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2005 CARDIFF BUSINESS DISTRICT PARKING STUDY

June 2006

SANDAG

ABSTRACT

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ABSTRACT:	This report presents the results of the 2005 Cardiff Business District Parking Study. The study includes an inventory of parking spaces, hourly occupancy counts, a survey of persons parking in the study area, and an analysis of future parking demand.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF MAPS

INTRODUCTION

INTRODUCTION

The City of Encinitas requested SANDAG conduct a study of existing and future parking demand in the Cardiff Business District. The goal of the study was to assess existing conditions, to develop estimates of existing and future parking demand, and to identify potential strategies for mitigating any existing or forecasted parking deficiencies. The results of this study will be incorporated into the Cardiff Business District Specific Plan and will serve as a baseline for similar studies conducted in the future. SANDAG and the City of Encinitas worked together on the parking study. SANDAG created the Scope of Work, analyzed the data, and wrote the final report. The City collected all of the parking data, including the inventory of existing parking spaces, occupancy counts, and survey data.

This report presents the findings of the 2005 Cardiff Business District Parking Study. It is organized into individual chapters focusing on the occupancy counts, survey results, future demand, and conclusions. Map 1 (page 8) shows the study area and the four planning areas within the Cardiff Business District.

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The City of Encinitas requested SANDAG's assistance with a parking study in the Cardiff Business District. The goal of the study was to assess existing conditions, to develop estimates of existing and future parking demand, and to create potential strategies for mitigating any existing or forecasted parking deficiencies. The results of this study will be incorporated into the Cardiff Business District Specific Plan.

The study is made up of several components:

- An inventory of all parking spaces in the study area

- Parking space occupancy counts conducted in the spring and summer of 2005

- A survey of persons parking in the study area

- A forecast of future parking demand

- Suggested mitigation strategies for existing and forecast parking deficiencies

- A final report documenting the methodology used and the results of the study.

In addition to the steps identified above, several field checks were conducted to confirm assessments based on the data collected and develop mitigation strategies

The City of Encinitas used the Cardiff Specific Plan area to define the boundaries of the parking study area. As Map 1 illustrates, the study area is bordered by San Elijo Avenue on the west, the alley east of Newcastle Avenue on the eastern side, Orinda Drive on the southern end, and Mozart Avenue on the north. The four planning areas that makeup the Cardiff Business District also are depicted in Map 1.

INVENTORY AND OCCUPANCY COUNTS

The inventory and occupancy counts were a joint process. The first task was to conduct an inventory of all available parking spaces within the study area. The next step was to determine the adequacy of the current number of spaces available. Parking space occupancy counts were performed hourly on one weekday and one Saturday both in the spring and in the summer to determine if the current inventory met parking needs. Any group of parking spaces with occupancy rates of 90 percent or greater was considered at full capacity. The initial thought was that spring counts would reflect typical parking demand and that the summer counts would be considerably higher reflecting the peak season. Parking data was organized into on-street and off-street designations for the four planning areas. Parking counts also were conducted immediately outside the Specific Plan area to determine if commercial parking was overflowing into adjacent residential areas. No such overflow was found.

Map 1
Cardiff Business District Parking Study Area

The spring occupancy counts were conducted on Saturday April 30th and Thursday May 12th and the summer counts were conducted on Thursday July 21st and Saturday July 23rd. The counts were performed between the hours of 9 a.m. and 7 p.m. The Saturday count estimated weekend parking demand and the Thursday count reflected weekday parking demand. Eleven counts were taken on each day at one-hour intervals. The weather on all count days was normal with no adverse conditions that would affect parking behavior.

- There are 1,221 parking spaces in the study area. Of those, 978 are included in the occupancy count study: 261 are on-street and 717 are off-street, including 30 handicapped spaces. Of the 243 spaces not included in the study, 156 are restricted off-street spaces, 87 are off-street spaces under construction.

- The occupancy rates are very similar for the spring and summer counts. On average, weekday occupancy rates are higher than weekend occupancy rates for both seasons. Off-street parking tends to have more demand than on-street parking, except for summer weekends.

Spring Occupancy Counts

- For the weekday, the average occupancy rate for the study area as a whole was 47 percent, with 55 percent occupancy at the peak hour (noon). Occupancy was highest during the midday from 11 a.m. to 2 p.m., with the evenings having fewer occupied spaces than the mornings.

- During the weekend, the average occupancy rate for the study area as a whole was 38 percent, with 43 percent occupancy at the peak hour (noon). Occupancy was highest during the midday from 10 a.m. to 1 p.m., with the evening having fewer vehicles than the mornings.

- All of the individual planning areas had less than 75 percent occupancy at all times on both the weekday and the weekend. The highest occupancy rates were in Planning Area 2 where peak hour occupancy rates reached 73 percent on the weekday and 61 percent during the weekend count.

- There were numerous blocks that reached 75 percent occupancy or greater on the weekdays and weekend (shown in Map 2 and Map 3). However, there were nearby blocks that had enough capacity to absorb the overflow.

Summer Occupancy Counts

- The average occupancy rate for the study area on the weekday was 47 percent, with 53 percent during the peak hour (noon). Occupancy was highest around noon, with the evenings having similar rates as the mornings.

- The weekend average occupancy rate for the study area was 41 percent, with 45 percent occupancy at the peak hour (noon). Occupancy was highest during the midday from 10 a.m. to 1 p.m., with the evening having fewer vehicles than the mornings.

- Occupancy rates in the four planning areas did not exceed 70 percent at any time during the weekday or the weekend. The highest occupancy rates were in Planning Areas 2 and 4 where peak hour occupancy rates reached 59 percent on the weekday in Planning Area 2 and 67 percent during the weekend in Planning Area 4.

- There were several blocks that reached 75 percent occupancy or greater on the weekdays and weekend (shown in Map 4 and Map 5). However, as with spring occupancy counts, there was enough parking capacity nearby to absorb the overflow.

SURVEY RESULTS

The City of Encinitas conducted a survey of persons parking in the Cardiff Business District. The purpose of the survey was to better understand the travel behavior of those parking in the Cardiff Business District including where people are coming from. The survey also was designed to solicit opinions on various aspects of parking in the study area and to collect suggestions about how to improve perceived parking issues. Of the approximately 1,000 survey forms distributed to persons parking in the study area, 126 were completed and returned. Because of this low sample size and response rate, the survey results should not be assumed to represent all persons parking in the study area, but only those responding to the survey. As a result, the responses are more likely to be biased and represent those that regularly park in the study area and those with stronger opinions related to parking conditions in the Cardiff Business District.

- Survey respondents are more likely to park in the Cardiff Business District for practical purposes than recreational purposes. The highest proportion of respondents (48%) park there to go to work.

- The majority of respondents (63%) live more than two miles away from the study area.

- One out of two respondents parks in the Cardiff Business District for more than four hours at a time.

- The majority of respondents (63%) park in the Cardiff Business District every day.

- More respondents reported never or rarely (47% - parking lot, 42% on - street) having difficulty finding a spot than often or always (18% - parking lot, 35% on - street) having difficulty. A significant percentage reported sometimes having difficulty (35% - parking lot, 23% on – street).

- Survey participants are basically split when it comes to the question of parking convenience. Forty-three percent feel parking is convenient or somewhat convenient, while 42 percent feel it is inconvenient or somewhat inconvenient. Fourteen percent remained neutral on the issue.

- The greatest proportion of respondents (46%) is in favor of more parking in downtown Cardiff.

- The respondents who favor additional parking were asked what solution they would favor to gain more parking spaces. The most popular response was "require more parking from new development" with 27 percent of responses.

Generally, the survey results correspond with the occupancy count analysis – there are enough parking spots to meet demand. Since the occupancy counts show constant availability, even if it is the next block over, it is more likely that those reporting difficulty are not getting their parking spot of choice. Similarly, the even divide of respondents on the issue of parking convenience also could be attributed to a desire for prime parking, especially for those parking there for work purposes.

FUTURE DEMAND

Future parking demand for the Cardiff Business District was analyzed by forecasting population growth to the year 2020. Future occupancy rates were based on existing parking capacity.

The percentage of people residing in the catchment area[1] and parking in the Cardiff Business District is projected to grow by nine percent between 2004 and 2020. (Please see Methodology.) Based on this forecast, the weekday occupancy rates are expected to increase from 54 percent to 59 percent; and the weekend occupancy rates are expected to increase from 45 percent to 49 percent.

Assuming no significant changes in land use, growth in the Cardiff Business District will not greatly affect parking demand. The existing parking capacity will be able to absorb the projected increase in parking occupancy due to population growth. In the future, parkers may find it more difficult to find a "prime" parking space, but they will still find available parking.

CONCLUSIONS

The results of the study show there is enough parking capacity to accommodate current parking demand at all times of the year and at all times of the day. Contrary to what was anticipated, summer occupancy rates were very similar to spring, with only summer weekends being slightly higher than spring weekends. While weekday occupancy rates are generally higher than weekend rates, peak hour capacity is only slightly more than half filled. A more detailed review of the individual planning areas also indicates that the number of parking spaces provided is more than adequate to serve current and future demand.

Some issues come to light, however, when reviewing survey results and looking at individual parking lot and block by block on-street parking counts. It is clear from the survey results that a portion of persons parking in the Business District have experienced difficulty finding a parking space. This also is reflected in the occupancy count data that shows some parking lots and on-street parking at full capacity at certain times during the day. It also is clear from reviewing the data and field checks that in every case there is available parking nearby (within one or two blocks). The issue becomes not whether there is available parking but whether it is convenient or near enough to the desired destination.

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[1] The Catchment area represents the Cardiff Business District and the surrounding ZIP Codes that the majority of the people traveling to the Cardiff Business District reside in. Please see Map 6 on page 51.

Suggested mitigation strategies are focused on easing parking inconvenience in those few specific locations where parking demand has reached capacity. The use of signage directing drivers to nearby parking or the implementation of shared parking strategies can overcome much of what is perceived as parking deficiencies.

The study also showed that in certain parts of the study area available parking may be underutilized. This information could provide the City with some flexibility when determining off-street parking requirements for proposed new development and re-evaluating current requirements.

Future parking demand (year 2020) is estimated to be approximately nine percent higher than today. It is not expected that this growth will require the development of additional parking capacity. It is strongly suggested however, that parking space occupancy be monitored at regular intervals to ensure that as land uses change over time and the population grows parking capacity will continue to exceed demand.

OCCUPANCY COUNTS

OCCUPANCY COUNTS

METHODOLOGY

The City of Encinitas defined the study area based on the boundaries of the Cardiff Specific Plan area.[2] The occupancy count study consisted of two parts. First, the City conducted an inventory of available parking spaces. Then, they conducted hourly counts of the number of occupied spaces on one weekday and one weekend day in the spring and again in the summer. Parking data was organized into on-street and off-street designations for each of the four planning areas. Each lot and block face within an area was assigned a unique ID number. (Please see Appendix B.)

City staff conducted an inventory of available parking spaces in each of the four planning areas in early April 2005. The number of unmarked on-street spaces on each block was estimated using the City of Encinitas Off-Street Parking Design Manual (2001) requirement of 21 feet per parallel parking space. Diagonal spaces were generally marked and counted accordingly. There were no areas affected by construction that significantly reduced parking in any area.

To collect the parking space occupancy information, a team of two surveyors drove through each planning area and counted the number of parked vehicles in each lot and on each block. This information was noted on planning area data collection maps that were based on San Diego County Assessor's maps. These maps identified each block in the study area with the associated ID number. The number of parked vehicles and the count start time were written on the maps. The information was entered into a Microsoft Access database for validation and report production.

The spring 2005 occupancy counts were conducted on Saturday April 30th and Thursday May 12th and the summer 2005 occupancy counts were conducted on Thursday July 21st and Saturday July 23rd. The counts were performed between the hours of 9 a.m. and 7 p.m. The Saturday count is used to reflect weekend parking demand and the Thursday count reflects weekday parking demand. Eleven counts were taken on each day at one-hour intervals. The weather on all count days was normal with no adverse conditions that could affect the data.

PARKING INVENTORY

There are 1,221 parking spaces in the Cardiff Business District. Of those, 978 are included in the occupancy count study: 261 are on-street and 717 are off-street, including 30 handicapped spaces. The remaining 243 spaces consists of 156 restricted access off-street spaces, 69 off-street spaces under construction in the former Miracles Café lot, and 18 spaces in the Mance Property at 123-125 Chesterfield Drive. These spaces were not included in the study since the goal was to evaluate

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[2] Parking counts also were conducted immediately outside the specific plan area to determine if commercial parking was overflowing into adjacent residential areas. No such overflow was found.

available parking spaces. Table 1 shows the number of total available parking spaces within each planning area.

Table 1
Total Parking Spaces Available by Planning Area (2005)
Cardiff Business District

	PA 1	PA 2	PA 3	PA 4	Total
On-Street	18	66	123	54	261
Off-Street	119	286	285	27	717
Sub-Total	**137**	**352**	**408**	**81**	**978**
Restricted	32	0	62	62	156
Under Const.	69	0	0	18	87
Total	238	352	470	161	1,221

Estimate of Minimum Parking Required

Based on parking standards from City of Encinitas Code, the Cardiff Business District should have a minimum of 1,294 off-street parking spaces. This number was calculated using the known floor area of buildings within the business district, their type of land use, and the parking standards required from the City Code. Please note that the information is based on San Diego County Assessor's Records from the year 2000 and in some instances is known to be erroneous and/or out of date; however this information is more than adequate to get an estimate of the minimum parking required.

Table 2 shows the minimum parking required by City Code, and current parking capacity by planning area. This area available for parking includes areas in the Business District, including those under construction and those specified as Reserved.

Table 2
Minimum Parking Required
Cardiff Business District

	PA 1	PA 2	PA 3	PA 4	Total
On-Street Capacity *	18	66	123	54	261
Off-Street Capacity *	220	286	347	107	960
Total Capacity *	238	352	470	161	1,221
Minimum Required	308	276	572	138	1,294
Difference (off-street)	-88	10	-225	-31	-334
Difference (including on-street)	-70	76	-102	23	-73

*Includes reserved parking, and areas under construction

While City Code refers strictly to off-street parking, the intent of the code is to ensure that adequate parking is available for persons visiting the various businesses, restaurants and other land uses within the Cardiff Business District. In two of the four planning areas, off-street capacity falls

below the minimum required by the City. However, based on the inventory conducted for this study, the combination of on- and off-street parking yields a total parking capacity less (deficit of 73) than that required by City of Encinitas Code. Additional analysis based on occupancy is included in the last section of this report.

SPRING OCCUPANCY COUNTS

As mentioned earlier, the spring occupancy counts were conducted on April 30th and May 12th. The following information summarizes the results for both weekday and weekend counts. An analysis of the results also is included in this section. Occupancy count results are discussed below for the Cardiff Business District as a whole, the individual planning areas, and the high capacity blocks. More detailed occupancy count data also can be found in Appendix A.

At no time during the parking space occupancy counts was the study area as a whole or any of the four planning areas without adequate parking. The highest occupancy rates were in Planning Area 2 where peak hour occupancy rates reached 73 percent on the weekday and 61 percent during the weekend count. At certain times of the day, some blocks reached occupancy rates greater than 75 percent, but there was parking available nearby.

Weekday Occupancy Rates

As shown in Table 3, the average weekday parking space occupancy rate in all planning areas combined was 47 percent, ranging from a low of 34 percent in PA 1 to a high of 58 percent in the PA 2. (The rate is determined by taking the total number of occupied spaces and dividing it by the total number of available spaces.) Overall, occupancy within the study area was highest during the midday from 11 a.m. to 2 p.m., with the evenings having fewer occupied spaces than the mornings. For all planning areas, average off-street occupancy rates are higher than on-street. Appendix A shows the hourly occupancy rates along with the actual counts. Although parking spaces on some individual block faces were 100 percent occupied at certain times, the highest peak hour occupancy rate for any of the planning areas is 73 percent (PA 2 at noon).

Table 3
Average Weekday Occupancy Rates by Planning Area (Spring 2005)
Cardiff Business District

Planning Area	Total Spaces	Average Occupancy Rate	Peak Hour Occupancy Rate	Peak Hour
PA 1	**137**	**34%**	**47%**	**11 a.m.**
On-Street	18	24%	33%	10 a.m.
Off-Street	119	36%	51%	11 a.m.
PA 2	**352**	**58%**	**73%**	**noon**
On-Street	66	41%	59%	11 a.m.
Off-Street	286	62%	77%	noon
PA 3	**408**	**43%**	**54%**	**11 a.m.**
On-Street	123	42%	56%	11 a.m.
Off-Street	285	44%	55%	1 p.m.
PA 4	**81**	**42%**	**48%**	**10 a.m.**
On-Street	54	43%	54%	11 a.m.
Off-Street	27	42%	56%	5 p.m.
Total, All Areas	**978**	**47%**	**55%**	**noon**
On-Street	261	41%	54%	11 a.m.
Off-Street	717	49%	59%	noon

On-Street Parking vs. Off-Street Parking

As seen in Table 3 above and in Figure 1 below, there is a higher percentage of parking spaces available along the streets than in parking lots. None of the planning areas have a peak period on-street occupancy rate above 59 percent; although some of the individual blocks have numbers approaching 100 percent. Many of the individual on-street blocks have small capacities (less than 10) and are full during parts of the day, but in each case there are adjacent blocks that have empty spots. On the other hand, Cardiff Towne Centre, Cardiff's largest parking lot with 214 spaces, averaged a 67 percent occupancy rate throughout the day, with a high of 88 percent and a low of 49 percent.

Figure 1
Hourly Weekday Occupancy Rate On-and Off-Street (Spring 2005)
Cardiff Business District
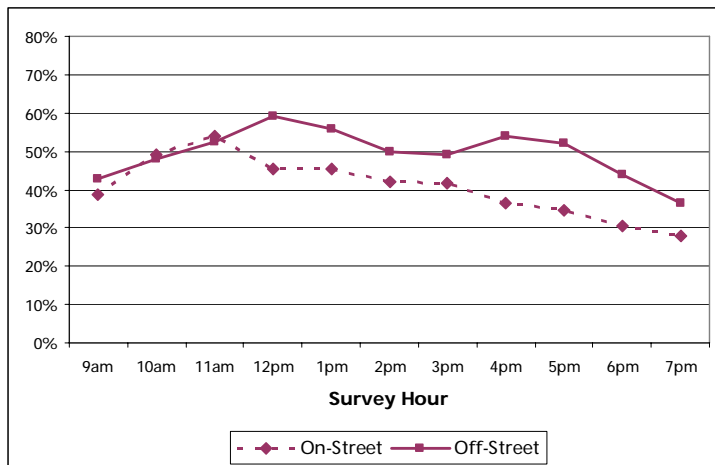
Planning Area Evaluation

Additional figures were created in order to compare the planning areas to one another. Figure 2 displays the hourly occupancy rates for each of the planning areas. PA2 has the highest occupancy at all hours of the day. Figure 3 shows the on- and off-street occupancy rates throughout the day. Off-street occupancy rates are generally higher than on-street rates for all of the planning areas except PA4, which varies depending upon time of day.

Figure 2
Hourly Weekday Occupancy Rate by Planning Area (Spring 2005)
Cardiff Business District
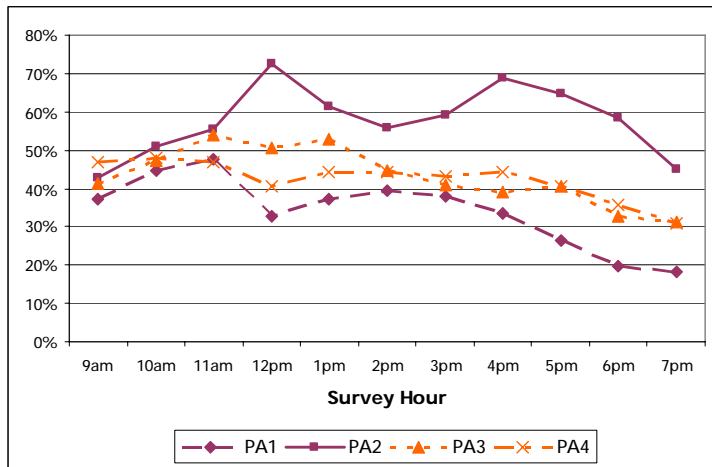
Figure 3
Hourly Weekday Occupancy Rate On- and Off- Street (Spring 2005)
Individual Planning Areas, Cardiff Business District
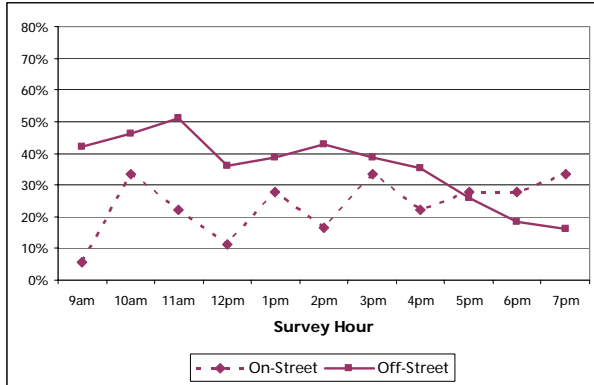
Planning Area 1
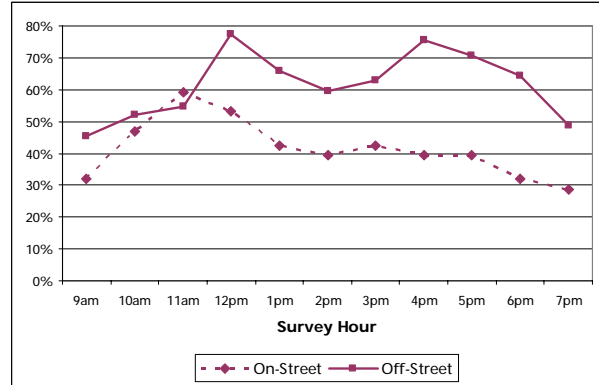
Planning Area 2

Planning Area 3

Planning Area 4

Weekend Occupancy Rates

As shown in Table 4, the average weekend parking space occupancy rate in all planning areas combined was 38 percent, ranging from a low of 12 percent in PA 1 to a high of 51 percent in the PA 2. Appendix A shows the hourly occupancy rates, with the actual counts. Although parking spaces on some individual block faces were 100 percent occupied at certain times, the highest peak hour occupancy rate in any of the planning areas is 61 percent (PA 2 at 1 p.m.). Occupancy was highest during the midday from 10 a.m. to 1 p.m., with the evening having fewer vehicles than the mornings.

Table 4
Average Weekend Occupancy Rates by Planning Area (Spring 2005)
Cardiff Business District

Planning Area	Total Spaces	Average Occupancy Rate	Peak Hour Occupancy Rate	Peak Hour
PA 1	**137**	**12%**	**15%**	**noon**
On-Street	18	19%	33%	10 a.m.
Off-Street	119	11%	15%	noon
PA 2	**352**	**51%**	**61%**	**1 p.m.**
On-Street	66	35%	58%	9 a.m.
Off-Street	286	54%	67%	1 p.m.
PA 3	**408**	**35%**	**42%**	**noon**
On-Street	123	33%	41%	10 a.m.
Off-Street	285	36%	44%	noon
PA 4	**81**	**37%**	**41%**	**noon**
On-Street	54	44%	52%	11 a.m.
Off-Street	27	23%	33%	4 p.m.
Total, All Areas	**978**	**38%**	**43%**	**noon**
On-Street	261	35%	45%	10 a.m.
Off-Street	71	38%	45%	1 p.m.

On-Street Parking vs. Off-Street Parking

Table 4 and Figure 4 show that, like weekdays, weekends have a higher percentage of parking spaces available along the streets than in parking lots. None of the planning areas have an on-street occupancy rate above 58 percent, although some of the individual blocks have numbers approaching 100 percent. On the other hand, Cardiff by the Sea Shopping Center, with 42 spaces, averages an 82 percent occupancy rate throughout the day, with a high of 100 percent and a low of 55 percent. The Cardiff Towne Centre parking lot averaged roughly 62 percent throughout the day.

Figure 4
Hourly Weekend Occupancy Rate On- and Off-Street (Spring 2005)
Cardiff Business District
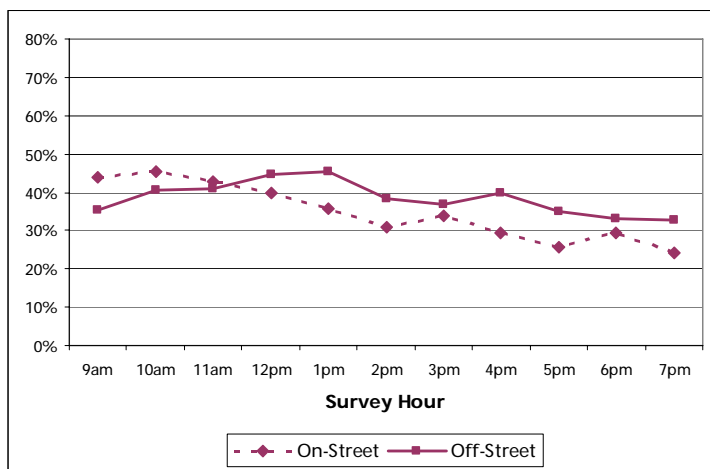
Planning Area Evaluation

Figures were compiled for individual planning areas. Figure 5 displays the hourly occupancy rates for each of the four planning areas. Note that PA 2 has the highest occupancy rates for all times of the day except 7 p.m. Figure 6 shows the on-street and off-street occupancy rates throughout the day for each of the four planning areas. There is more variation between on-street and off-street occupancy rates on the weekends than during the week. PA1 and PA4 tend to have a higher percentage of people parking on the street, while PA2 and PA3 tend to have a greater percentage parking in lots.

Figure 5
Hourly Weekend Occupancy Rate by Planning Area (Spring 2005)
Cardiff Business District
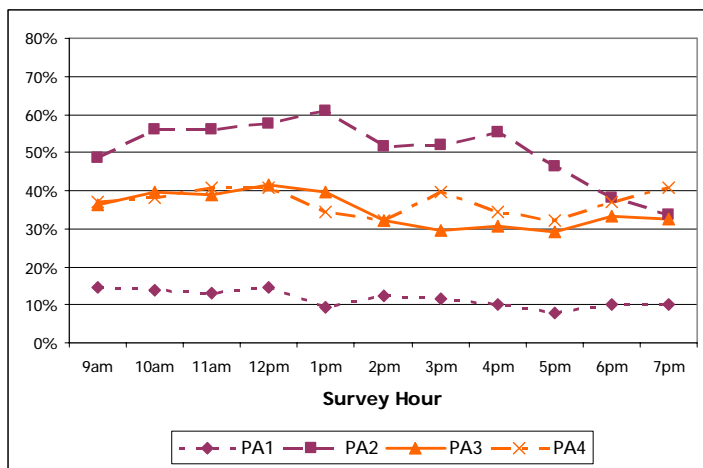
Figure 6
Hourly Weekend Occupancy Rate On- and Off- Street (Spring 2005)
Individual Planning Areas, Cardiff Business District
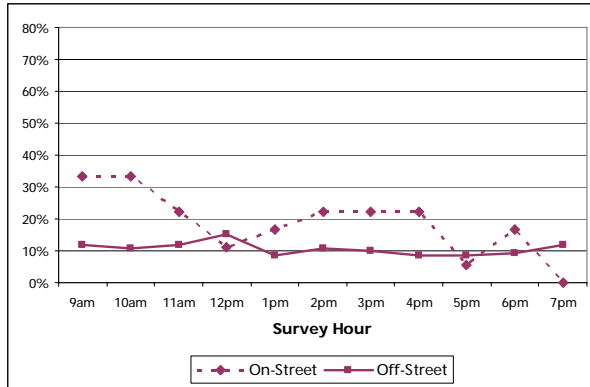
Planning Area 1
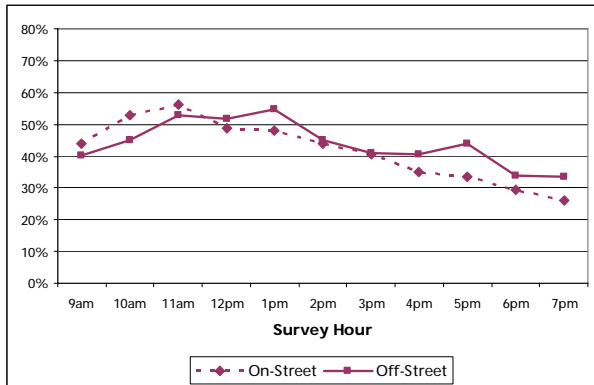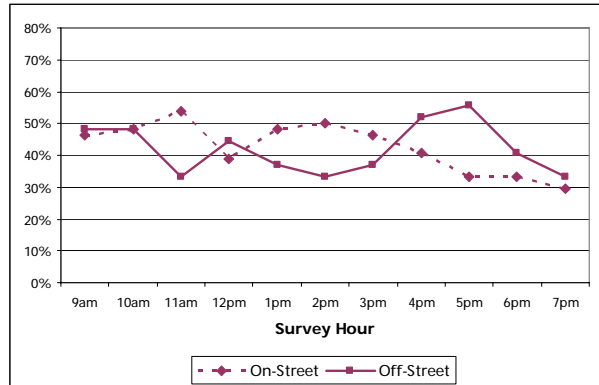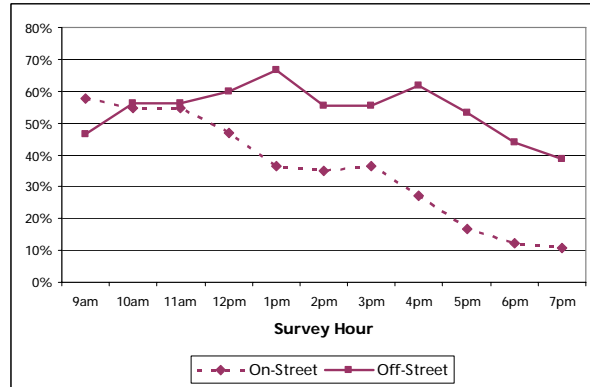

Planning Area 2
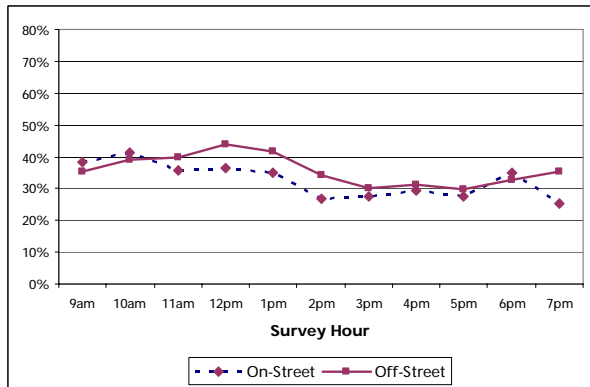
Planning Area 3
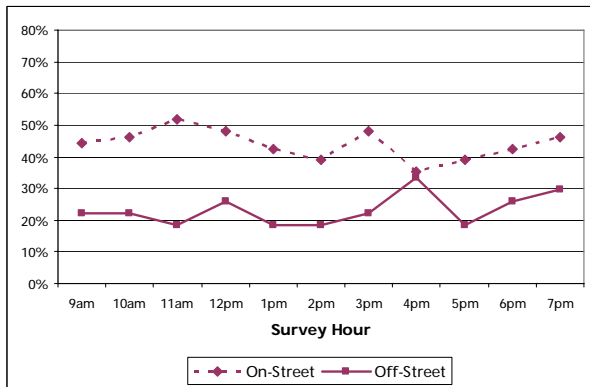
Planning Area 4

Results of Spring Occupancy Counts

The current level of on-street and off-street parking capacity satisfies the demand in the spring. On average for the combined planning areas, occupancy only reaches 47 percent of capacity on weekdays and 38 percent of capacity on weekends. Peak hour demand is at about half its capacity, with 55 percent occupancy on weekdays and 43 percent on weekends.

While there is enough capacity to meet demand, a block by block analysis shows that some blocks did reach full capacity at times. These blocks usually filled-up around mid-day hours. However, there were parking spaces available nearby, mostly within one block. Map 2 and Map 3 are color-coded to display the varying levels of peak demand by block for weekdays and weekends, respectively. Both maps show blocks with over 90 percent peak-hour occupancy in red, while blocks with occupancy between 75 and 90 percent are displayed in dark orange. The maps also show blocks with available parking. Blocks with occupancy between 50 and 75 percent are shown in light orange; and, blocks with occupancy under 50 percent are shown in yellow.

Planning Area Analysis

As shown on the maps, each block face within an area was assigned a unique ID number. Parking data is organized into on-street and off-street designations for each of the four planning areas. The first number indicates the planning area, followed by either a number (on-street), or letter (off-street). For example, 1.1 and 1.A respectively indicates an on-street block face in Planning Area 1, and an off-street parking area in Planning Area 1. Reserved parking areas, which are typically off-street and reserved for either tenants or employees, are designated with an "R." For example – 1.RA is a reserved parking lot. While the maps show occupancy rates for all blocks, the following analysis focuses on large blocks with more than ten spaces. Only larger blocks were included in the analysis because smaller blocks can reach full capacity simply due to its low capacity rather than demand.

Planning Area 1 – 137 Parking Spaces

PA 1 had an abundance of available capacity on both the weekday and the weekend. Over both days, the area was never more than 47 percent full; however, weekday off-street parking reached a peak of 51 percent at 11 a.m.

Weekday: The only individual block with significant demand at its peak hour was the Cardiff Executive Center (Block 1.D). The Cardiff Executive Center, with 29 spaces, saw significant demand during the weekday survey, and hardly any over the weekend.

Weekend: There were no blocks with higher than 75% occupancy rates.

Planning Area 2 – 352 Parking Spaces

PA 2 had higher occupancy rates than the other planning areas, but still did not approach full capacity overall.

Weekday: The weekday was busier, with the peak hour reaching 73 percent of capacity. Off-street occupancy was at 77 percent at noon on the weekday. Blocks with noteworthy activity were the Cardiff Towne Centre (Block 2.A), the Library (Block 2.G), and the street on the east side of Cardiff Towne Centre along Newcastle Avenue (Block 2.3). The street along San Elijo Avenue adjacent to the Cardiff Towne Centre had no cars parked along it for the entire day. Parking also was available on the west side of San Elijo Avenue throughout the day.

Weekend: While not as busy as the weekday, PA2 saw the highest occupancy over the weekend with 58 percent. The same three blocks (2.A, 2.G, and 2.3) and the street along Liverpool Drive adjacent to the Cardiff Towne Centre (Block 2.2) had occupancy rates over 75 percent, with the nearby street parking having available spaces.

Planning Area 3 – 408 Parking Spaces

PA 3 was 43 percent full during the week, and 35 percent full on the weekend. The Headline Graphics parking lot with 41 parking spaces was never more than 50 percent full. The street parking along Aberdeen Drive adjacent to the Cardiff-by-the-Sea Shopping Center and along San Elijo Avenue had available capacity during the times the Center was at or near capacity.

Weekday: Weekday on-street parking experienced the highest occupancy rate with 56 percent at 11 a.m. Blocks with notable demand were the Cardiff-by-the-Sea Shopping Center (Block 3.E), the Cardiff Design Center (Block 3.C), the two lots along Newcastle Avenue between Aberdeen Drive and Liverpool Drive (Blocks 3.G and 3.N), and the street along Aberdeen Drive adjacent to the Cardiff-by-the-Sea Shopping Center (Block 3.6).

Weekend: Busy areas were the parking lots near Pipes Café (3.B, 3.C, and 3.D) and the Cardiff-by-the-Sea Shopping Center (Block 3.E), and the street along Aberdeen Drive adjacent to the Cardiff-by-the-Sea Shopping Center (Block 3.6).

Planning Area 4 – 81 Parking Spaces

Two-thirds (54 spaces) of all parking in this area is along the street. PA 4 saw a high of 48 percent occupancy in the morning during the week. PA 4 experienced the highest level of off-street parking demand at 56 percent occupancy on the weekday at 5 p.m.

Map 2
Spring Weekday Peak Hour Activity
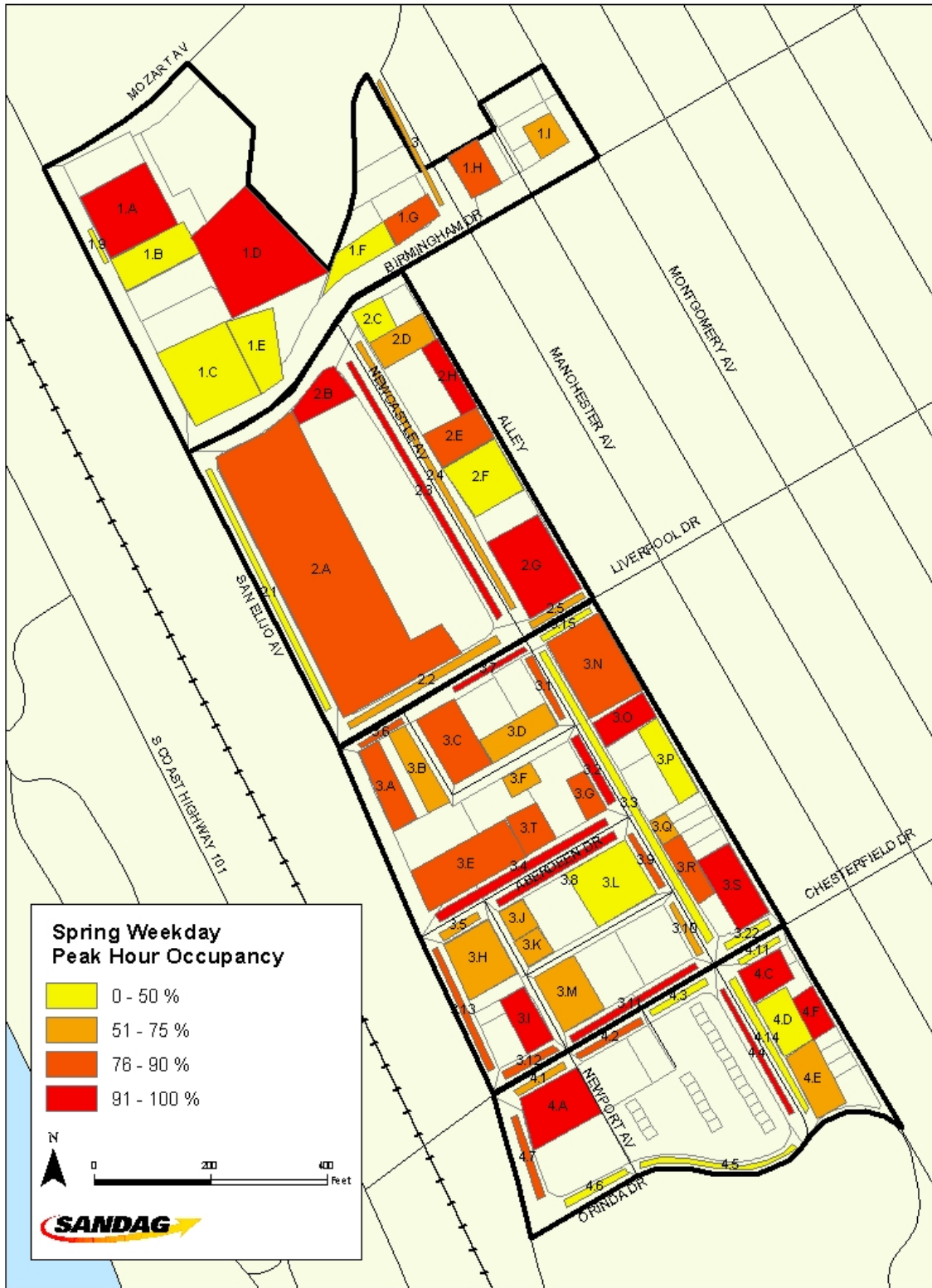
**Map 3
Spring Weekend Peak Hour Activity**
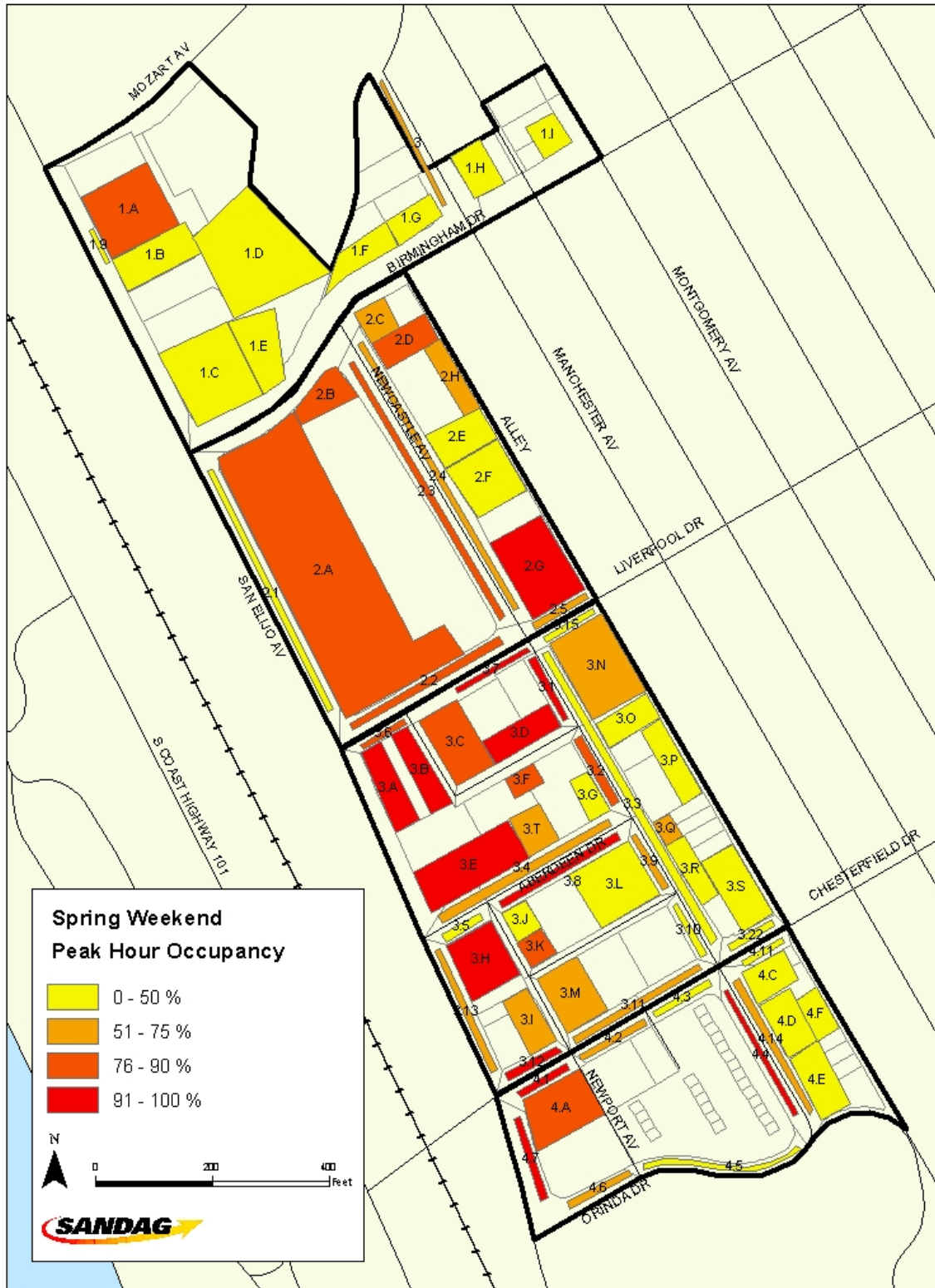
SUMMER OCCUPANCY COUNTS

The summer occupancy counts were conducted on Thursday July 21st and Saturday July 23rd, 2005. The following information summarizes the results for both weekday and weekend counts and includes an analysis of the results. Occupancy count results are discussed below for the Cardiff Business District as a whole and for each individual planning area. More detailed occupancy count data by planning area can be found in Appendix B.

At no time during the parking space occupancy counts was the study area or any of the four planning areas without adequate parking. The highest occupancy rates were in Planning Area 2 where peak hour occupancy rates reached 59 percent on the weekday and Planning Area 4 with 67 percent during the weekend count. Some individual blocks reached 100 percent occupancy for short periods of time, but additional parking was available nearby.

Weekday Occupancy Rates

As shown in Table 5, the average weekday parking space occupancy rate in all planning areas combined was 47 percent, ranging from a low of 32 percent in PA 1 to a high of 56 percent in the PA 2 area. Overall, occupancy within the study area was highest around noon, with the evenings having similar rates as the mornings. Average off-street occupancy rates are higher than on-street in PA 1 and PA 2, but lower in PA 3 and PA 4. Appendix A shows the hourly occupancy rates along with the actual counts. Although parking spaces on some individual block faces were 100 percent occupied at certain times, the highest peak hour occupancy rate for any of the planning areas is 59 percent (PA 2 at 6 p.m.).

Table 5
Average Weekday Occupancy Rates by Planning Area (Summer 2005)
Cardiff Business District

Planning Area	Total Spaces	Average Occupancy Rate	Peak Hour Occupancy Rate	Peak Hour
PA 1	**137**	**32%**	**45%**	**noon**
On-Street	18	26%	39%	4 p.m.
Off-Street	119	33%	47%	noon
PA 2	**352**	**56%**	**59%**	**6 p.m.**
On-Street	66	45%	55%	noon
Off-Street	286	58%	64%	6 p.m.
PA 3	**408**	**45%**	**53%**	**noon**
On-Street	123	46%	59%	11 a.m.
Off-Street	285	45%	53%	2 p.m.
PA 4	**81**	**39%**	**47%**	**noon**
On-Street	54	41%	56%	noon
Off-Street	27	33%	41%	10 a.m.
Total, All Areas	**978**	**47%**	**53%**	**noon**
On-Street	261	43%	52%	11 a.m.
Off-Street	717	48%	54%	noon

On-Street Parking vs. Off-Street Parking

Off-street and on-street occupancy rates vary by planning areas. As seen in Table 5 above and in Figure 7 below, off-street parking occupancy rates exceed on-street rates in PA 1 and PA 2. On-street occupancy rates are higher than off-street rates in PA 3 and PA4. None of the planning areas have an on-street occupancy rate above 59 percent, although some of the individual blocks have numbers approaching 100 percent. Many of the individual on-street blocks have small capacities (less than 10) that are full during parts of the day, but in each case there are adjacent blocks that have empty spots. Cardiff Towne Centre averaged a 63 percent occupancy rate throughout the day, with a high of 74 percent and a low of 53 percent.

Figure 7
Hourly Weekday Occupancy Rate On- and Off- Street (Summer 2005)
Cardiff Business District

Planning Area Evaluation

Additional figures were created to compare the planning areas to one another. Figure 8 displays the hourly occupancy rates for each of the four planning areas. Note that PA 2 has the highest occupancy, while the other three are all mostly below 50 percent. Figure 9 shows the on-street and off-street occupancy rates across the day for the four planning areas. As already mentioned, off- and on-street occupancy rates vary, with higher off-street rates in PA1 and PA2 and higher on-street rates in PA 3 and PA 4.

Figure 8
Hourly Weekday Occupancy Rate by Planning Area (Summer 2005)
Cardiff Business District

Figure 9
Hourly Weekday Occupancy Rate On- and Off- Street (Summer 2005)
By Individual Planning Area, Cardiff Business District
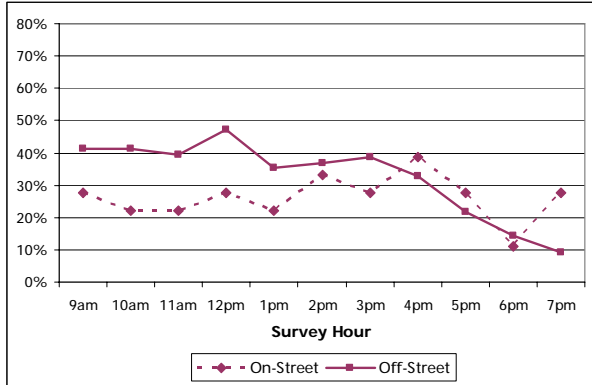
Planning Area 1
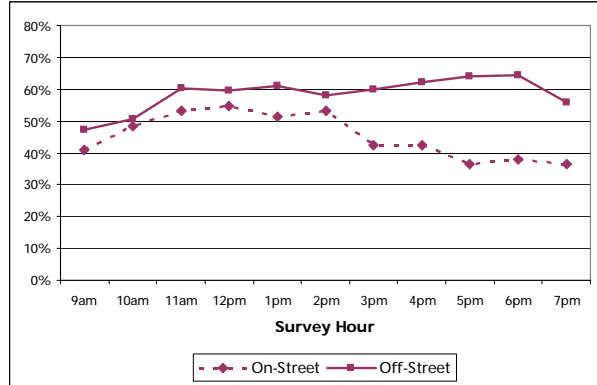
Planning Area 2

Planning Area 3

Planning Area 4

Weekend Occupancy Rates

As shown in Table 6, the average weekend parking space occupancy rate in all planning areas combined was 41 percent, ranging from a low of 12 percent in PA 1 to a high of 55 percent in the PA 2. Appendix A shows the hourly occupancy rates, with the actual counts. Although parking spaces on some individual block faces were 100 percent occupied at certain times, the highest peak hour occupancy rate in any of the planning areas is 67 percent (PA 4 at 4 p.m.). Occupancy was highest during the midday from 10 a.m. to 1 p.m., with the evening having fewer vehicles than the mornings.

Table 6
Average Weekend Occupancy Rates by Planning Area (Summer 2005)
Cardiff Business District

Planning Area	Total Spaces	Average Occupancy Rate	Peak Hour Occupancy Rate	Peak Hour
PA 1	**137**	**12%**	**15%**	**10 a.m.**
On-Street	18	27%	33%	10 a.m.
Off-Street	119	9%	13%	10 a.m.
PA 2	**352**	**55%**	**63%**	**1 p.m.**
On-Street	66	38%	55%	11 a.m.
Off-Street	286	58%	67%	1 p.m.
PA 3	**408**	**37%**	**47%**	**11 a.m.**
On-Street	123	41%	57%	11 a.m.
Off-Street	285	35%	42%	11 a.m.
PA 4	**81**	**50%**	**67%**	**4 p.m.**
On-Street	54	59%	76%	4 p.m.
Off-Street	27	31%	48%	4 p.m.
Total, All Areas	**978**	**41%**	**45%**	**noon**
On-Street	261	43%	51%	11 a.m.
Off-Street	717	40%	45%	noon

On-Street Parking vs. Off-Street Parking

Weekends have a mix of on-street and off-street parkers. Table 6 and Figure 10 show a higher percentage of off-street parking spaces available than on-street spaces for all of the planning areas except PA 2. However, some of the individual blocks still have parking lot occupancy approaching 100 percent. Cardiff by the Sea Shopping Center, with 42 spaces, averages a 91 percent occupancy rate throughout the day, with a high of 98 percent and a low of 74 percent. The Cardiff Towne Centre parking lot averaged roughly 68 percent throughout the day.

Figure 10
Hourly Weekend Occupancy Rate On- and Off- Street (Summer 2005)
Cardiff Business District
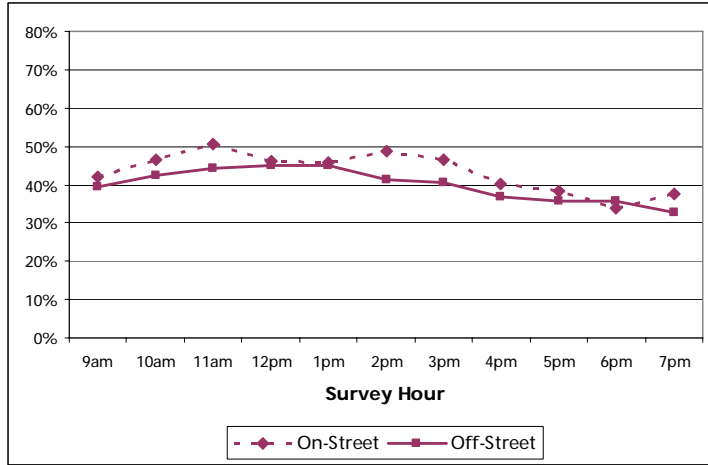
Planning Area Evaluation

Additional figures were created for all the planning areas in order to compare them to one another. Figure 11 displays the hourly occupancy rates for each of the four planning areas. Note that PA 2 and PA 4 tend to have the highest occupancy, while the other two are mostly well below 50 percent. Figure 12 shows the on-street and off-street occupancy rates throughout the day for each of the four planning areas. The planning areas show variation between on- and off-street parking. All of the planning areas, except PA 2, tend to have higher on-street rates.

Figure 11
Hourly Weekend Occupancy Rate by Planning Area (Summer 2005)
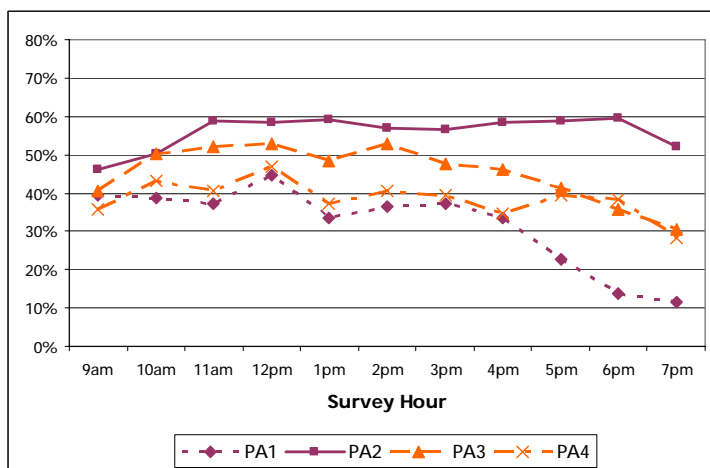**Cardiff Business District**
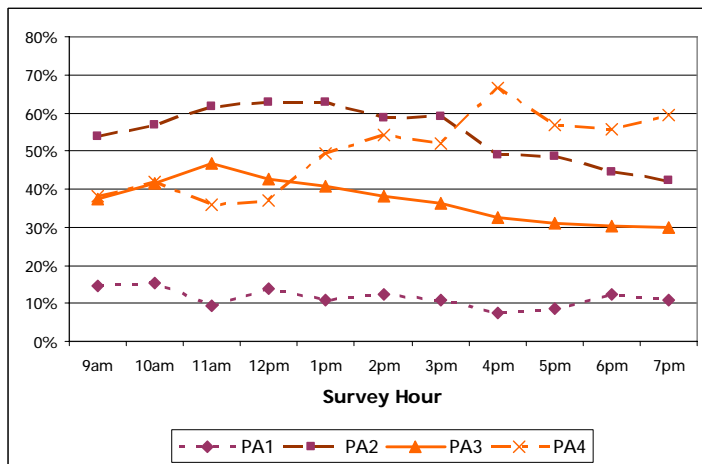
Figure 12
Hourly Weekend Occupancy Rate On- and Off- Street (Summer 2005)
Individual Planning Areas, Cardiff Business District
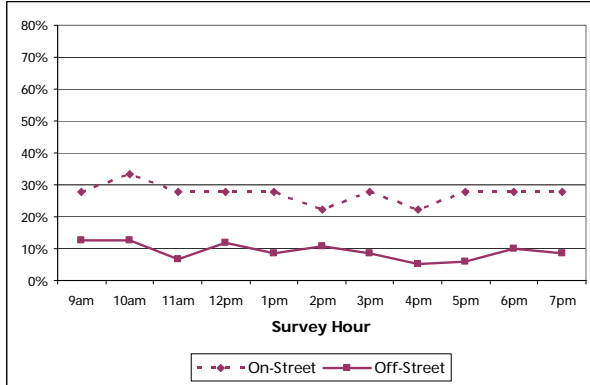
Planning Area 1
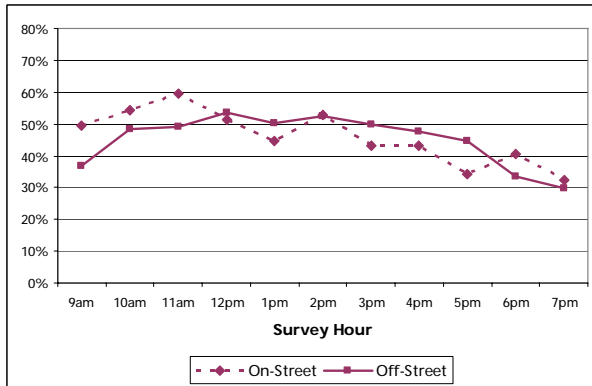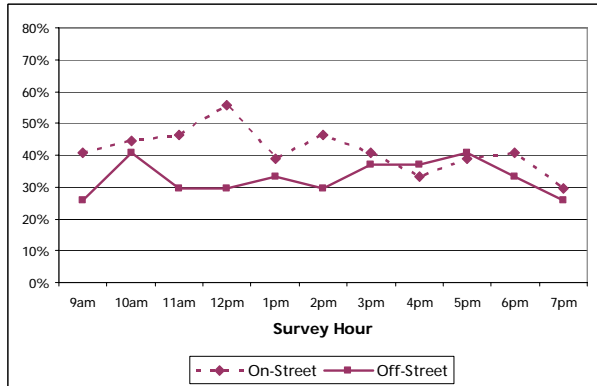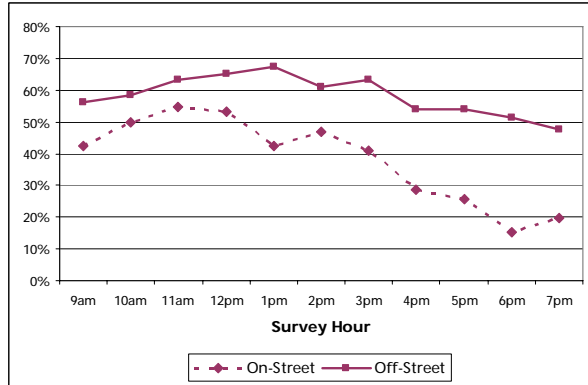

Planning Area 2
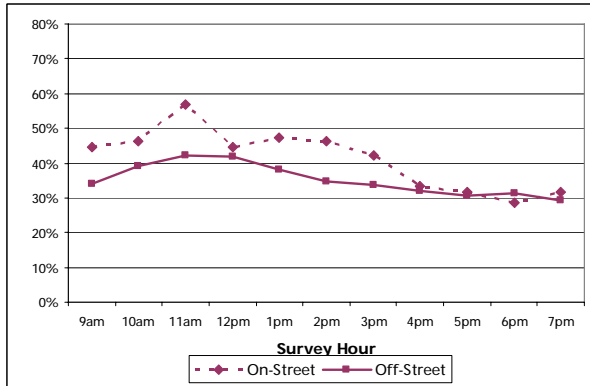
Planning Area 3

Planning Area 4
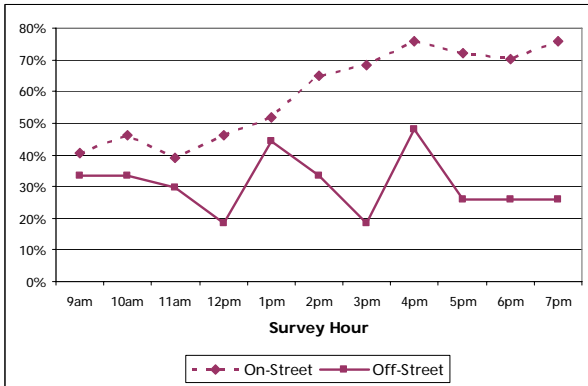
Results of Summer Occupancy Counts

Like the spring, the current level of on-street and off-street parking capacity can accommodate the demand in the summer. In fact, the summer rates do not differ much from the spring rates. On average for the combined planning areas, occupancy only reaches 47 percent of capacity on weekdays and 41 percent of capacity on weekends. Again, peak hour demand is at about half its capacity, with 53 percent occupancy on weekdays and 45 percent on weekends.

A block by block analysis shows that some blocks did reach full capacity at times. These blocks usually filled-up around mid-day hours. However, there were still nearby blocks, mostly within one block, that had available parking spaces. Map 4 and Map 5 display those blocks that have significant activity during the peak hour for weekdays and weekends, respectively. Both maps show blocks with over 90 percent peak-hour occupancy in red, while blocks with occupancy between 75 and 90 percent are displayed in dark orange. The maps also show blocks with available parking. Blocks with occupancy between 50 and 75 percent are shown in light orange; and, blocks with occupancy under 50 percent are shown in yellow.

Planning Area Evaluation

Each block face within an area was assigned a unique ID number. Parking data is organized into on-street and off-street designations for each of the four planning areas. The first number indicates the planning area, followed by either a number (on-street), or letter (off-street). For example, 1.1 and 1.A respectively indicates an on-street block face in planning area 1, and an off-street parking area in planning area 1. Reserved parking areas, which are typically off-street and reserved for either tenants or employees, are designated with an "R." For example – 1.RA is a reserved parking lot. Please refer to Appendix B for planning area maps that display individual blocks and the ID numbers associated with them. While the maps show occupancy rates for all blocks, the following analysis focuses on large blocks with more than ten spaces. Only larger blocks were included in the analysis because smaller blocks can reach full capacity simply due to its low capacity rather than demand.

Planning Area 1 – 137 Parking Spaces

PA 1 had an abundance of available capacity on both the weekday and the weekend. Over both days, the area was never more than 32 percent full; weekday off-street parking reached a peak of 47 percent at noon.

Weekday: No areas with over 75 percent occupancy.

Weekend: No areas with over 75 percent occupancy.

Planning Area 2 – 352 Parking Spaces

PA 2 had higher occupancy rates than the other three planning areas, but still did not approach full capacity overall.

Weekday: The peak hour reached 59 percent of capacity. Off-street occupancy was at 64 percent at 6 p.m. on the weekday. Blocks with significant demand at its peak hour were the Library (Block 2.G), the street along Liverpool Drive adjacent to the Cardiff Towne Centre (Block 2.2), and the street on the east side of Cardiff Towne Centre along Newcastle Avenue (Block 2.3). The street along San Elijo Avenue adjacent to the Cardiff Towne Centre had no cars parked along it for the entire day.

Weekend: Busier than the weekday, PA 2 saw the highest occupancy over the weekend with 63 percent. The same three blocks from the weekday, 2.G, 2.2, and 2.3, as well as the Cardiff Towne Centre (2.A) had occupancy rates over 75 percent, with the nearby on-street parking having available spaces.

Planning Area 3 – 408 Parking Spaces

PA 3 was generally 45 percent full during the week and 37 percent full on the weekend. The Headline Graphics parking lot with 41 parking spaces was never more than 40 percent full. The street parking along Aberdeen Drive adjacent to the Cardiff-by-the-Sea Shopping Center had available capacity during the times the Center was at or near capacity.

Weekday: Weekday on-street parking experienced the highest occupancy rate with 59 percent at 11 a.m. Blocks with notable demand were the Cardiff-by-the-Sea Shopping Center (Block 3.E), the Cardiff Design Center (Block 3.C), and the lot on the southeast corner of Liverpool Drive and Newcastle Avenue (Block 3.N).

Weekend: Busy areas were the Cardiff-by-the-Sea Shopping Center (Block 3.E), the parking lot next to Pipes Café (3.B), and the street along Aberdeen Drive adjacent to the Cardiff-by-the-Sea Shopping Center (Block 3.6). The adjacent on-street parking along Liverpool Drive and Aberdeen Drive had available capacity during the times the lots were busy.

Planning Area 4 – 81 Parking Spaces

With the least amount of parking available among all the planning areas, PA 4 averaged 39 percent occupancy on weekdays, and 50 percent on the weekend. PA 4 experienced the highest level of on-street parking demand at 56 percent occupancy on the weekday at noon and off-street on the weekend at 4 p.m. (76 percent). There were no larger individual blocks with higher than 75% occupancy rates

Map 4
Summer Weekday Peak Hour Activity

Summer Weekday
Peak Hour Occupancy

- 0 - 50 %
- 51 - 75 %
- 76 - 90 %
- 91 - 100 %
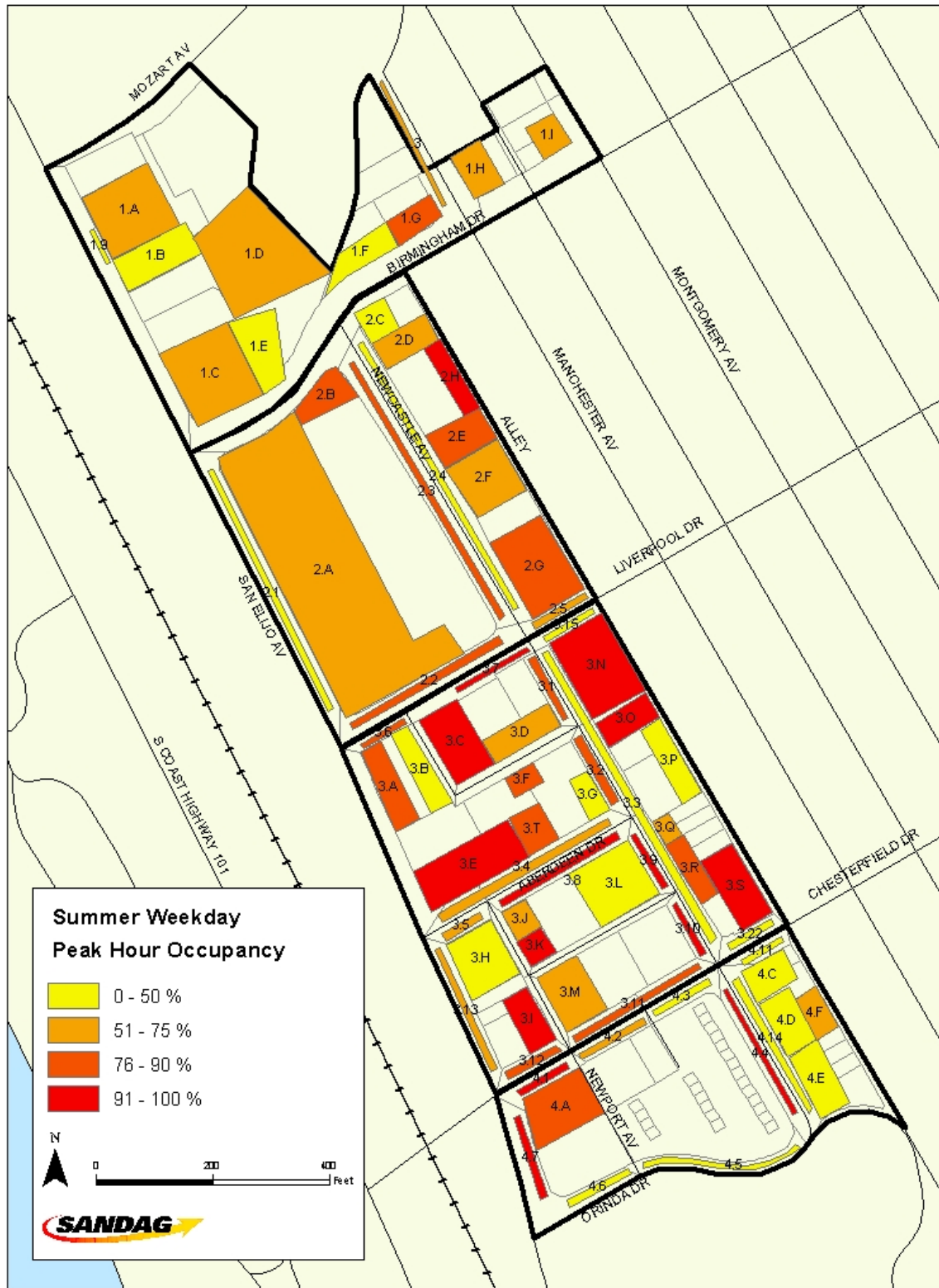
Map 5
Summer Weekend Peak Hour Activity
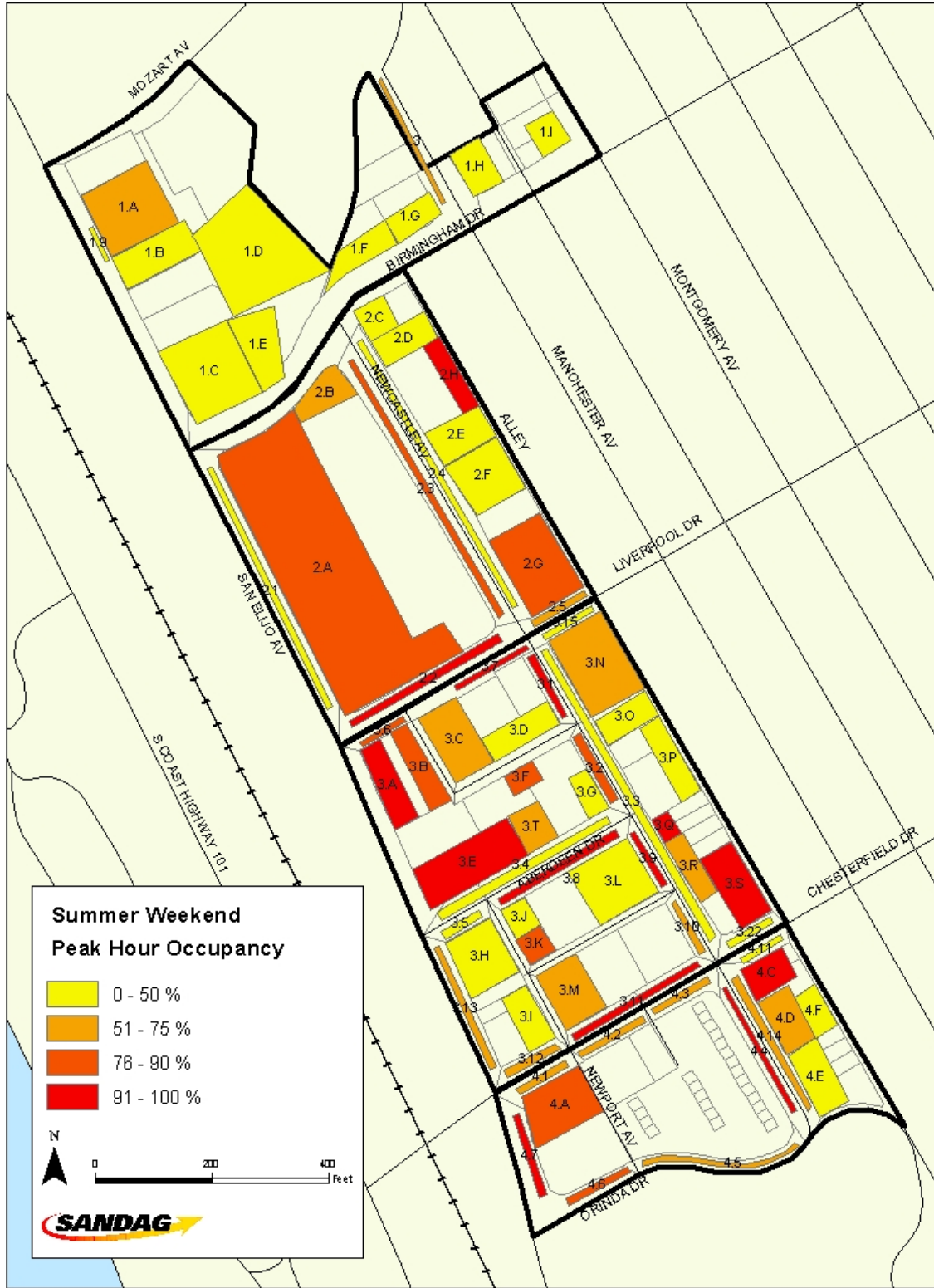
CONCLUSION

The occupancy rates are very similar for the spring and summer counts. On average, weekday occupancy rates are higher than weekend occupancy rates for both seasons. Off-street parking tends to have more demand than on-street parking. Most importantly, the occupancy counts show there is enough parking available in both the spring and summer seasons.

While it was anticipated that summer counts would be much higher than spring counts, that did not turn out to be the case. Weekday rates averaged 47 percent for both spring and summer and weekend rates went from 38 percent in the spring to 41 percent in the summer. Peak hour demand also was very similar between spring and summer. Even during the peak hour, there appears to be much more parking capacity than there is demand, with occupancy at just over 50 percent for both spring and summer.

Of the four planning areas, PA 2 generally had the highest occupancy rates, with 73 percent in the peak hour during the spring (weekday) and 63 percent in the peak hour during the summer (weekend). However, PA 4 had higher numbers in the peak hour for the summer weekend, with 67 percent occupancy. The occupancy data indicates that each planning area has an adequate number of parking spaces in both seasons.

The parking lot and block level occupancy data, however, reveals a possible parking problem, even if only a minor one. As shown in Maps 2 -5, some blocks and parking lots reach over three-fourths capacity at certain times of the day. Although there is available parking on nearby streets, strategies should be created to mitigate this parking inconvenience (please see the Conclusions section at the end of this report).

SURVEY RESULTS

SURVEY RESULTS

In addition to the parking space occupancy counts, the City of Encinitas conducted a survey of persons parking in the Cardiff Business District. The purpose of the survey was to learn about persons parking in the Cardiff Business District. The survey also was used to solicit opinions on various aspects of parking in the study area and to collect suggestions about how to improve perceived parking issues. The results of this survey are based on a very small sample size. Therefore, the survey results should not be assumed to represent all persons parking in the study area. They only represent those responding to the survey, which are likely to be those who regularly park in the study area and those with stronger opinions related to parking conditions in the study area.

METHODOLOGY

The survey was conducted Thursday August 11, 2005. City staff placed the postcard survey forms on the windshields of cars parked both on- and off-street in the study area. The survey instrument consisted of nine questions (shown in Appendix C). The questions were designed to provide information on the respondent's parking purpose and frequency, along with gauging the convenience of parking in the area. The study area was the previously defined area shown in Map 1. Approximately, one thousand forms were distributed and 126 were returned by mail for a 13% response rate. The small sample is not sufficient to make reliable inferences about the entire population of those who park in the Cardiff Business District, but it still provides useful insight.

SUMMARY OF RESULTS

- Survey respondents are more likely to park in Cardiff Business District for practical purposes than recreational purposes. The first question on the survey form asked respondents about the purpose of their trip. Almost half of all respondents (48%) parked in the study area because they worked there. Shopping (19%) was the next most common reason given for parking there. Only four percent parked there to dine and only two percent park there to go to the beach.

- The majority of the respondents (63%) live more than two miles away from the study area. Forty-one percent live more than three miles away and an additional 22 percent live between one and three miles away. Thirty-seven percent live within one mile or less.

- Survey participants were asked about the length of time they park in the study area. One out of two said they park there for more than four hours, which corresponds with the large proportion of respondents parking there for work purposes. The next most common answer was one to two hours with 22 percent.

- The majority of respondents park regularly in the Cardiff Business District. Nine out of ten respondents park there at least once a week, with 63 percent parking there everyday. Less than one percent were parking there for the first time.

The survey also asked a few questions to gauge the convenience or inconvenience of parking in the study area. In general, the responses were split evenly.

- The participants were asked how often they have difficulty finding a parking spot in the parking lot and on the street. Overall, respondents tend to have more difficulty finding a parking spot in the street than in a parking lot – more than a third (35%) had difficulty often or always finding a spot in the street. However, a large percentage of respondents reported never (21%-parking lot, 18%-street) or rarely (25%-parking lot, 24%-street) having difficulty.

- Survey participants are basically split when it comes to the question of parking convenience. Forty-three percent feel parking is convenient or somewhat convenient, while 42 percent feel it is inconvenient or somewhat inconvenient. Fourteen percent remained neutral on the issue.

- While survey participants are split on the issue of parking convenience, they do feel more parking is needed. The greatest proportion of respondents (46%) was in favor of more parking in downtown Cardiff. Twenty-seven percent said no more parking was needed, while 25 percent were not sure.

- The respondents who favor additional parking were asked what solution they would favor to gain more parking spaces. The most popular response was "require more parking from new development" with 27 percent of responses. A "public parking lot" was the next most common solution given. "Parking meters" is the least popular solution with only four percent.

CONCLUSION

Generally, the survey results correspond with the occupancy count analysis – there are enough parking spots to meet demand. A greater proportion of respondents report never or rarely having difficulty finding a parking spot than those that report often or always having difficulty. Since the occupancy counts show constant availability, even if it is the next block over, it is more likely that those reporting difficulty are not getting their parking spot of choice. Similarly, the even divide of respondents on the issue of parking convenience also could be attributed to a desire for prime parking, especially for those parking there for work purposes. Likewise, parking demand is higher on weekdays because a large proportion park there to go to work, which also corresponds with half of them parking there more than four hours and almost two-thirds of them parking there everyday.

FUTURE DEMAND

FUTURE DEMAND

The analysis of future parking demand for the Cardiff Business District was based on forecasted population growth for the catchment area. The ZIP codes generating the most trips into the Cardiff Business District were used to define the catchment area shown in Map 6 (page 51).

METHODOLOGY

As shown in Map 6, the catchment area consists of four ZIP Codes: 92007, 92009, 92024, and 92075. These ZIP Codes account for 76 percent of the respondents in the parking survey. SANDAG used 2020 data from its 2030 Regional Growth Forecast (December 2003) to calculate the projected population growth for the individual ZIP Codes and the catchment area as a whole. Since survey respondents were not distributed evenly among the ZIP Codes, the data was weighted using the percentage of survey respondents in each of the four ZIP Codes divided by the total percentage of survey respondents from the catchment area as the weight. The weight was multiplied by the percentage of population growth between 2004-2020 for each ZIP Code to get weighted population growth. The final weighted population growth reflects the percentage of "parking" population growth to be expected by 2020. (Table 7)

"Parking" Population Growth 2004 to 2020 = $\Sigma((Z_x^s/\Sigma Z_x^s) * Z_x^p)$, where Z_x^s = the percentage of survey respondents residing in ZIP Code x; and Z_x^p = the percentage of population increase between 2004 to 2020 in ZIP Code x.

Table 7
Forecasted "Parking" Population Growth 2004 - 2020
Cardiff Business District Catchment Area

Zip Code	Pop. 2004	Proj. Pop. 2020	2004 -2020 Increase	2004 -2020 Percent Increase	Percent of Survey Resp.	Weight	Weighted Pop. Growth
92007	11,263	11,691	428	4%	40%	53%	2%
92009	52,659	67,107	14,448	27%	6%	8%	2%
92024	51,562	59,264	7,702	15%	25%	33%	5%
92075	12,564	12,719	155	1%	5%	7%	<1%
Total Catchment Area	**128,048**	**150,781**	**22,733**	**18%**	**76%**	**100%**	**9%**

A projected increase in occupancy was calculated using the weighted population growth percentage (9%) and the averaged spring and summer 12 p.m. occupancy count figure for the weekday (531) and the weekend (435). The 12 p.m. peak hour occupancy counts from both the weekday and the weekend were used to create a "worst case scenario." The figures were multiplied by 9 percent to get the projected increase in occupancy.

FUTURE DEMAND FROM POPULATION GROWTH

The Cardiff Business District and its surrounding area are expected to grow within the next fifteen years. The total population of the catchment area is forecasted to increase by 18 percent between 2004 and 2020. As Table 7 demonstrates, the percentage of people residing in the catchment area *and* parking in the Cardiff Business District is projected to grow by nine percent between 2004 and 2020. Parking demand is growing less than overall population in the catchment area because the ZIP Code that provides the most parkers (92007) is growing less than the others. (Please see methodology.)

As shown in Figure 13, the 2020 projected occupancy rates, which are based on current inventory, are higher than the current occupancy rates for both the weekday and weekend, but there is still enough capacity to fill demand. The weekday projected occupancy rates increased from 54 percent (531 occupied spaces) to 59 percent (580 occupied spaces), while the weekend projected occupancy rates increased from 45 percent (435 occupied spaces) to 49 percent (475 occupied spaces).

Figure 13
Population Growth Projected: 12 p.m. Occupancy Rates 2005-2020
Cardiff Business District
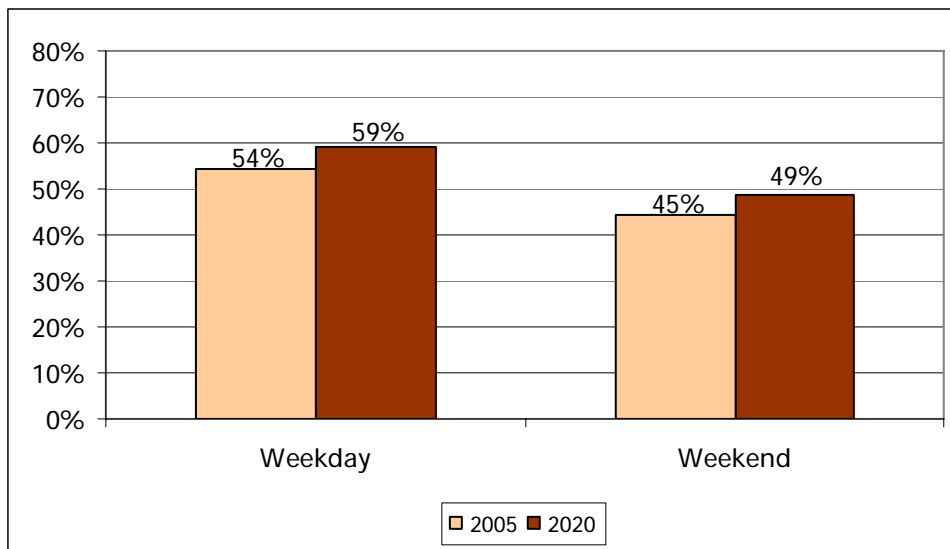
Map 6
Cardiff Business District Catchment Area
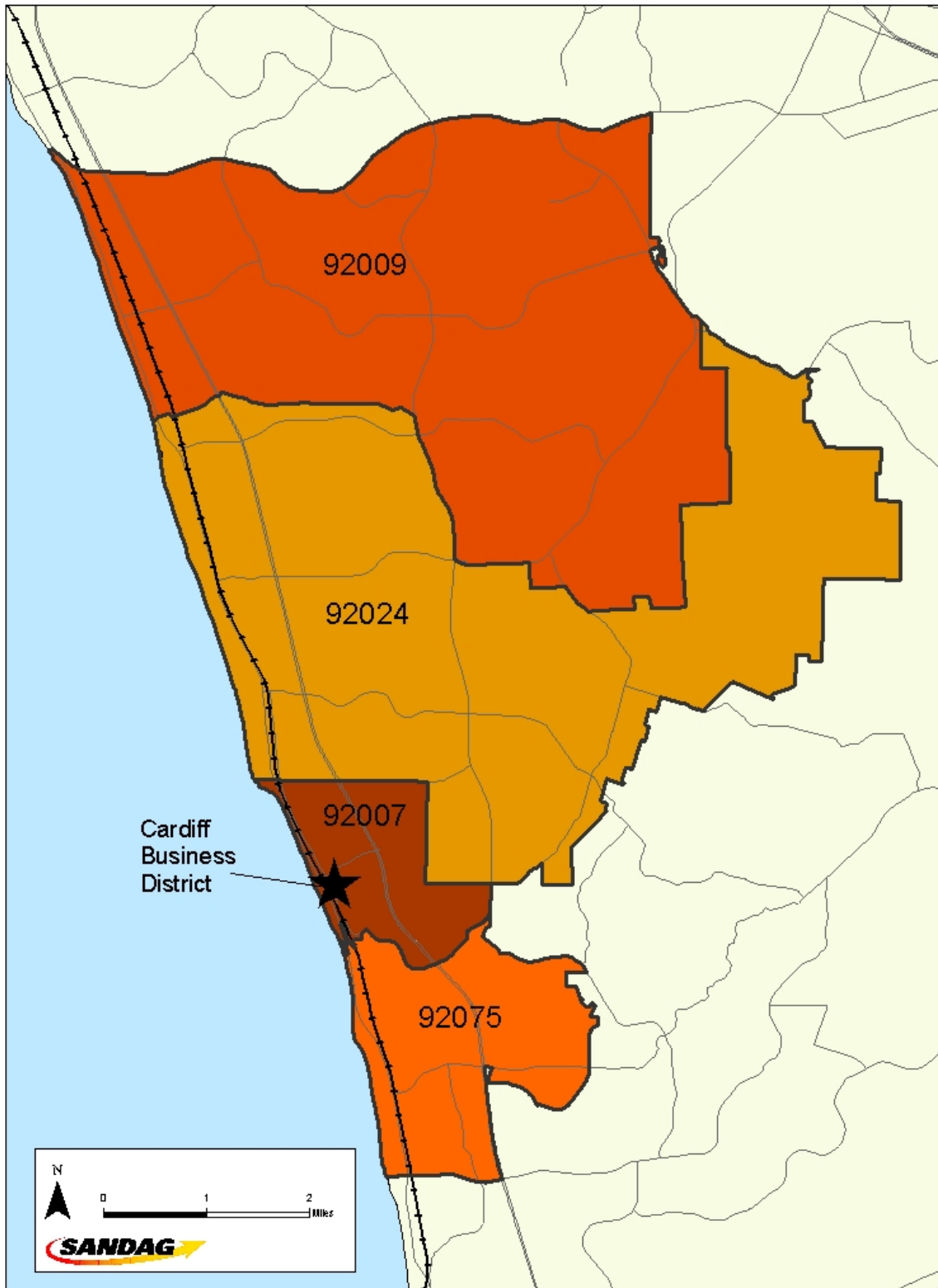
Planning Area Evaluation

Future occupancy rates also were calculated for each of the planning areas using the weighted population growth rate (9%) and the average spring and summer 12 p.m. occupancy counts.

Like the study area as a whole, the parking demand for each planning area is expected to increase slightly. Figures 14 – 17 illustrate the expected increase in occupancy between 2005 and 2020. Even with the projected demand, PA1 and PA4 are not expected to have occupancy rates above 50 percent for either the weekday or weekend. Forecasted occupancy in PA3 is likely to reach 57 percent on the weekday and 46 percent on the weekend. PA2 2020 occupancy rates may reach 72 percent on the weekday and 66 percent on the weekend. All of the planning areas currently have enough capacity to fill future demand.

Future parking deficiencies are likely to occur at the block and individual parking lot level. The red and dark orange blocks and parking lots shown in Maps 2 – 4 are already at 75 percent occupancy or greater. Even a slight increase in demand will affect parking convenience in those areas. However, all of those high occupancy blocks and parking lots are near blocks and parking lots with room to absorb the projected increase in occupancy.

**Figure 14
Population Growth Projected: 12 p.m. Occupancy Rates 2005-2020
Planning Area 1**
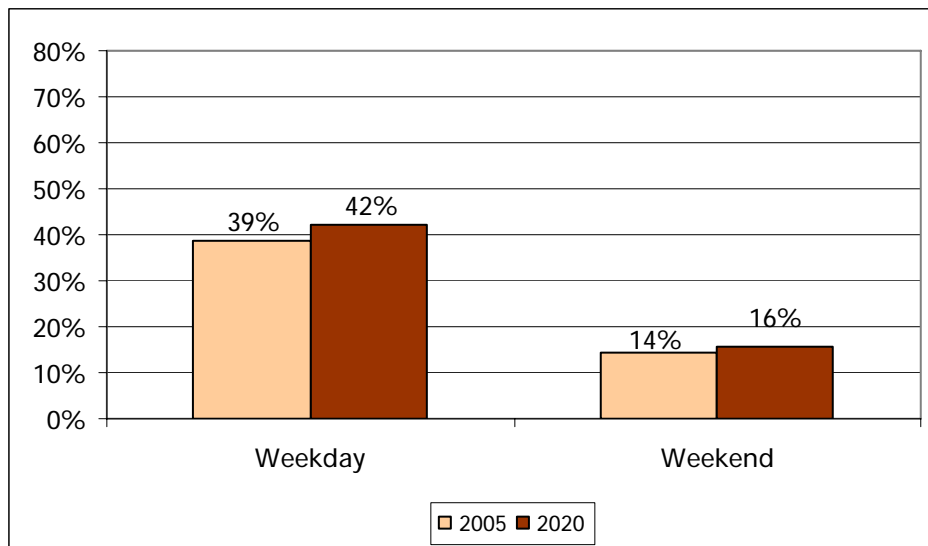
Figure 15
Population Growth Projected: 12 p.m. Occupancy Rates 2005-2020
Planning Area 2
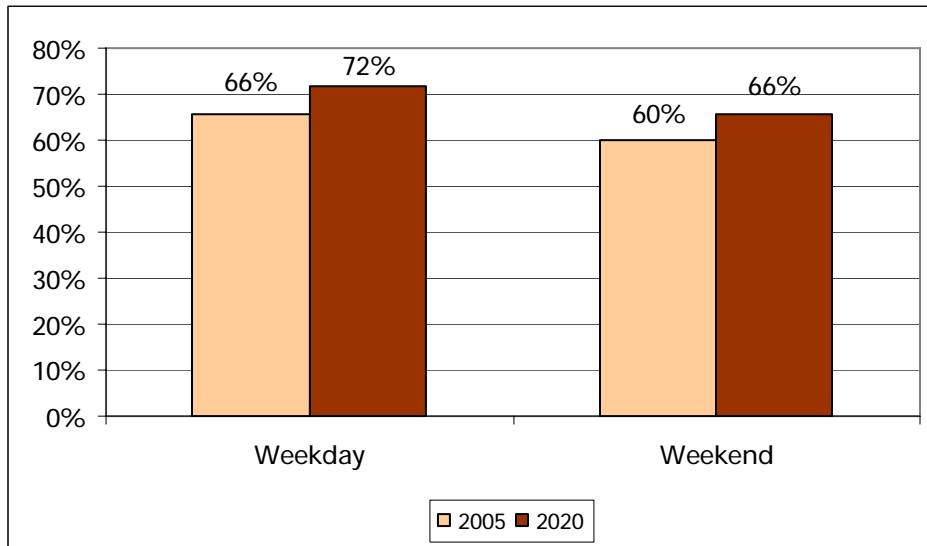
Figure 16
Population Growth Projected: 12 p.m. Occupancy Rates 2005-2020
Planning Area 3
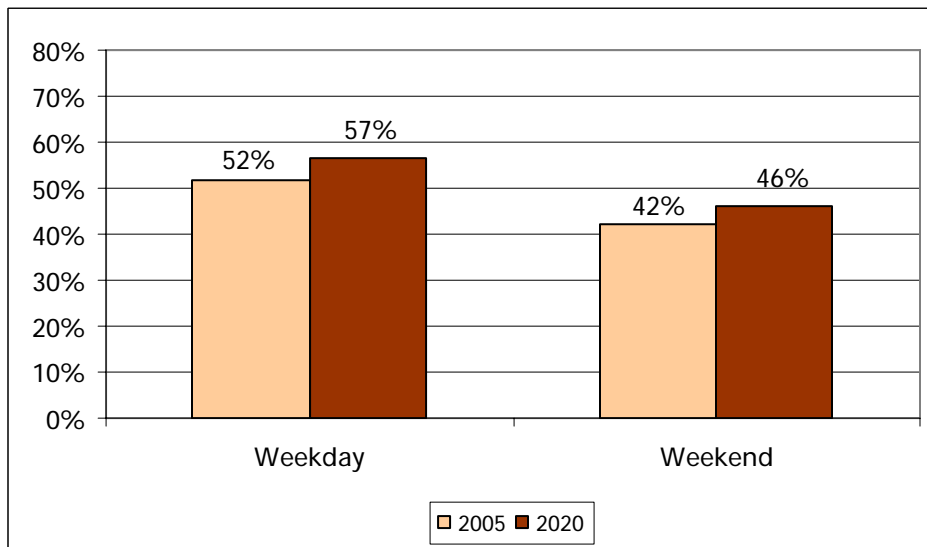
Figure 17
Population Growth Projected: 12 p.m. Occupancy Rates 2005-2020
Planning Area 4
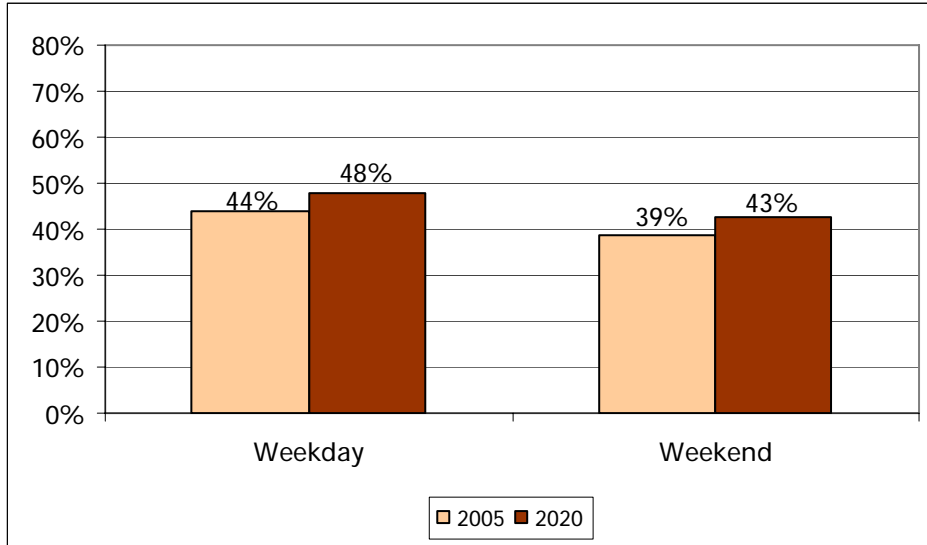
CONCLUSION

The Cardiff Business District and its surrounding area are growing, but, based on this analysis, it will not greatly affect parking demand for the study area as a whole. The existing parking capacity will be able to absorb the projected increase in parking occupancy at that level. However, certain blocks and parking lots will be affected by the increased demand. As a result, people may need to park further from their destinations. Future parking strategies should focus on mitigating this inconvenience.

CONCLUSIONS

CONCLUSIONS

The results of the 2005 Cardiff Business District Parking Study reveal no major parking issues. The inventory and occupancy counts indicate that there are more than enough parking spaces for the study area as a whole and for the individual planning areas. Periphery analysis also verified that Cardiff Business District parking is not spilling into the surrounding residential area. The survey results suggest that respondents usually do not have difficulty finding a parking spot; and, if they do have difficulty, it is more likely due to a desire to find a "prime" spot rather than a parking deficiency. Additionally, there are currently enough spaces to absorb projected future parking demand from population growth.

While the results of the study are generally positive, it is essential to point out where possible parking deficiencies could arise. The survey results and the parking lot and on-street block occupancy counts suggest that people may have difficulty finding their parking spot of choice at times. As Maps 2 – 5 point out, some of the parking lots and blocks reach over 90 percent occupancy. Occupancy needs to be less than 90 percent in order for there to be an easy flow in and out of a parking lot. However, in every case where occupancy rates reach 90 percent, there are parking lots or streets nearby that have available capacity. In order to reduce parking inconveniences, strategies should be created to assist parkers in finding available parking spaces. Additionally, pedestrian friendly facilities, like sidewalks, could be improved where needed to make the walk between the parking space and the destination more pleasant and safer.

SUGGESTED STRATEGIES

Four suggested strategies to reduce parking inconveniences include[3]:

- Employ signage to direct people to available parking;

- Implement shared parking to efficiently increase parking capacity;

- Explore the feasibility of public parking in the Coaster right-of-way with North Country Transit District (NCTD); and,

- Conduct regularly scheduled occupancy counts.

Employ Signage

All of the components of the study show there is enough parking for the Cardiff Business District, but there may be difficulty finding parking in some of the parking lots and on certain blocks.

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[3] Please note these strategies are offered for consideration and should not be construed as policy recommendations.

Therefore, the issue is not creating more spaces but directing vehicles to the available parking spaces. Employing signs to direct people to additional parking areas would reduce this inconvenience.

Cardiff by the Sea Shopping Center

Maps 2- 5 show the areas that could benefit from signage pointing out the locations of additional parking. One possible beneficiary of signage is the Cardiff by the Sea Shopping Center (Block 3.E). That parking lot is close to full capacity in all four maps. There are several nearby parking lots that could absorb the overflow. Additional parking areas shown in yellow on Maps 2-5 should be explored as possible overflow parking lots for Cardiff by the Sea Shopping Center and other full capacity lots.

Implement Shared Parking Arrangements

Cardiff Business District could benefit from shared parking arrangements. Shared parking arrangements are especially useful in mixed-used areas. They allow different types of businesses, like restaurants and office buildings, to maximize all available parking at peak times. For example, office buildings may need more parking during the day, while restaurants may need more parking in the evenings. Again, Cardiff by the Sea Shopping Center, along with Pipe's Café, could possibly benefit from a shared parking arrangement with other nearby businesses. Headline Graphics (Block 3.L) is one nearby business that has occupancy less than 50 percent. Shared parking arrange-ments should be explored for these and

Headline Graphics Parking Lot

other businesses in the District.

Explore Coaster Right-of-Way Space

As parking demand grows, another possible strategy is to take advantage of the space on the west side of San Elijo Avenue. Since this space is in the Coaster right-of-way, the City should explore the possibility with North County Transit District (NCTD). Utilizing already available space, like with the shared parking arrangements mentioned on the previous page, is an efficient solution for parking inconveniences.

Conduct Regularly Scheduled Occupancy Counts

Conducting regularly scheduled occupancy counts to track parking demand and predict future demand is another suggested strategy of this study. Since there was no previous occupancy count data, population growth was used to compute future parking demand. While population growth gives insight into future demand, it would be most useful to use both types of data – population growth and occupancy data – to project future demand. Occupancy counts should be collected at regularly scheduled intervals, so that trends can be identified and the impacts of any land use change can be quantified. The counts should be conducted at the same time of the year on good weather days to ensure consistency in the results.

RE-EVALUATE MINIMUM OFF-STREET PARKING REQUIREMENTS

In addition to creating parking deficiency mitigation strategies, one of the goals of this study was to evaluate the parking needs for the Cardiff Business District in reference to the minimum parking requirements. Based on Section 31.54.020K of the Encinitas Municipal Code, the off-street parking requirements can be adjusted to become less restrictive if it is determined that fewer parking spots will meet the current needs.[4]

The results from this study indicate off-street parking requirements may need to be re-evaluated. Table 8 shows the highest occupancy count for each planning area regardless of the time of day. The same highest occupancy rate was assumed for spaces that were not included in the occupancy counts, like reserved parking and parking under construction. The last row of the table shows the difference between the required off-street minimum parking spaces and the actual occupancy. For all of the planning areas, occupancy does not exceed the required minimum. In fact, the highest occupancy does not even come close to reaching the required number of off-street spaces for PA1, PA3, and PA4, which have differences of 195, 382, and 79, respectively. Thus, even though the number of off-street spaces does not meet the required numbers, site-specific occupancy studies

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[4] 30.54.020K. The parking standards identified herein are considered minimum standards for the majority of cases. However, these standards may be adjusted to be either more or less restrictive based on the results of a site-specific parking study through projects processed under a use permit. Any permitted deviations in parking standards shall be subject to on-going review and monitoring. Critical consideration and documentation must be provided before any reduction in parking standards would be authorized for development along or west of Vulcan Avenue. (Ord. 95-04)

may be warranted to ease minimum off-street parking restrictions for sites within the planning areas.

Table 8
Minimum Off-street Requirements and Highest Occupancy by Planning Area
Cardiff Business District

	PA 1	PA 2	PA 3	PA 4	Total
Off-Street Occupancy*	113	221	190	59	607
Off-Street Capacity **	220	286	347	107	960
Off-Street Occupancy Rate	51%	77%	55%	56%	63%
Minimum Required (off-street)	308	276	572	138	1,294
Difference (off-street occupancy	195	55	382	79	687

*Highest occupancy regardless of time of day, day of the week, or season. Assumes the highest occupancy rate for spaces that were not included in the occupancy counts, like reserved parking and parking under construction.

**Includes reserved parking and parking under construction.

APPENDIX A

Spring Weekday
City of Encinitas - Cardiff Parking Study
Occupancy Rates

Planning Area	Total Spaces	Occupied Spaces by Hour of Day										
		9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm
PA 1	**137**	**51**	**61**	**65**	**45**	**51**	**54**	**52**	**46**	**36**	**27**	**25**
On-Street	18	1	6	4	2	5	3	6	4	5	5	6
Off-Street	119	50	55	61	43	46	51	46	42	31	22	19
PA 2	**352**	**151**	**180**	**195**	**256**	**216**	**196**	**208**	**242**	**228**	**205**	**158**
On-Street	66	21	31	39	35	28	26	28	26	26	21	19
Off-Street	286	130	149	156	221	188	170	180	216	202	184	139
PA 3	**408**	**169**	**193**	**220**	**207**	**215**	**182**	**167**	**159**	**166**	**133**	**127**
On-Street	123	54	65	69	60	59	54	50	43	41	36	32
Off-Street	285	115	128	151	147	156	128	117	116	125	97	95
PA 4	**81**	**38**	**39**	**38**	**33**	**36**	**36**	**35**	**36**	**33**	**29**	**25**
On-Street	54	25	26	29	21	26	27	25	22	18	18	16
Off-Street	27	13	13	9	12	10	9	10	14	15	11	9
Total, All Areas	**978**	**409**	**473**	**518**	**541**	**518**	**468**	**462**	**483**	**463**	**394**	**335**
On-Street	261	101	128	141	118	118	110	109	95	90	80	73
Off-Street	717	308	345	377	423	400	358	353	388	373	314	262

Planning Area	Total Spaces	Percent Occupied by Hour of Day										
		9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm
PA 1	**137**	**37%**	**45%**	**47%**	**33%**	**37%**	**39%**	**38%**	**34%**	**26%**	**20%**	**18%**
On-Street	18	6%	33%	22%	11%	28%	17%	33%	22%	28%	28%	33%
Off-Street	119	42%	46%	51%	36%	39%	43%	39%	35%	26%	18%	16%
PA 2	**352**	**43%**	**51%**	**55%**	**73%**	**61%**	**56%**	**59%**	**69%**	**65%**	**58%**	**45%**
On-Street	66	32%	47%	59%	53%	42%	39%	42%	39%	39%	32%	29%
Off-Street	286	45%	52%	55%	77%	66%	59%	63%	76%	71%	64%	49%
PA 3	**408**	**41%**	**47%**	**54%**	**51%**	**53%**	**45%**	**41%**	**39%**	**41%**	**33%**	**31%**
On-Street	123	44%	53%	56%	49%	48%	44%	41%	35%	33%	29%	26%
Off-Street	285	40%	45%	53%	52%	55%	45%	41%	41%	44%	34%	33%
PA 4	**81**	**47%**	**48%**	**47%**	**41%**	**44%**	**44%**	**43%**	**44%**	**41%**	**36%**	**31%**
On-Street	54	46%	48%	54%	39%	48%	50%	46%	41%	33%	33%	30%
Off-Street	27	48%	48%	33%	44%	37%	33%	37%	52%	56%	41%	33%
Total, All Areas	**978**	**42%**	**48%**	**53%**	**55%**	**53%**	**48%**	**47%**	**49%**	**47%**	**40%**	**34%**
On-Street	261	39%	49%	54%	45%	45%	42%	42%	36%	34%	31%	28%
Off-Street	717	43%	48%	53%	59%	56%	50%	49%	54%	52%	44%	37%

Yellow indicates peak hours
Source: City of Encinitas and SANDAG, Spring 2005

Planning Area		Total Spaces	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm
							Occupied Spaces by Hour of Day						
PA 1		**137**	**20**	**19**	**18**	**20**	**13**	**17**	**16**	**14**	**11**	**14**	**14**
	On-Street	18	6	6	4	2	3	4	4	4	1	3	0
	Off-Street	119	14	13	14	18	10	13	12	10	10	11	14
PA 2		**352**	**171**	**197**	**197**	**202**	**215**	**182**	**183**	**195**	**163**	**134**	**118**
	On-Street	66	38	36	36	31	24	23	24	18	11	8	7
	Off-Street	286	133	161	161	171	191	159	159	177	152	126	111
PA 3		**408**	**148**	**162**	**158**	**170**	**162**	**131**	**120**	**125**	**119**	**136**	**132**
	On-Street	123	47	51	44	45	43	33	34	36	34	43	31
	Off-Street	285	101	111	114	125	119	98	86	89	85	93	101
PA 4		**81**	**30**	**31**	**33**	**33**	**28**	**26**	**32**	**28**	**26**	**30**	**33**
	On-Street	54	24	25	28	26	23	21	26	19	21	23	25
	Off-Street	27	6	6	5	7	5	5	6	9	5	7	8
Total, All Areas		**978**	**369**	**409**	**406**	**425**	**418**	**356**	**351**	**362**	**319**	**314**	**297**
	On-Street	261	115	118	112	104	93	81	88	77	67	77	63
	Off-Street	717	254	291	294	321	325	275	263	285	252	237	234

Planning Area		Total Spaces	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm
							Percent Occupied by Hour of Day						
PA 1		**137**	**15%**	**14%**	**13%**	**15%**	**9%**	**12%**	**12%**	**10%**	**8%**	**10%**	**10%**
	On-Street	18	33%	33%	22%	11%	17%	22%	22%	22%	6%	17%	0%
	Off-Street	119	12%	11%	12%	15%	8%	11%	10%	8%	8%	9%	12%
PA 2		**352**	**49%**	**56%**	**56%**	**57%**	**61%**	**52%**	**52%**	**55%**	**46%**	**38%**	**34%**
	On-Street	66	58%	55%	55%	47%	36%	35%	36%	27%	17%	12%	11%
	Off-Street	286	47%	56%	56%	60%	67%	56%	56%	62%	53%	44%	39%
PA 3		**408**	**36%**	**40%**	**39%**	**42%**	**40%**	**32%**	**29%**	**31%**	**29%**	**33%**	**32%**
	On-Street	123	38%	41%	36%	37%	35%	27%	28%	29%	28%	35%	25%
	Off-Street	285	35%	39%	40%	44%	42%	34%	30%	31%	30%	33%	35%
PA 4		**81**	**37%**	**38%**	**41%**	**41%**	**35%**	**32%**	**40%**	**35%**	**32%**	**37%**	**41%**
	On-Street	54	44%	46%	52%	48%	43%	39%	48%	35%	39%	43%	46%
	Off-Street	27	22%	22%	19%	26%	19%	19%	22%	33%	19%	26%	30%
Total, All Areas		**978**	**38%**	**42%**	**42%**	**43%**	**43%**	**36%**	**36%**	**37%**	**33%**	**32%**	**30%**
	On-Street	261	44%	45%	43%	40%	36%	31%	34%	30%	26%	30%	24%
	Off-Street	717	35%	41%	41%	45%	45%	38%	37%	40%	35%	33%	33%

Yellow indicates peak hours

Summer Weekday
City of Encinitas - Cardiff Parking Study
Occupancy Rates

Planning Area	Total Spaces	Occupied Spaces by Hour of Day										
		9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm
PA 1	**137**	**54**	**53**	**51**	**61**	**46**	**50**	**51**	**46**	**31**	**19**	**16**
On-Street	18	5	4	4	5	4	6	5	7	5	2	5
Off-Street	119	49	49	47	56	42	44	46	39	26	17	11
PA 2	**352**	**162**	**177**	**207**	**206**	**208**	**201**	**199**	**206**	**207**	**209**	**184**
On-Street	66	27	32	35	36	34	35	28	28	24	25	24
Off-Street	286	135	145	172	170	174	166	171	178	183	184	160
PA 3	**408**	**166**	**205**	**213**	**216**	**198**	**215**	**195**	**189**	**169**	**145**	**125**
On-Street	123	61	67	73	63	55	65	53	53	42	50	40
Off-Street	285	105	138	140	153	143	150	142	136	127	95	85
PA 4	**81**	**29**	**35**	**33**	**38**	**30**	**33**	**32**	**28**	**32**	**31**	**23**
On-Street	54	22	24	25	30	21	25	22	18	21	22	16
Off-Street	27	7	11	8	8	9	8	10	10	11	9	7
Total, All Areas	**978**	**411**	**470**	**504**	**521**	**482**	**499**	**477**	**469**	**439**	**404**	**348**
On-Street	261	115	127	137	134	114	131	108	106	92	99	85
Off-Street	717	296	343	367	387	368	368	369	363	347	305	263

Planning Area	Total Spaces	Percent Occupied by Hour of Day										
		9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm
PA 1	**137**	**39%**	**39%**	**37%**	**45%**	**34%**	**36%**	**37%**	**34%**	**23%**	**14%**	**12%**
On-Street	18	28%	22%	22%	28%	22%	33%	28%	39%	28%	11%	28%
Off-Street	119	41%	41%	39%	47%	35%	37%	39%	33%	22%	14%	9%
PA 2	**352**	**46%**	**50%**	**59%**	**59%**	**59%**	**57%**	**57%**	**59%**	**59%**	**59%**	**52%**
On-Street	66	41%	48%	53%	55%	52%	53%	42%	42%	36%	38%	36%
Off-Street	286	47%	51%	60%	59%	61%	58%	60%	62%	64%	64%	56%
PA 3	**408**	**41%**	**50%**	**52%**	**53%**	**49%**	**53%**	**48%**	**46%**	**41%**	**36%**	**31%**
On-Street	123	50%	54%	59%	51%	45%	53%	43%	43%	34%	41%	33%
Off-Street	285	37%	48%	49%	54%	50%	53%	50%	48%	45%	33%	30%
PA 4	**81**	**36%**	**43%**	**41%**	**47%**	**37%**	**41%**	**40%**	**35%**	**40%**	**38%**	**28%**
On-Street	54	41%	44%	46%	56%	39%	46%	41%	33%	39%	41%	30%
Off-Street	27	26%	41%	30%	30%	33%	30%	37%	37%	41%	33%	26%
Total, All Areas	**978**	**42%**	**48%**	**52%**	**53%**	**49%**	**51%**	**49%**	**48%**	**45%**	**41%**	**36%**
On-Street	261	44%	49%	52%	51%	44%	50%	41%	41%	35%	38%	33%
Off-Street	717	41%	48%	51%	54%	51%	51%	51%	51%	48%	43%	37%

Yellow indicates peak hours
Source: City of Encinitas and SANDAG, Summer 2005

63

Summer Weekend
City of Encinitas - Cardiff Parking Study
Occupancy Rates

Planning Area		Total Spaces	Occupied Spaces by Hour of Day										
			9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm
PA 1		**137**	**20**	**21**	**13**	**19**	**15**	**17**	**15**	**10**	**12**	**17**	**15**
	On-Street	18	5	6	5	5	5	4	5	4	5	5	5
	Off-Street	119	15	15	8	14	10	13	10	6	7	12	10
PA 2		**352**	**189**	**200**	**217**	**221**	**221**	**206**	**208**	**173**	**171**	**157**	**149**
	On-Street	66	28	33	36	35	28	31	27	19	17	10	13
	Off-Street	286	161	167	181	186	193	175	181	154	154	147	136
PA 3		**408**	**152**	**169**	**190**	**174**	**167**	**156**	**148**	**132**	**126**	**124**	**122**
	On-Street	123	55	57	70	55	58	57	52	41	39	35	39
	Off-Street	285	97	112	120	119	109	99	96	91	87	89	83
PA 4		**81**	**31**	**34**	**29**	**30**	**40**	**44**	**42**	**54**	**46**	**45**	**48**
	On-Street	54	22	25	21	25	28	35	37	41	39	38	41
	Off-Street	27	9	9	8	5	12	9	5	13	7	7	7
Total, All Areas		**978**	**392**	**424**	**449**	**444**	**443**	**423**	**413**	**369**	**355**	**343**	**334**
	On-Street	261	110	121	132	120	119	127	121	105	100	88	98
	Off-Street	717	282	303	317	324	324	296	292	264	255	255	236

Planning Area		Total Spaces	Percent Occupied by Hour of Day										
			9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm
PA 1		**137**	**15%**	**15%**	**9%**	**14%**	**11%**	**12%**	**11%**	**7%**	**9%**	**12%**	**11%**
	On-Street	18	28%	33%	28%	28%	28%	22%	28%	22%	28%	28%	28%
	Off-Street	119	13%	13%	7%	12%	8%	11%	8%	5%	6%	10%	8%
PA 2		**352**	**54%**	**57%**	**62%**	**63%**	**63%**	**59%**	**59%**	**49%**	**49%**	**45%**	**42%**
	On-Street	66	42%	50%	55%	53%	42%	47%	41%	29%	26%	15%	20%
	Off-Street	286	56%	58%	63%	65%	67%	61%	63%	54%	54%	51%	48%
PA 3		**408**	**37%**	**41%**	**47%**	**43%**	**41%**	**38%**	**36%**	**32%**	**31%**	**30%**	**30%**
	On-Street	123	45%	46%	57%	45%	47%	46%	42%	33%	32%	28%	32%
	Off-Street	285	34%	39%	42%	42%	38%	35%	34%	32%	31%	31%	29%
PA 4		**81**	**38%**	**42%**	**36%**	**37%**	**49%**	**54%**	**52%**	**67%**	**57%**	**56%**	**59%**
	On-Street	54	41%	46%	39%	46%	52%	65%	69%	76%	72%	70%	76%
	Off-Street	27	33%	33%	30%	19%	44%	33%	19%	48%	26%	26%	26%
Total, All Areas		**978**	**40%**	**43%**	**46%**	**45%**	**45%**	**43%**	**42%**	**38%**	**36%**	**35%**	**34%**
	On-Street	261	42%	46%	51%	46%	46%	49%	46%	40%	38%	34%	38%
	Off-Street	717	39%	42%	44%	45%	45%	41%	41%	37%	36%	36%	33%

Yellow indicates peak hours
Source: City of Encinitas and SANDAG, Summer 2005

APPENDIX B

Planning Area 1
Parking Locations

Specific Plan Boundary

1.1 On-Street ID

1.A Off-Street ID

SANDAG

June 24, 2005

SAN ELIJO AV

MOZART AV

ROSSINI DR

1.A

1.B

1.D

1.C

1.E

1.RA

1.F

1.G

1.H

1.I

1.3

1.9

BIRMINGHAM DR

NEWCASTLE AV

ALLEY

ALLEY

MANCHESTER AV

67

Planning Area 2
Parking Locations

	Specific Plan Boundary
2.1	On-Street ID
2.A	Off-Street ID

SANDAG

June 24, 2005

BIRMINGHAM DR

MONTGOMERY AV

MANCHESTER AV

ALLEY

ALLEY

2.C

2.D

2.H

2.B

2.4

2.E

2.F

2.1

2.3

2.A

2.G

S CO

SAN ELIJO AV

2.5

2.2

NEWCASTLE AV

LIVERPOOL DR

68

Planning Area 3 Parking Locations

Legend:
- Specific Plan Boundary
- 3.1 — On-Street ID
- 3.A — Off-Street ID

SANDAG

June 24, 2005

Street labels: S COAST HIGHWAY 101, SAN ELIJO AV, LIVERPOOL DR, ABERDEEN DR, CHESTERFIELD DR, NEWPORT AV, NEWCASTLE AV, MANCHESTER AV, ALLEY

Off-Street IDs: 3.A, 3.B, 3.C, 3.D, 3.E, 3.F, 3.G, 3.H, 3.I, 3.J, 3.K, 3.L, 3.M, 3.N, 3.O, 3.P, 3.Q, 3.R, 3.S, 3.T, 3.RG, 3.RH, 3.RI

On-Street IDs: 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, 3.13, 3.15, 3.22

69

Planning Area 4
Parking Locations

Specific Plan Boundary

4.1 On-Street ID

4.A Off-Street ID

SANDAG

June 24, 2005

Map labels:
NEWCASTLE AVE
NEWPORT AVE
SAN ELIJO AV
CHESTERFIELD DR
MANCHESTER AV
S COAST HIGHWAY 101
ORINDA DR
ALLEY
NORFOLK DR

On-Street IDs: 4.11, 4.3, 4.2, 4.4, 4.1, 4.14, 4.5, 4.6, 4.7

Off-Street IDs: 4.C, 4.D, 4.F, 4.E, 4.RC, 4.RB, 4.RA, 4.A

70

APPENDIX C
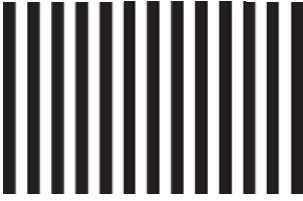
BUSINESS REPLY MAIL

FIRST-CLASS MAIL   PERMIT NO. 43   ENCINITAS, CA

POSTAGE WILL BE PAID BY ADDRESSEE

ATTN Planning and Building Director
CITY OF ENCINITAS
505 South Vulcan Avenue
Encinitas, CA 92024-9523

City of Encinitas Planning and Building Department
Parking Survey for Downtown Cardiff-by-the-Sea

Parking in downtown Cardiff is of critical importance to residents, businesses, and patrons. We are analyzing the downtown parking situation and we need your input.

Please take a moment to answer the following questions, then drop this card off at the Planning Department or in the mail No postage is necessary. Your input will help us determine the possible parking strategies for downtown Cardiff.   THANK YOU!

1. What is the purpose of your trip today?
    ❑   Shopping   ❑   Dining   ❑   Medical/Dental
    ❑   Residence   ❑   Work   ❑   Beach/Campground
    ❑   Other_____

2. What is the zip code of where you live?_____

3. Do you live within? ❑ 1/4 mile ❑ 1 mile ❑ 3 miles ❑ More than 3 miles

4. How long will you be or have you been parked here today?
    ❑   Less than 1 hr   ❑   1-2 hrs   ❑   3-4 hrs   ❑   More than 4 hrs

5. How often do you visit this area?
    ❑   First time   ❑   Occasionally   ❑   Once a week
    ❑   More than once a week   ❑   Everyday

6. How often have you had difficulty finding a parking spot -

    A. In a parking lot?
    ❑   Never   ❑   Rarely   ❑   Sometimes   ❑   Often ❑ Always

    B. On a street?
    ❑   Never   ❑   Rarely   ❑   Sometimes   ❑   Often ❑ Always

7. In general, how convenient is parking in downtown Cardiff ?
    ❑   Inconvenient   ❑   Somewhat inconvenient   ❑   Neutral
    ❑   Somewhat Convenient   ❑   Convenient

8. A. Does downtown Cardiff need more parking? ❑   Yes ❑   No ❑ Not Sure
    B. If yes, what solutions would you favor? (Check all that apply)
    ❑   Require more parking from new development   ❑   Public Parking Lot
    ❑   Encourage shared-use parking   ❑   Parking Structure
    ❑   Time-limited parking   ❑   Parking Meters
    ❑   Other_____
    _____

9. Do you have any additional comments or suggestions? _____
    _____
    _____

Please return this survey as soon as possible. No postage is necessary. THANK YOU!