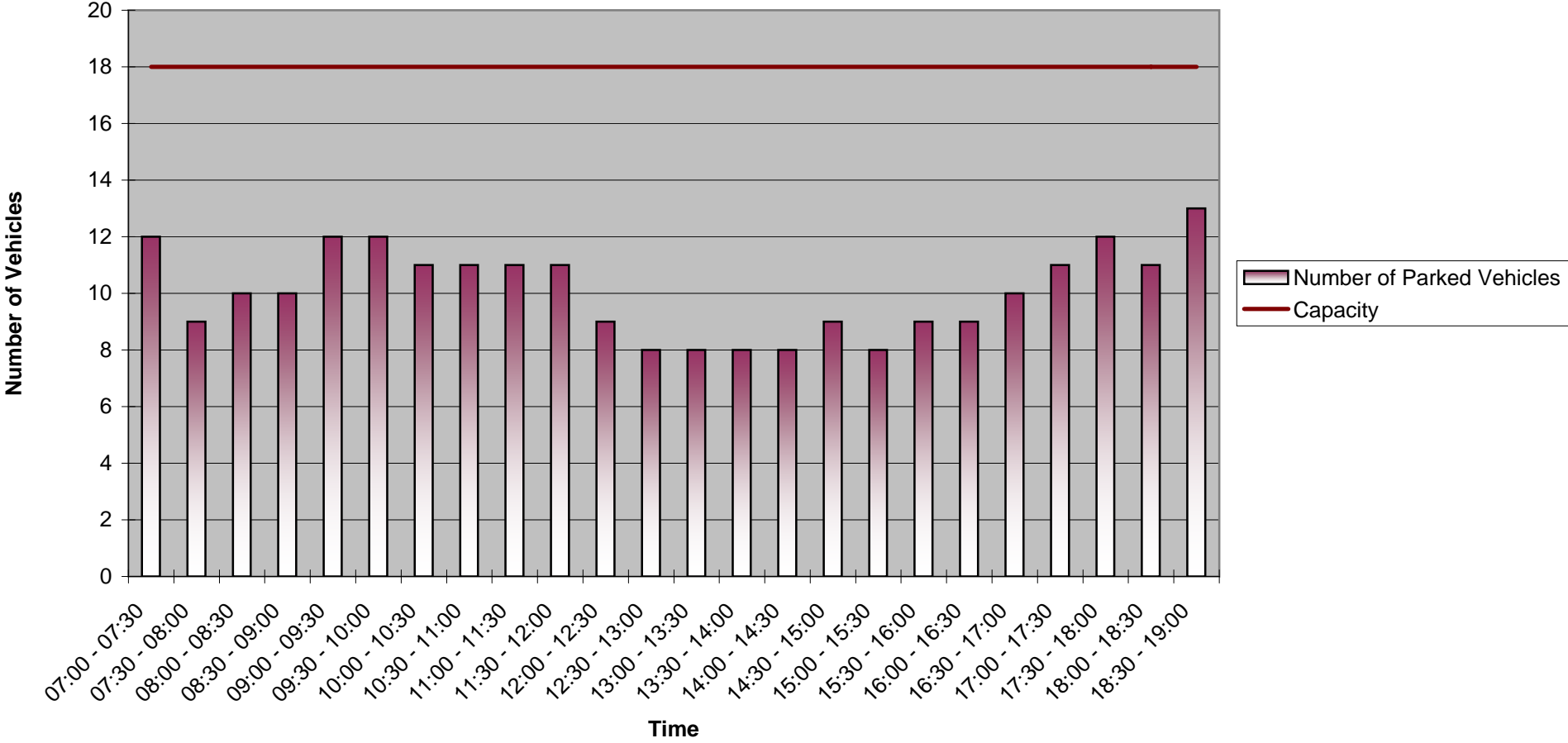
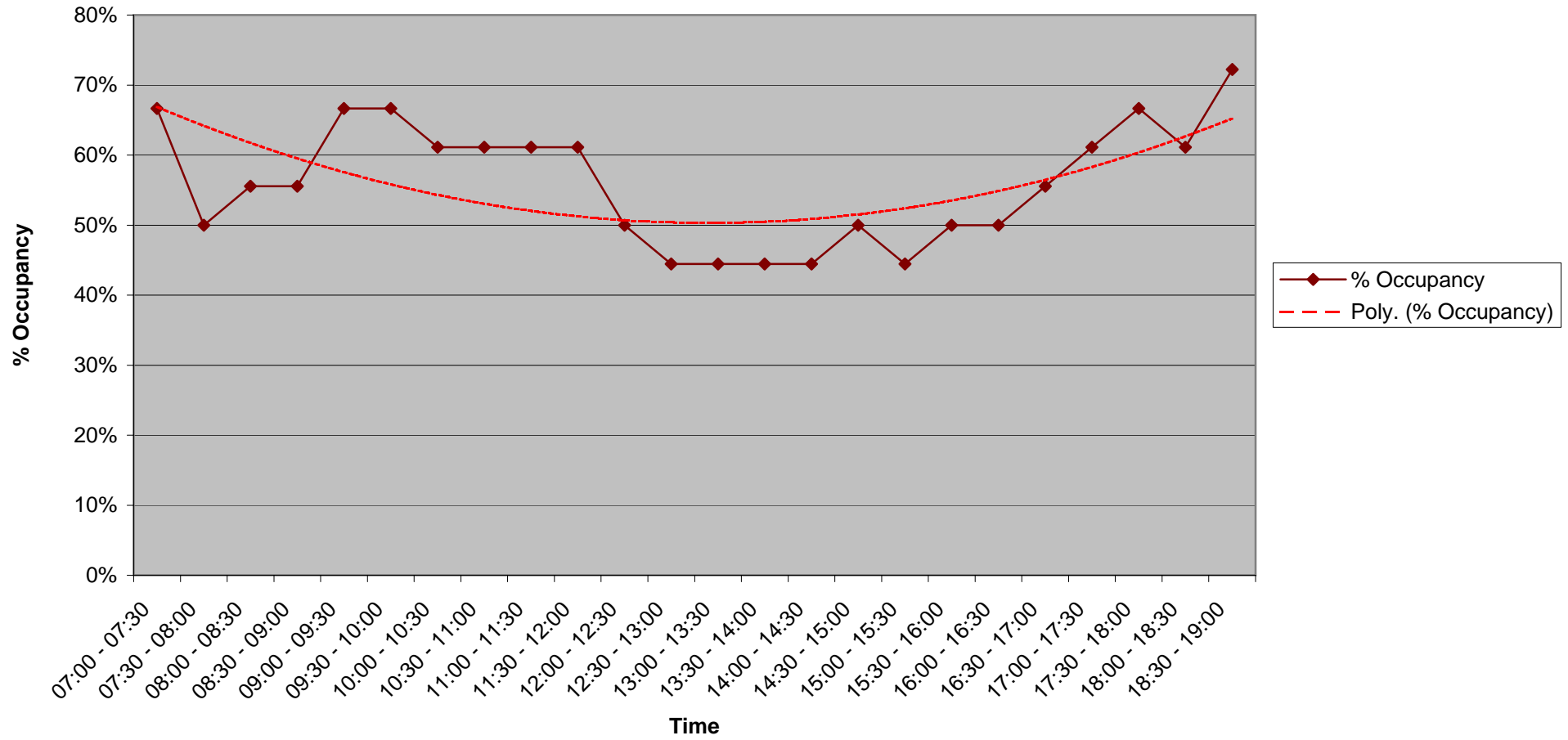
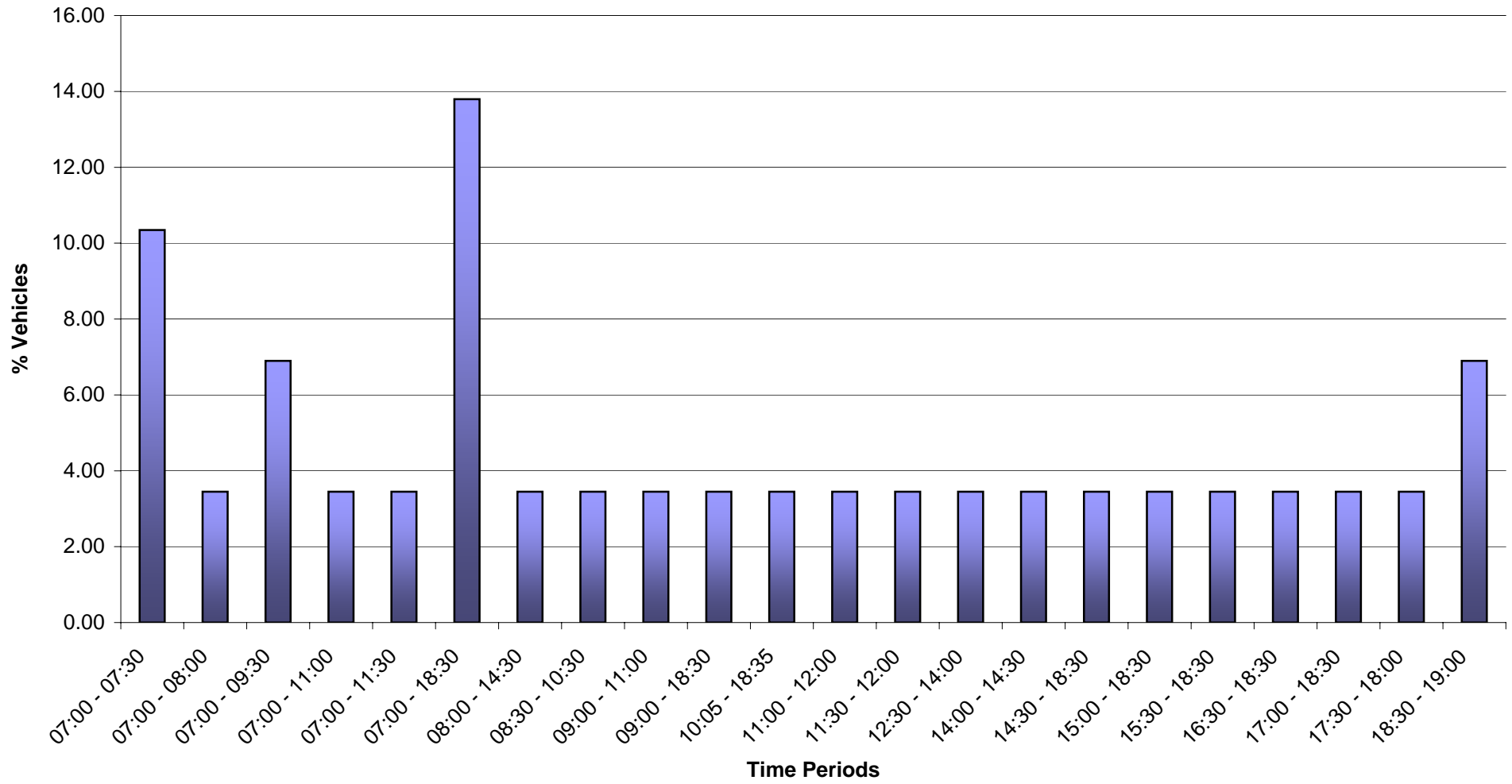


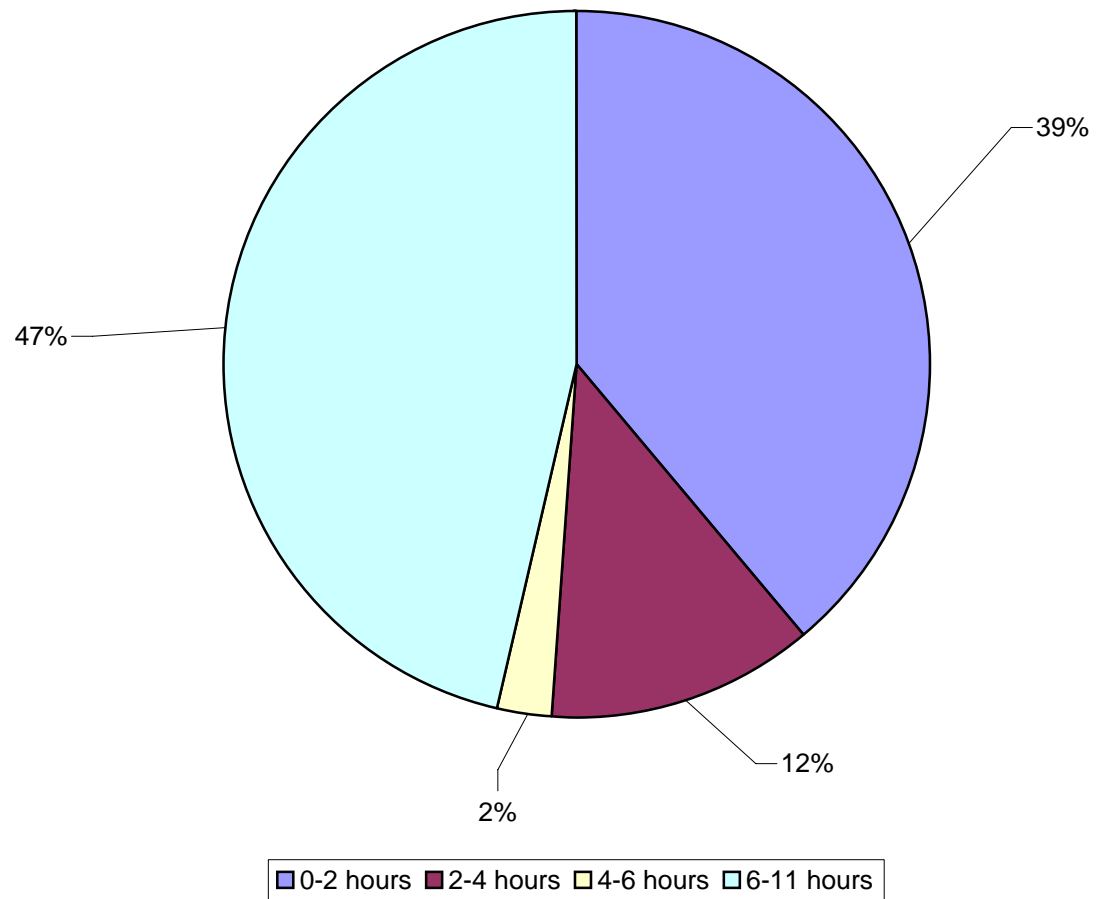
Figure 1.7 -
Parking Space % Occupancy Beat 1



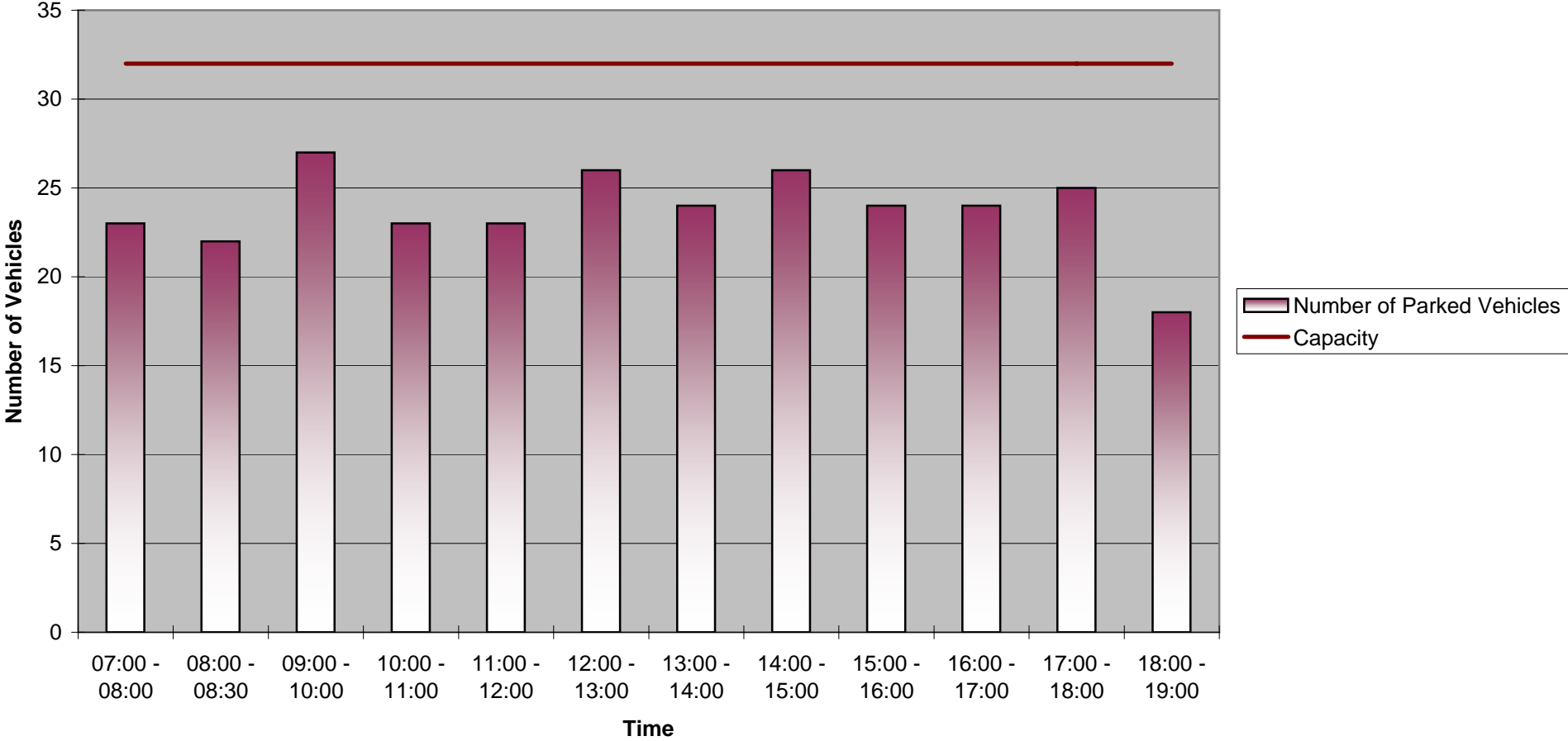
**Figure 1.8 -
Beat 01 - % Vehicles per time period**



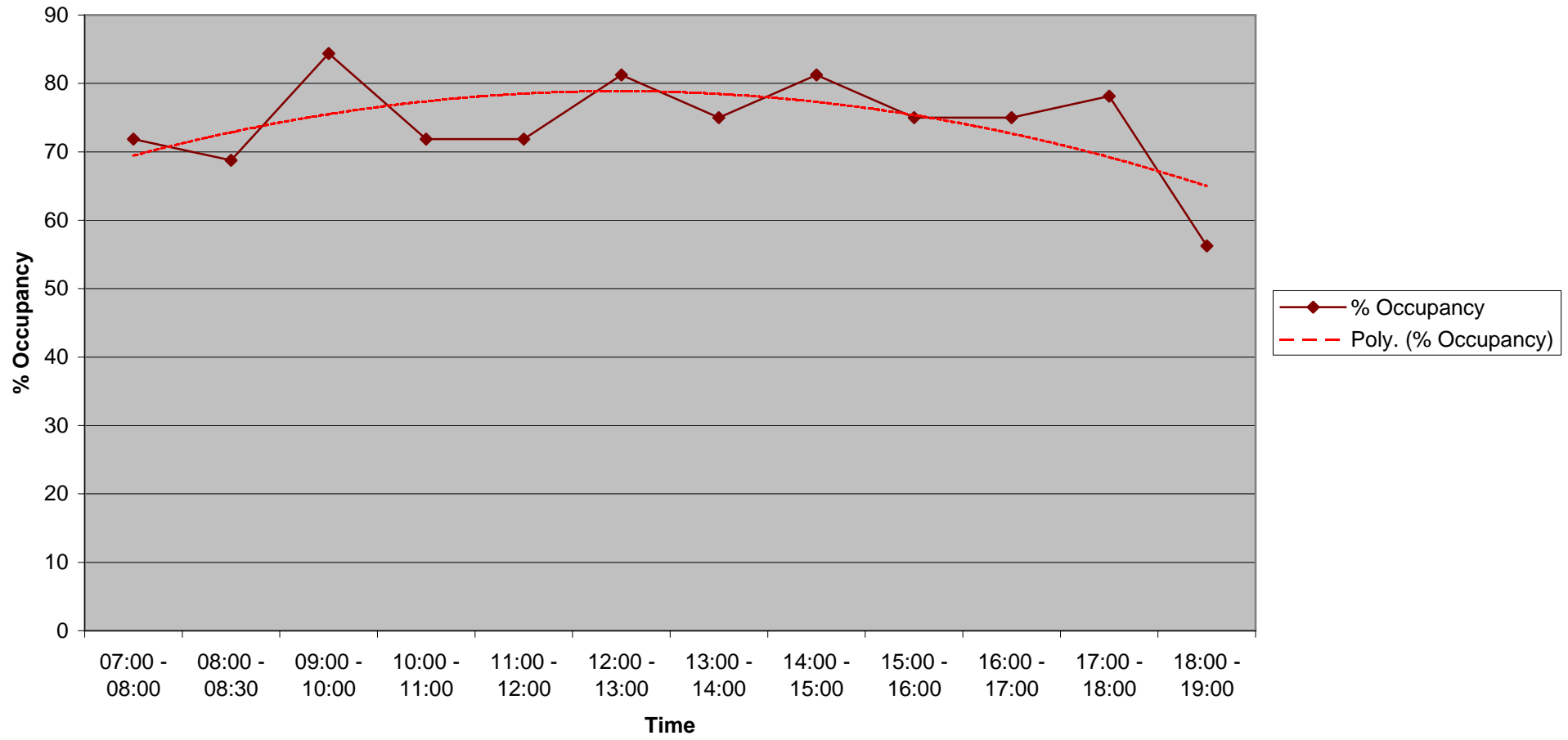
**Figure 1.9 -
Beat 02 - % Length of Stay**



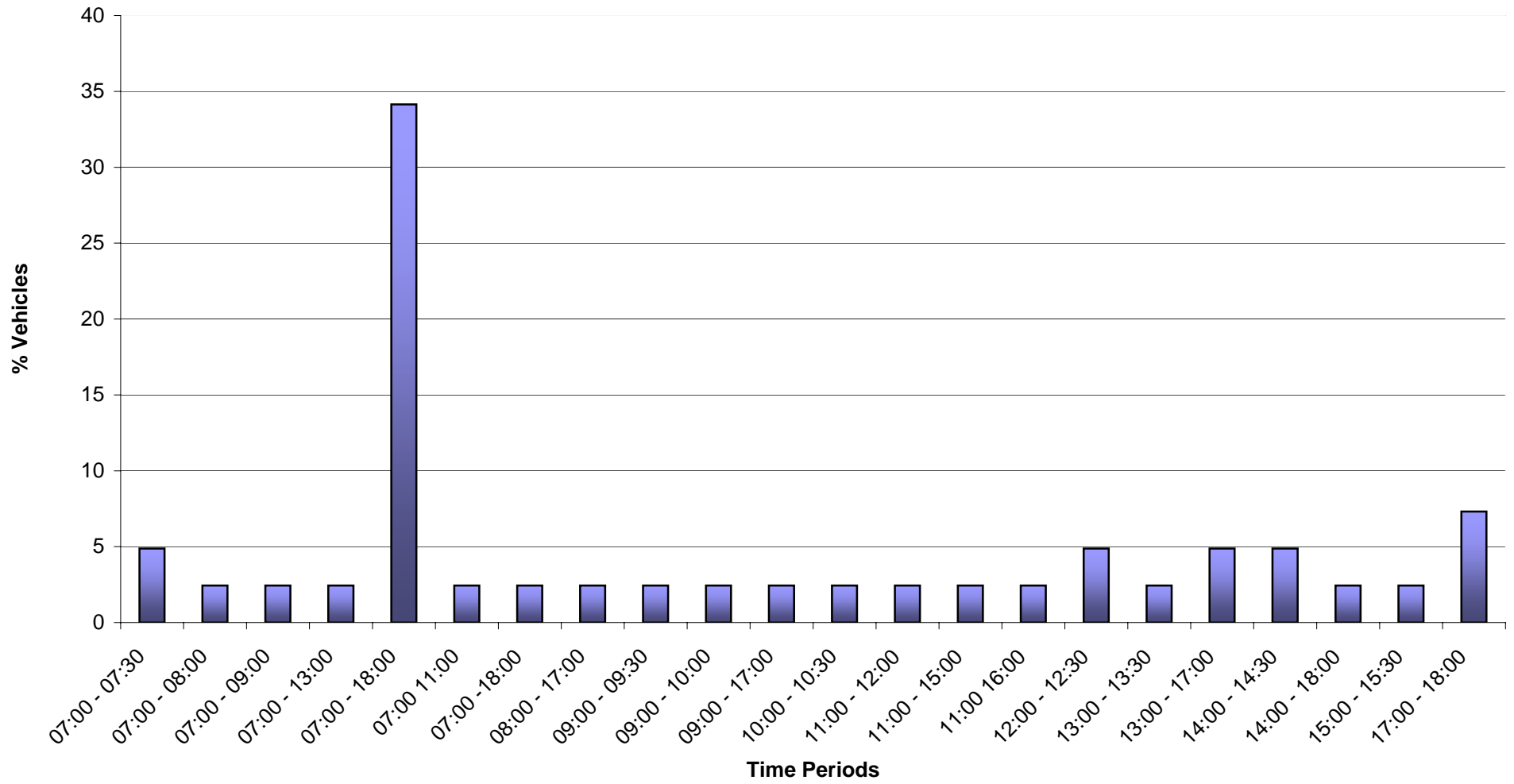
**Figure 1.10 -
Total Number of Vehicles Parked on Beat 2**



**Figure 1.11 -
Parking Space % Occupancy Beat 2**



**Figure 1.12 -
Beat 02 - % Vehicles per time period**



**Figure 1.13 -
Beat 03 - % Length of Stay**

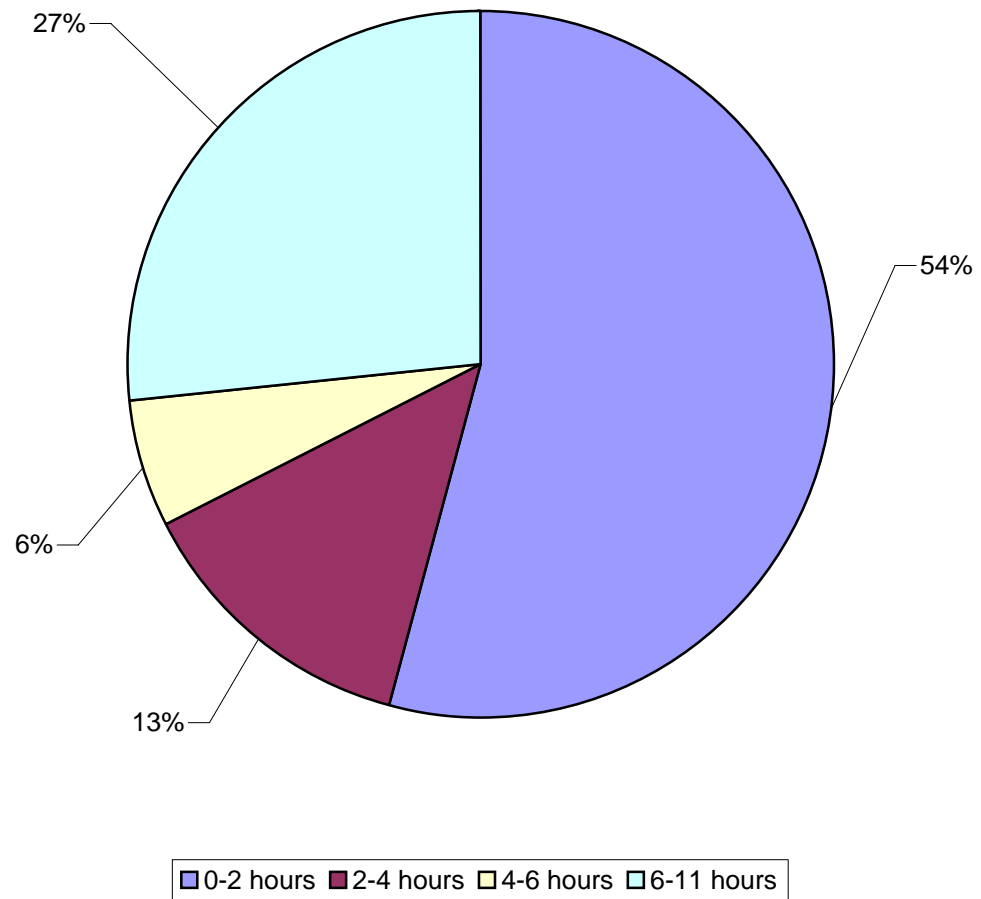
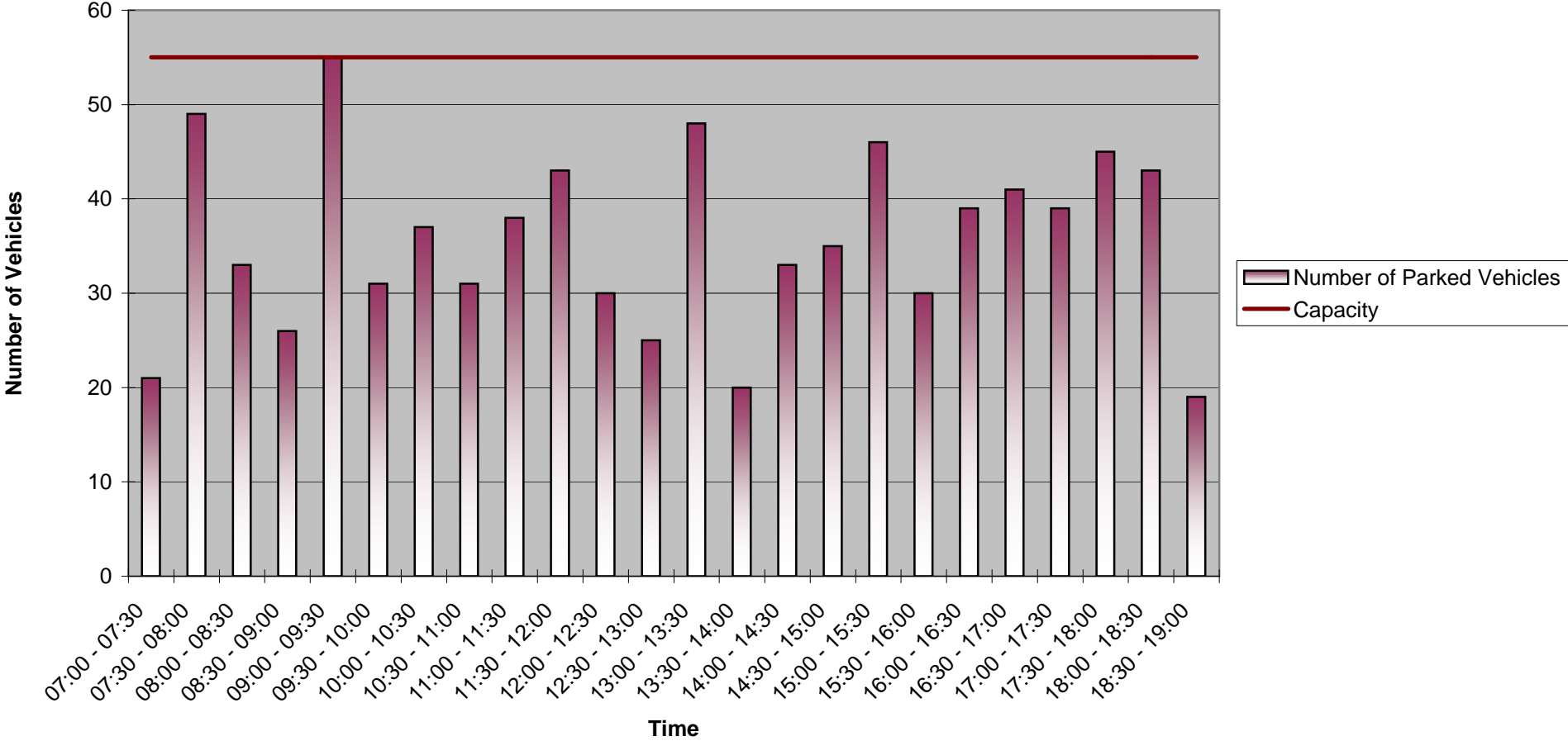
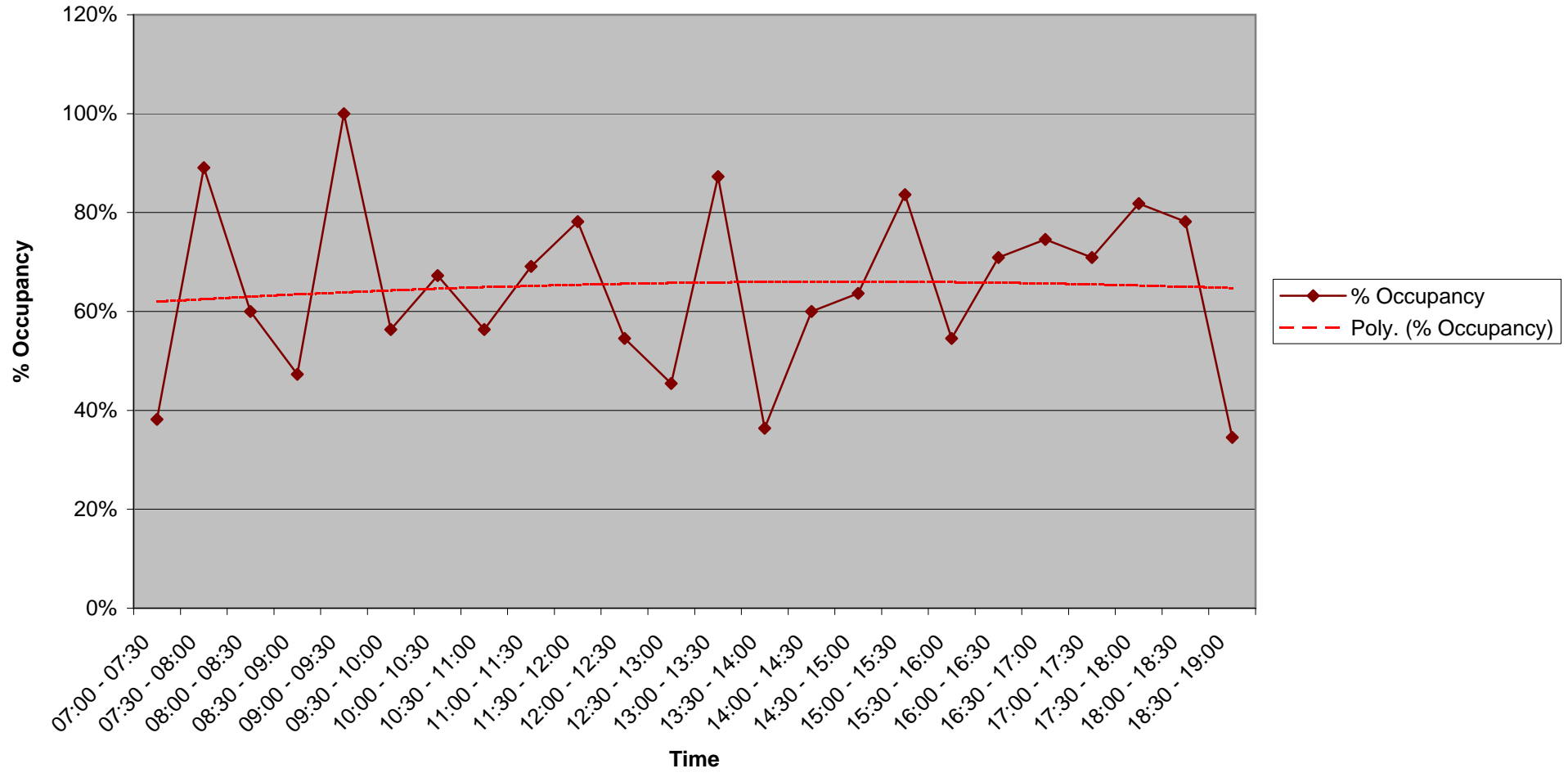


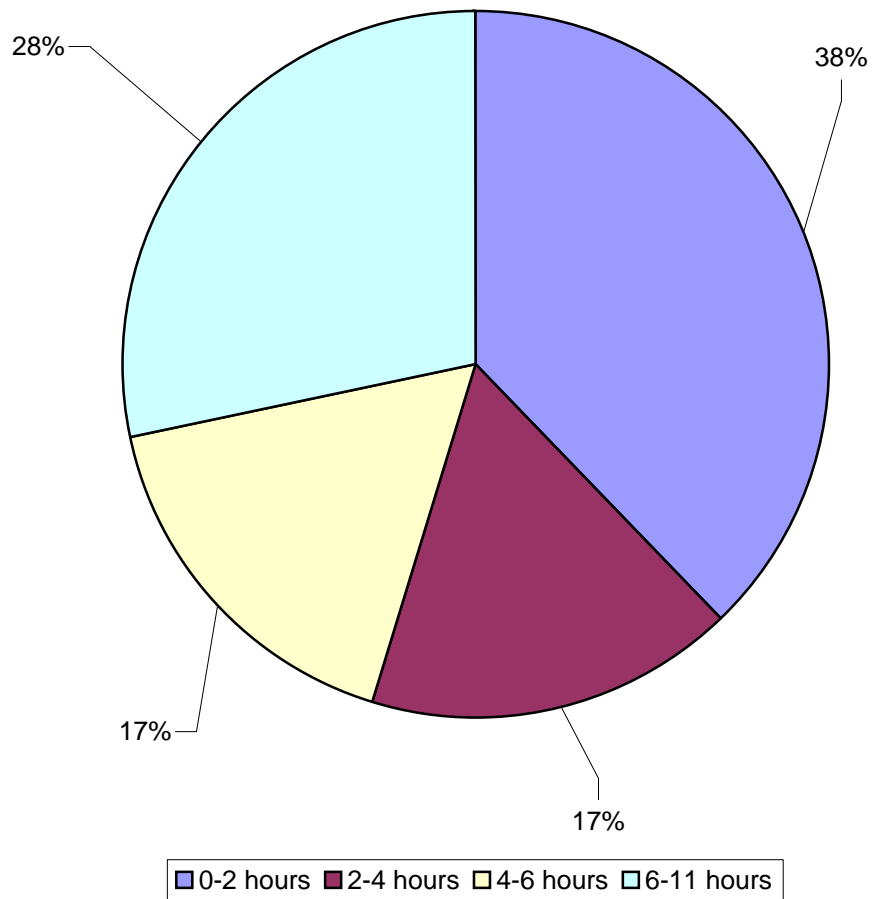
Figure 1.14 -
Total Number of Vehicles Parked on Beat 3



**Figure 1.15 -
Parking Space % Occupancy Beat 3**



**Figure 1.17 -
Beat 04 - % Length of Stay**



**Figure 1.18 -
Total Number of Vehicles Parked on Beat 4**

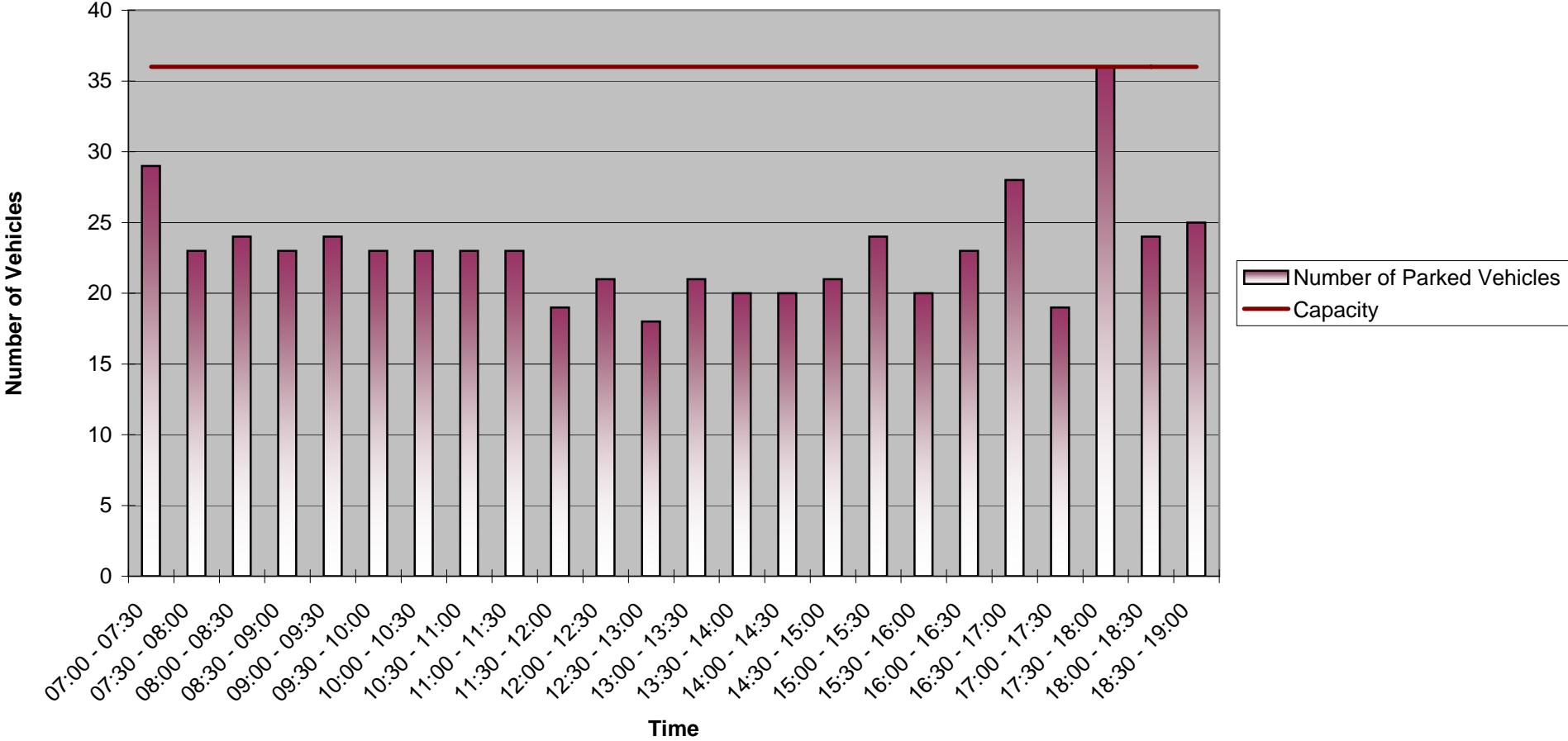
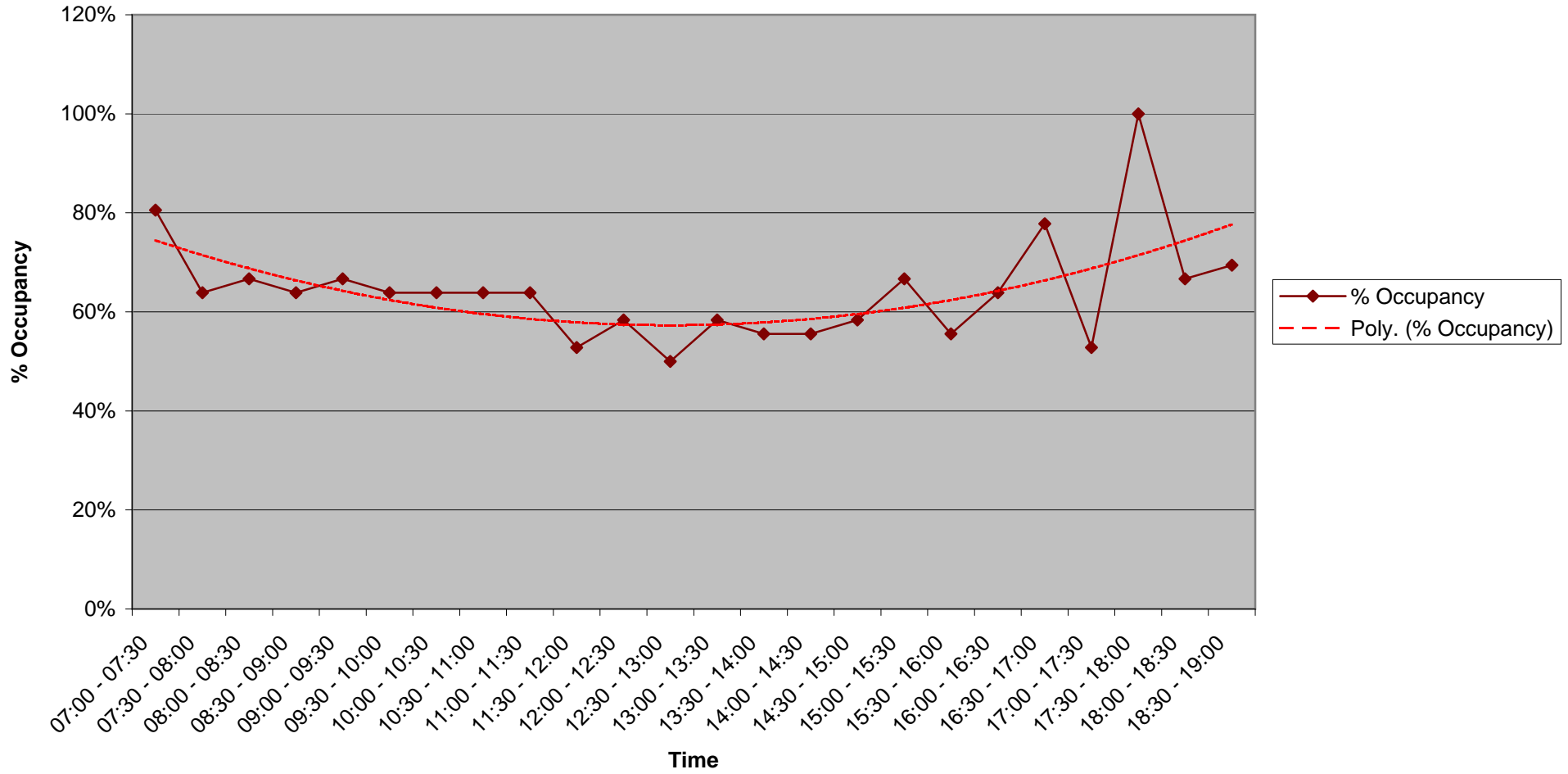
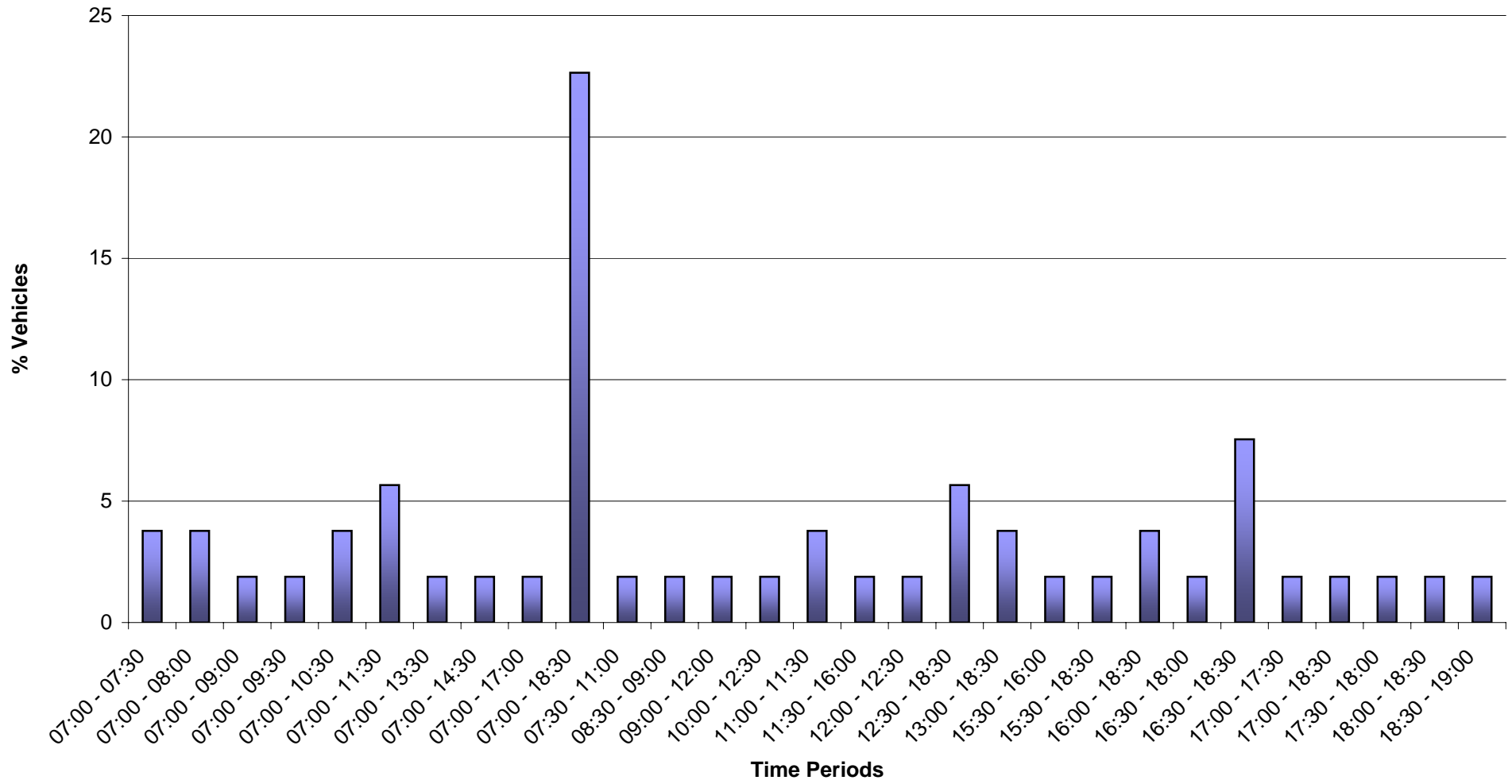


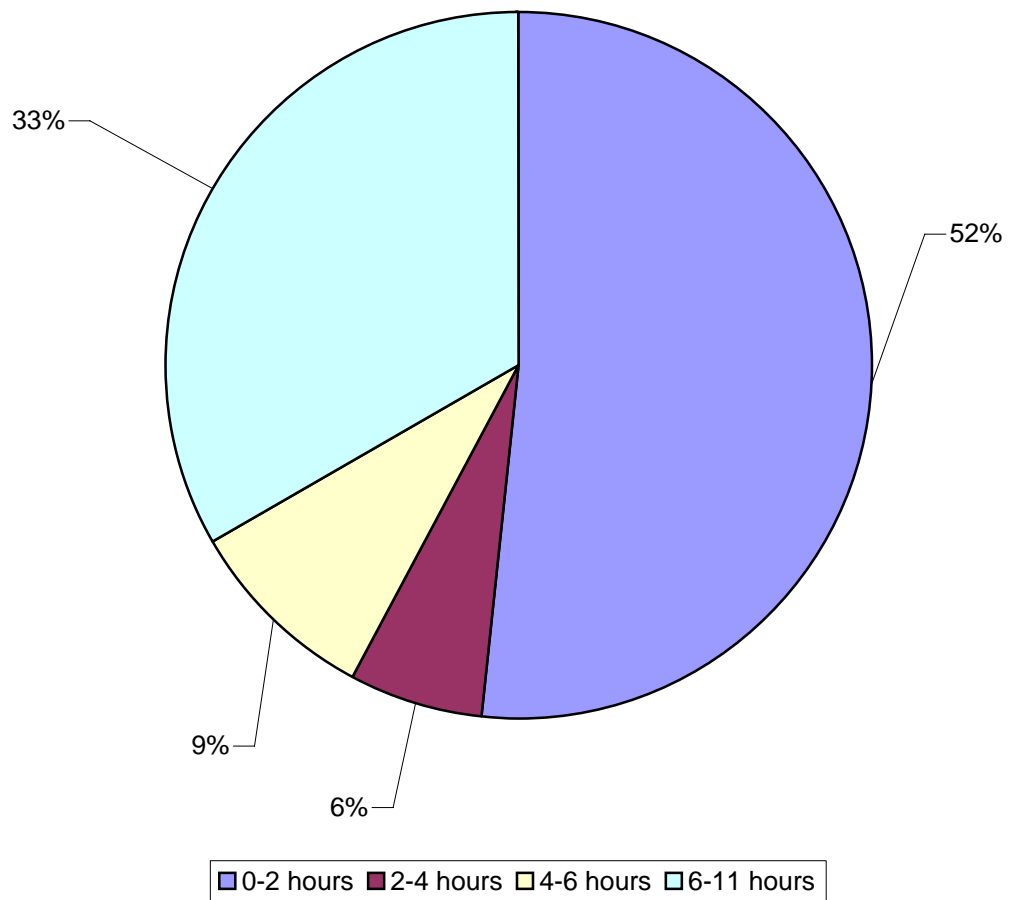
Figure 1.19 -
Parking Space % Occupancy Beat 4



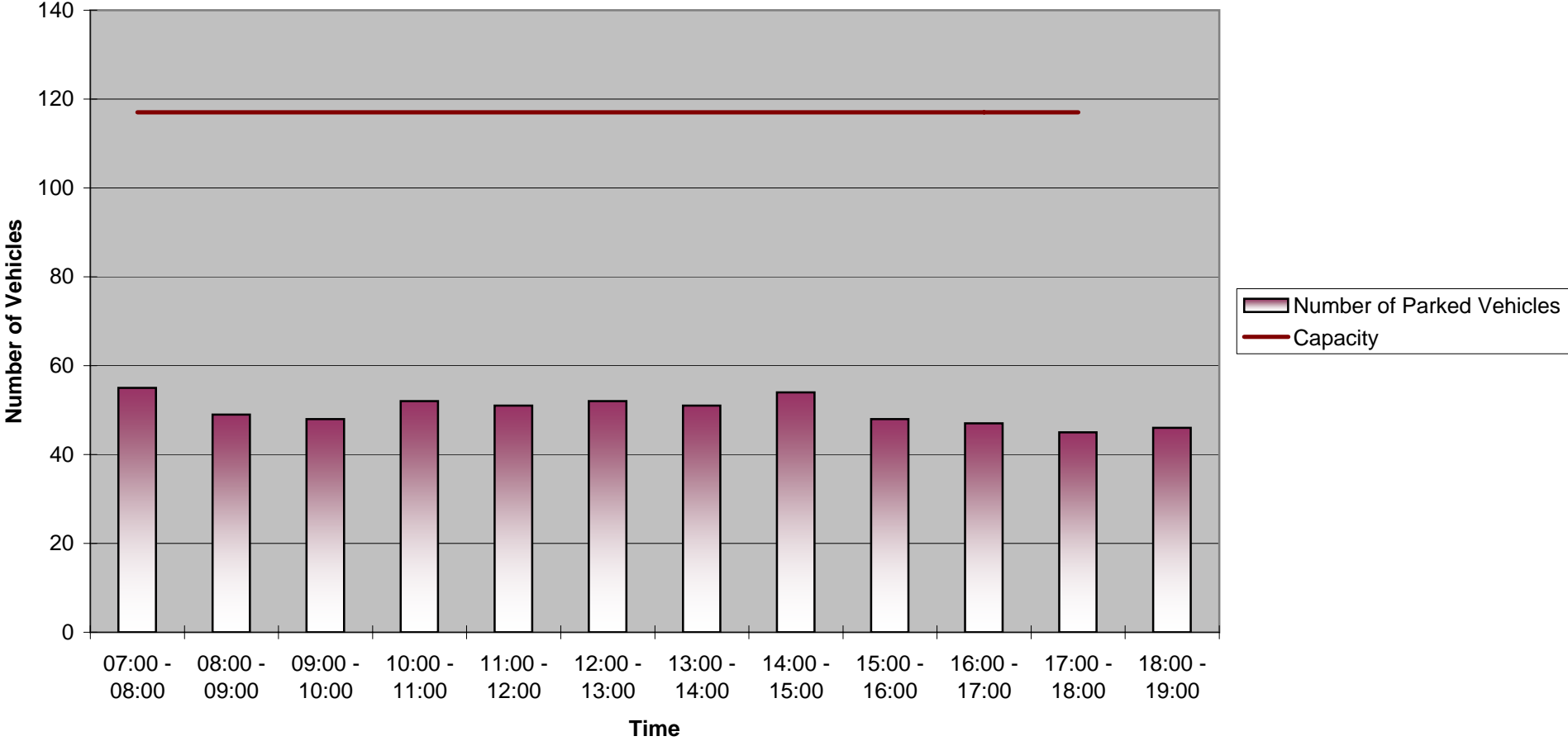
**Figure 1.20 -
Beat 04 - % Vehicles per time period**



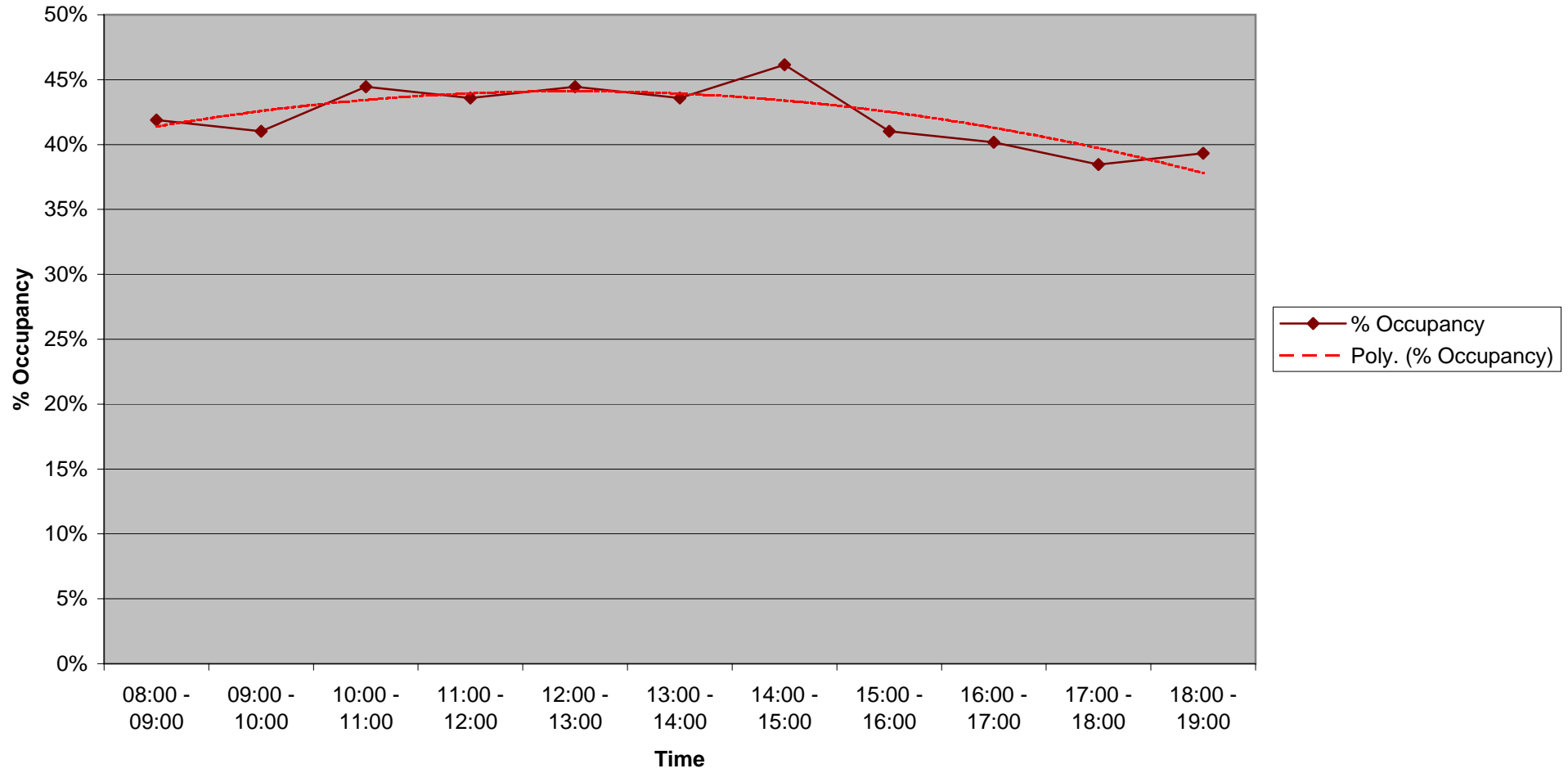
**Figure 1.21 -
Beat 05 - % Length of Stay**



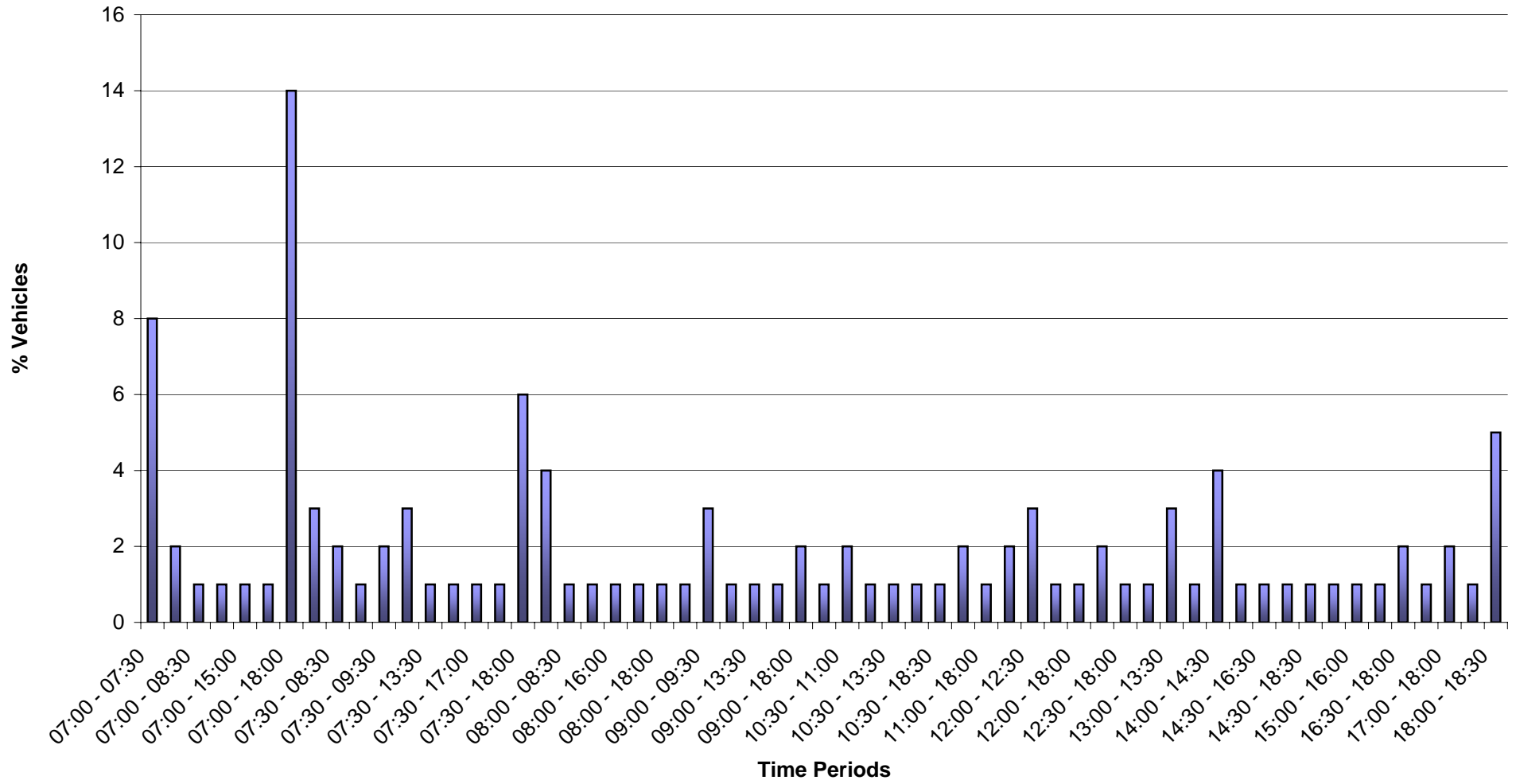
**Figure 1.22 -
Total Number of Vehicles Parked on Beat 5**



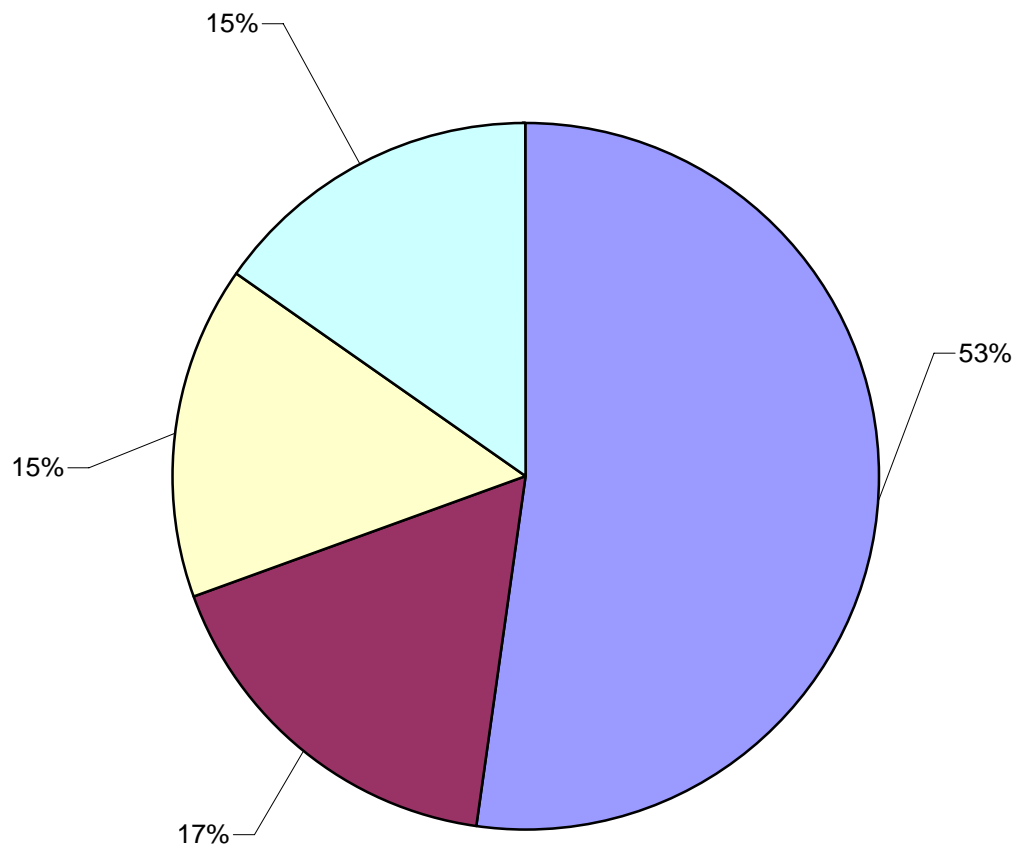
**Figure 1.23 -
Parking Space % Occupancy Beat 5**



**Figure 1.24 -
Beat 05 - % Vehicles per time period**

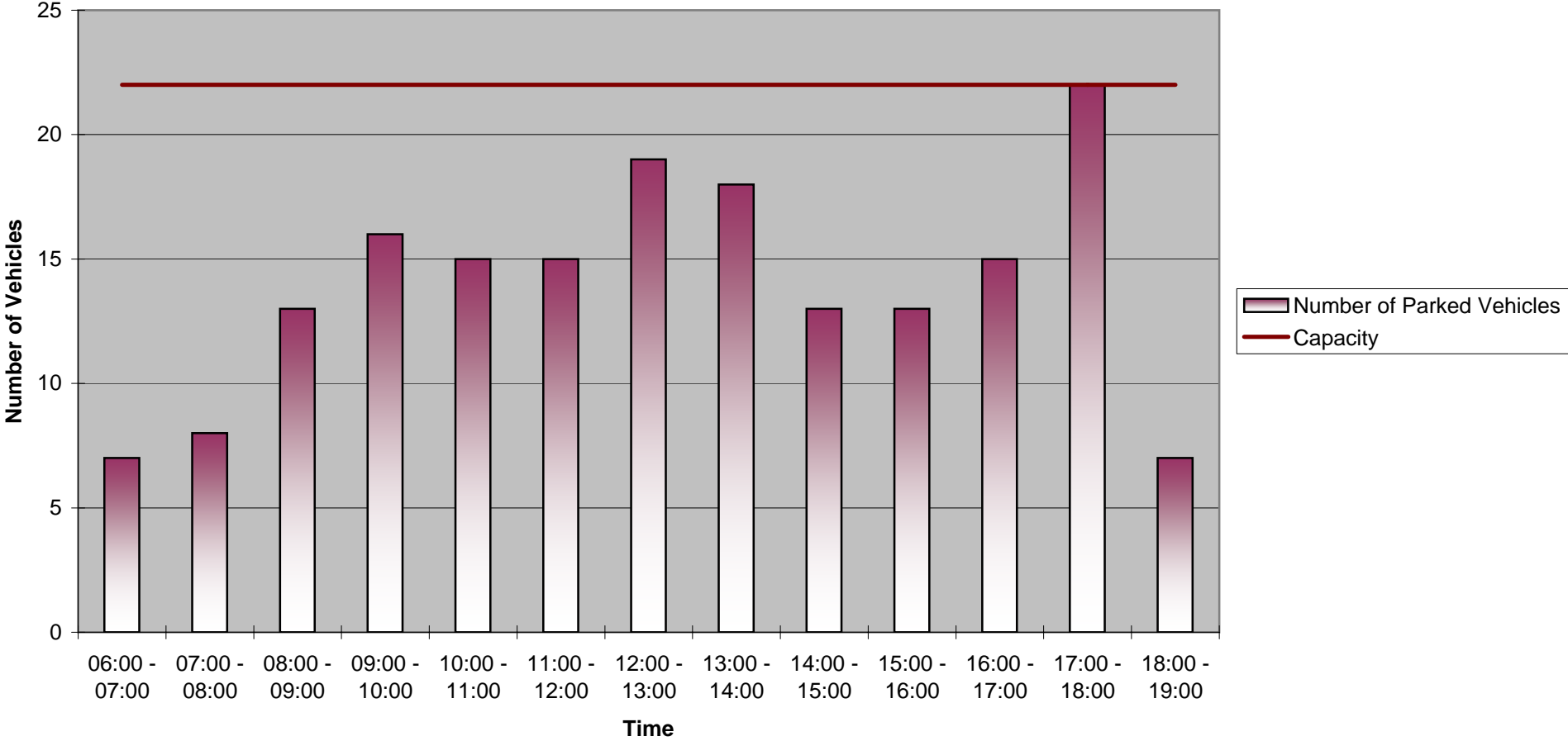


**Figure 1.25 -
Beat 06 - % Length of Stay**

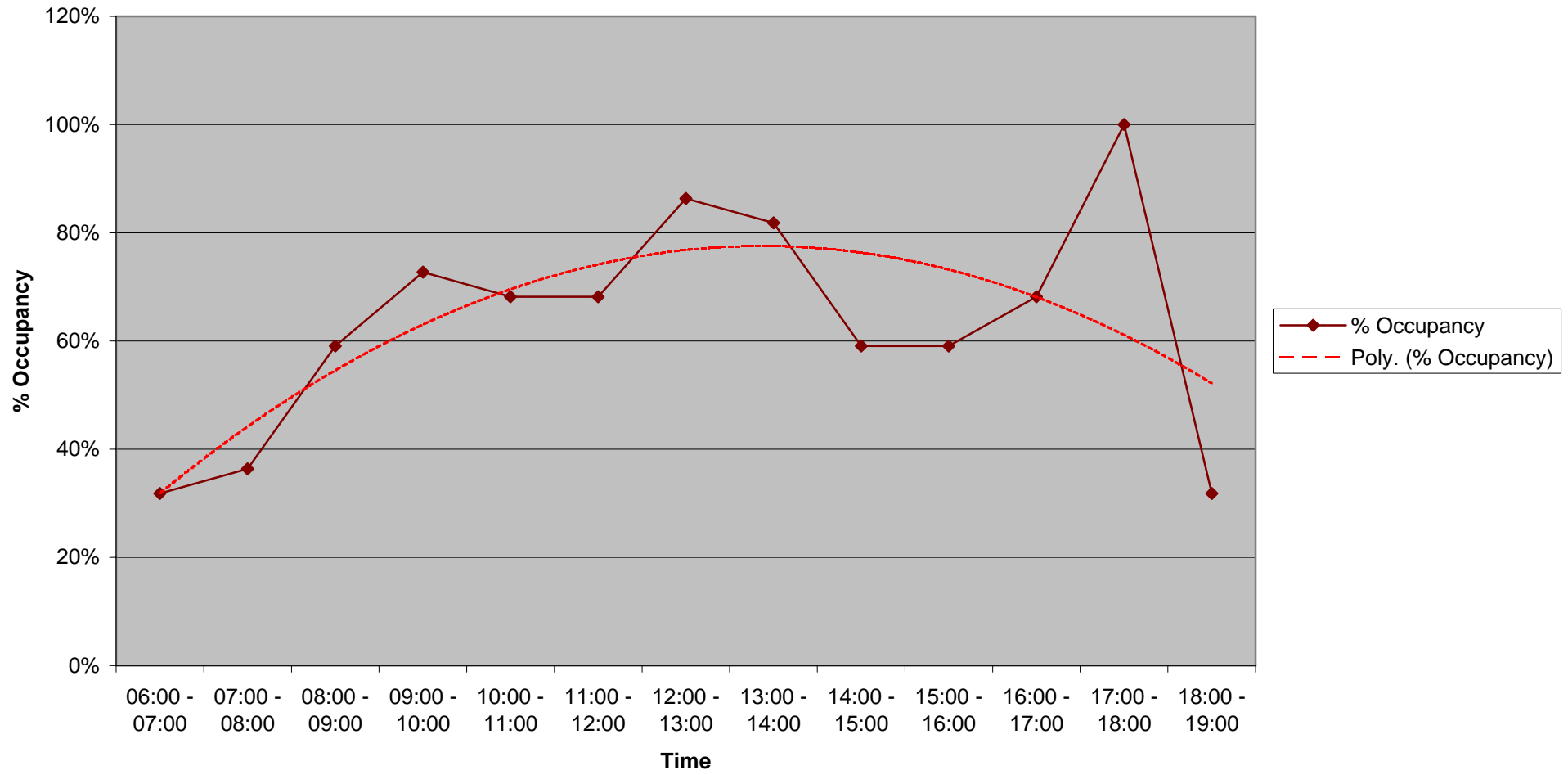


■ 0-2 hours ■ 2-4 hours ■ 4-6 hours ■ 6-11 hours

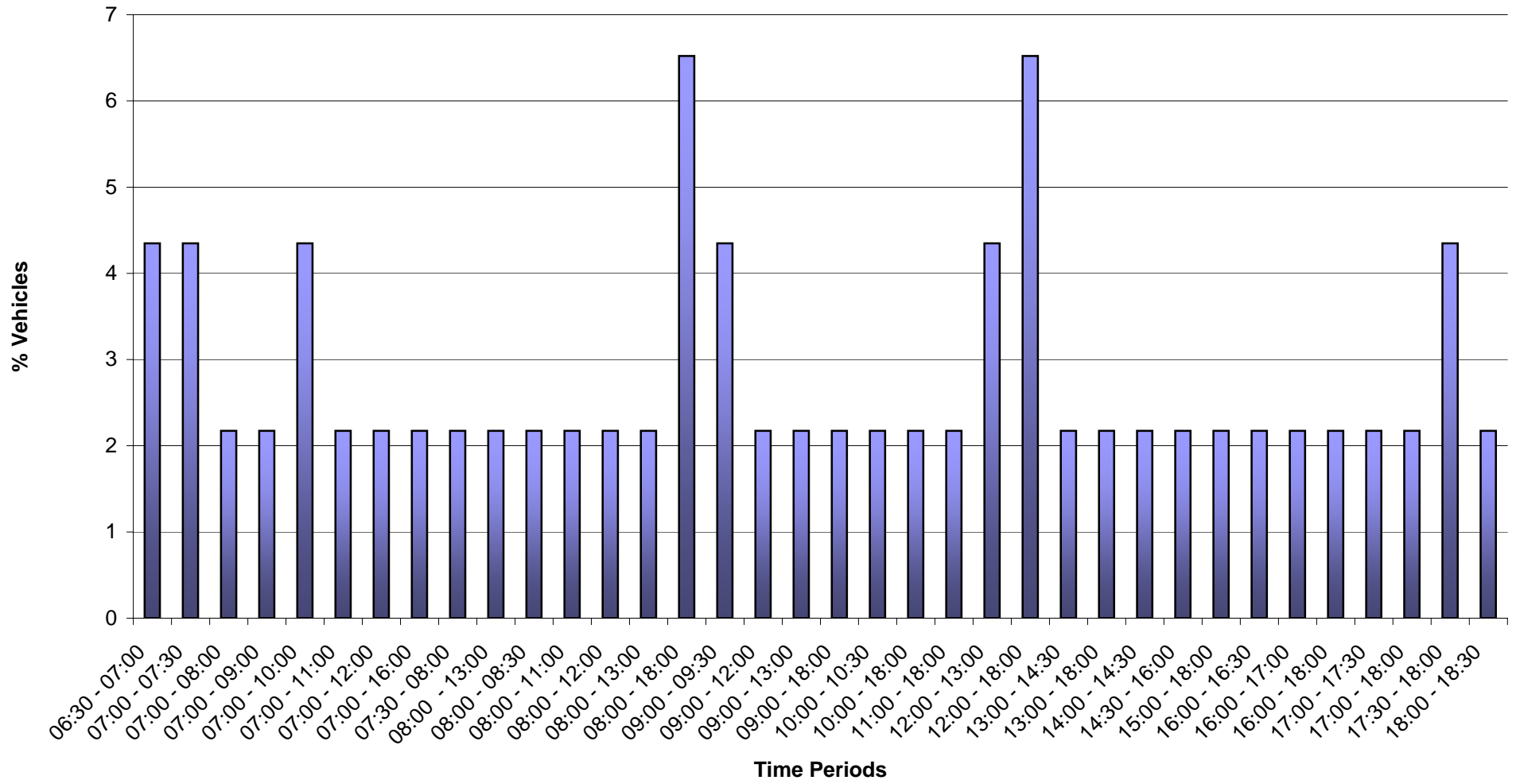
**Figure 1.26 -
Total Number of Vehicles Parked on Beat 6**



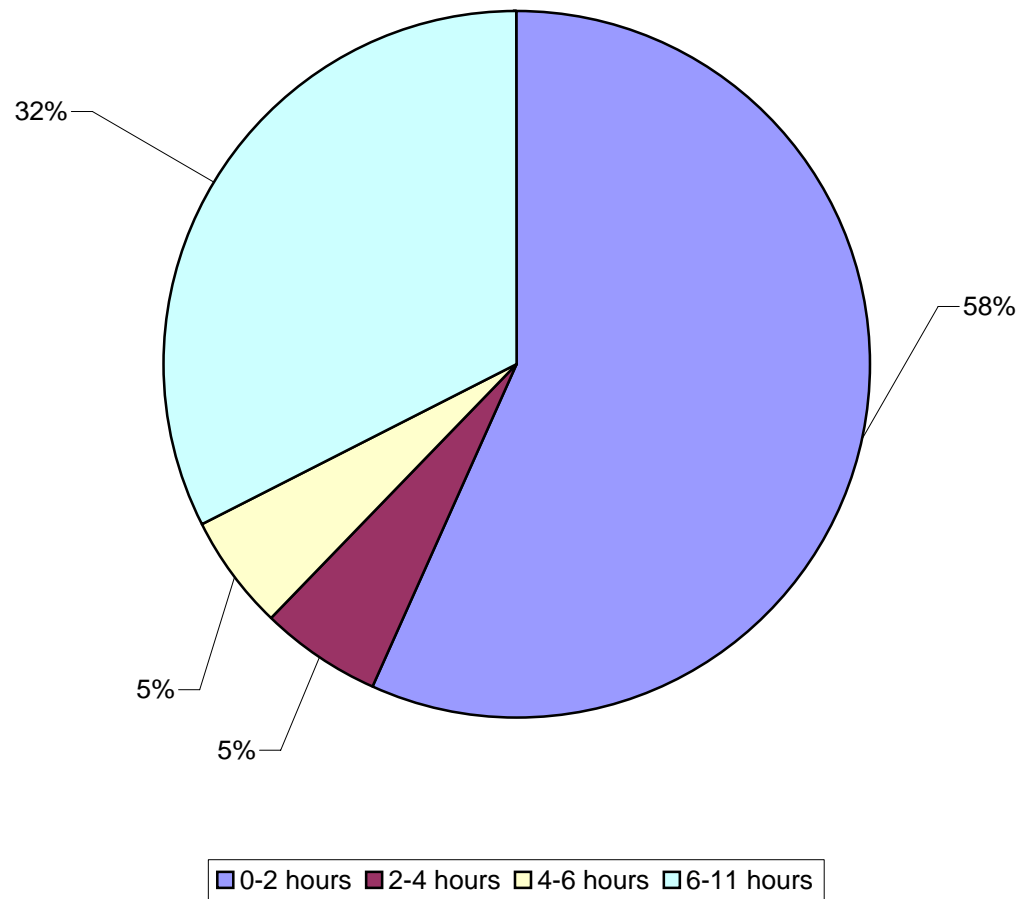
**Figure 1.27 -
Parking Space % Occupancy Beat 6**



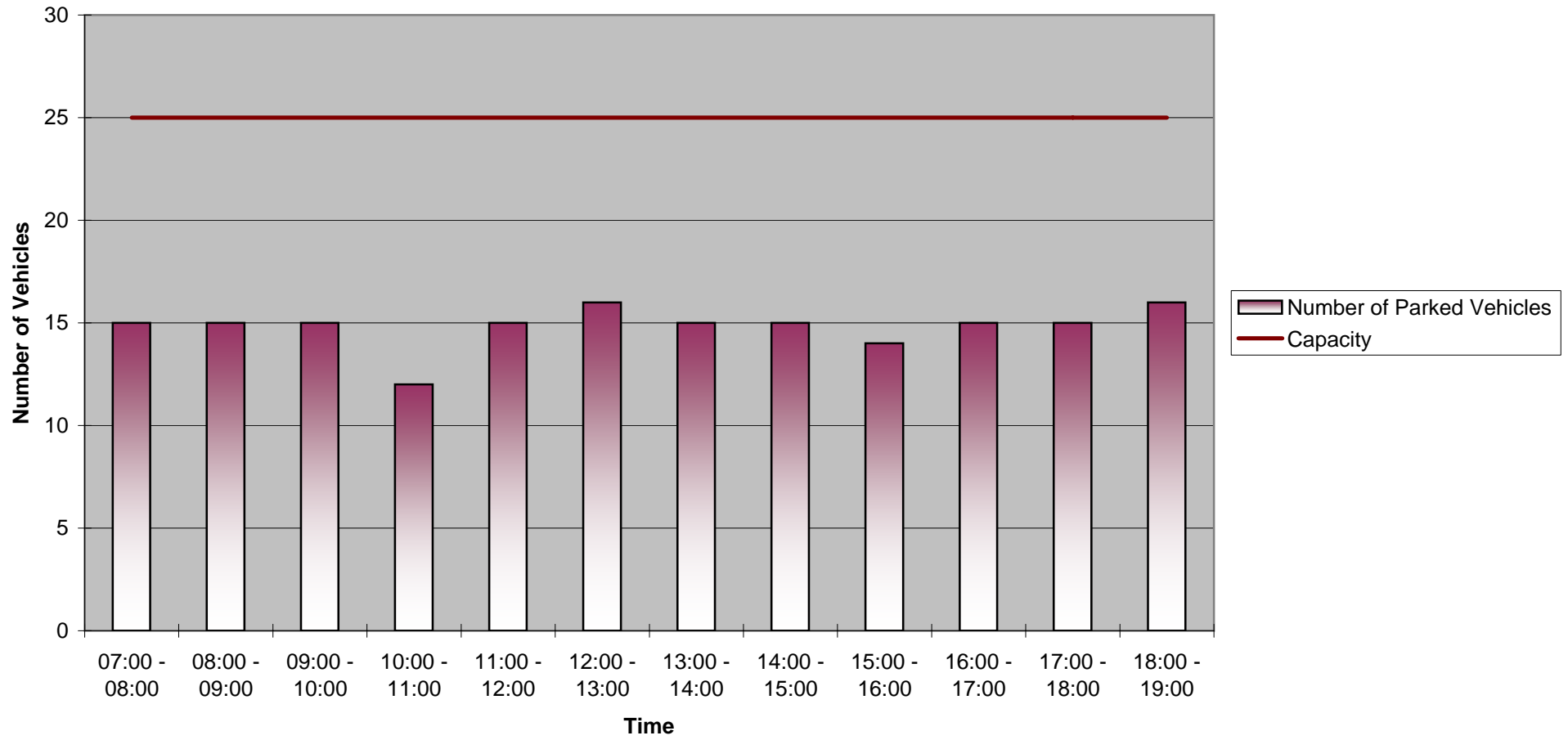
**Figure 1.28 -
Beat 06 - % Vehicles per time period**



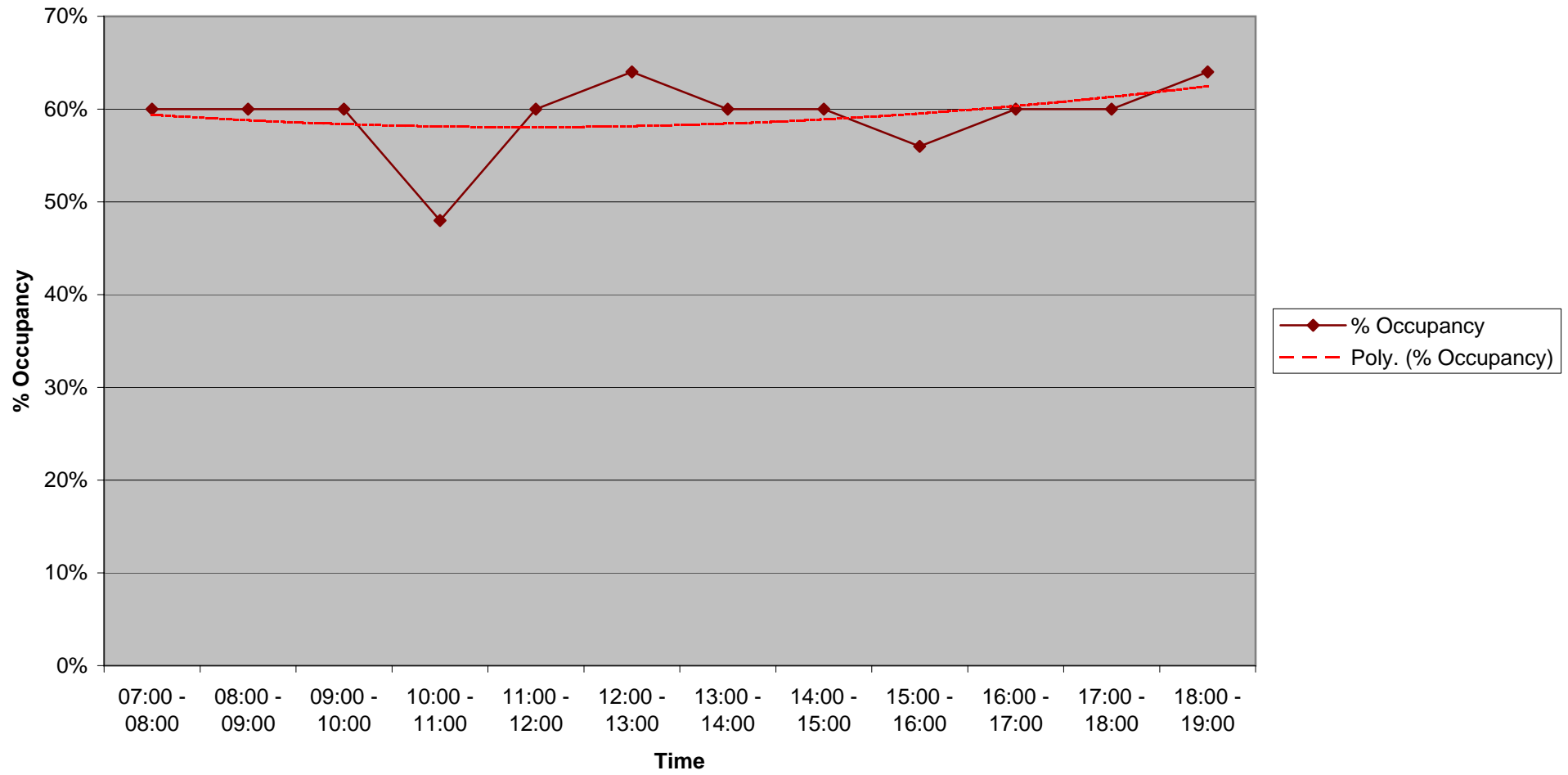
**Figure 1.29 -
Beat 07 - % Length of Stay**



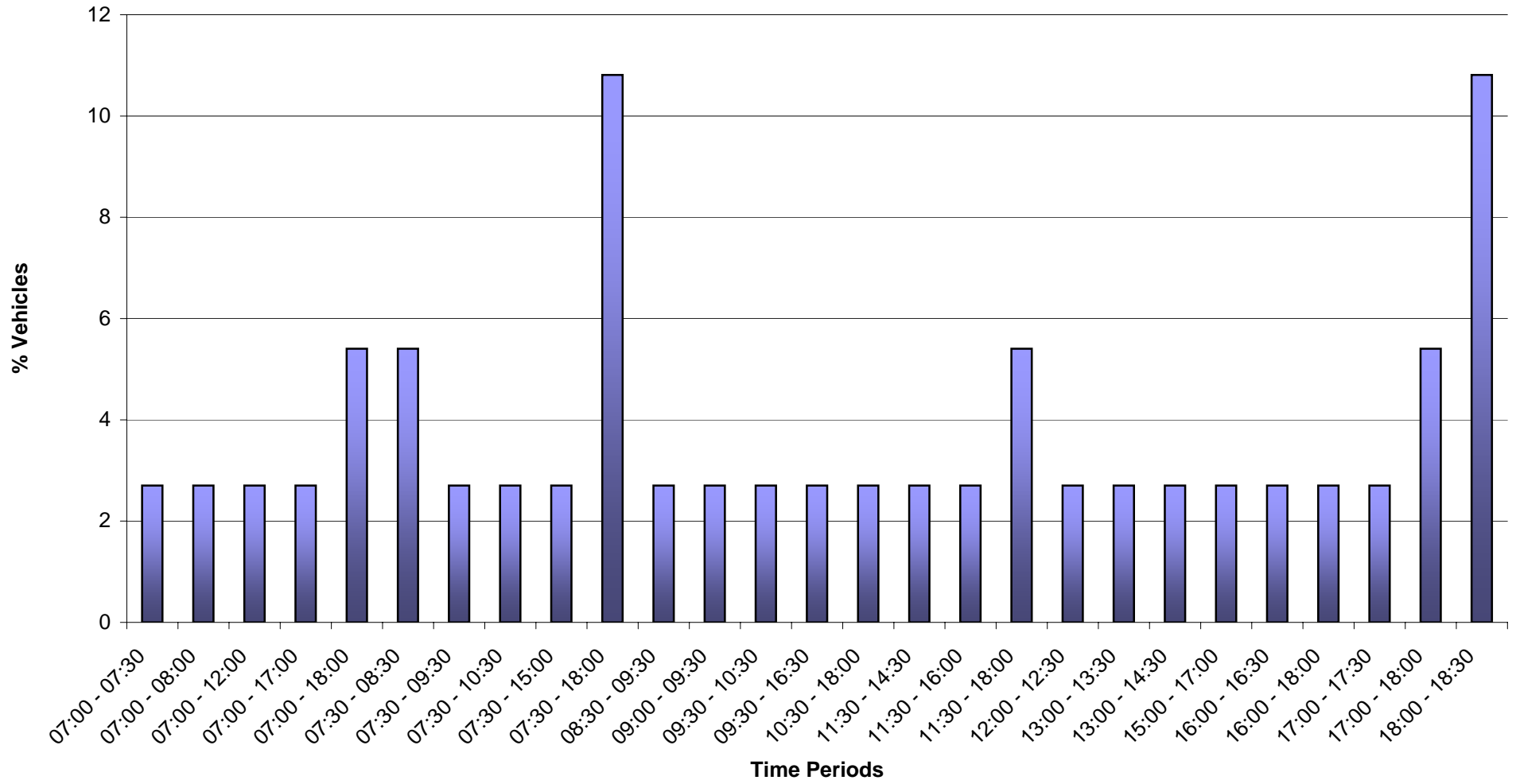
**Figure 1.30 -
Total Number of Vehicles Parked on Beat 7**



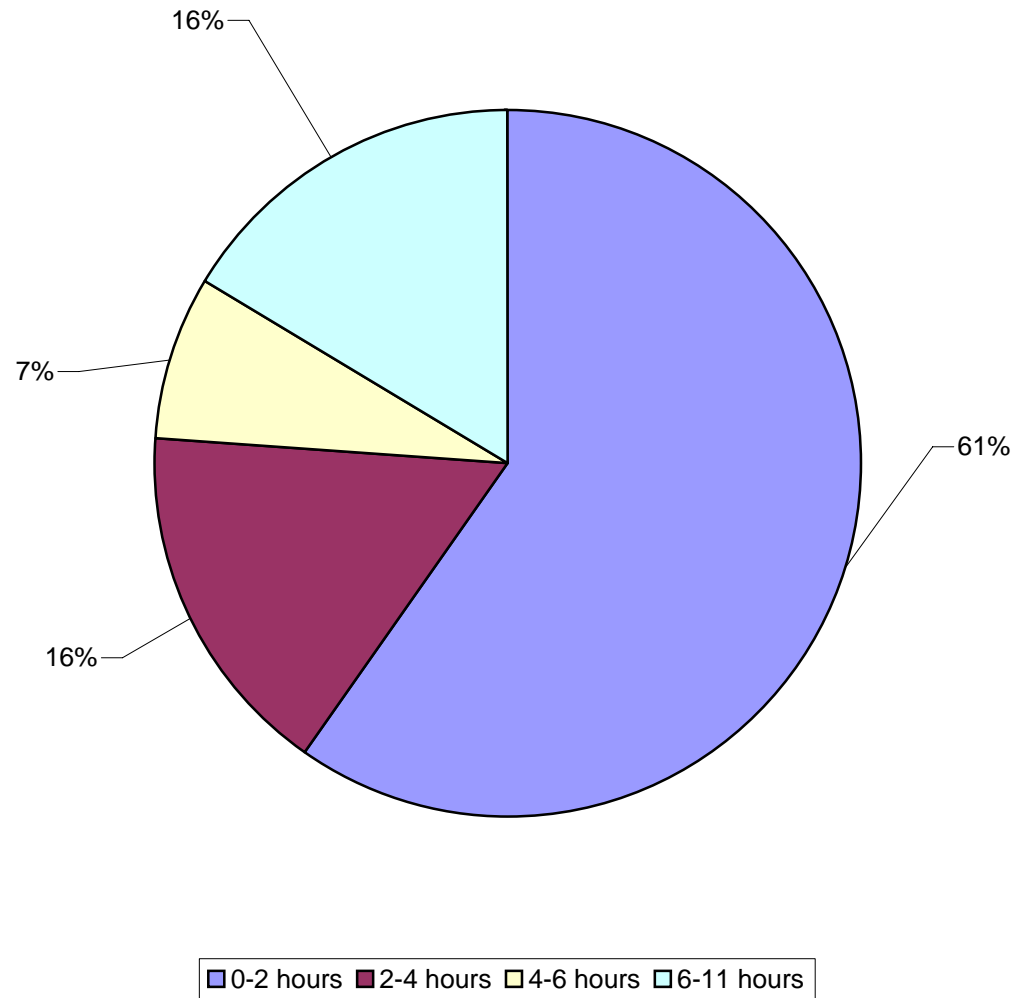
**Figure 1.31 -
Parking Space % Occupancy Beat 7**



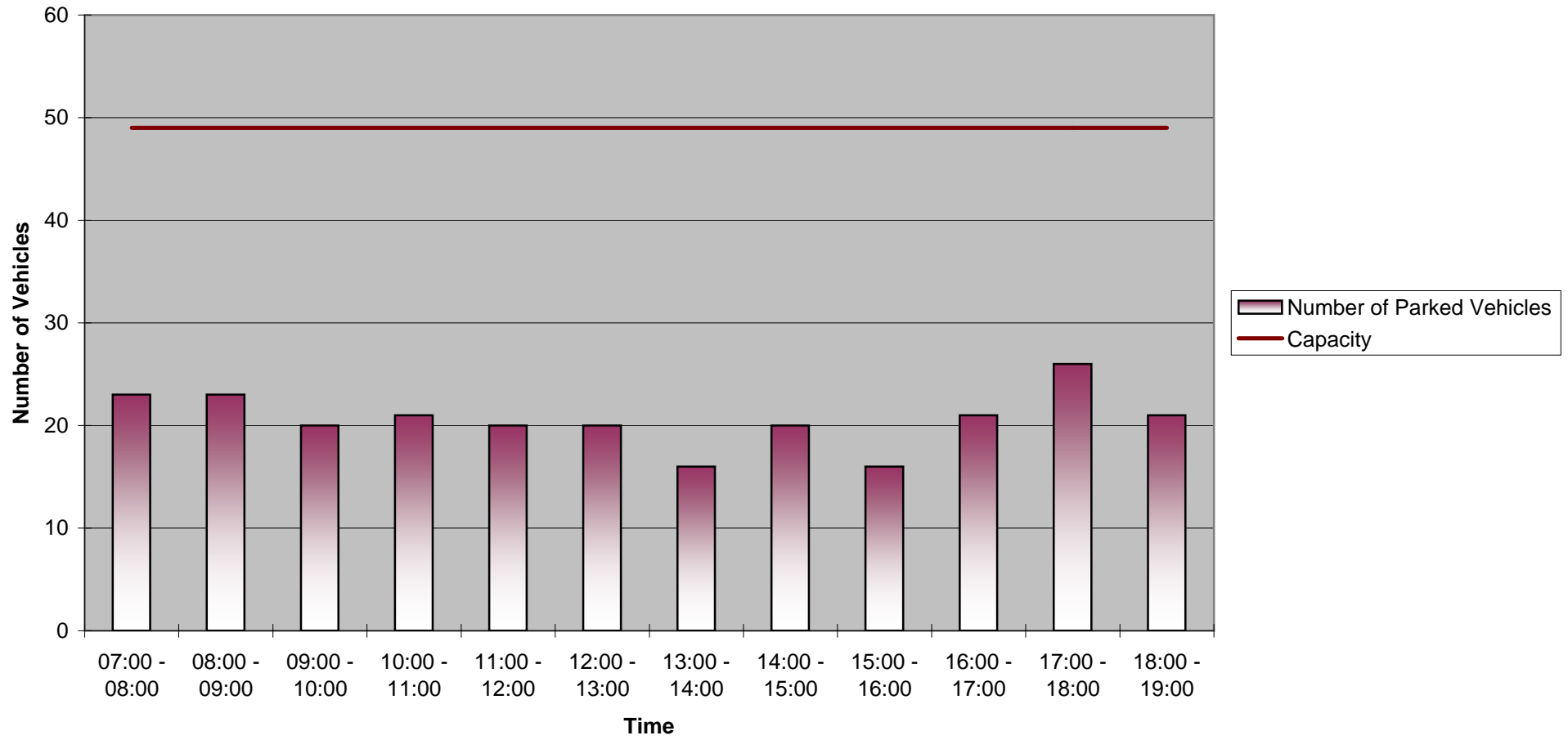
**Figure 1.32 -
Beat 07 - % Vehicles per time period**



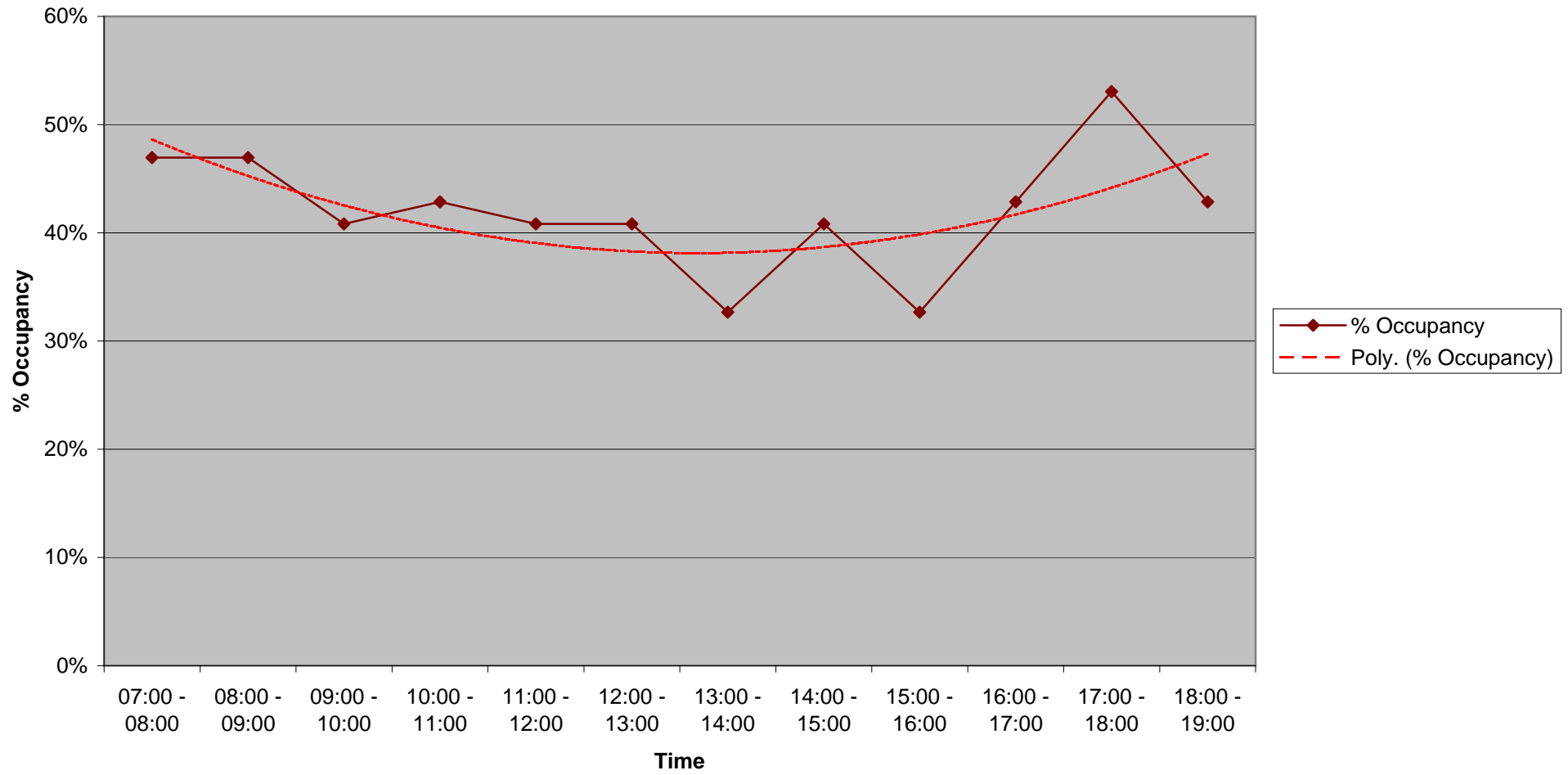
**Figure 1.33 -
Beat 08 - % Length of Stay**



**Figure 1.34 -
Total Number of Vehicles Parked on Beat 8**



**Figure 1.35 -
Parking Space % Occupancy Beat 8**



**Figure 1.36 -
Beat 08 - % Vehicles per time period**

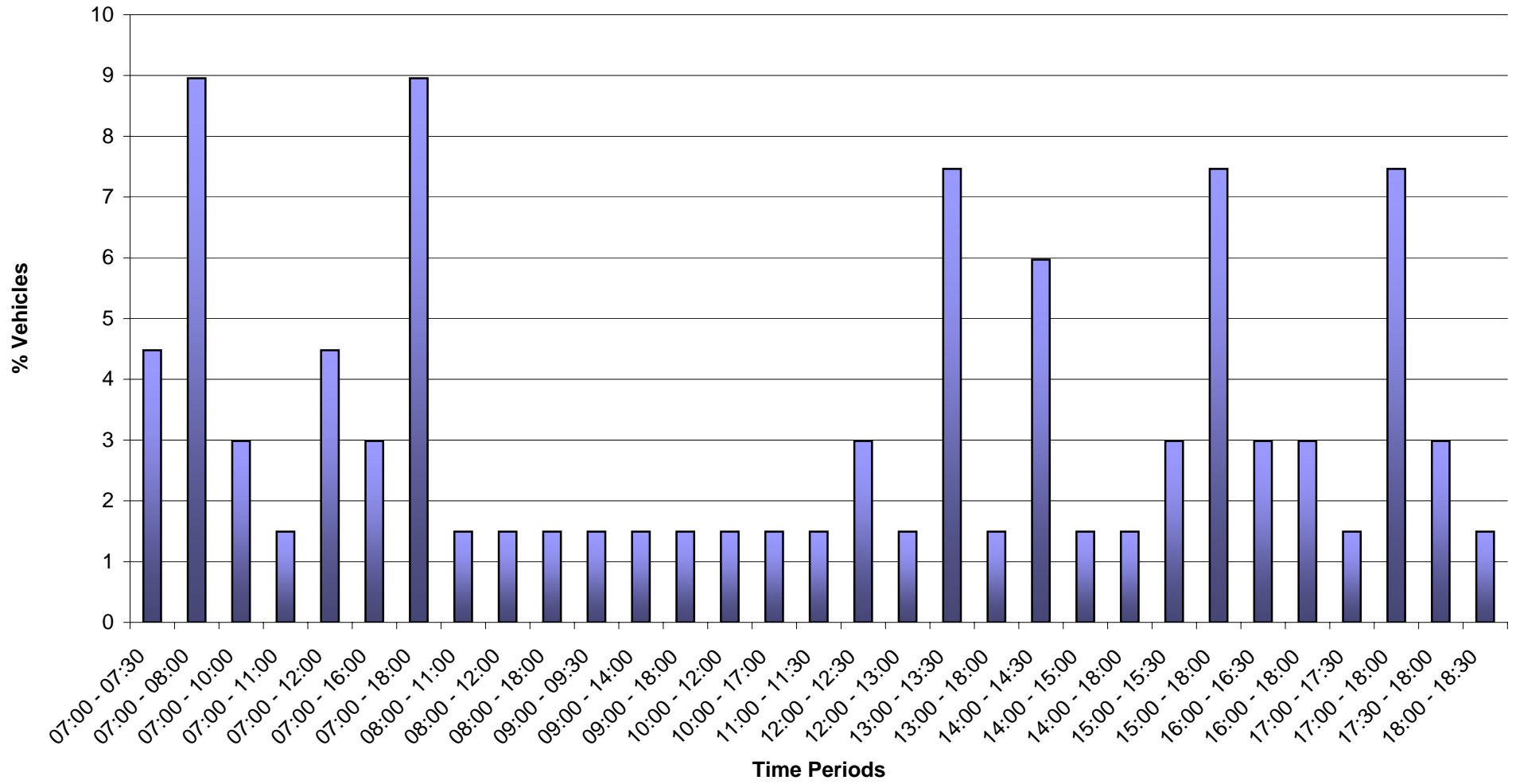
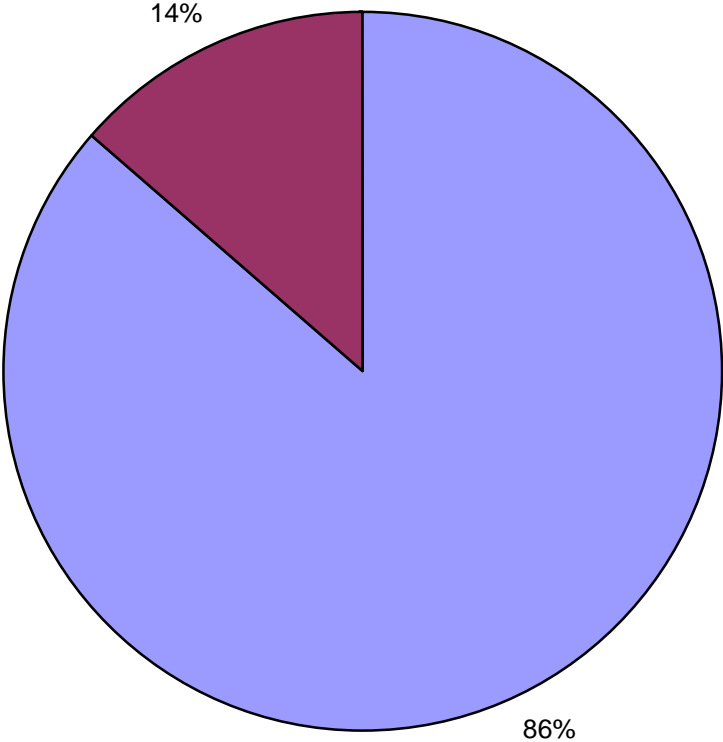
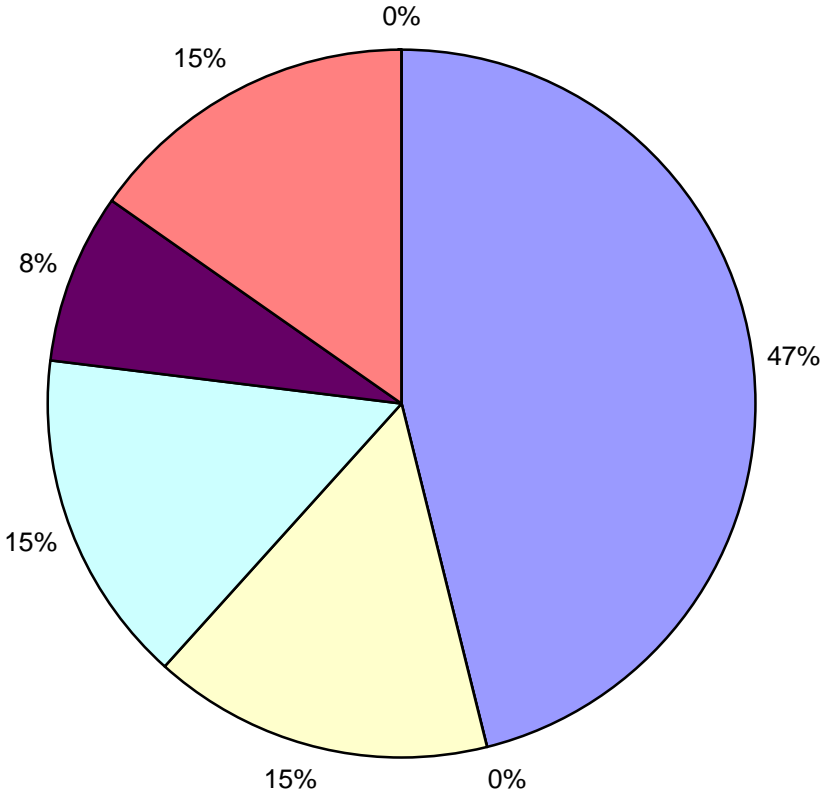


Figure 1.37 - Vehcile Postcards
Resident / Non-Resident Response %



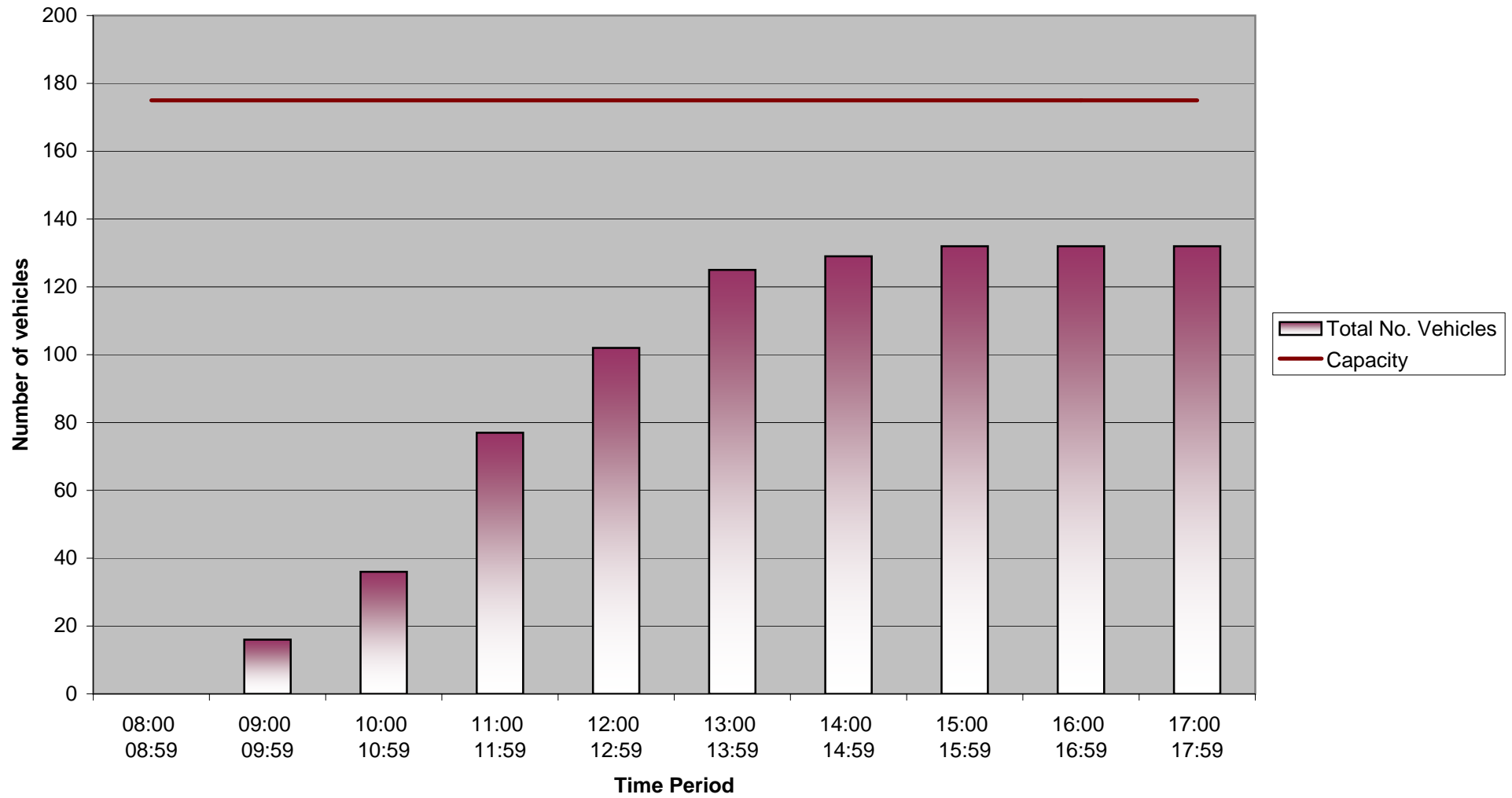
■ Residents ■ Non-Residents

Figure 1.38 - Vehicle Postcards
Non-Resident Trip Purpose Responses

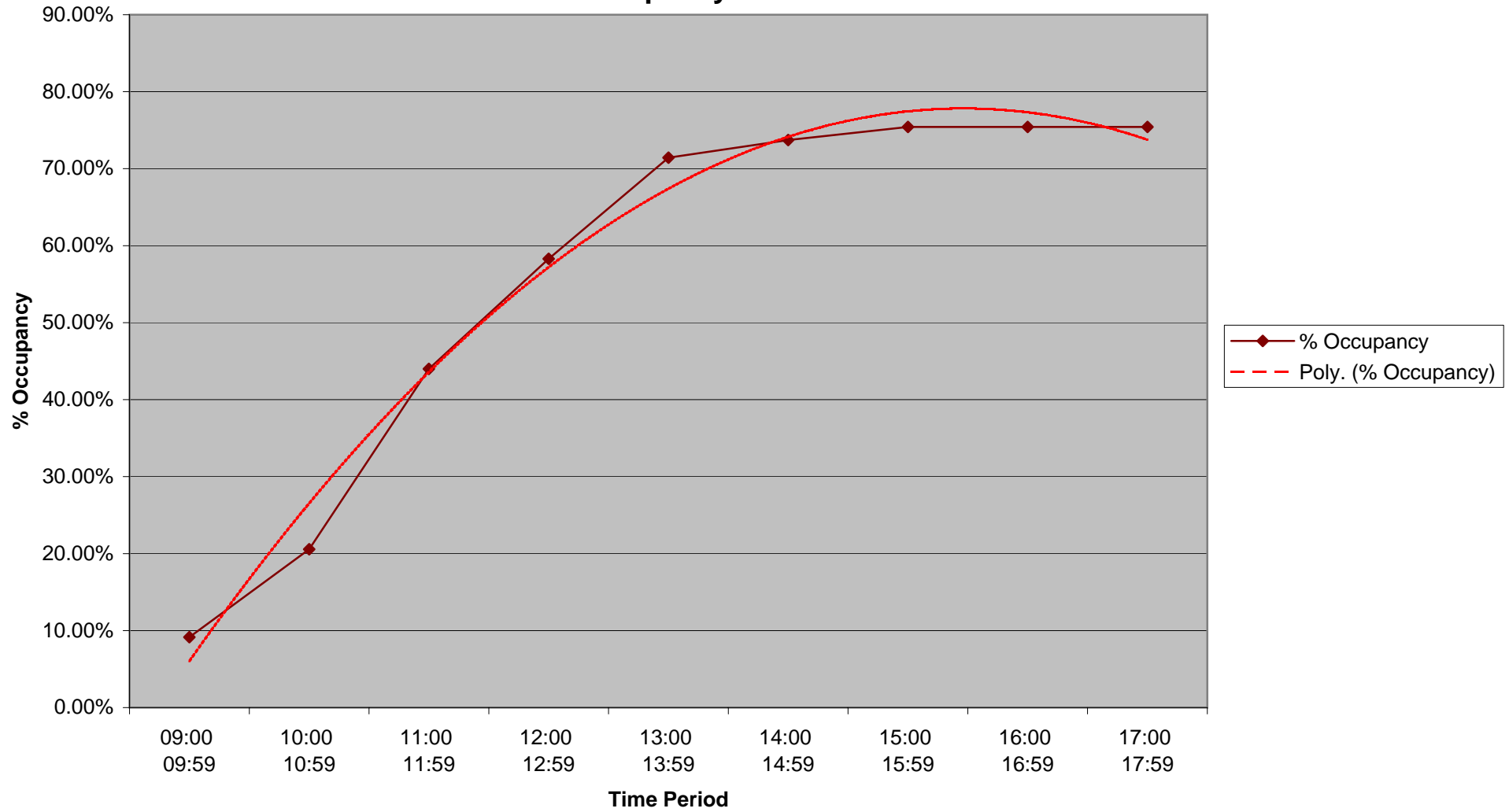


■ Recreation / Leisure ■ Shopping ■ Tourism ■ Social ■ Work / Business (Commuter) ■ Work / Business (Site Based) ■ Education

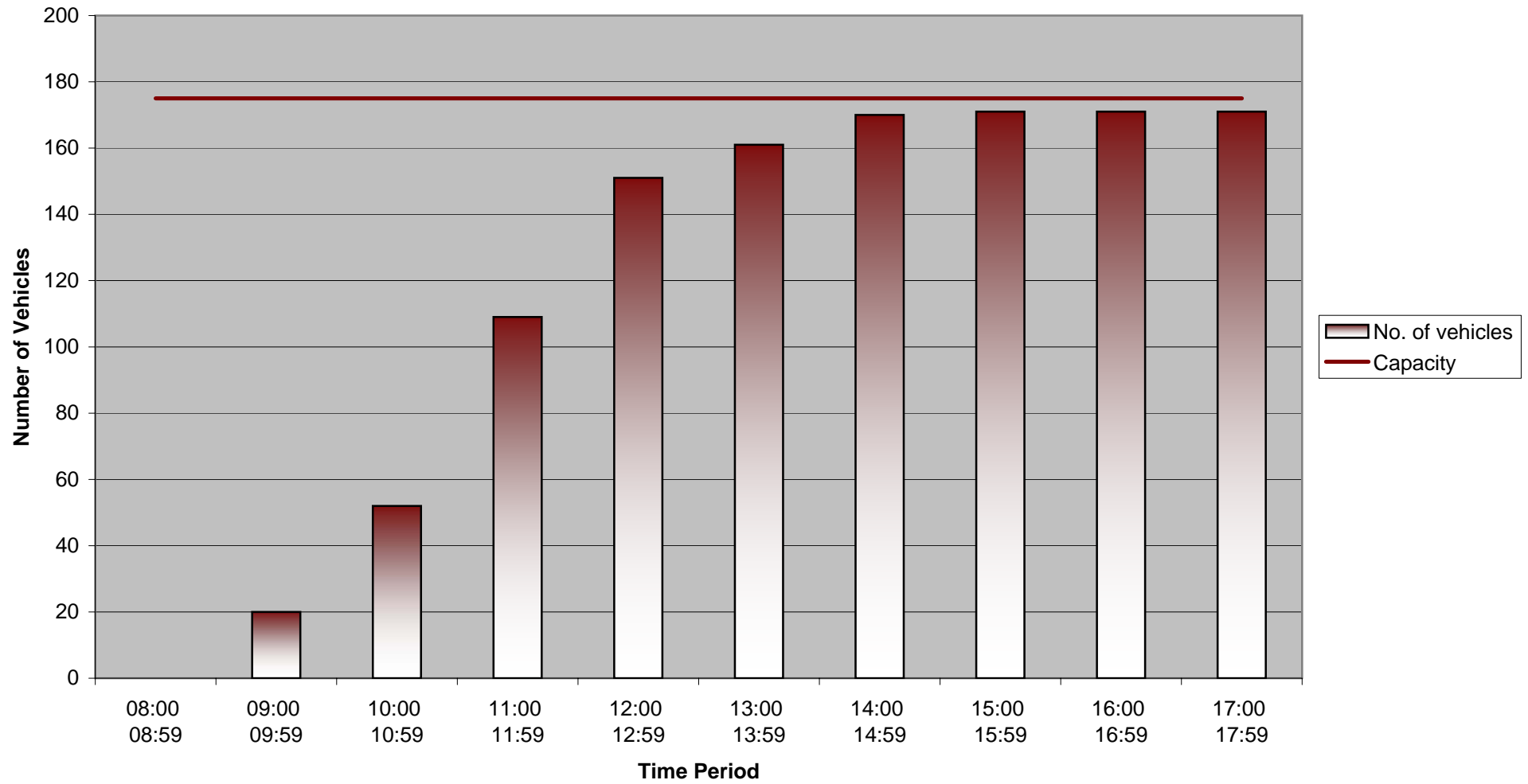
**Figure 1.40 - Dartmouth Park & Ride Car Park
Hourly Number of Vehicles Parked - 05/07/06**



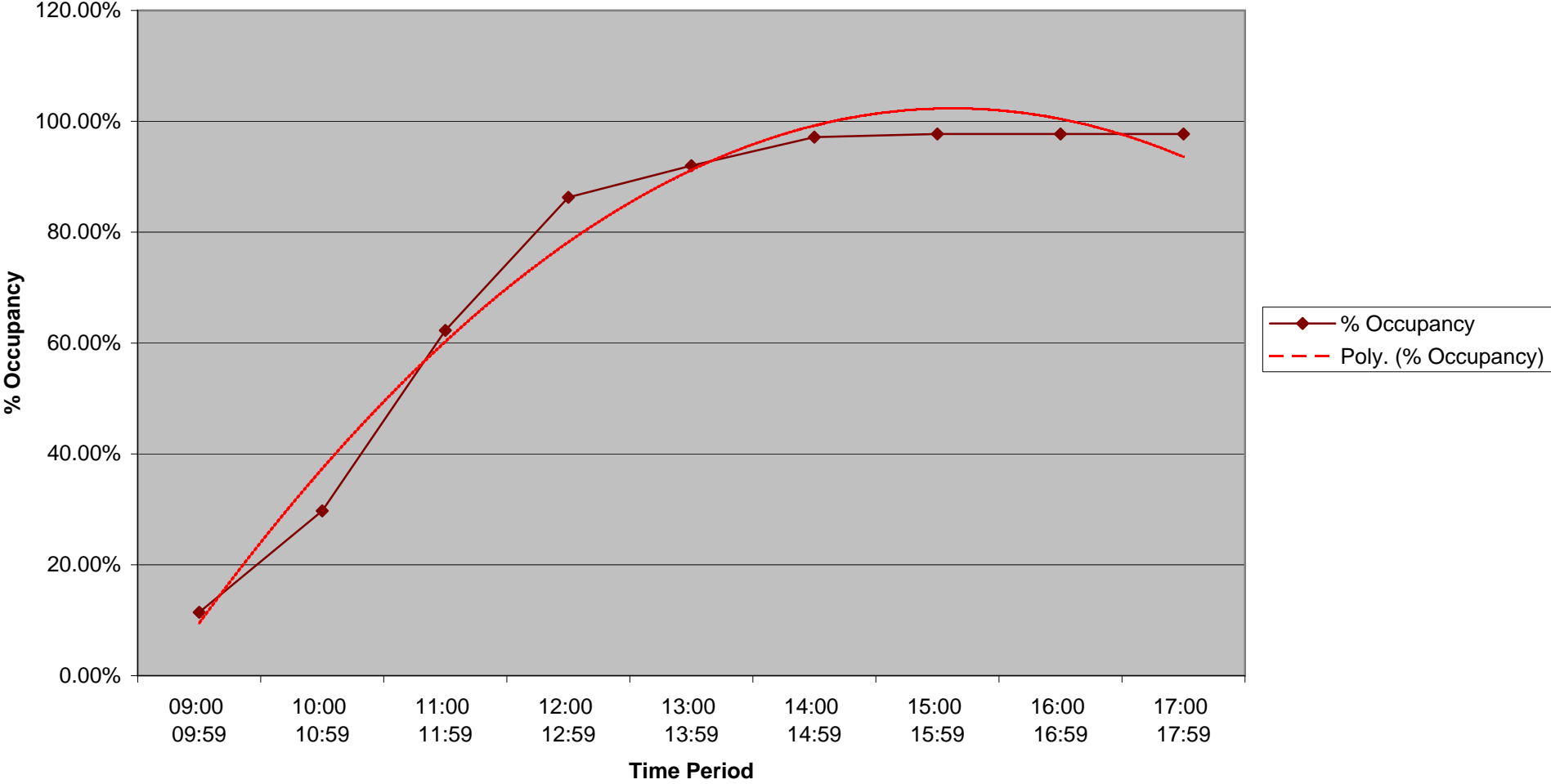
**Figure 1.41 - Dartmouth Park and Ride Car Park
% Occupancy - 05/07/06**



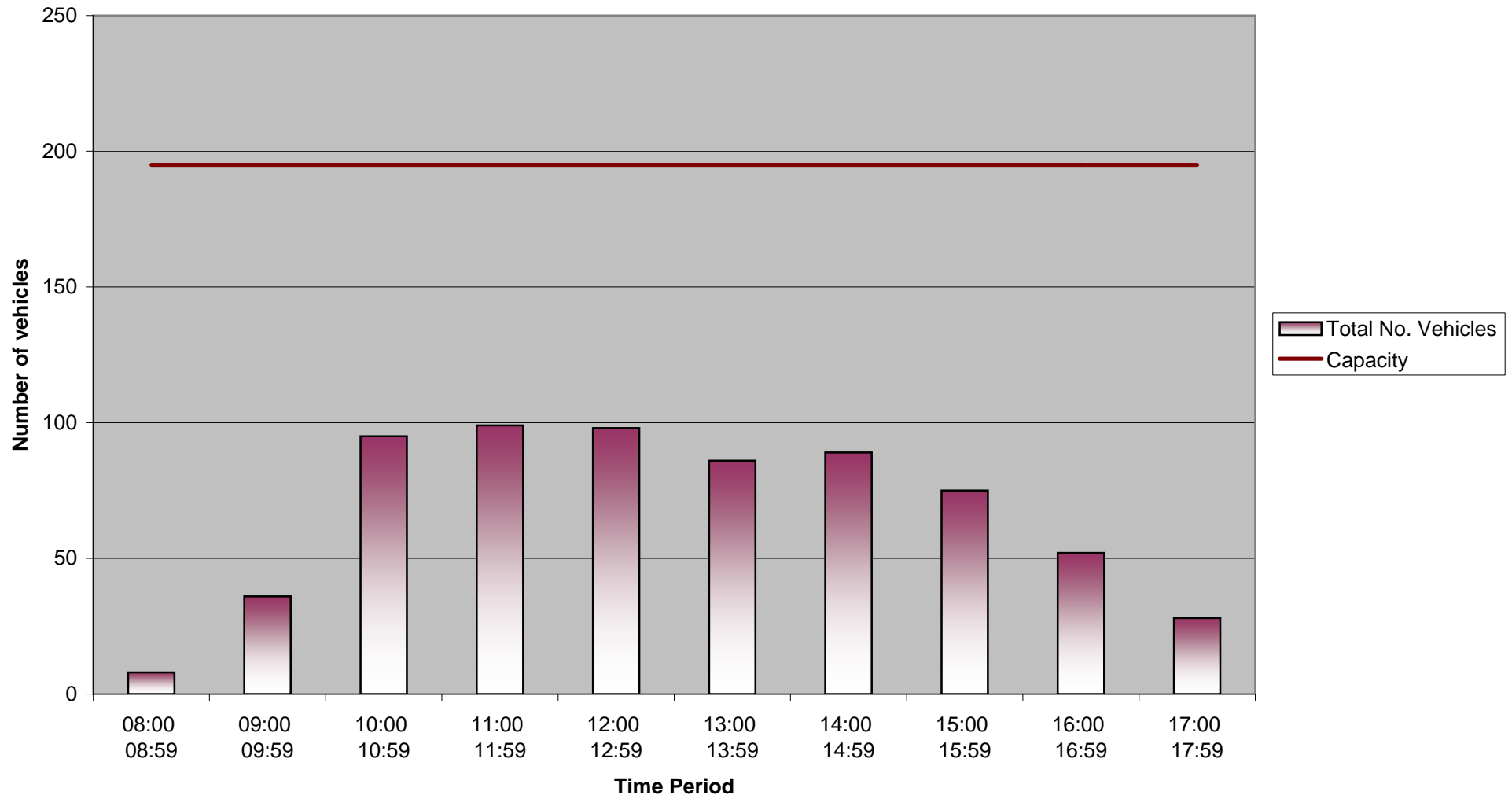
**Figure 1.42 - Dartmouth Park and Ride Car Park
Hourly Number of Vehicles Parked - 06/07/06**



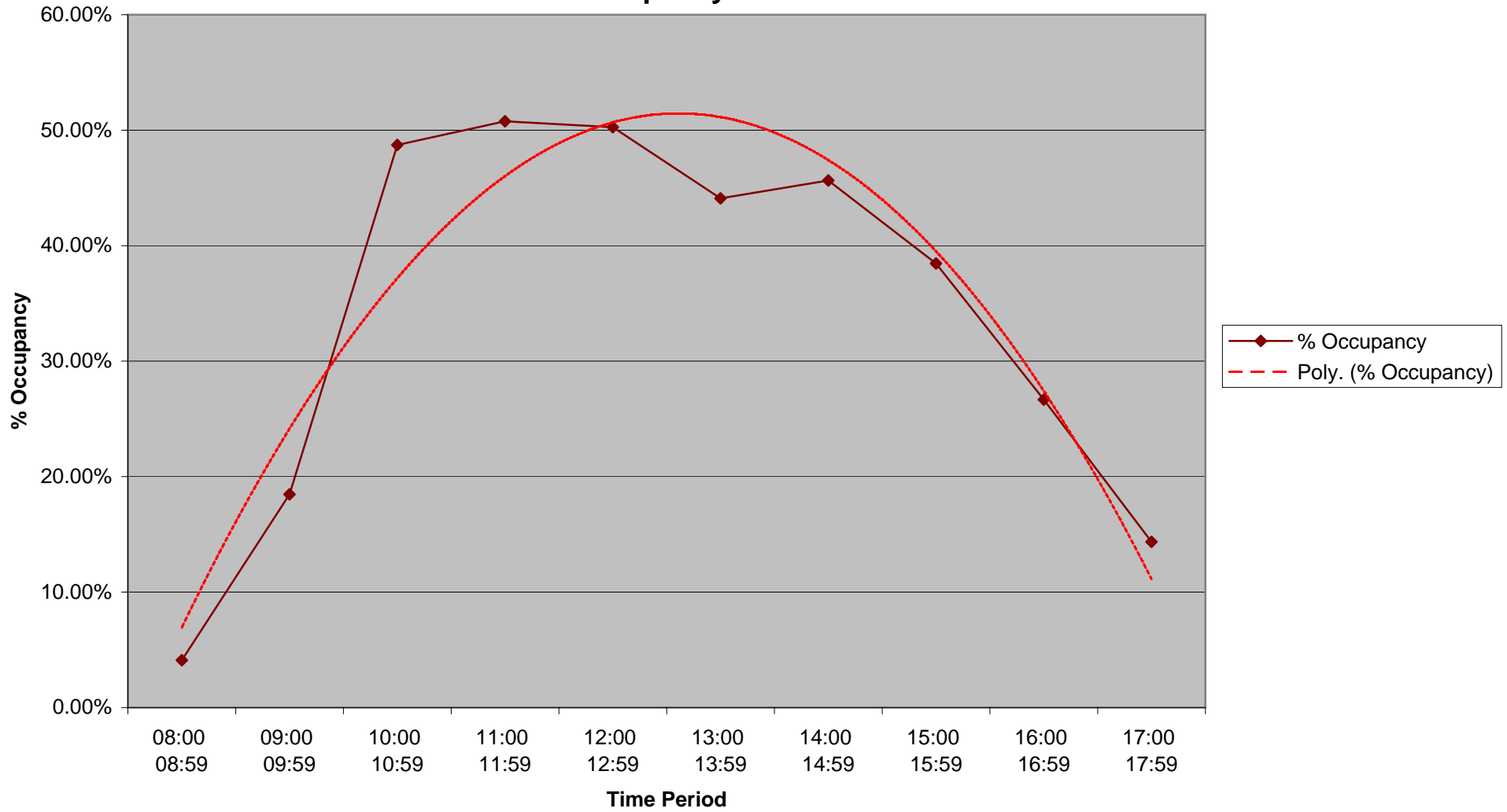
**Figure 1.43 - Dartmouth Park and Ride Car Park
% Occupancy 06/07/06**



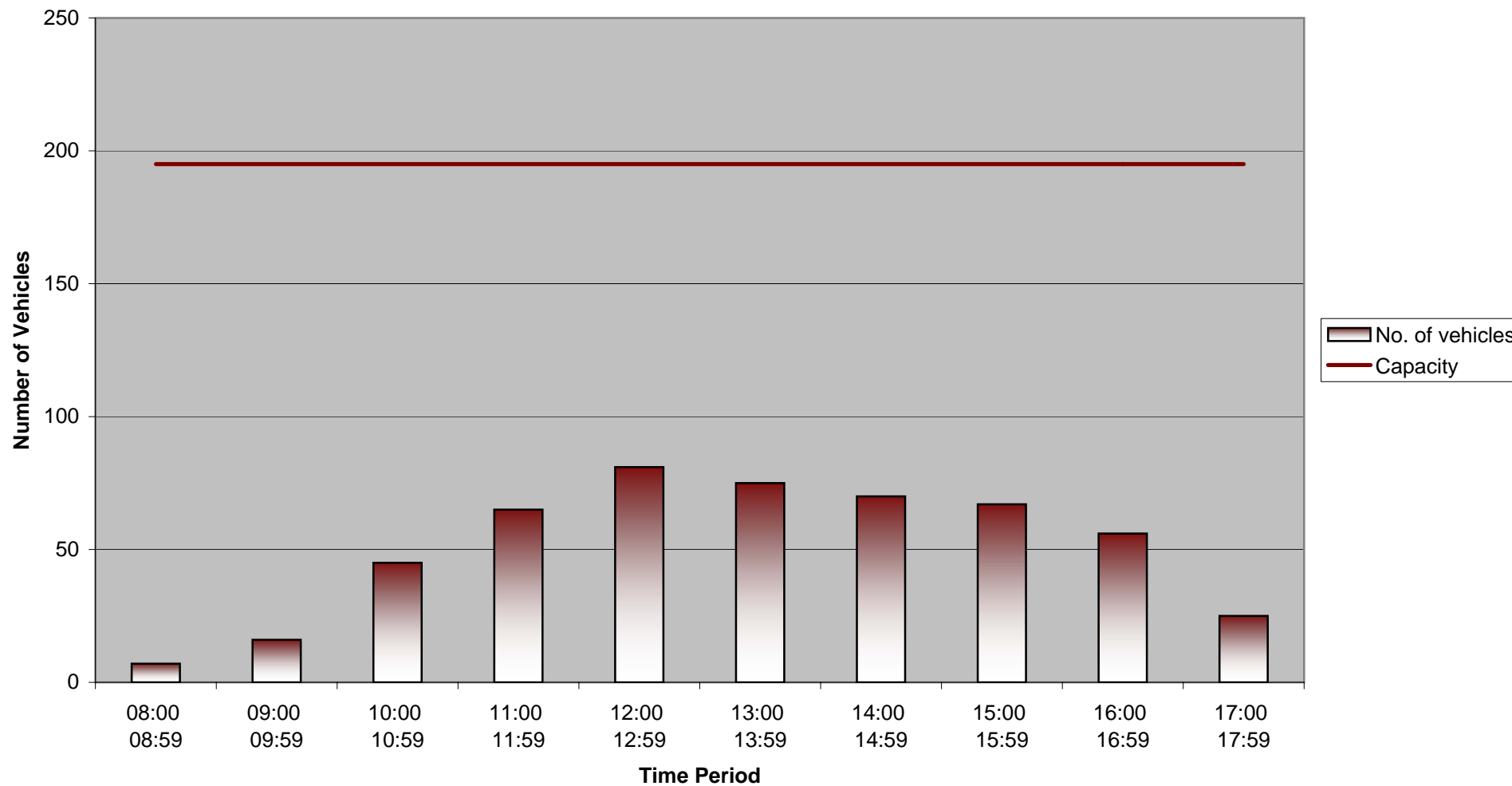
**Figure 1.44 - Dartmouth Mayor's Avenue Car Park
Hourly Number of Vehicles Parked - 05/07/06**



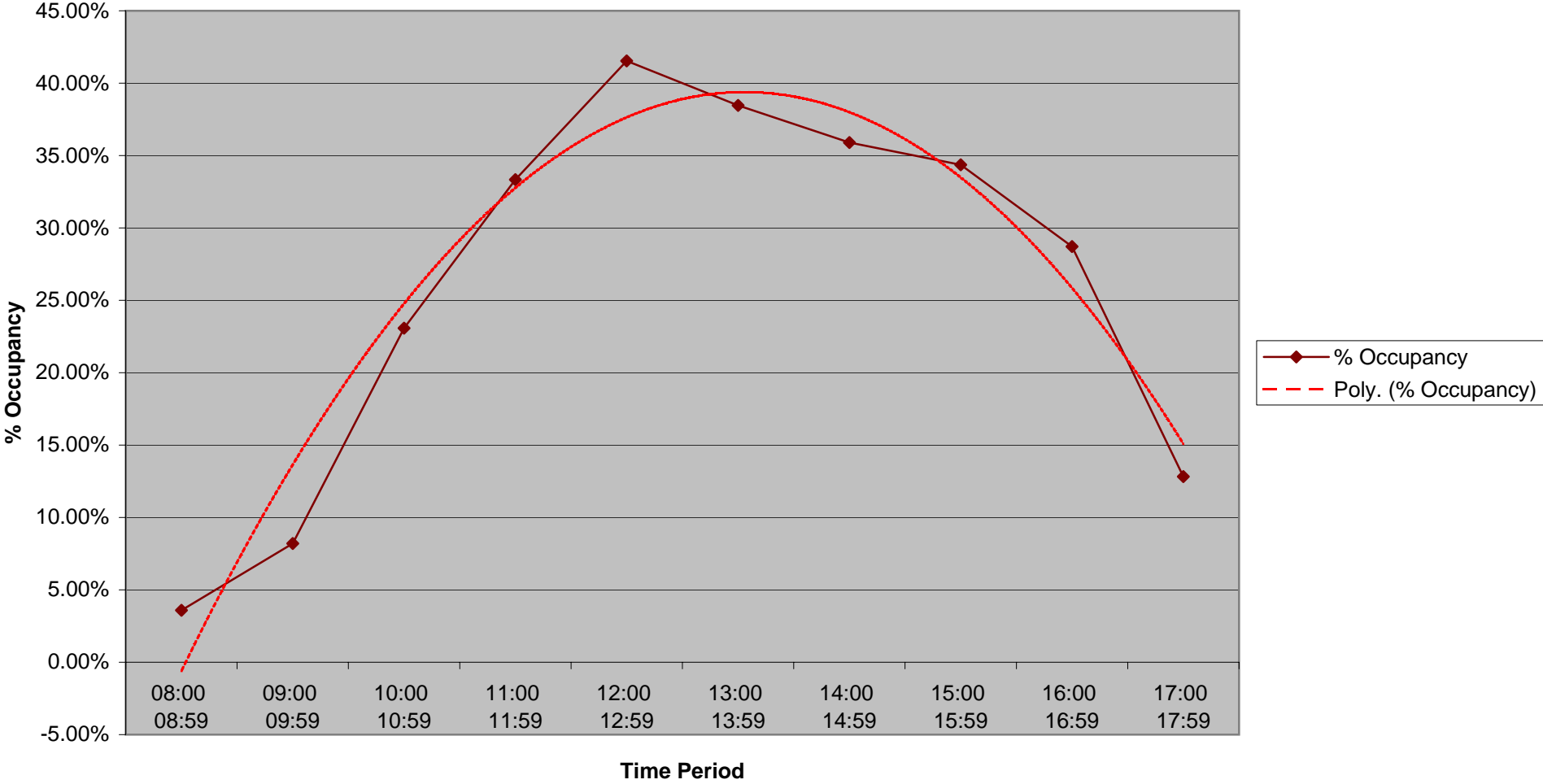
**Figure 1.45 - Dartmouth Mayor's Avenue Car Park
% Occupancy - 05/07/06**



**Figure 1.46 - Dartmouth Mayor's Avenue Car Park
Hourly Number of Vehicles Parked - 06/07/06**



**Figure 1.47 - Dartmouth Mayor's Avenue Car Park
% Occupancy 06/07/06**



**Figure 1.48 - Dartmouth Castle Car Park
Hourly Number of Vehicles Parked - 05/07/06**

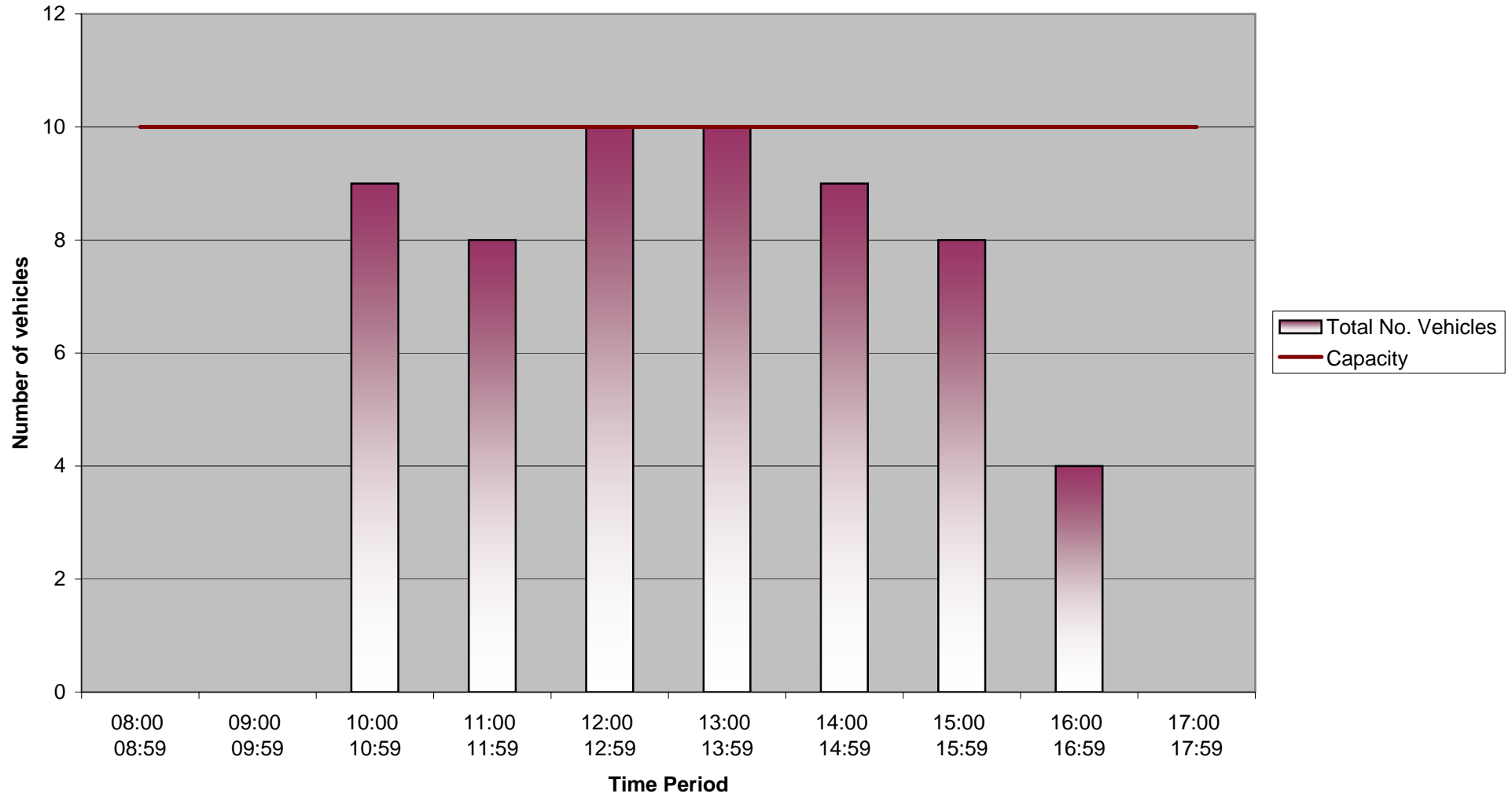
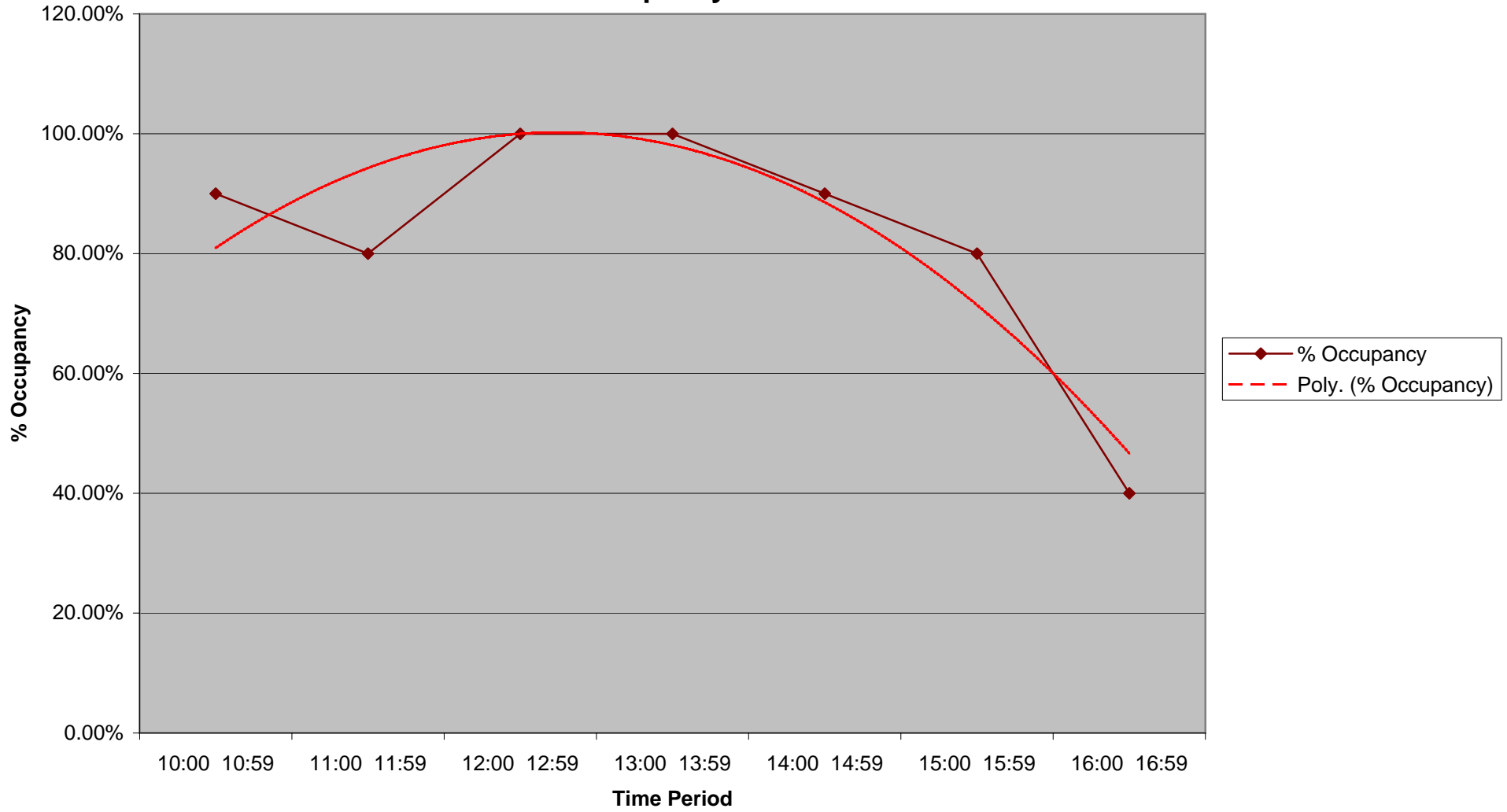
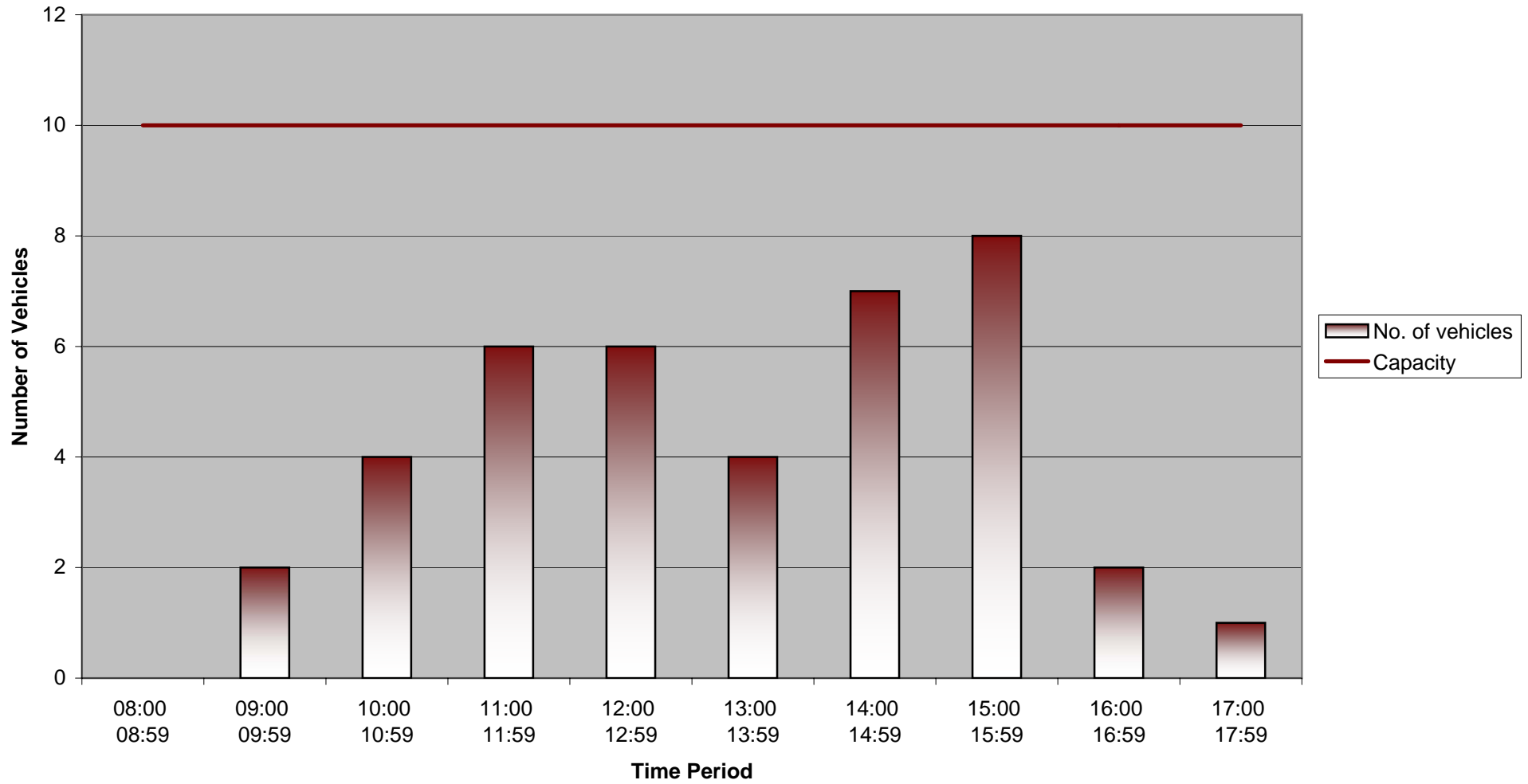


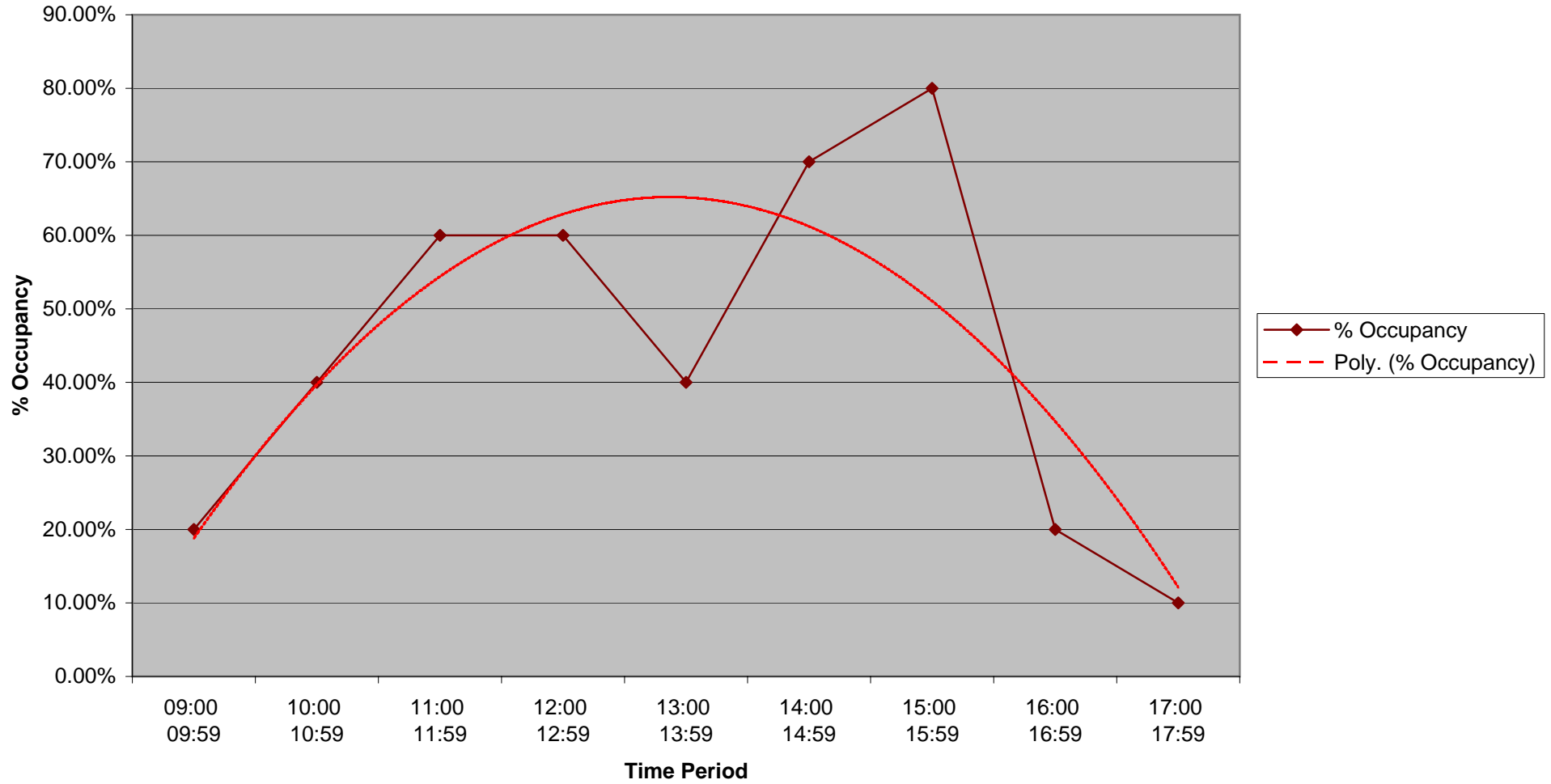
Figure 1.49 - Dartmouth Castle Car Park
% Occupancy - 05/07/06



**Figure 1.50 - Dartmouth Castle Car Park
Hourly Number of Vehicles Parked - 06/07/06**



**Figure 1.51 - Dartmouth Castle Car Park
% Occupancy 06/07/06**





APPENDICES

This survey is part of DEVON COUNTY COUNCIL'S Dartmouth Parking Study.
We would be very grateful if you could return this freepost questionnaire and return it to us at your earliest convenience.

1. Which of the following best describes the reason why your vehicle is parked here?

I'm a resident of Dartmouth who lives nearby I'm **not** a resident of Dartmouth who lives nearby

If you are not a local resident of Dartmouth could you please also answer the following questions:

2. Where have you come from? Town / Village _____ Postcode _____

3. What route did you use to travel to Dartmouth?

A379, Torbay (via ferry) A379, Kingsbridge Other
A381/A3122, Totnes

4. How long will you be staying in Dartmouth today?

Under an hour 1-2 hours 2-3 hours
3-4 hours All day

5. How many people are travelling with you in your vehicle?

None 1 other 2 others
3 others 4 or more

6. What was the purpose of your trip to Dartmouth today?

Recreation/Leisure Shopping Tourism Social
Work/Business (commuter) Work/Business (site based) Education Resident

7. Did you try parking somewhere else before parking here?

Yes
No

If so, where? _____

Serial Number:



Thank you very much for your time.
Your information will be of great help to us.

Car Park Occupancy - Tickets by Machine

Car Park occupancy based upon tickets sold per machine. No account made for permits.
It is assumed that each vehicle stays for the whole ticket period purchased.

Dates Selected 05/07/2006 08:00:00 To 05/07/2006 21:00:01

Machine Group: Dartmouth

Tariff Group: All Tariffs

Data Found For 05/07/2006 08:00:00 To 05/07/2006 17:38:00

Daily Hours

Machine	08:00 08:59	09:00 09:59	10:00 10:59	11:00 11:59	12:00 12:59	13:00 13:59	14:00 14:59	15:00 15:59	16:00 16:59	17:00 17:59	Total
1DC DARTMOUTH CASTLE	0	0	9	8	10	10	9	8	4	0	58
1DL DARTMOUTH LEISURE CENTRE	0	1	3	4	3	3	0	1	1	0	16
1MA MAYOR AVE 1	2	14	39	37	39	35	36	28	19	10	259
1PR PARK & RIDE 1	0	14	23	32	42	44	47	47	47	47	343
2MA MAYORS AVE 2	6	22	56	62	59	51	53	47	33	18	407
2PR PARK & RIDE 2	0	2	13	45	59	80	81	84	84	84	532
2PR PARK & RIDE 3	0	0	0	0	1	1	1	1	1	1	6
Total	8	53	143	188	213	224	227	216	189	160	1,621

	0.5 Hour	1 Hour	2 Hours	3 Hours	4 Hours	6 Hours	All Day
1DC DARTMOUTH CASTLE	55p	85p	£1.65	£2.45			
1DL DARTMOUTH LEISURE CENTRE	45p	55p	£1.05	£1.55	£2.05	N/A	N/A
1MA MAYOR AVE 1	N/A	75P	£1.45	£2.15	£2.85	N/A	£5.05
2MA MAYORS AVE 2	N/A	75P	£1.45	£2.15	£2.85	N/A	£5.05
1PR PARK & RIDE 1	N/A	55p	£1.05	£1.55	£2.05	N/A	£4.05
2PR PARK & RIDE 2	N/A	55p	£1.05	£1.55	£2.05	N/A	£4.05

Dartmouth - Car Park Occupancy - 5/7/06

PARK & RIDE	08:00 08:59	09:00 09:59	10:00 10:59	11:00 11:59	12:00 12:59	13:00 13:59	14:00 14:59	15:00 15:59	16:00 16:59	17:00 17:59	Av
CAPACITY	175	175	175	175	175	175	175	175	175	175	175
1PR PARK & RIDE 1	0	14	23	32	42	44	47	47	47	47	34
2PR PARK & RIDE 2	0	2	13	45	59	80	81	84	84	84	53
2PR PARK & RIDE 3	0	0	0	0	1	1	1	1	1	1	1
Total P&R	0	16	36	77	102	125	129	132	132	132	88
% Capacity	0.00%	9.14%	20.57%	44.00%	58.29%	71.43%	73.71%	75.43%	75.43%	75.43%	50.34%

MAYORS AV	08:00 08:59	09:00 09:59	10:00 10:59	11:00 11:59	12:00 12:59	13:00 13:59	14:00 14:59	15:00 15:59	16:00 16:59	17:00 17:59	Av
CAPACITY	195	195	195	195	195	195	195	195	195	195	195
1MA MAYOR AVE 1	2	14	39	37	39	35	36	28	19	10	26
2MA MAYORS AVE 2	6	22	56	62	59	51	53	47	33	18	41
Total MA	8	36	95	99	98	86	89	75	52	28	67
% Capacity	4.10%	18.46%	48.72%	50.77%	50.26%	44.10%	45.64%	38.46%	26.67%	14.36%	34.15%

DARTMOUTH CASTLE	08:00 08:59	09:00 09:59	10:00 10:59	11:00 11:59	12:00 12:59	13:00 13:59	14:00 14:59	15:00 15:59	16:00 16:59	17:00 17:59	Av
CAPACITY	10	10	10	10	10	10	10	10	10	10	10
1DC DARTMOUTH CASTLE	0	0	9	8	10	10	9	8	4	0	6
% Capacity	0.00%	0.00%	90.00%	80.00%	100.00%	100.00%	90.00%	80.00%	40.00%	0.00%	58.00%

Car Park Occupancy - Tickets by Machine

Car Park occupancy based upon tickets sold per machine. No account made for permits.
It is assumed that each vehicle stays for the whole ticket period purchased.

Dates Selected 06/07/2006 00:03:00 To 06/07/2006 23:00:00

Machine Group: Dartmouth

Tariff Group: All Tariffs

Data Found For 06/07/2006 08:00:00 To 06/07/2006 17:58:00

Daily Hours

Machine	08:00 08:59	09:00 09:59	10:00 10:59	11:00 11:59	12:00 12:59	13:00 13:59	14:00 14:59	15:00 15:59	16:00 16:59	17:00 17:59	Total
1DC DARTMOUTH CASTLE	0	2	4	6	6	4	7	8	2	1	40
1DL DARTMOUTH LEISURE CENTRE	0	1	0	0	0	0	0	1	0	0	2
1MA MAYOR AVE 1	3	5	14	24	31	25	30	28	22	12	194
1PR PARK & RIDE 1	0	14	25	33	40	42	45	46	46	46	337
2MA MAYORS AVE 2	4	11	31	41	50	50	40	39	34	13	313
2PR PARK & RIDE 2	0	6	27	76	110	118	124	124	124	124	833
2PR PARK & RIDE 3	0	0	0	0	1	1	1	1	1	1	6
Total	7	39	101	180	238	240	247	247	229	197	1,725

	0.5 Hour	1 Hour	2 Hours	3 Hours	4 Hours	6 Hours	All Day
1DC DARTMOUTH CASTLE	55p	85p	£1.65	£2.45			
1DL DARTMOUTH LEISURE CENTRE	45p	55p	£1.05	£1.55	£2.05	N/A	N/A
1MA MAYOR AVE 1	N/A	75P	£1.45	£2.15	£2.85	N/A	£5.05
2MA MAYORS AVE 2	N/A	75P	£1.45	£2.15	£2.85	N/A	£5.05
1PR PARK & RIDE 1	N/A	55p	£1.05	£1.55	£2.05	N/A	£4.05
2PR PARK & RIDE 2	N/A	55p	£1.05	£1.55	£2.05	N/A	£4.05

Dartmouth - Car Park Occupancy - 6/7/06

	08:00 08:59	09:00 09:59	10:00 10:59	11:00 11:59	12:00 12:59	13:00 13:59	14:00 14:59	15:00 15:59	16:00 16:59	17:00 17:59	Av	
PARK & RIDE												
CAPACITY	175	175	175	175	175	175	175	175	175	175	175	
1PR PARK & RIDE 1	0	14	25	33	40	42	45	46	46	46	34	
2PR PARK & RIDE 2	0	6	27	76	110	118	124	124	124	124	83	
2PR PARK & RIDE 3	0	0	0	0	1	1	1	1	1	1	1	
Total P&R	0	20	52	109	151	161	170	171	171	171	118	Average
% Capacity	0.00%	11.43%	29.71%	62.29%	86.29%	92.00%	97.14%	97.71%	97.71%	97.71%	67.20%	67.20%
MAYORS AV												
CAPACITY	195	195	195	195	195	195	195	195	195	195	195	
1MA MAYOR AVE 1	3	5	14	24	31	25	30	28	22	12	19	
2MA MAYORS AVE 2	4	11	31	41	50	50	40	39	34	13	31	
Total P&R	7	16	45	65	81	75	70	67	56	25	51	Average
% Capacity	3.59%	8.21%	23.08%	33.33%	41.54%	38.46%	35.90%	34.36%	28.72%	12.82%	26.00%	26.00%
DARTMOUTH CASTLE												
CAPACITY	10	10	10	10	10	10	10	10	10	10	10	
1DC DARTMOUTH CASTLE	0	2	4	6	6	4	7	8	2	1	4	Average
% Capacity	0.00%	20.00%	40.00%	60.00%	60.00%	40.00%	70.00%	80.00%	20.00%	10.00%	40.00%	40.00%