2550 Hollywood Way,
Suite 303
Burbank, CA 91505

Voice: 818.953.9130
Fax: 818.953.9331
www.walkerparking.com

ATE:	January 5, 2009
TO:	Leigh De Santis
COMPANY:	City of Newport Beach
FROM:	Mark Linsenmayer Steffen Turoff
PROJECT NAME:	City of Newport Beach – Mariner's Mile
PROJECT NUMBER:	37-7990.00
SUBJECT:	Municipal Parking Study – Mariner's Mile

EXECUTIVE SUMMARY

The results of our parking occupancy surveys demonstrate that in the Mariner's Mile study area parking is generally available. Commercial areas in the northeast portion of study area experience significant parking shortages. The areas along the northern end of Mariner's Mile from Tustin Avenue to Newport Boulevard and along Riverside Avenue, including Cliff Drive, experience the highest parking occupancy rates. However, variable rate pricing of parking along Coast Highway and the adjacent public lots, in order to encourage more parking in some low demand areas and discourage parking in high demand areas could lessen some of this impact. In the areas along Riverside Avenue and Cliff Drive increased enforcement of the current time limits will help ensure that those spaces turn over. Reconfiguring the Avon Lot may increase utilization and efficiency throughout the area. Additional areas may also require time limits to help ensure that employees or visitors destined for the commercial areas along Coast Highway do not encroach into the nearby residential areas.

OVERVIEW

The Mariner's Mile study area is the second of a six part overview of parking within Newport Beach's historic commercial districts, as well as the parking system overall. The Mariner's Mile community is located along the Coast Highway from Dover Drive to North Newport Boulevard. The neighborhood is composed of a variety of shops, small businesses, marine-related businesses, automotive dealers and restaurants. Some of the street parking in Mariner's Mile is metered, making the control and management of the area easier than other parts of the city.

The study area includes the commercial areas along the Coast Highway as well as some residential areas that border the study area and are adjacent to Cliff Drive. A map of the study area is shown in Figure 1.

PROJECT ASSUMPTIONS

The purpose of this report is to provide recommendations that will result in the efficient and equitable use of the existing parking supply in Mariner's Mile. Commercial interests in this area are greater than in other parts of Newport Beach; we seek to balance the commercial needs with those of the nearby residents. Our goal is to determine how to use the parking system as effectively as possible in order to provide as many people as appropriate access to Mariner's Mile.

Figure 1: Study Area

Source: Google Earth Pro, Accessed July 1, 2008.

PROJECT METHODOLOGY

Walker relied on data from a number of sources in order to prepare our recommendations. The bulk of our data and information comes from parking inventory and occupancy field surveys conducted in Mariner's Mile by Walker Parking Consultants on June 26 and June 28, 2008 as well as surveys that measured the lengths of stay of vehicles in a specific area.

We note that currently management of the parking in Mariner's Mile is primarily done using parking meters in the commercial area and time limits in portions of the residential areas. From our initial observations, this system has created some inconsistencies in the daily parking supply with the meters pushing employees and longer-term visitors into the adjacent neighborhoods and limited enforcement allowing those vehicles to park beyond the posted limit.

IMPROVING THE EFFICIENCY OF THE EXISTING PARKING SUPPLY

Walker performed the following analysis and developed the recommendations contained in this report based on a combination of our experience with parking in residential and commercial areas as well as discussions with residents of the area, local merchants, and City staff. We then proceeded with the analysis in part considering the following assumptions:

1) The City of Newport Beach and its coastal areas such as Mariner's Mile are a popular visitor and shopping destination within a rapidly growing Southern California region. At the same time the amount of available parking in Mariner's Mile remains relatively constant. As mentioned in our report on Corona del Mar, on a practical level, spatial and financial constraints will almost certainly make it impossible to provide a parking space for every driver who wishes to park in Mariner's Mile for free.

2) "Turning" spaces provides more drivers with access to parking. ("Turning" is the reuse of a vacated space by a new car.) One parking space occupied by a car left all day may serve one employee or long term visitor. In the same eight hour period, eight or more customers are able to park and transact business.

3) Managing parking demand in Mariner's Mile will involve trade-offs. In order for a commercial and residential district to function properly, certain parking user groups must have priority over others. For example, customers are not willing to walk as far as employees to a business and should be provided access to the most convenient spaces. "Turning" spaces, as mentioned above, is most important for visitor spaces.

4) Free parking discourages drivers from using or even evaluating other viable forms of transportation. Free public parking subsidizes single occupancy vehicle driving, tacitly discouraging transit or other alternative modes of transportation, and increasing the need for parking spaces.

BASELINE SUPPLY AND DEMAND

For the purpose of this report, we define *Baseline Supply and Demand* as the conditions that were observed during our inventory and occupancy counts. We do not refer to these counts as "existing conditions" because in many instances, inventories and the demand for parking in an area can change between the time the data is collected and the time the report is completed.

It is also important to note that inventory and occupancy data is a limited sample of actual conditions. For example, the occupancy numbers for the two study days could vary from conditions that may be perceived as typical. These variances could result in higher utilization of the parking supply, or lower utilization. Over the study area as a whole, we assume that small positive and negative variations in specific areas tend to balance out and regress toward an average (mean).

In order to estimate the baseline utilization of the existing parking system, Walker field staff collected inventory and occupancy data on Thursday, June 26 and Saturday, June 28. Counts were completed three times during the day: at 10:00 AM, 1:00 PM, and 7:00 PM. The weather during the counts was sunny and warm. Detailed inventory and occupancy information throughout the study area is included in Appendix A. The time of year, days of the week, and times of day were chosen in order to capture parking demand on a typical busy (though not the busiest) day in the area.

PARKING INVENTORY

Within the Mariner's Mile study area, we counted a total of 2,981 parking spaces: 514 spaces were located on-street, and 2,467 were located in various private and public parking facilities. In addition, there may be some private spaces located in "lots" of fewer than five spaces scattered throughout the commercial core. These spaces are often reserved for private tenants of nearby buildings. We do not consider these areas to be usable parking lots for the general public and therefore have omitted them from this analysis.

Table 1 illustrates the breakdown of parking between on-street and off-street supply. As shown in the table, the on-street parking represents approximately 17% of the total supply, while the off-street parking represents approximately 83% of the total supply.

Table 1: Parking Inventory

	Total Inventory	%Total Supply
On-Street Parking	514	17%
Off-Street Parking	2,467	83%
Total	**2,981**	**100%**

Source: Walker Parking Consultants, 2008

PARKING OCCUPANCY

The overall peak demand was observed at 1:00PM on Thursday when a total of 1,461 parking spaces were occupied (227 cars parked on street and 1,234 cars parked in off-street lots and garages). We will refer to this peak as the *Baseline Peak Demand*.

During the weekend count, the observed on-street daytime demand was generally lower than the weekday count. However, the Saturday evening peak was considerably higher than the weekday evening peak. The peak for Saturday, June 28 occurred at 7:00 PM as the restaurant demand in the area began to peak. At this time, there were 1,295 parking spaces occupied (249 cars parked on-street and 1,046 cars parked in off-street lots and garages). The overall baseline peak demand of 1,461 parking spaces (Thursday at 1:00 PM) is equivalent to roughly 50% of the total Mariner's Mile area supply. Table 2 profiles the occupancy demand during both the weekday and weekend periods.

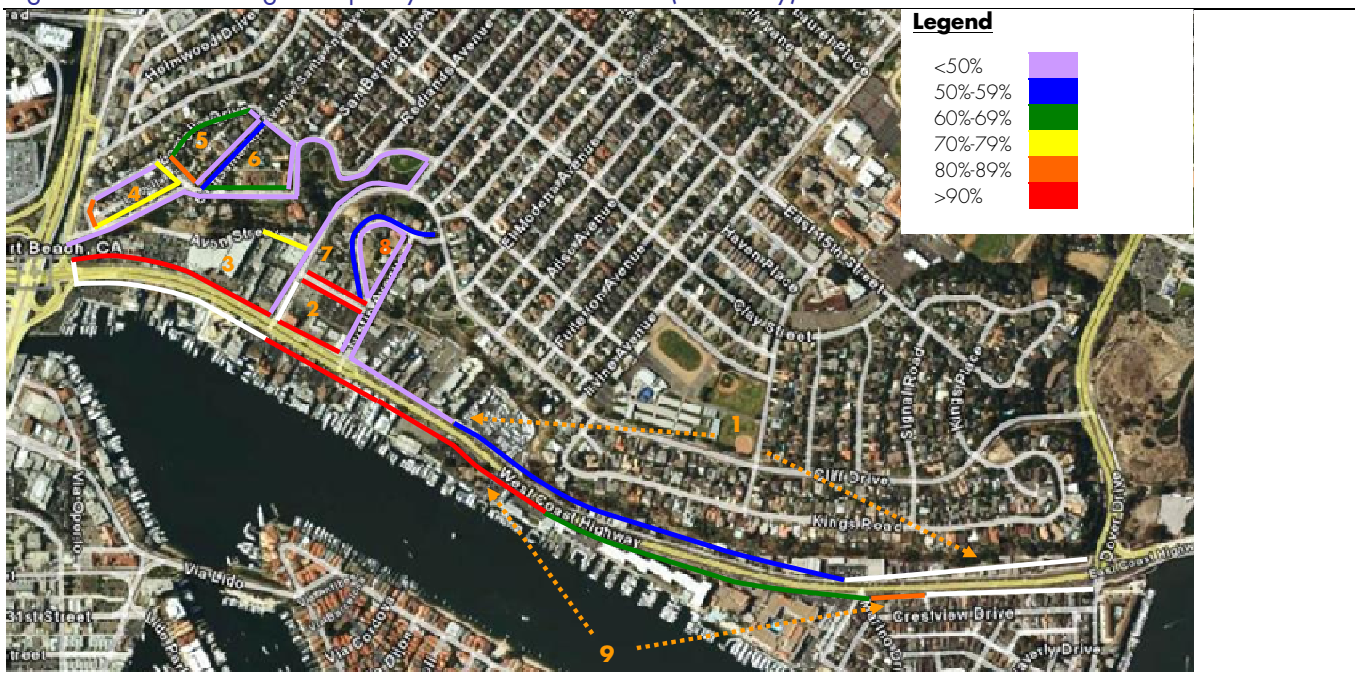
Table 2: Occupancy Summary for Mariner's Mile

		10:00 AM	1:00 PM	7:00 PM
Thursday, June 26				
On-Street Occupancy	514	253	227	257
Off-Street Occupancy	2,467	1,170	1,234	870
Total Occupancy	2,981	1,423	1,461	1,127
% Total Supply		48%	49%	38%
Saturday, June 28				
On-Street Occupancy	514	233	245	249
Off-Street Occupancy	2,467	629	754	1,046
Total Occupancy	2,981	862	999	1,295
% Total Supply		29%	34%	43%

Source: Walker Parking Consultants, 2008

Figure 2 highlights the areas that have impacted on-street parking. This figure illustrates the peak on-street parking demand and highlights the areas that experienced significant parking occupancy during our survey period. Appendix B provides detailed maps that illustrate parking occupancy demand for peak on street, off street and combined (all parking in the area including off-street and on-street) for both weekday and weekend survey periods.

Figure 2: Peak Parking Occupancy Demand – On-Street (Weekday)



Source: Google Earth Pro, Accessed June 2008, Walker Parking Consultants, 2008

UTILIZATION OF SPECIFIC PARKING SUPPLIES

At the peak hours on Thursday and Saturday certain blocks were more heavily utilized than the total occupancies observed for the area as a whole. While some blocks are heavily utilized, the areas with parking meters and strictly enforced time limits appear to have significant turnover. Figure 2 shows a block-by-block breakdown for the baseline occupancies (observed on Thursday and Saturday). The most heavily used block was Block 7 on Thursday, which reached a capacity of 69% at peak (1:00PM) conditions. This is largely the result of high occupancy in the private lots north of Avon Street. However, it appears that on-street parking along Avon Street is also heavily utilized.

We also looked at occupancy on a block-by-block basis. Figure 3 outlines the on-street parking block faces that exceeded the recommended level of 85% during the peak occupancy period on Thursday, June 26.

Figure 3: Occupancy by Block Face – On Street Peak

Source: Google Earth Pro, Accessed June 2008, Walker Parking Consultants, 2008

As illustrated above, there are several blocks that exceed 85% occupancy during the peak hour period. This does not mean there is an overall parking shortage throughout the day, but it does suggest that parking demand is greater than the effective supply in some areas during the peak hour period. However, it should be noted that off-street parking has excess capacity. Appendix D provides greater detail on the block-by-block occupancy and ratios during the weekday and weekend study periods. For comparison, Table 3 highlights occupancy during the weekday and weekend peak demand period in all areas of Mariner's Mile. Parking occupancy was consistently higher during the weekday peak than during the weekend peak indicating that much of the parking demand is generated by the commercial businesses operating in the study area.

Table 3: Peak Occupancy by Block

	Block	Inventory	Occupancies Thursday, June 26, 2008 10:00 AM	1:00 PM	7:00 PM	Occupancies Saturday, June 28, 2008 10:00 AM	1:00 PM	7:00 PM
Off-Street	1	744	340	345	208	198	207	222
	2	234	115	126	40	96	94	46
	3	382	204	200	165	124	137	102
	4	NA	NA	NA	NA	NA	NA	NA
	5	NA	NA	NA	NA	NA	NA	NA
	6	NA	NA	NA	NA	NA	NA	NA
	7	84	61	64	26	33	34	29
	8	NA	NA	NA	NA	NA	NA	NA
	9	1,023	450	499	431	178	282	647
	Sub-Total	**2,467**	**1,170**	**1,234**	**870**	**629**	**754**	**1,046**
On-Street	1	98	36	44	33	41	38	24
	2	32	15	9	27	21	18	30
	3	112	45	30	34	28	39	32
	4	39	10	9	24	11	14	16
	5	47	26	20	25	24	25	26
	6	43	21	15	19	19	20	21
	7	38	29	20	26	23	18	34
	8	34	19	18	16	12	15	18
	9	71	52	62	53	54	58	48
	Sub-Total	514	253	227	257	233	245	249
Combined	1 Total	842	376	389	241	239	245	246
	2 Total	266	130	135	67	117	112	76
	3 Total	494	249	230	199	152	176	134
	4 Total	39	10	9	24	11	14	16
	5 Total	47	26	20	25	24	25	26
	6 Total	43	21	15	19	19	20	21
	7 Total	122	90	84	52	56	52	63
	8 Total	34	19	18	16	12	15	18
	9 Total	1,094	502	561	484	232	340	695
	Grand Total	**2,981**	**1,423**	**1,461**	**1,127**	**862**	**999**	**1,295**

Peak Occupancy Demand Period.

Source: Walker Parking Consultants, 2008

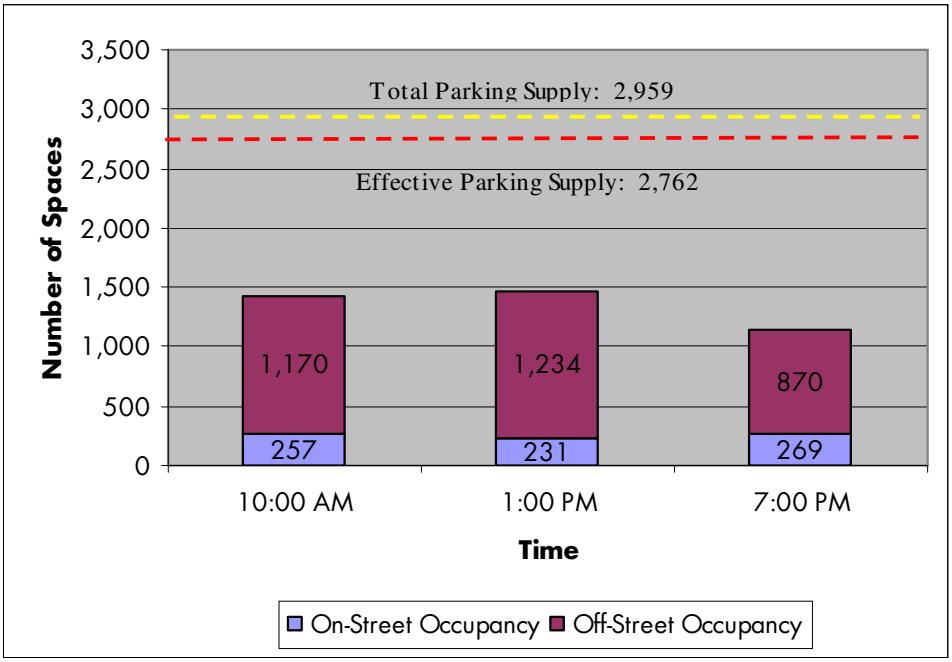
EFFECTIVE PARKING SUPPLY

When discussing the utilization of a parking system, it is important to consider the concept of an effective supply. Effective supply is the maximum number of parking spaces that can realistically be used within a given system. An effective supply cushion helps to protect against the inevitable loss of spaces resulting from temporary disturbances such as construction, mis-parked cars, etc. This cushion also helps to decrease traffic congestion by minimizing the amount of time visitors must spend looking for an empty space.

For on-street parking in a commercial district we generally recommend an effective supply equal to 85% of the total capacity. This allows a sizable cushion of spaces so that traffic does not back up on surface streets (such as on Pacific Coast Highway). Off-street parking requires less of a cushion – generally 90% to 95% of the full supply, depending on the type of facility and the anticipated user group. Smaller cushions are needed for long-term parking, since employees and frequent visitors to the area tend to be familiar with the facilities and their spaces are not subject to frequent turnover. Thus when we evaluate whether the system is currently meeting demand adequately, we do not look for occupancy rates of 100% to determine whether the parking system is impacted. A weighted average of those effective supplies in the Mariner's Mile parking system is approximately 93% of the total supply. As a result of the high number of off-street spaces, this is a slightly higher effective supply percentage than used in Corona del Mar.

Figure 4 illustrates the hourly demand observed on Thursday, June 26 as compared to the total Mariner's Mile supply and total area effective supply.

Figure 4: Peak Parking Demand (Thursday, June 26)



Source: Walker Parking Consultants, 2008

Generally, there is ample available parking along Mariner's Mile. However, there are certain streets that do not have an adequate supply of parking to meet demand (though our survey data indicates there is usually some available parking nearby). Part of the disparity in parking availability could be attributed to simple economic cues. For example, the northern side of Coast Highway has parking meters to control and manage parking availability and turnover. The more impacted areas, along the southern part of Coast Highway, typically do not have any parking restriction or parking management tools. As a result, people are following the economic cues established by the parking meters and are only parking at the meters if other, less expensive, parking is occupied. Thus in a number of cases the more desirable parking is actually cheaper than the less desirable parking, resulting in even more competition for the preferred spaces and a greater incentive for the public to avoid the underutilized spaces.

It is possible that much of the congestion along Coast Highway and along Riverside Avenue could be attributed to area employees that are occupying valuable street parking for extended periods of time. Likewise, the Avon Street lot charges for parking but the nearby residential streets are free, encouraging vehicles to park in the residential areas.

LICENSE PLATE INVENTORY AND TURNOVER ANALYSIS

In many commercial areas including Mariner's Mile, congestion occurs around the core shopping streets while more peripheral parking remains at lower utilization rates. Frequently part of the congestion is caused by employees parking near their business. Except in the residential areas north of Avon Street, customer and visitor parking should be the priority in Mariner's Mile area. However, it is reported that employees are taking many of the more desirable and convenient parking spaces.

To test whether there was some employee parking occurring in the congested part of the study area, Walker staff conducted a length of stay analysis of selected on-street areas north of Avon Street including Riverside Avenue and Cliff Drive. By recording license plate numbers every hour during a weekday, we were able to track how long individual cars stayed in a space. Results from this license plate inventory (LPI) analysis shows a significant number of vehicles were present throughout the day. Additionally, the greatest amount of turnover occurred between 4:00PM and 6:00PM, which further suggests that many of the vehicles belonged to employees. Table 4 outlines the number of vehicles that remained in the study area for various amounts of time during the LPI. Appendix C provides a detailed overview of the LPI data. In the entire service area, the LPI analysis identified 82 unique vehicles parked in the 45 spaces. Most of the turnover occurred along the southern portion of Cliff Drive between Redlands Avenue and San Bernardino Avenue. From this analysis it appears that there are a number of cars parked for extended amounts of time. In fact, in the two-hour spaces along Riverside Avenue between Avon Street and Cliff Drive, one can see from the numbers that 35 of the 45 spaces were occupied virtually all day.

This indicates that enforcement occurring in the area is not discouraging employees from parking for long periods in two-hour spaces. Extended parking on Riverside Avenue may be acceptable; if two-hour limits were enforced it would likely push those vehicles further up Cliff Drive into the residential areas above Sterling BMW and the Post Office.

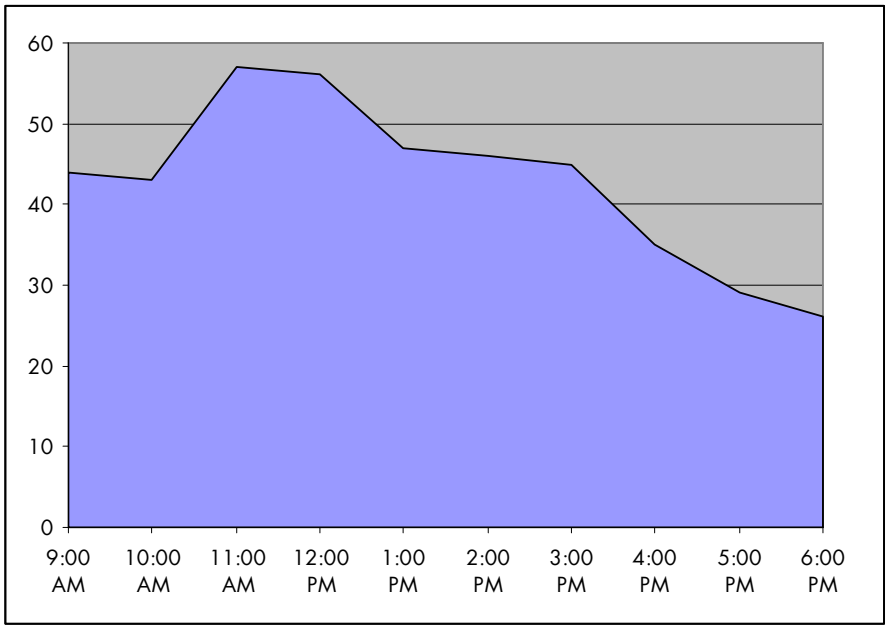
Table 4: License Plate Inventories

Hours	Vehicles
1	12
2	13
3	8
4	7
5	4
6	3
7	10
8	5
9	10
10	10
Total	82

Source: Walker Parking Consultants, 2008

Figure 5 illustrates how the vehicles in the study area moved. It should be noted that the lowest number of vehicles was 26 at 6:00PM, indicating that as many as half of the vehicles parked in this area may be employees.

Figure 5: Vehicle Occupancy during LPI



Source: Walker Parking Consultants, 2008

ADDITIONAL PARKING SUPPLY

An examination of parking occupancy and demand from our survey data indicates that there is not significant demand to justify building additional parking supply in Mariner's Mile to meet observed demand. Parking management techniques, including targeted pricing measures would likely relieve parking imbalances that currently exist. Even if additional parking were built, it is likely that proper parking management measures would need to be put in place to make sure that drivers simply didn't compete for the best spaces while large numbers of other spaces sat empty.

In addition to this point, there is also the cost. Parking is extremely expensive to build, and rarely earns enough income to offset its operating expenses and debt service obligations.

Currently in Southern California we are seeing garage construction costs starting at approximately $18,000 per space depending on façade, geological considerations, and other construction issues. These costs do not include soft costs (another 20%) or land acquisition. Using an estimate of $18,000 per space, a 220-space garage would cost approximately $3.96 million plus an additional estimated $800,000 for soft costs. The annual debt service for a $4.76 million garage would be approximately $405,000 excluding land costs.[1] For a 220-space garage to cover the debt service it would need to generate approximately $7.90/space, 300 days per year, excluding Sundays and Holidays.[2] Again, this assumes a construction cost of $18,000 per space plus $500 per year in operating costs and an estimated 20% for soft costs – a conservative estimate.

AVON LOT

The public lot on the eastern portion of Avon Street provides 125 parking spaces. Approximately 20% of these are reserved for U.S. Postal Service vehicles, leaving approximately 100 spaces available for public use. Of these, 23 spaces on the eastern and western perimeter are not metered and area therefore free. These free spaces fill quickly and typically remain occupied throughout most of the day. Another 16 spaces are City of Newport Beach "Blue Pole" and are also filled throughout the day. This leaves approximately 60 12-hour metered spaces, which are rarely occupied. Appendix E shows how parking is being utilized in the lot during a weekday and weekend day.

Reconfiguring the Avon lot to be more efficient and to help park more vehicles during the peak demand period is critical for this area. There are a number of ways to do this, and consistency in the pricing of the parking spaces seems especially important. Given the parking impacts experienced on nearby streets and lots and the low level of utilization of the metered spaces in this lot, we recommend that the City consider removing pricing from the lot to encourage drivers to park there rather than competing for parking in already impacted areas. A twelve-hour parking limit or prohibition on nighttime parking would likely be needed in order to prevent long term vehicle storage. We understand that the City could potentially experience a loss of revenue as a result of this change in policy, but compared to the value of the spaces, particularly considering that they sit unoccupied the vast majority of the time, we recommend that the first priority is to utilize the resource. Further, raising parking rates along impacted streets such as Coast Highway could manage parking better and make up for this lost revenue. Installing meters in high demand areas such as Avon Street, or expanding the number of meters on Coast Highways should also be considered.

We note that this proposed policy and occupancy rate would need to be evaluated on a regular basis once implemented; should the lot become too full, some more rigorous method of managing the parking, likely a pricing mechanism, may need to be reintroduced in the future. If the meters in the Avon Lot are removed monthly monitoring of the lot to identify occupancy should be conducted. If occupancy rates consistently exceed 90% a pricing mechanism should be re-introduced. The pricing could be modest (25 to 50 cents per hour to start) with a goal of adjusting prices to achieve 80% to 90% occupancy at the lot. Again, enforcement will be critical to ensure that this program is working.

[1] This assumes a 20-year bond with 6% interest and level bi-annual payments.
[2] 220 spaces multiplied by 300 days, multiplied by $7.90 equals $405,000.

FUTURE CONSIDERATIONS

The Avon Lot is potentially a valuable parking resource for the area. While it is not ideally located for restaurant or retail patrons, it can provide overflow parking during peak periods and serve as a remote lot for area employees. As Figure 6 shows, for shorter stay vehicles (less than four hours) the walking distance is significant from the Avon Lot. However, for employees who typically park for long durations and are typically more willing to walk greater distances, this lot provides valuable parking. The Avon Lot is too remote to expect patrons to the busy restaurants on the southern or western portions of the study area to realistically use this parking supply. Nearby on-street spaces along Coast Highway are easier to use and serve a potentially greater area than the distant Avon Lot. Expanding this parking area would offer limited utility and is therefore not recommended due to the limited pedestrian catchment area and lack of high demand land uses within 500 to 800 feet of the site.

Figure 6: Walking Distances from the Avon Lot

Source: Google Earth Pro, Walker Parking Consultants, 2008.

SHARED PARKING

Shared parking analyses begin with industry parking demand ratios that describe the rate at which a square foot (or other unit) of a given land use tends to generate parking demand at a peak hour. These ratios have been determined through extensive study of retail, restaurants, offices and other land uses. Multiplying the square footage of a land use by the parking demand ratio (spaces generated at peak per square foot) tells us the number of spaces needed for a land use of a particular size.

A shared parking model determines the peak-hour demand for each land use in a mixed-use development, and then adjusts the demand to account for the following:

- Use of alternative modes of transit like buses, walking, biking, carpooling, trains;
- Captive markets (e.g., office workers walking to a nearby restaurant rather than creating parking demand for it);
- Different peak hours for different land uses (e.g., offices are at 100 percent of peak occupancy during the day and 0 percent at night, while cinemas are at 55 percent of peak during the day and 100 percent at night);
- Different days of peak demand (e.g., offices peak on weekdays, cinemas peak on weekends);
- Different months of peak demand (e.g., retail is busiest in December, whereas leisure-travel hotels are busiest in summer).

The model calculates each land use's parking generation over 18 hours for a weekday and weekend in every month of the year, then combines all land uses together to determine the overall peak hour. This enables us to avoid building parking to meet the absolute peak demand for each use simultaneously, since such a condition is unlikely; building for that condition will result in an oversupply of parking.

For the purposes of this analysis, we have tested two scenarios – one in which full build-out results in a total of 20,000 square feet of new development, and another in which full build-out results in a total of 50,000 square feet of new development. Because there is no finalized program data for these developments, we have assumed a mix of retail and restaurant, and tested various combinations of each. In addition, because we lack substantive information, we have run a conservative model that makes no reductions for alternative transportation or captive markets. The goal of our analysis is to provide an order-of-magnitude assessment of possible build-outs. The results are summarized in the following tables.

Table 5: Ardell Development

20,000 square foot development	Unadjusted Demand			Shared Parking Demand	
	Weekday	**Weekend**		**Weekday**	**Weekend**
Restaurant Only					
20,000 s.f. Restauarant	360	400		360	400
20,000 Total	**360**	**400**		**360**	**400**
Restaurant and Retail					
10,000 s.f. Retail	36	40		29	27
10,000 s.f. Restaurant	181	200		181	200
20,000 Total	**217**	**240**		**210**	**227**
Peak Occupancy (weekend) – Shared Parking Reduction:					*13 Spaces*

Table 6: Bel Mare Development

50,000 square foot development	Unadjusted Demand			Shared Parking Demand	
	Weekday	**Weekend**		**Weekday**	**Weekend**
Retail Only					
50,000 s.f. Retail	180	200		180	200
50,000 Total	**180**	**200**		**180**	**200**
Restaurant and Retail					
40,000 s.f. Retail	144	160		114	122
10,000 s.f. Restaurant	181	200		181	192
50,000 Total	**325**	**360**		**295**	**314**
Peak Occupancy (weekend) – Shared Parking Reduction:					*46 Spaces*

The tables above not only demonstrate an order of magnitude assessment of the possible parking demand, but also show the potential reduction in parking demand that could result from a mix of uses.

PARKING MANAGEMENT

In our earlier discussion and analyses we referred to many of the elements of parking management. Parking management includes myriad strategies aimed at making better use of the available parking supply in any defined area. Proper parking management incorporates a number of goals, but a core principle is that parking spaces should be used efficiently. Parking spaces that sit unoccupied are a huge inefficiency as they represent significant financial and land resources, as well as the opportunity costs of the funds and real estate, that is not devoted to productive uses. This is especially true in a desirable place such as Newport Beach. It is also true where a competition for impacted parking spaces exists a short distance away. The time and frustration that results from the search for a convenient space in these impacted areas also represents inefficiencies.

Parking management practices attempt to address inefficiencies through restrictions and parking pricing. We aim to allocate parking spaces for which there is high demand with user restrictions and/or prices to park. For spaces for which there is low demand, we relax parking restrictions and lower prices in order to maximize their utilization.

If spaces in high demand are free and/or spaces in low demand are priced, inefficiencies are created. We note that parking spaces are a finite resource and represent a real cost. We wish to allocate that resource as efficiently as possible. Finally, although not always politically popular, pricing is virtually always the most effective way to manage parking spaces.

PARKING SIGNAGE

While we mainly think of parking enforcement policies when we think of parking management, tools that enhance the parking user's experience in the area of wayfinding and aesthetics also can increase the efficiencies of the parking experience.

Walker staff reviewed signage directing traffic towards Mariner's Mile or to parking. Walker did identify some signage directing vehicles to the public lot on Avon Street. In general we found the signage to be placed too close to the intersections where vehicles need to turn and too small and indistinct to gain our attention. We understand that the City is currently working on adding wayfinding signs throughout the City, including Mariner's Mile.

While there is significant parking along PCH throughout Mariner's Mile and in a public lot, there is discrete signage directing vehicles towards parking and away from PCH. Improved signage directing vehicles to the public lot is encouraged. The City may also want to work with other lot owners that allow public parking to help increase signage to their lot. We have seen other cities and commercial districts "co-brand" their parking signage to help customers and visitors unaccustomed to the area find parking regardless of who owns the lot.

Pros
- Helps visitors navigate to appropriate areas
- May reduce congestion because drivers won't have to cruise for parking

Cons
- May add visual clutter to pristine area
- May be confusing if directions are not clear
- May add visual clutter to pristine area
- More expensive than not providing any information

PARKING GUIDANCE SYSTEMS

Another enhancement to signage is a parking guidance and information (PGI) system, which presents drivers with dynamic information on parking in a controlled area, such as Mariner's Mile. The systems combine traffic monitoring, communication, and electronic message sign technologies to provide parking information using simple electronic sensors and monitors.

Image: Elmore Group, 2008

PGI systems are designed to aid in the search for vacant parking spaces by directing drivers to lots or areas where occupancy levels are low. This can be done with convenient and aesthetically pleasing electronic signs located throughout Mariner's Mile or near parking structure entrances. The ultimate objective of this technology is to increase convenience and satisfaction by reducing search time, which in turn reduces congestion on the surrounding roads.

Pros
- May reduce congestion because drivers won't have to cruise for parking
- Enhances City's image as technology innovator
- Helps visitors navigate and parking in appropriate areas

Cons
- More expensive than not providing any information or using traditional signs
- May add visual clutter to pristine area
- Unproven technology
- May be confusing if directions are not clear
- May be useful primarily for large off-street parking facilities.

PARKING DEMAND MANAGEMENT

Parking demand management (PDM) arguably takes parking management a step further, Options other than driving and parking are considered for the purpose of maximizing efficiency and personal choice while reducing costs and in most cases reducing the demands on the environment. Parking management strategies vary widely and include preferential parking or price discounts for carpools, shared parking and trip reduction strategies, pricing cues, and disincentives for those contributing more to congestion. Below we discuss a number of parking demand management, most of which could be applicable to varying degrees in Mariner's Mile.

PRICING PARKING

MARKET PRICED METERS

Donald Shoup, in his book, The High Cost of Free Parking, suggests that many cities are mis-pricing the cost of street parking and creating misguided incentives for customers visiting their commercial areas. He argues that on-street, curb parking is the most desirable and therefore most valuable parking in most municipal parking systems. If curb parking is underpriced there will be no available parking on the street front and vehicles will begin circling the block, creating traffic congestion until they find available curb parking. Shoup states that appropriately priced curb parking should create an 85% occupancy, leaving 15% off all the meters on a street available. Ideally, on-street meters should be utilized by shoppers looking to patronize stores and businesses and not by employees or long-term vehicles taking advantage of the relatively cheap meter rates. This concept can be extended in Mariner's Mile to help induce vehicles towards off-street lots rather than

Pros

- Effectively allocates parking
- Increases turnover of spaces
- Reduces cruising for spaces

Cons

- Parking isn't congested enough to justify
- Big jump from no meters to market rate meters
- May just push parking further into residential area
* Can be costly and complicated to establish

METHODS OF PAYING FOR PARKING

Coin-operated meters are often inconvenient, inefficient, unreliable, and can be aesthetically unpleasing. Some cities are beginning to evaluate alternatives such pay-and-display systems, smart meters, electronic hang-tags or pay-by-phone systems. Below we discuss a few of the different methods of paying for parking which, typically by making payment more convenient, makes market rate parking strategies a more realistic option.

PARKING METERS

"Smart Meters," Image Courtesy of IPS Group

In reviewing the parking issues in Mariner's Mile it appears that there are areas with significant congestion that may benefit from time limit parking or parking meters to help alleviate congestion and increase turnover during high occupancy periods. The current time limits are helpful but their hours may need to be extended to 10:00PM or later. In addition, the turnover and enforcement could be enhanced by implementing meters. Meters can help ensure that all areas of Mariner's Mile have parking available throughout the day and it may discourage employees from parking in the most desirable spaces. Single-head, coin operated meters are aesthetically unpleasing and require the visitors/patrons to know how long their shopping or dining experience will be and require that visitors have enough coins with them to satisfy their trip requirements. As an alternative, many cities are using smart meters or pay-by-phone systems.

Pros
- Efficiently allocates parking
- Creates availability for shops and restaurants
- Increases turnover

Cons
- Expensive to set up and maintain
- Initially, paid parking can irritate some visitors
- Additional enforcement will be required
- Education will be necessary to support meters
- Potentially aesthetically unpleasant

Alternate technology

Smart meters are simply meters that accept various forms of payment. Like traditional meters some take coins, but will also accept credit cards or city-wide "smart cards" and can be programmed to reflect different prices during different times of the day.

Pros
- Easy to use
- Can accommodate different payment methods and different pay rates (residential or business)
- Increase turnover
- Can track usage and estimate value

Cons
- May push parking into residential areas
- Expensive to set up and manage

Pay-by-phone

Pay-by-phone systems have also become very popular lately although arguably they may provide more service than most parkers typically need. This service is typically set up by a third-party and allows the user to call a number (typically via mobile phone) to pay for parking. In most instances, this does require a user to be registered with the pay-by-phone service but depending upon the city and the service they may only need to register once and can park in numerous cities if they all subscribe to the same pay-by-phone provider. Most cities contract with the pay-by-phone provider to help with pricing, time limits, location and block numbering.

Pros
- Doesn't require new equipment
- Easy to use and relieves concern about running back to the meter with additional coins
- Can change prices based on demand or scheduled rate reviews

Cons
- Third party is making money off a city resource
- Increased enforcement is essential
- May still need to install meters
- Complex – potentially more "bells and whistles" than the average parker needs.

Pay-and-display

In an area like Mariner's Mile, alternatives to the single-head meter could offer drivers a convenience and therefore might be well received. Rather than cluttering the sidewalk and streetscape with traditional coin meters, Mariner's Mile could evaluate installing multi-space/pay-and-display meters. Pay and display meters are typically easy to use and easy to install. They are much less obtrusive than single head meters and can be less expensive depending on how wide an area is covered. With two ways to pay, (coins – or credit card, their use is fairly simple:

- Insert coins or credit card and indicate the time.
- Next push the print button for your receipt.
- Finally, place the receipt face upon your dashboard to curbside window.

Pros

- Multiple forms of payment
- Receipt for all transactions
- Reliable
- Reduced street clutter

Cons

- May push parking into residential areas
- More expensive than single head meters

SmartCards/Hang Tag Meters

A SmartPark device or any other similar electronic hang-tag device uses a SmartCard that is loaded with a prepaid amount of parking hours. The amount of free or discounted parking can be determined by the City. This system could replace or augment the current permit system.

The SmartCard is inserted into the SmartPark, which is then placed inside the vehicle and displays the parking zone selected. Thus, the SmartPark system operates like an in-car parking meter. To use the SmartPark system, customers make a one-time meter purchase (approximately $50-$60) and then preload the SmartCard in increments of $20 to $200, similar to FasTrak. A parker simply turns on their meter and hangs the SmartPark device from their review mirror so that parking enforcement can see they have paid. These meters can be loaded for visitors to the City of Mariner's Mile and loaded at a lower rate for residents.

This in-car parking device may be used at single-space parking meters, municipal parking lots and municipal garages. Ideally, with SmartPark, motorists pay for actual parking time only, allowing visitors and residents to use the SmartPark only for the time they are parked. Another benefit of this technology that may be attractive to Mariner's Mile is that it is a cashless operation that allows residents and frequent visitors the ability to park in Mariner's Mile without carrying coins.

Pros
- Easy to use
- Can easily set or change pricing
- Prepaid so City may see revenue before the meter is actually used.
- A convenience for locals and other frequent users

Cons
- Not good for areas with a high number of visitors
- More expensive for both the city and the user than alternatives
- Forgetting to turn the device off will result in high parking fees.
- Third party typically required

PARKING DEMAND MANAGEMENT - FUNDING AND MANAGEMENT SYSTEMS

IN-LIEU FEES

Some cities allow developers to pay a fee in lieu of providing the parking spaces required by zoning ordinances, and use this revenue to finance public parking spaces to replace the private parking spaces the developers would have otherwise provided. That is, developers pay a fee *in lieu* of building new spaces. In-lieu fees work better in larger redevelopment areas like Old Town Pasadena, which was able to sell zoning credits (similar to in-lieu fees) to fund part of the cost of constructing public parking structures. In Mariner's Mile, since it is a much smaller area and is not necessarily looking to redevelop large parcels, it is not likely to generate enough funds to develop new parking facilities; however, if the occasion arises, it may supplement revenues for a parking structure or lot or other projects including sidewalk improvements, increased signage, new meter technology, or additional safety measures. Generally, we believe that the fee should be related to either the underlying cost of the real estate or the value of the service (parking) being provided or both. If land in Mariner's Mile is expensive enough to justify an in-lieu fee of $80,000 than charging less than that amount is the equivalent of subsidizing parking or subsidizing the land use that the parking is attached (although the benefits and reduced cost of shared parking should be taken into account). However, this number may be too high to actually encourage businesses to support an in-lieu fee program. It is largely incumbent upon the city to determine the policy it wishes to pursue before an appropriate pricing scheme may be for an in-lieu fee that serves to effectively manage parking and to discourage overbuilding supply. Currently, the in-lieu fee is $150. To obtain a Master Parking Permit, the fee is $648. We believe that for the value of the parking in Newport Beach, these fees are significantly under priced.

Pros
Creates a link between land use and parking
May help create fund to pay for parking-related projects or improvements

Cons
Can be expensive from a cash flow perspective
Does not necessarily reduce the demand for parking since vehicles are not necessarily charged
Can be expensive for land owner/lessee

PARKING CREDITS

An alternative to business and shoppers permits may be parking credits. Again, the City of Pasadena has effectively implemented a parking credit system to help the City construct two public parking structures, and contribute to the construction of a private structure that is open to the public. The garages in Pasadena are effective because the public spaces in the structures are shared among all adjacent land uses. As a result,

following shared parking concepts, fewer spaces are required to meet the total parking demand. For the businesses that support the fees and use the structure, the City issues 1.5 parking credits per space in the public garages. According to the City, the parking credit program began in 1987, and by 2001 the City had allocated 2,350 credits. Businesses that buy credits to meet the City's parking requirements do not receive permits to park in the municipal structures. Their customers and employees still have to pay to park in the public structures at the same rate that other drivers pay. The parking credits do, however, link the public parking spaces with private development in Old Pasadena. This relationship allows businesses to satisfy the city's parking requirements without providing any additional on-site parking spaces for their property. Mariner's Mile can implement a similar system if they can get key businesses and venues to support a program that removes the need for increased parking spaces adjacent to their buildings. This is different from in-lieu fees in that, in some instances, the City may only be re-allocating spaces rather than creating spaces in various part of town. The two concepts, however, can be used simultaneously.

Pros

- Uses shared parking concepts to help provide an appropriate amount of parking throughout the day
- Helps reduce overbuilding parking supply

Cons

- Requires a shared parking analysis to estimate total supply for an area
- User may not see benefit or change their behavior; may not reduce supply

PARKING BENEFIT DISTRICT

The meaning of "Parking Benefit District" (PBD) often changes based on the city where it is put into place. However, in general it is a mechanism which can greatly increase the efficiency with which it funds, manages and makes decisions with regard to parking in a designated area (the district). A PBD typically charges for parking in the District, but with the stipulation that all or a set percentage of the revenue stay in the district to fund improvements. A board or body is created in order to make the decisions regarding how much to charge and how to manage the parking system. The creation of the PBD and governing body then typically sets off a positive chain of events for the area:

1) A specific body is created whose responsibility it is to maximize the efficiency of the parking system in the district. As a result there is also a political constituency that will defend parking rate increases if necessary while keeping in mind the overall health of the district.
2) Parking is managed to maximize the efficiency of the parking system, increasing turnover and increasing the utilization of parking spaces, which allows for an increase in visitors to the area.
3) An incentive is potentially created for charging for parking in residential areas (either through the selling of a designated number of on-street parking permits or even metering streets) as residents can see the money going to direct improvements on their block, such as repaired sidewalks, landscaping or other benefits.
4) The by product of increased parking revenue throughout the district occurs.
5) The PBD governing body makes decisions as to how to allocate the additional revenue through such projects as funding off-street parking if necessary, neighborhood beautification projects (such as street trees or attractive benches), or potentially creating funding for employees and others to encourage the use alternate forms of transportations such as bicycles, carpools, or transit. This can ultimately reduce the demand for parking in the neighborhood.

Pros
- Promotes alternatives to driving and parking for all trips.
- Helps manage the existing parking supply
- Provides revenue that can be used for neighborhood improvements or amenities.

Cons
- Administrative burden and expense to set up and maintain
- Typically requires active neighborhood participation to effectively maintain PBD.

PARKING ASSESSMENT DISTRICT

An alternative to the in-lieu fee is the parking assessment district (PAD). In a PAD, each business owner in the district is assessed a yearly fee based on their square footage. The advantage of a PAD over in-lieu fees is that the assessment is spread over the entire business district rather than being placed only on new developments; this keeps the fees lower for any given business and allows new investment without seemingly punitive fees placed on the investment. The disadvantage of a PAD is that it typically must be voted in by a two-thirds majority of property owners within the district, and can thus easily be vetoed by one or two major property owners (who would have the largest assessments based on square footage). Furthermore, since PADs assess every business owner whether they use public parking or not, many small business owners as well as major landowners will be reluctant to vote for them. It would be difficult to get someone who pays property tax plus the cost of upkeep for their own surface lot to pay fees to support new parking for waiver recipients.

Another drawback to PADs is that they generally do not bring in enough revenue to fully support construction of a facility. Their revenue is generally sufficient to cover operating expenses (lighting, cleaning, security, etc.) but not to pay hundreds of thousands of dollars worth of debt service each year.

The City of Pasadena uses its PAD to help educate residents and visitors about parking in Old Town Pasadena. This education and awareness initiative has helped re-frame the perception that there is a parking shortage in Old Town Pasadena. The City of Mariner's Mile could initiate a similar campaign to help increase awareness about parking in the CBD. Additional parking management strategies may be necessary to help increase awareness of the availability of parking in Mariner's Mile. As we discuss later in this section, these strategies could include increased signage near meters, on benches or in structures. It could also include greater visibility on the City's website.

Pros
- Associates price for parking with demand of underlying land use
- Can fund improvements in the area if not new facilities.

Cons
- Difficult to establish – may require a supermajority to implement
- Administrative burden may be greater than benefit

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) and Parking Demand Management techniques are often used to reduce driving and parking demand in high-intensity areas. TDM is a general term for parking management strategies that result in more efficient use of transportation resources but may include carpools, vanpools or subsidized transit passes for employees that would also help with parking issues at the terminal end of trips. These strategies could be deployed in Mariner's Mile with little financial outlay. However, they are not effective where free or very cheap long-term parking options are available.

Pros

- May decrease number of trips
- Can use electronic message boards to coordinate trips for multiple employers
- Will decrease congestion
- OCTA has transit center nearby
- Area more residential than commercial

Cons

- Hard to measure improvements
- Difficult in Mariner's Mile because of dispersed employer and residential area
- Transit may not be effective due to off hour schedules
- Some measures are costly to set up and maintain

TRANSPORTATION MANAGEMENT ASSOCIATIONS

Transportation Management Associations (TMAs) are typically private, non-profit organizations that provide transportation services in a particular area, such as a commercial district like Mariner's Mile. Transportation Management Associations can provide a variety of services that encourage more efficient use of transportation and parking resources including bicycle facilities, van pool or rideshare operations, or even coordinating shared parking facilities . Transportation Management Associations allow small employers to provide Commute Trip Reduction services comparable to those offered by large companies. As a result of their cooperative resources, they are usually more cost effective than programs managed by individual businesses.

Pros

- Simple to organize and easy to set-up
- Inexpensive
- Promotes non-single user vehicle activities
- Can be run by residents without city cost or involvement

Cons

- Requires active participation by residents/owners
- May have some facility costs

WALKING DISTANCE

In an earlier meeting with members of the Mariner's Mile Community some questions were raised with regard to the usefulness of a new parking facility and the location. It is important to consider the walking distances from a parking facility to the user's destination. Based on our experience and research in this area, Walker developed an evaluation of walking distances based on level of service, which is shown below in Table 8.

Table 8: Levels of Service – Walking Distances in Feet

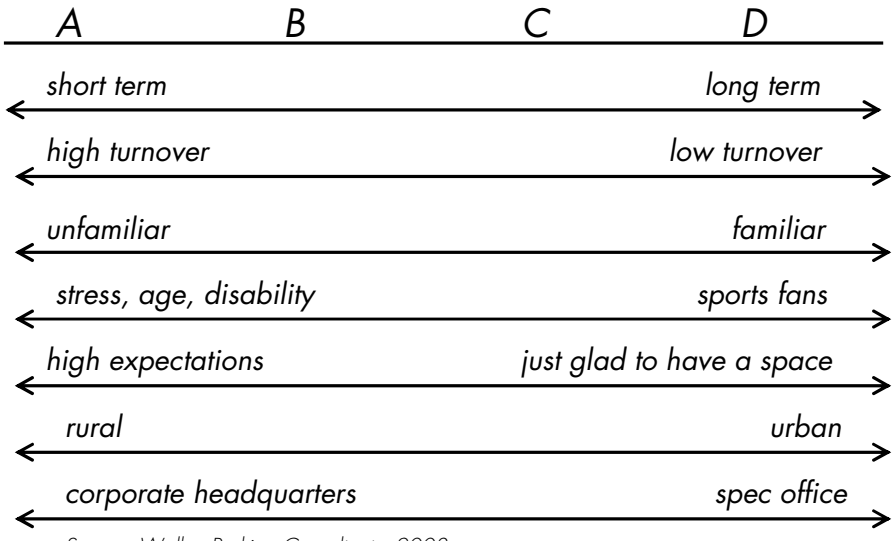
Design Standards For:	United States (English Units)			
	LOS D	LOS C	LOS B	LOS A
Maximum walking distance				
Within parking facilities				
Surface lot	1400'	1050'	700'	350'
Structure	1200'	900'	600'	300'
From parking to destination				
Climate controlled	5200'	3800'	2400'	1000'
Outdoors, covered	2000'	1500'	1000'	500'
Outdoors, uncovered	1600'	1200'	800'	400'

Source: Butcher, Thomas A. and Smith, Mary S., "How Far Should Parkers Have to Walk?" *PARKING*, September 1994.

Retail and restaurant visitors typically have short-term stays of less than two hours. Employees and residents, by comparison, may have stays of eight hours or more. As a result, if necessary, during peak periods employees should be encouraged to park in more distant perimeter spaces in order to keep the spaces closest to the retail and restaurant areas open for short-term visitors and patrons. In the case of a retail or commercial development, we would recommend a level of service A (a walking distance of 400± feet) or B (800± feet) for customers. Employees can be expected to walk greater distances, in some cases up to those indicated for levels of service C or sometimes D.

Figure 7, below, shows our recommendations for various user groups based on our projected LOS expectation for each group. We would expect that developments in Newport Beach would likely want a LOS A or LOS B for most retail and restaurant uses.

Figure 7: LOS by Typical User Class



Source: Walker Parking Consultants, 2008.

CONCLUSION AND RECOMMENDATIONS

According to the data gathered within our parking occupancy counts, overall Mariner's Mile area does not have a parking shortage. However, there are areas of Mariner's Mile where parking can quickly become impacted. These areas are typically along the Coast Highway and, when busy, can push vehicles into residential neighborhoods as drivers look for parking.

In order to alleviate the parking imbalance, we encourage Mariner's Mile to initiate a paid parking system in the area that raises rates in the most impacted areas and reduces or eliminates rates in underutilized areas where spaces sit unoccupied. As we noted in the report, the metered spaces in the City's Avon Lot, which experiences significantly underutilized parking, may be a candidate for such a rate reduction. The utilization of this lot for future development is limited due to its distant location relative to the most intensive land uses in Mariner's Mile. With appropriate pricing cues it can serve as an overflow area for Mariner's Mile and act as a remote lot for some of the area employees.

Pay and display stations or multi-space meters in the northwest part of the study area would likely be the most convenient means by which to implement paid parking for the purpose of managing the parking system. The hours of operation should go beyond the typical 8:00AM to 6:00PM, possibly extending to 10:00PM to ensure that the restaurant employees and patrons are not deleteriously affecting the parking system by occupying short terms spaces. Paid parking, which can be reasonably priced and convenient payment systems will also ensure that there is sufficient turnover in the area, and patrons will be able to find a space to park near their destination.

A localized paid parking area may have the negative effect of encouraging some employees and visitors to park further into the residential areas. To prevent this, a tiered payment system may be required where paid parking exists along the Coast Highway and the residential areas have either time limits (enforced from 8:00AM to 10:00PM or later), residential parking permits, or a combination of paid parking, hourly restrictions and parking permits.

The City should also explore electronic hang tags or smart meters as an alternative to meters or permits for the convenience and acceptance of the plan by residents and employees. This technology and convenience may be appealing to many residents and visitors and could be implemented with reasonable cost to the City.[3] We do believe that parking is available in Mariner's Mile however we would encourage the City to explore options that help manage parking and direct the appropriate vehicles to specific areas. It is extremely important to note that, even if a new parking facility comes on line in the area, whether part of a private development or as public parking, without the proper parking management measures discussed in this memo, it may do little to ameliorate impacted parking.

With regarding to the parking demand management policies discussed in the report, Appendix E outlines potential reductions for various parking strategies.

[3] In a later analysis of City-wide policies we will discuss "blue pole" and other parking meter permits and consider whether "hang tag" meters might be a reasonable replacement.

APPENDIX A
INVENTORY DATA

Mariners Mile - On-Street Inventories

Block	Face	Standard	Meter	Yellow	White	Green	Total Inv	Notes	Parking Restrictions
1	N								
	E								
1a	S		42				42	1 Hr Parking	1 Hour
1b	S	9					9	Meter Parking S	Meters
	W	19	4			1	24	Tustin Avenue	2 hour parking 8am -
2	N	14					14	Avon Street	2 hour parking 8am -
	E	4	4				8	Tustin Avenue	
	S		10				10	Pacific Coast Highway	
	W	0					0	Riverside Avenue	No Parking
3	N	62					62	Cliff Drive	2 hour parking 8am -
	E	29					29	Riverside Avenue	2 hour parking 8am -
	S		11				11	Pacific Coast Highway	
	W	0					0	Santa Ana Avenue	No Parking
Cul de sac		10					10	Avon Street	
4	N	4					4	Cliff Drive	
	E	17					17	Santa Ana Avenue	
	S	5					5	La Jolla Drive	
	W	13					13	La Jolla Drive	
5	N	3					3	Beacon Street	
	E	18					18	Santa Ana Avenue	
	S	8					8	Cliff Drive	
	W	18					18	La Jolla Drive	
6	N	6					6	Beacon Street	
	E	10					10	Cliff Drive	
	S	15					15	Cliff Drive	
	W	12					12	Santa Ana Avenue	
7	N								Three-sided block
	E	24					24	Ocean View Avenue	2 hour parking 8am -
	S	14					14	Avon Street	2 hour parking 8am -
	W	0					0	Riverside Avenue	No Parking
8	N								
	E	14					14	Ocean View Avenue	2 hour parking 8am -
	S								
	W	20					20	Tustin Avenue	
9a	N	0	0				0	55 To Riverside	
9b	N		5				5	Riverside to Tustin	Meters
9c	N		7				7	Tustin N. to Ardell	Meters
9d	N	51					51	Ardell to Balboa BC	No Restrictions
9e	N	8					8	BC to End of Parking	No Restrictions
9f	N	0					0	S. to Dover	No Parking
	E						0		
	S						0		
	W						0		
Totals:		407	45	0	0	1	453		

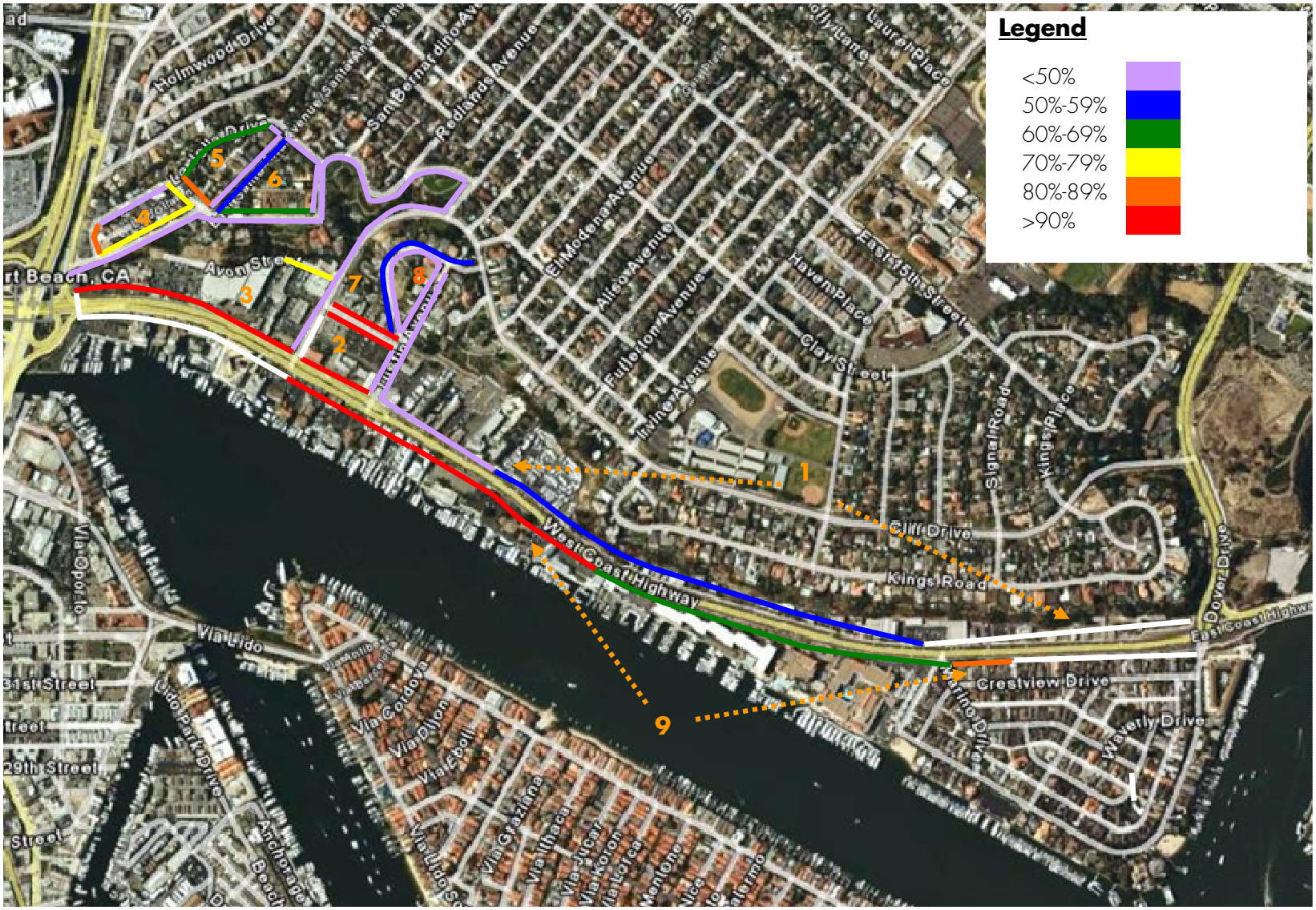
Mariner's Mile: Off-Street Occupancy Counts

Block	Letter	Type / Description	Address	Inventory	Occupancies			Occupancies			Notes
					10:00 AM	1:00 PM	7:00 PM	10:00 AM	1:00 PM	7:00 PM	
1	A	Mc Donalds	700 Pacific Coast Hwy	30	12	14	7	16	11	10	Customer Parking Only; (2) ADA
	B	Dolce Restaurant	800 Pacific Coast Hwy	20	4	6	2	2	3	1	Establishment is boarded up. Parking lot is chained; (1) ADA
	C	900 PCH Mini Mall	900-980 Pacific Coast Hwy	65	54	49	44	38	49	21	West Marine,Rolf's Wine; (5) 930 Sushi; (5) Mardo Jewelry; (3) ADA
	D	Ferrari of Newport Beach	1000 Pacific Coast Hwy	12	3	5	-	3	4	0	(1) ADA
	E	Newport European Rolls Royce	1100 Pacific Coast Hwy	13	5	1	-	-	-	0	Showroom lot only; (1) ADA
	F	The Car Spa	1200 Pacific Coast Hwy	8	1	-	-	-	-	0	Car Wash spaces only
	G	Phillips Leasing	1220 Pacific Coast Hwy	8	-	4	-	3	8	0	Most spaces being used for new cars
	H	Taco Bell	1400 Pacific Coast Hwy	33	10	12	15	9	7	9	(2) ADA
	I	Jiffy Lube	1520 Pacific Coast Hwy	14	3	3	1	4	4	1	(1) ADA
	J	Dianetics	1600 Pacific Coast Hwy	9	3	4	6	6	4	1	
	K	Vallejo Gallery/Newport Beach Vetrerinary Hospital	1610 Pacific Coast Hwy	18	11	15	4	10	11	-	(10) Gallery; (8) Vet Hospital
	L	H & S Yacht Sales	1700 Pacific Coast Hwy	6	2	2	-	2	1	-	(4) spaces occupied by service equipment
	M	Ocean Marine Coverings	1730 Pacific Coast Hwy	11	3	2	-	1	-	-	
	N	No Business Signage	1800 Pacific Coast Hwy	10	4	6	4	5	5	4	(1) ADA; Also has motorcycle parking available
	O	Scott Brownell Architect	1950 Pacific Coast Hwy	2	2	1	-	-	-	-	Gated
	P	California Chris Craft	Pacific Coast Hwy	2	1	2	1	-	1	-	No marked parking
	Q	Olympic Boat Center	2200 Pacific Coast Hwy	17	12	8	-	6	6	-	(1) ADA
	R	Newport Mariners Plaza	2244 Pacific Coast Hwy	62	30	28	2	3	2	2	(1) ADA
	S	Holiday Inn	2300 Pacific Coast Hwy	86	21	28	30	17	15	27	(4) ADA; (2) Guest loading & unloading
	T	Garlic Jo's	2332 Pacific Coast Hwy	52	6	8	16	3	7	33	(2) ADA
	U	Jack Shrimp & Newport Art Center	2400 Pacific Coast Hwy	39	35	32	31	13	9	30	
	V	Newport Beach Public Parking	Behind Newport Art Center	99	64	61	30	20	25	51	(47) Metered spaces; (25) US Postal spaces
	W	1 day Quality Framing	2430 Pacific Coast Hwy	16	6	7	5	4	3	2	(1) ADA; (2) PCH Novurania; (4) 1 Day Framing
	X	West Coast Offices	2436 Pacific Coast Hwy	35	7	6	-	-	2	13	Building is for lease; (2) ADA; (33) reserved & marked for offices
	Y	Sea Ray Yachts/Newport Boats	2500 Pacific Coast Hwy	3	4	4	-	7	7	7	Cars stacked
	Z	Bayport Yachts	2530 Pacific Coast Hwy	49	14	14	-	8	8	6	(2) ADA; Gated at 5pm daily
	ZZ	Bella Cleaners/Mini Mall	120 Tustin Avenue	25	23	23	10	18	15	4	(2) ADA
2	A	Mariners Mile Square	2700 Pacific Coast Hwy	144	81	74	18	58	60	20	(5) ADA; (14) 30 minute parking; (3) 10 minute parking
	B	Wells Fargo	2750 Pacific Coast Hwy	30	15	26	5	14	10	4	(1) ADA; (4) 15 minute parking; (10) 30 minute parking
	C	Waterfront Newport Beach	Riverside Ave & Avon St	60	19	26	17	24	24	22	
3	A	China Palace/Sushi Bar	2800 Pacific Coast Hwy	25	5	5	13	1	3	16	(1) ADA
	B	Vespa/Optometrist/Lady of America	2902 Pacific Coast Hwy	24	15	12	8	6	6	3	(1) ADA; (12) Vespa/Optometrist; (11) Lady of America
	C	Mariners Center	149 Riverside Avenue	74	54	51	17	56	52	15	(3)ADA; (61) 20 minute parking
	D	US Postal Service	191 Riverside Avenue	21	12	16	13	10	9	15	(1) ADA (11) Postal Vehicles
	E	Enterprise Rent-A-Car	2906 Pacific Coast Hwy	24	19	21	24	-	-	-	All vehicles were rentals
	F	Sterling BMW	3000-3200 Pacific Coast Hwy	46	29	24	8	32	46		Closed @ 7pm Sat
	G	Pacific Coast Imaging	3300 Pacific Coast Hwy	95	52	56	-	3	3	3	(4) ADA; Gated @ 7pm
	H	A Market	3334 Pacific Coast Hwy	55	8	8	77	15	17	45	(3) ADA

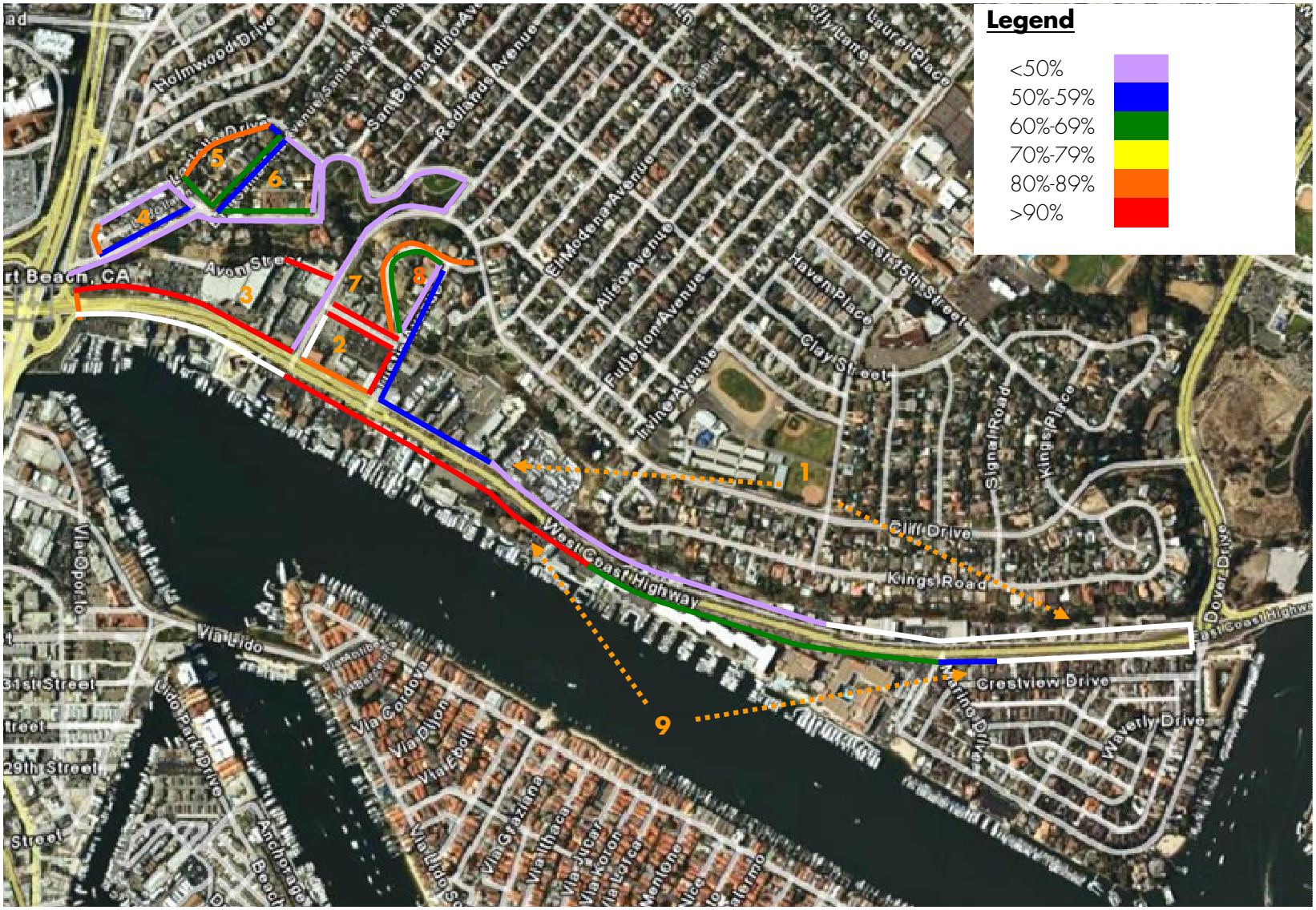
Block	Letter	Type / Description	Address	Inventory	Occupancies			Occupancies			Notes
					10:00 AM	1:00 PM	7:00 PM	10:00 AM	1:00 PM	7:00 PM	
	I	Nesai Restaurant/Business offices	215 Riverside Avenue	18	10	7	5	1	1	5	(7) Tenants of Bldg
7	A	Private Offices	206 Riverside Avenue	14	12	10	2	-	4	1	
	B	Mariners General Insurance Group	204 Riverside Avenue	5	3	2	-	-	-	-	(3) reserved for Mariners Ins
	C	Moultrup Hardware	2660 Avon Street	5	3	4	-	-	-	-	
	D	Cannery Exchange	2640 Avon Street	5	4	4	-	5	1	-	
	E	Mariners Mile Pet Clinic/La Belle Salon Trio	2630 Avon Street	13	7	8	1	4	5	1	(9) Mariners Only (4) Labelle, tandem parking
	F	Private Lot	2610-2630 Avon Street	25	21	25	18	17	19	25	Permit Parking for Earls Landing, Chart House & Billys at the Beach
	G	Metro Builders & Engineers Group	2610 Avon Street	9	9	7	2	2	3	2	
	H	Lather Salon 7 Businesses	2600 - 2606 Avon Street	8	2	4	3	5	2	-	(1) ADA
9	A	Harbor Tower Marina	3335 Pacific Coast Hwy	59	11	9	12	9	9	9	(32) Reserved for Customers & Visitors
	B	Dialysis Center/HTM	3333 Pacific Coast Hwy	119	73	74	28	27	29	32	(13) ADA; (77) Unreserved; (13) Dialysis Center; (3) Newport Smiles; (5) Modern Development; (8) Marina
	C	Villa Nova	3131 W Pacific Coast Hwy	9	6	6	25	3	3	23	In the evening they have valet parking and stack the lot
	D	The Towers	3121 Pacific Coast Hwy	-	-	-	-	-	-	-	Private Residential Property - No Access
	E	Mariners Mile Professional Bldg	3101 Pacific Coast Hwy	171	48	45	82	11	10	111	
	F	Newport Office Center	2901 Pacific Coast Hwy	167	70	64	28	14	20	129	
	G	Billys at the Beach/Crows nest Yacht Sales	2751 - 2801 Pacific Coast Hwy	71	38	70	61	14	45	97	(4) ADA; (67) Valet Parking
	H	Rusty Pelican	2735 Pacific Coast Hwy	66	21	26	67	14	42	65	(3) ADA; (63) Valet Parking
	I	Larson's Shipyard	2711 - 2729 Pacific Coast Hwy	30	22	23	5	3	4	7	(1) ADA; (29) Tenants & Guests
	J	Shamrock Bar & Grill	2633 Pacific Coast Hwy	32	6	25	10	15	15	17	(1) ADA; (31) Customer Parking Only
	K	Joe's Crab Shack	2607 Pacific Coast Hwy	51	14	30	44	7	27	47	(3) ADA; (48) Open Parking, 2 hour limit
	L	No Business Signage	2601 Pacific Coast Hwy	10	1	-	-	1	-	-	(2) ADA
	M	Wig Gallery	2547 Pacific Coast Hwy	5	5	3	4	-	2	1	
	N	Pacific Coast Yacht Club/Phantom Marine	2527 - 2537 Pacific Coast Hwy	21	12	13	4	8	12	14	(2) ADA; (16) Yacht Club; (3) Phantom Marine
	O	Olympic Boat Center	2439 - 2507 Pacific Coast Hwy	28	24	15	8	3	7	5	(1) ADA; (4) 2/hr visitor parking; (21) Tenant parking by permit only; (2) Bauer Wiley
	P	Hornblower Complex	2429 - 2431 Pacific coast Hwy	60	43	32	9	10	6	44	(2) ADA; (5) 2/hr visitor parking; (49) Tenant parking by permit only; (4) Hornblower van parking only
	Q	No Business Signage	next to 2101 Pacific Coast Hwy		-	3	-	1	3	1	No stall markings, property is under construction. Saturday lot was open for OCC sailing students Only
	R	Ardell Yacht & Ship Brokers	2101 Pacific Coast Hwy	65	34	31	10	24	19	15	
	S	Duffy Electric Boats	2001 Pacific Coast Hwy	16	2	7	3	3	13	18	
	T	Newport Sea Base	1931 Pacific Coast Hwy	43	10	17	29	11	16	12	(2) ADA; (3) 20 minute parking; (2) marked stall with curb painted red
	U	Intercollegiate Sailing & Rowing Base	1801 Pacific Coast Hwy	-	10	6	2	-	-	-	Under construction. All vehicles were const. No public access

APPENDIX B
OCCUPANCY MAPS

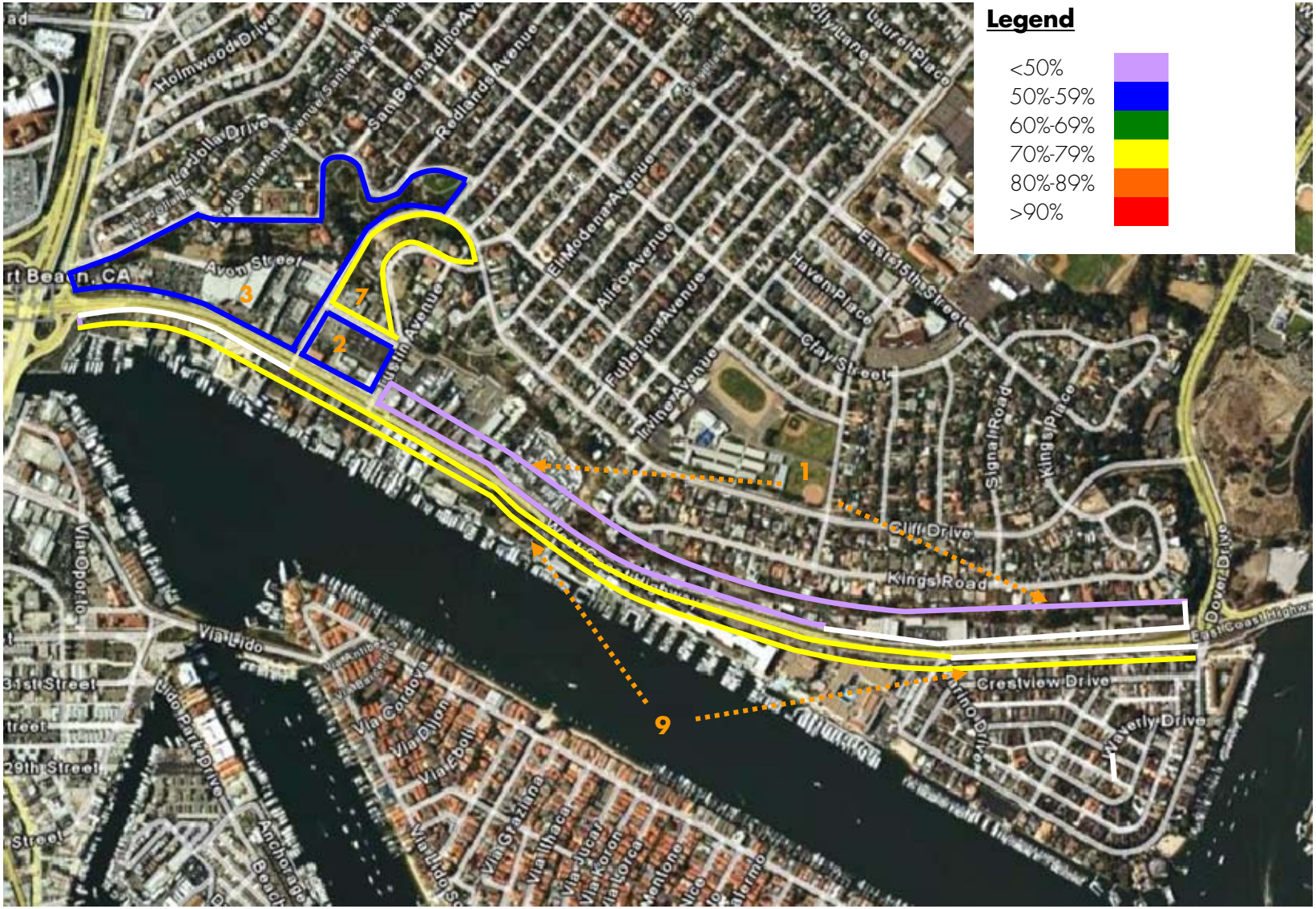
APPENDIX B: WEEKDAY ON-STREET PEAK OCCUPANCY



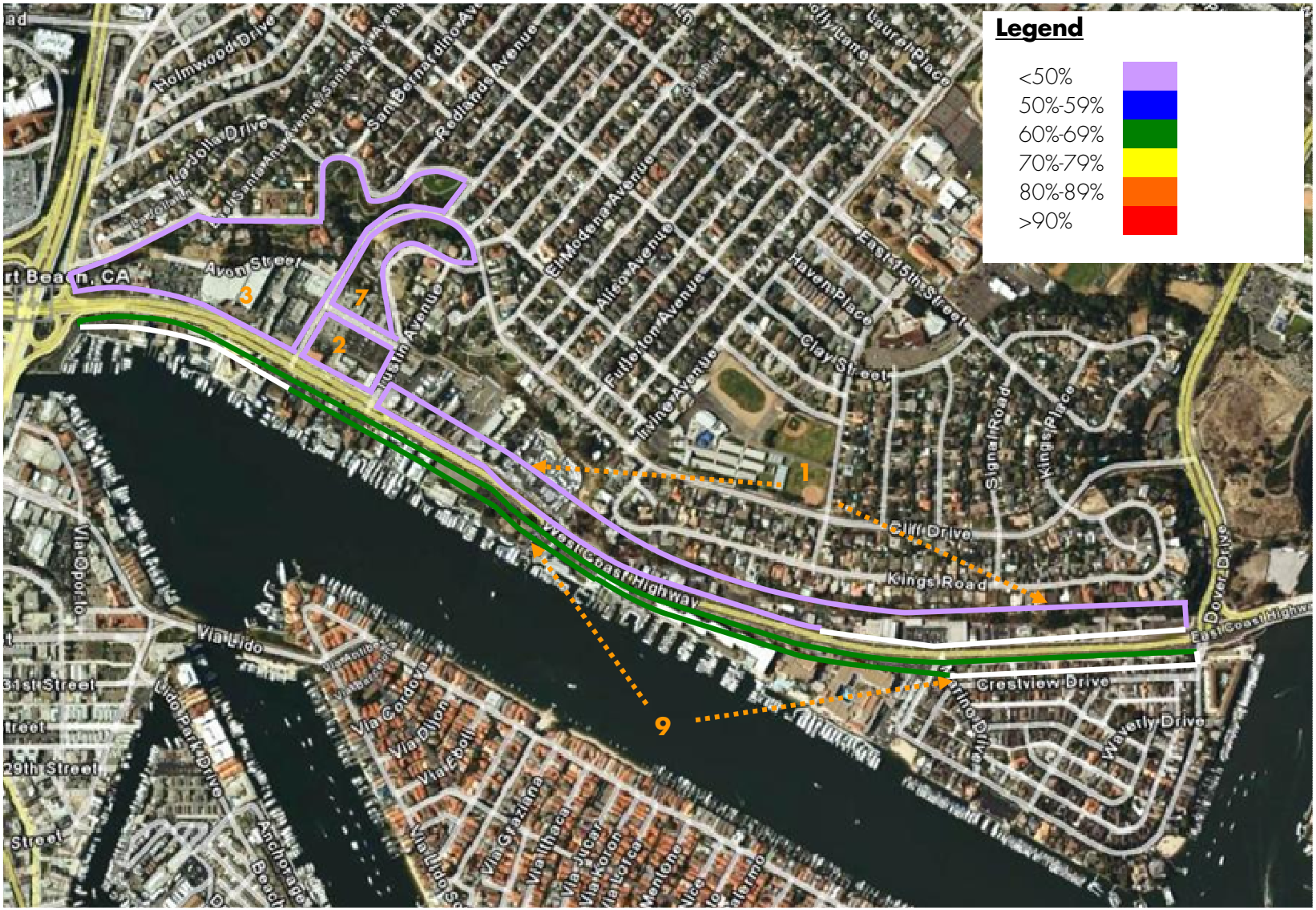
APPENDIX B: WEEKEND ON-STREET PEAK OCCUPANCY



APPENDIX B: WEEKDAY OFF-STREET PEAK OCCUPANCY

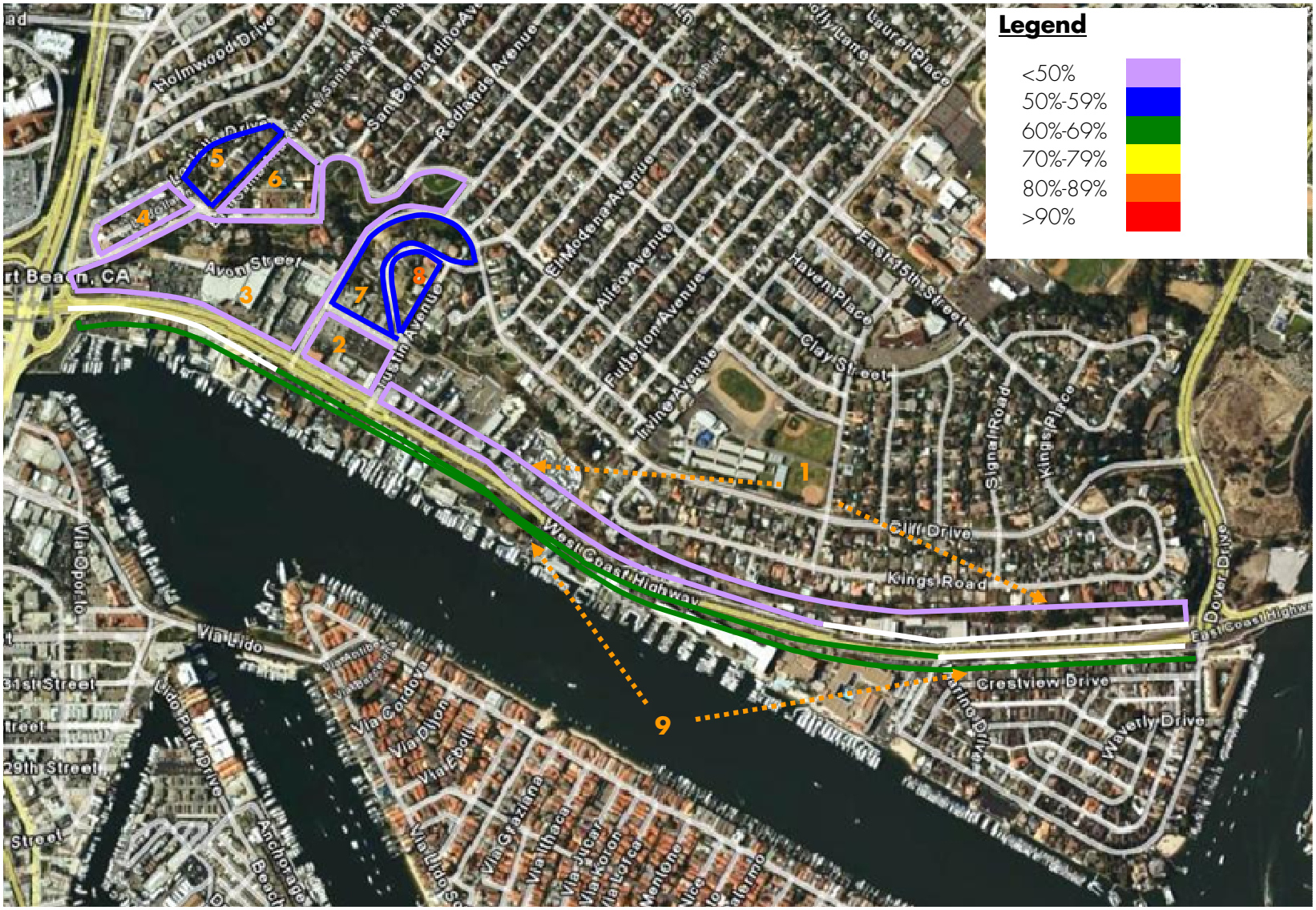


APPENDIX B: WEEKEND OFF-STREET PEAK OCCUPANCY



APPENDIX B: WEEKDAY COMBINED PEAK OCCUPANCY

APPENDIX B: WEEKEND COMBINED PEAK OCCUPANCY



APPENDIX C
LICENSE PLATE INVENTORY

License Plate Inventory – Appendix C

Count of Plate	Time										
Plate	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	Grand Total
223								1			1
771			1	1	1	1					4
897	1										1
946	1	1	1	1	1	1	1				7
017	1	1	1	1	1	1	1	1	1	1	10
036	1	1	1	1	1	1	1	1	1	1	10
046										1	1
055	1	1	1	1	1	1	1	1	1		9
062	1	1	1	1	1	1	1			1	8
067	1	1	1	1	1	1					6
072										1	1
074	1	1	1	1			1				5
081	1	1	1	1	1	1	1				7
094	1	1	1	1	1	1	1	1	1	1	10
144	1	1	1	1							4
151	1	1	1	1	1	1	1	1		1	9
179								1	1	1	3
223							1				1
230					1	1					2
249	1	1	1	1	1	1	1	1	1		9
272	1	1	1	1	1	1	1				7
310	1	1	1	1	1	1	1	1	1	1	10
315			1	1							2
337	1	1	1	1	1	1	1				7
338			1	1							2
346	1	1	1								3
357							1				1
400										1	1
421					1						1
447										1	1
458	1	1	1	1	1	1	1	1	1	1	10
527	1	1	1	1	1	1	1				7
546	1	1	1	1							4
563	1	1	1	1	1	1	1				7
570	1	1	1	1	1	1	1	1	1		9
594	1	1	1	1	1	1	1	1	1	1	10
626							1	1	1		3
627	1		1	1							3
640					1	1					2
670			1	1							2
673					1						1
682	1	1	1	1	1	1	1	1	1		9
703					1	1	1	1	1	1	6
720	1	1	1	1	1	1	1	1	1	1	10
723	1	1	1	1	1	1	1	1	1		9
728							1	1	1		3
743										1	1
744			1	1							2
749							1	1			2
751	1	1	1	1	1	1	1	1	1	1	10
761			1	1				1	1	1	5
762	1	1	1	1	1	1	1	1	1	1	10
771							1	1	1	1	4
782			1	1	1	1					4
798			1	1							2
822	1	1	1	1	1	1	1				7
825	1	1	1	1	1	1	1	1			8
837							1				1
839								1	1	1	3
870					1	1					2
878						1	1	1	1	1	5
879	1	1	1	1	1	1	1	1	1		9
889			1	1							2
890			1	1	1	1					4
942	1	1	1	1	1	1	1	1			8
946								1	1	1	3
951					1	1	1	1	1		5
955	1	1	1	1	1	1	1				7
962	1	1	1	1	1	1					6
970	1	1	1	1	1	1	1			1	8
980			1	1							2
983	1	1	1	1	1	1	1				7
993	1	1	1	1	1	1	1	1	1		9
994	1	1	1	1	1	1	1	1	1		9
CVR	1	1	1	1	1	1	1				7
HON	1	1	1	1							4
HYUN			1	1							2
LIM	1	1	1	1	1	1	1	1	1	1	10
LR3			1	1							2
PWK	1	1	1	1	1	1		1	1	1	9
RIK	1	1	1	1	1	1	1	1			8
VUE		1	1	1							3
(blank)											
Grand Total	44	43	57	56	47	46	45	35	29	26	428

APPENDIX D DETAILED OCCUPANCY COUNTS

			Weekday Occupancies Thursday, June 26, 2008			*Weekend Occupancies Saturday, June 28, 2008*		
Block	Face	Inv.	10 am	1 pm	7 pm	10 am	1 pm	7 pm
1	N							
	E							
	S	42	26	32	22	31	33	6
	S	9	0	1	1	6	0	5
	W	24	10	11	10	4	5	13
2	N	14	14	9	14	14	9	14
	E	8	0	0	3	4	7	8
	S	10	1	0	10	3	2	8
	W	0	0	0	0	0	0	0
3	N	62	12	10	5	6	7	4
	E	29	21	14	12	17	23	9
	S	11	2	0	10	1	6	10
	W	0	0	0	0	0	0	0
cul de sac		10	10	6	7	4	3	9
4	N	4	1	1	3	1	1	0
	E	17	6	4	12	3	5	9
	S	5	1	2	4	3	6	4
	W	13	2	2	5	4	2	3
5	N	3	1	3	0	1	1	0
	E	18	7	4	7	5	6	10
	S	8	3	2	7	6	5	5
	W	18	15	11	11	12	13	11
6	N	6	3	1	0	1	1	0
	E	10	2	2	3	5	4	4
	S	15	13	10	9	10	9	10
	W	12	3	2	7	3	6	7
7	N							
	E	24	15	12	13	13	10	20
	S	14	14	8	13	10	8	14
	W	0	0	0	0	0	0	0
8	N							
	E	14	7	8	6	3	5	6
	S							
	W	20	12	10	10	9	10	12
9	N	0						
		5	0	2	5	0	1	5
		7	6	5	7	2	3	7
		51	39	47	34	44	46	32
		8	7	8	7	8	8	4
		0	0	0	0	0	0	
	E							
	S							
	W							
Totals		491	253	227	257	233	245	249

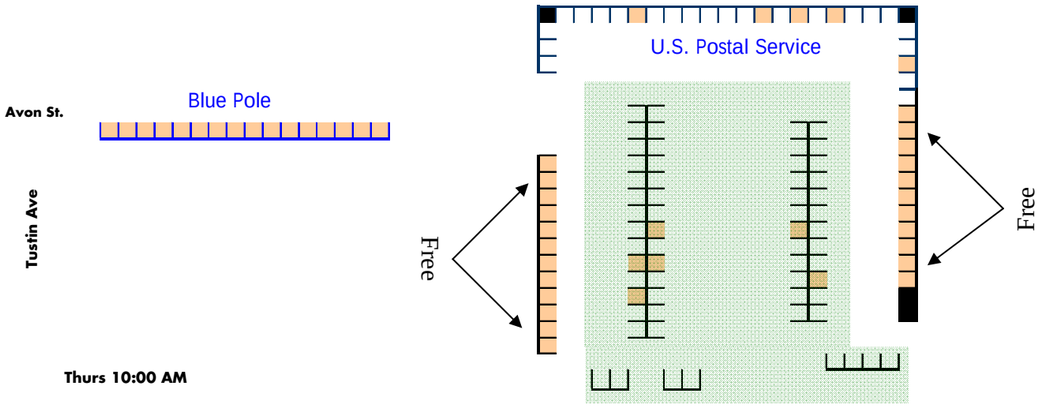
Mariner's Mile: Off-Street Occupancy Counts

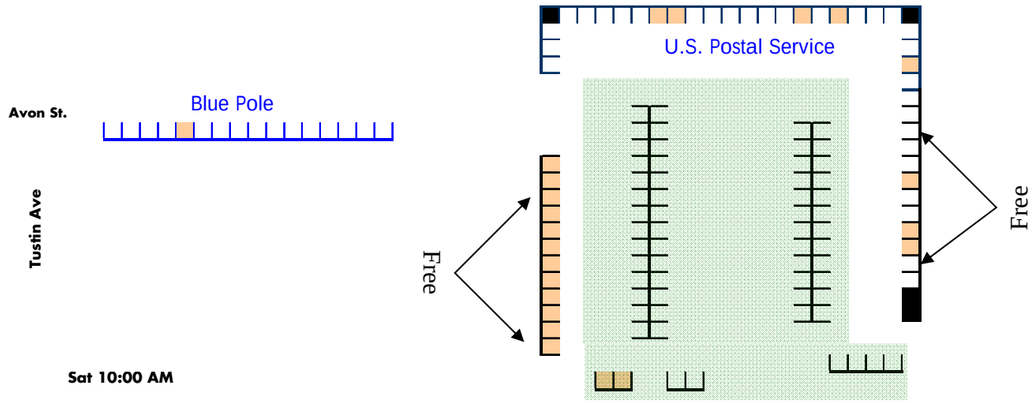
	Block	Letter	Type / Description	Address	Inventory	Occupancies Thursday, June 26, 2008			Occupancies Saturday, June 28, 2008		
						10:00 AM	1:00 PM	7:00 PM	10:00 AM	1:00 PM	7:00 PM
	1	A	Mc Donalds	700 Pacific Coast Hwy	30	12	14	7	16	11	10
	1	B	Dolce Restaurant	800 Pacific Coast Hwy	20	4	6	2	2	3	1
	1	C	900 PCH Mini Mall	900-980 Pacific Coast Hwy	65	54	49	44	38	49	21
	1	D	Ferrari of Newport Beach	1000 Pacific Coast Hwy	12	3	5	-	3	4	0
	1	E	Newport European Rolls Royce	1100 Pacific Coast Hwy	13	5	1	-	-	-	0
	1	F	The Car Spa	1200 Pacific Coast Hwy	8	1	-	-	-	-	0
	1	G	Phillips Leasing	1220 Pacific Coast Hwy	8	-	4	-	3	8	0
	1	H	Taco Bell	1400 Pacific Coast Hwy	33	10	12	15	9	7	9
	1	I	Jiffy Lube	1520 Pacific Coast Hwy	14	3	3	1	4	4	1
	1	J	Dianetics	1600 Pacific Coast Hwy	9	3	4	6	6	4	1
	1	K	Vallejo Gallery/Newport Beach Vetr	1610 Pacific Coast Hwy	18	11	15	4	10	11	-
	1	L	H & S Yacht Sales	1700 Pacific Coast Hwy	6	2	2	-	2	1	-
	1	M	Ocean Marine Coverings	1730 Pacific Coast Hwy	11	3	2	-	1	-	-
	1	N	No Business Signage	1800 Pacific Coast Hwy	10	4	6	4	5	5	4
	1	O	Scott Brownell Architect	1950 Pacific Coast Hwy	2	2	1	-	-	-	-
	1	P	California Chris Craft	Pacific Coast Hwy	2	1	2	1	-	1	-
	1	Q	Olympic Boat Center	2200 Pacific Coast Hwy	17	12	8	-	6	6	-
	1	R	Newport Mariners Plaza	2244 Pacific Coast Hwy	62	30	28	2	3	2	2
	1	S	Holiday Inn	2300 Pacific Coast Hwy	86	21	28	30	17	15	27
	1	T	Garlic Jo's	2332 Pacific Coast Hwy	52	6	8	16	3	7	33
	1	U	Jack Shrimp & Newport Art Center	2400 Pacific Coast Hwy	39	35	32	31	13	9	30
	1	V	Newport Beach Public Parking	Behind Newport Art Center	99	64	61	30	20	25	51
	1	W	1 day Quality Framing	2430 Pacific Coast Hwy	16	6	7	5	4	3	2
	1	X	West Coast Offices	2436 Pacific Coast Hwy	35	7	6	-	-	2	13
	1	Y	Sea Ray Yachts/Newport Boats	2500 Pacific Coast Hwy	3	4	4	-	7	7	7
	1	Z	Bayport Yachts	2530 Pacific Coast Hwy	49	14	14	-	8	8	6
	1	ZZ	Bella Cleaners/Mini Mall	120 Tustin Avenue	25	23	23	10	18	15	4
1 Total	1				744	340	345	208	198	207	222
	2	A	Mariners Mile Square	2700 Pacific Coast Hwy	144	81	74	18	58	60	20
	2	B	Wells Fargo	2750 Pacific Coast Hwy	30	15	26	5	14	10	4
	2	C	Waterfront Newport Beach	Riverside Ave & Avon St	60	19	26	17	24	24	22
2 Total	2				234	115	126	40	96	94	46
	3	A	China Palace/Sushi Bar	2800 Pacific Coast Hwy	25	5	5	13	1	3	16
	3	B	Vespa/Optometrist/Lady of America	2902 Pacific Coast Hwy	24	15	12	8	6	6	3
	3	C	Mariners Center	149 Riverside Avenue	74	54	51	17	56	52	15
	3	D	US Postal Service	191 Riverside Avenue	21	12	16	13	10	9	15
	3	E	Enterprise Rent-A-Car	2906 Pacific Coast Hwy	24	19	21	24	-	-	-

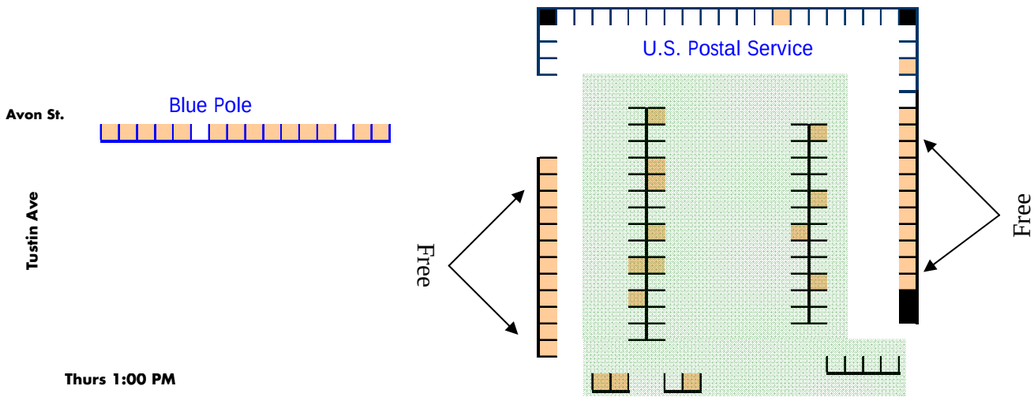
	3	F	Sterling BMW	3000-3200 Pacific Coast Hwy	46	29	24	8	32	46	
	3	G	Pacific Coast Imaging	3300 Pacific Coast Hwy	95	52	56	-	3	3	3
	3	H	A Market	3334 Pacific Coast Hwy	55	8	8	77	15	17	45
	3	I	Nesai Restaurant/Business offices	215 Riverside Avenue	18	10	7	5	1	1	5
3 Total	3				382	204	200	165	124	137	102
	7	A	Private Offices	206 Riverside Avenue	14	12	10	2	-	4	1
	7	B	Mariners General Insurance Group	204 Riverside Avenue	5	3	2	-	-	-	-
	7	C	Moultrup Hardware	2660 Avon Street	5	3	4	-	-	-	-
	7	D	Cannery Exchange	2640 Avon Street	5	4	4	-	5	1	-
	7	E	Mariners Mile Pet Clinic/La Belle Sal	2630 Avon Street	13	7	8	1	4	5	1
	7	F	Private Lot	2610-2630 Avon Street	25	21	25	18	17	19	25
	7	G	Metro Builders & Engineers Group	2610 Avon Street	9	9	7	2	2	3	2
	7	H	Lather Salon 7 Businesses	2600 - 2606 Avon Street	8	2	4	3	5	2	-
7 Total	7				84	61	64	26	33	34	29
	9	A	Harbor Tower Marina	3335 Pacific Coast Hwy	59	11	9	12	9	9	9
	9	B	Dialysis Center/HTM	3333 Pacific Coast Hwy	119	73	74	28	27	29	32
	9	C	Villa Nova	3131 W Pacific Coast Hwy	9	6	6	25	3	3	23
	9	D	The Towers	3121 Pacific Coast Hwy	-	-	-	-	-	-	-
	9	E	Mariners Mile Professional Bldg	3101 Pacific Coast Hwy	171	48	45	82	11	10	111
	9	F	Newport Office Center	2901 Pacific Coast Hwy	167	70	64	28	14	20	129
	9	G	Billys at the Beach/Crows nest Yacht	2751 - 2801 Pacific Coast Hwy	71	38	70	61	14	45	97
	9	H	Rusty Pelican	2735 Pacific Coast Hwy	66	21	26	67	14	42	65
	9	I	Larson's Shipyard	2711 - 2729 Pacific Coast Hwy	30	22	23	5	3	4	7
	9	J	Shamrock Bar & Grill	2633 Pacific Coast Hwy	32	6	25	10	15	15	17
	9	K	Joe's Crab Shack	2607 Pacific Coast Hwy	51	14	30	44	7	27	47
	9	L	No Business Signage	2601 Pacific Coast Hwy	10	1	-	-	1	-	-
	9	M	Wig Gallery	2547 Pacific Coast Hwy	5	5	3	4	-	2	1
	9	N	Pacific Coast Yacht Club/Phantom M	2527 - 2537 Pacific Coast Hwy	21	12	13	4	8	12	14
	9	O	Olympic Boat Center	2439 - 2507 Pacific Coast Hwy	28	24	15	8	3	7	5
	9	P	Hornblower Complex	2429 - 2431 Pacific coast Hwy	60	43	32	9	10	6	44
	9	Q	No Business Signage	next to 2101 Pacific Coast Hwy		-	3	-	1	3	1
	9	R	Ardell Yacht & Ship Brokers	2101 Pacific Coast Hwy	65	34	31	10	24	19	15
	9	S	Duffy Electric Boats	2001 Pacific Coast Hwy	16	2	7	3	3	13	18
	9	T	Newport Sea Base	1931 Pacific Coast Hwy	43	10	17	29	11	16	12
	9	U	Intercollegiate Sailing & Rowing Base	1801 Pacific Coast Hwy	-	10	6	2	-	-	-
9 Total	**9**				**1,023**	**450**	**499**	**431**	**178**	**282**	**647**
Grand Total	318				2,467	1,170	1,234	870	629	754	1,046

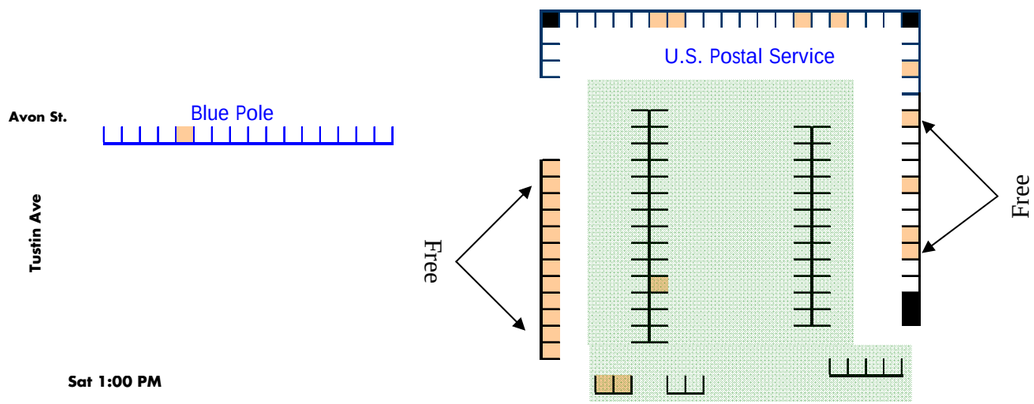
APPENDIX E
AVON LOT
OCCUPANCY MAPS

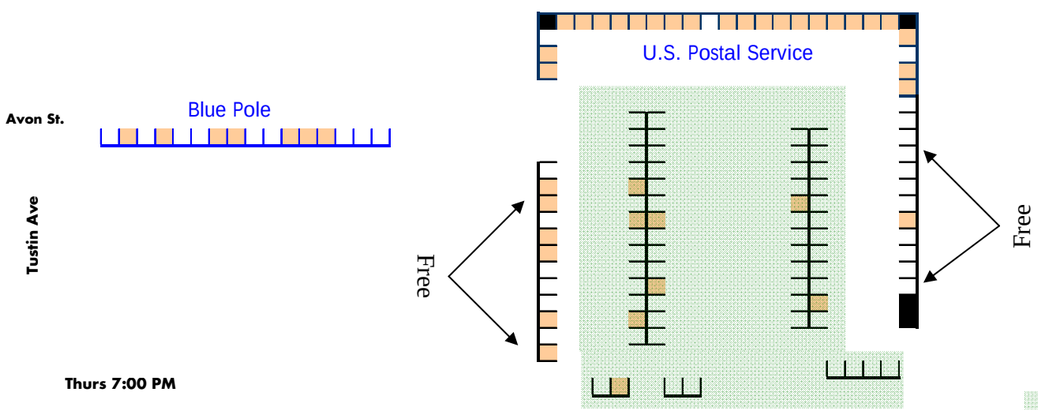
Appendix E Avon Lot – Occupancy Maps











Available Metered Parking
60 Spaces