

City of San Diego

Phase II Visitor Oriented Parking Facilities Study of the Pacific Beach Community

Prepared for:

The City of San Diego
Planning & Development Review Department
202 C Street, MS 5A
San Diego, CA 92101

Prepared by:



Final Report

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PACIFIC BEACH VISITOR ORIENTED PARKING FACILITIES STUDY – PHASE II

Executive Summary

1.0 Introduction

Wilbur Smith Associates (WSA) was retained by the City of San Diego to provide an assessment of existing parking supply and demand conditions; estimate future parking demand conditions; determine the extent of parking deficiencies; develop a set of practical alternatives to mitigate these deficiencies; and to conduct a conceptual analysis identifying parking program costs and financing techniques to implement parking improvements in the visitor oriented area of Pacific Beach.

The study area (See Figure i.1) is visitor-oriented, with many commercial establishments catering to visitors, while other areas of the community are primarily residential. This report documents our findings.

2.0 Background

Pacific Beach is a regional destination that attracts tourists, beach goers, and visitors. Visitors, as generally defined by the San Diego Convention and Visitors Bureau, include local residents from the region, overnight leisure visitors, and overnight commercial visitors.

There are two primary activity corridors in the study area: 1) the Mission Boulevard commercial district, including Bayard and Cass Streets; and 2) the Grand Avenue/Garnet Avenue Business District. The Mission Boulevard district includes restaurants, bars, shops, theaters, nightclubs, hotels, and other commercial and entertainment establishments. The Grand Avenue/Garnet Avenue district includes various businesses and other commercial establishments. Both corridors also include residential areas. The parking characteristics and travel patterns of these activity corridors were considered in the analysis of parking demand.

3.0 Existing Conditions

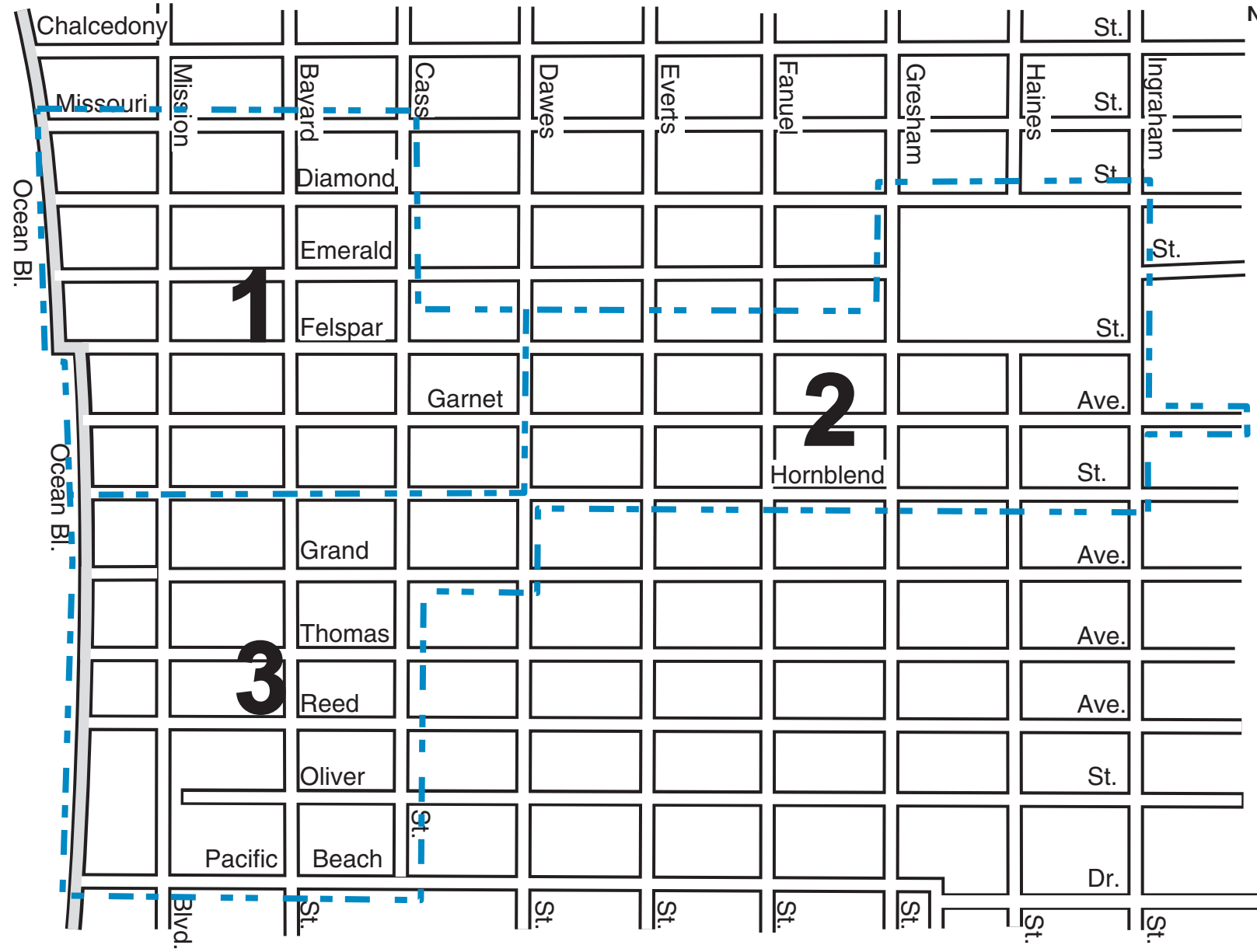
A parking survey was conducted during peak and off peak seasons to determine existing parking characteristics such as parking supply, occupancy, accumulation, duration and turnover. City staff conducted the field survey during August and November of 2000. Data was collected hourly from 11:00 A.M. to 8:00 P.M. for weekday and weekend conditions. This data was then analyzed to determine turnover, duration, and occupancy for specific Sub Areas of the community (See Figure i.2). These Sub Areas were developed based on characteristics of the activity corridors and known travel patterns.



Study Area Boundary

Pacific Beach Community
City of San Diego Visitor Oriented Parking Survey

Figure i.1



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- 1** Sub-Area Identification
- - -** Sub-Area Boundary

Pacific Beach Sub Areas
City of San Diego Visitor Oriented Parking Survey

Figure i.2

There are three primary types of parking supply available to the general public in the Village area: 1) On-street public parking spaces, 2) off-street parking in private lots, and 3) valet parking. The majority is provided in the 2,480 on-street parking spaces, which comprise approximately 73 percent of the total parking supply (3,392) in the study area. Approximately 912 spaces (27 percent) are provided in off-street private and valet lots.

Observations and Issues

The observations and analysis of existing parking conditions yielded considerable insight regarding parking characteristics in the Pacific Beach community.

- A) On-street parking occupancy in the primary activity corridors generally exceeds practical capacity on weekdays and weekends for peak and off-peak seasons.
- B) Off-street parking in the study area is generally underutilized. Possible explanations for this include: On-street parking is free while off-street parking requires a fee; beach visitors will park farther away and walk to their destination to avoid paying a parking fee, and visitors may perceive some off-street parking as being closed to the public.
- C) Parking demand levels in the business district areas tend to remain high during all survey periods (peak and off-peak, weekday and weekend).
- D) Parking spaces closer to the coastal areas tend to remain at high levels throughout the day during the peak season.
- E) During the off-peak, parking levels reduce in the late afternoon along the coast as the sun begins to set.
- F) Parking levels in the residential areas peak during the morning and early afternoon. These levels generally taper off in the mid to late afternoon.
- G) Although survey data indicates that parking space time limits are for the most part adhered to, local business owners and residents have raised concern with employee vehicle shuffling and washing chalk marks off of tires.
- H) There are many distractions in these areas and off-street parking and signage may not be clearly visible to visitors.
- I) There are a large number of vehicles circulating the area seeking more convenient on-street parking spaces.
- J) Vehicles are parked in restricted zone parking at curb faces, along alleys, and curb returns.
- K) Employee and visitor parking spillover to residential areas.

Based on the data analysis and observations there is clearly a shortage of parking supply in the core area of Pacific Beach. At first glance it seems that the parking shortage is really just a shortage of convenient low cost parking spaces. However, it is much more than that. There is a shortage of parking supply. If all the on-street and public off-street parking spaces were utilized there would still be a shortage of parking spaces.

4.0 Parking Management Strategies

Parking management strategies help balance parking supply and demand and improve parking efficiency. A number of management, regulatory, and restriping strategies were evaluated and considered for the area, such as:

- Parking Regulations and Zoning
- Posted Time Limits
- Parking Space Striping & Parking Zones
- Parking Enforcement
- Signage
- Residential Parking Permit Program
- Shuttle Service and Satellite/Peripheral Parking Facilities
- Parking Meter Installation

The following highlights some of the key management strategies discussed in the report:

Parking Space Striping & Parking Zones

Several areas have been identified where existing parallel parking could potentially be converted to angle parking and where parallel parking guides could be installed to maximize parking efficiency. Angle (or diagonal) curbside parking can increase the number of spaces on a given block. Only about ten parallel parking spaces can be provided in 235 feet of curb space. However, the same distance can accommodate about 18 angle (45-degree) spaces. Note that this “rule of thumb” estimate does not take into account the loss of spaces due to driveways, fire hydrants, etc.

Other advantages of angled parking are: 1) drivers generally perceive it as easier to enter and exit than parallel parking and 2) drivers are safer entering and exiting vehicles. To increase the parking supply by several spaces, parallel parking locations may be converted to diagonal parking at the locations specified in the report. The Pacific Beach Community Planning Committee prefers that any new diagonal parking be limited to one side of the street and that any new diagonal parking requests should be brought before the planning committee for recommendation for approval by the City Council before implementation.

Inefficient curb utilization is a common problem associated with parallel parking when markings are absent from the pavement surface. Field surveys as well as area resident and employee testimony have indicated that parallel parking areas in Pacific Beach are often inefficiently parked. The provision of parallel parking guide markings throughout the Pacific Beach area could increase the number of parking spaces by increasing the utilization of available curb space. This becomes increasingly important in areas where high turnover can be expected (i.e. areas with parking time limits).

Signage

The lack of adequate comprehensive signage is typically one of the key reasons that off-street parking facilities are underutilized. A comprehensive signage and wayfinding program could increase utilization of off-street parking facilities and increase the availability of on-street parking spaces. Therefore, a comprehensive signage program should be developed to maximize visitor awareness to public parking locations. This could be prepared in conjunction with a community-wide public parking map which would identify all available public parking locations as well as the time limits and parking fees, if any, associated with each of the locations. The program should consider directional signage in advance of the primary entry points to the area and also within the area. The basic idea is to attract the visitor's attention to parking locations before they get to the primary activity corridor.

Parking Regulations and Zoning

Current zoning and parking regulations were reviewed and compared with other municipalities in Southern California that are similar to the area of this study. It appears that the City parking regulations are consistent with these other communities and the parking regulations are continually updated to reflect current growth conditions throughout the City. There are no recommended changes in parking regulations and zoning. However, the following issues were noted, which are related to regulatory/zoning requirements.

- In some residential areas, garages have been converted to living and storage spaces, thereby reducing on-street parking supply.
- Motor homes and recreational vehicles are sometimes parked on-street overnight and/or for a long period of time. This is more prevalent in the residential areas during the summer season. This also reduces on-street parking supply.

Parking regulations and zoning requirements should be strictly enforced.

Parking Enforcement

The City's Parking Management Department provides parking enforcement in Pacific Beach from the hours of 8:00 A.M. to 5:00 P.M. daily. The parking enforcement officer rotates exclusively throughout the community during that period of time. Discussions with the City's Parking Management Department indicated that the level of violations or abuse of parking regulations appears to be normal as compared to other areas of the City. Other than employee vehicle shuffling, the most common violations involve illegal parking along curb returns, designated loading zones, and red curb zones. Field observations indicate that these violations appear to be more prevalent in the evening hours. In order to reduce parking regulation violations and abuse it is recommended that parking enforcement be increased throughout the day and the hours of parking enforcement operations be extended to 8:00 P.M.

Vehicle shuffling by employees appears to be widespread throughout Pacific Beach. These occurrences could be reduced by utilizing an enforcement system which involves keying specific license plate numbers into a hand-held unit. However, such a system would involve additional staff resources as the process takes significantly more time as compared to the current method of tracking time limit parking, which is chalking tires.

Shuttle Service and Satellite/Peripheral Parking Facilities

Bus shuttle services from satellite/peripheral-parking facilities are frequently considered as a means to limit the amount of new parking in a downtown or major activity center. The Metropolitan Transit Development Board is current studying the feasibility of providing a bus rapid transit service to the Pacific Beach area. The study is known as the North Bay & Beach Area Transit Study and it is currently on going.

The Sun Runner bus shuttle service operated in the Pacific Beach area from 1983 to 1993. The service was mildly successful in that it achieved the primary goal of providing an alternative transportation mode for visitors going to the beach areas. During its most successful year Sun Runner ridership reached approximately 31,800 over a 75-day period. The service was discontinued primarily due to costs associated with maintenance and refurbishment of the aging rubber-tired trolley vehicles.

Shuttle operations and maintenance costs can be substantial and they are generally subsidized. Shuttle services are most cost-effective when there is a relatively constant stream of potential passengers; a relatively simple route; and the shuttle origination point is a short distance from the destination point. Additionally, satellite/peripheral-parking facilities should be located in areas with efficient access and high visibility. Satellite/peripheral-parking facilities could provide shuttle bus service for employees and visitors alike. The service could operate during peak season and special event periods. Joint use or shared use opportunities should be considered.

Reduced Off-Street Parking Rates

Existing off-street lots throughout the study area are underutilized. One reason for this is that off-street lots require a fee while on-street parking is free. Reducing the off-street parking rate in select locations, such as the lots along Hornblend between Mission Boulevard and Cass Street, could divert some of the on-street parking to these off-street lots. This could be done as a joint public/private partnership with the city and landowner or the business community and landowner.

5.0 Future Conditions

As outlined in the report, a parking deficiency currently exists in the Pacific Beach area. In the future forecast years of 2005 and 2020, demand is expected to increase along with the growth of the community and tourism in the area. As parking is an essential service provided to all residents and visitors to the community, it is vital that solutions to meet these current and predicted deficiencies be found. Construction of surface parking facilities or acquisition of private lots for conversion to low cost public lots may be a short-term strategy, but it will not accommodate long-term parking needs. The community and the City will need to plan for future parking needs through management strategies and additional public parking facilities. Based on the current and anticipated future supply and demand conditions in Pacific Beach, it is recommended that the City consider the feasibility of acquiring existing private surface lots and/or constructing one or more parking facilities in Sub Areas 1 and 3. These additional facilities could be surface lots or parking structures. New municipal surface lots are recommended for the short term, which can be converted to parking structures for the long term as demand arises. Additionally, the parking management strategies identified above should be implemented as indicated.

6.0 Potential Future Parking Structure Analysis

The study of existing and future conditions identified a shortage of parking supply and the need for additional parking facilities. One possible solution to address future parking needs is the construction of one or more parking structures. Reconnaissance was performed throughout the Pacific Beach area to identify candidate sites for the placement of a new parking structure. Two sites were identified, with two concepts considered for the Bayard and Hornblend Street site:

- Bayard and Hornblend Street, Concept 1 (Figure i.3);
- Bayard and Hornblend Street, Concept 2 (Figure i.4);
- Bank of America Parking Lot Site (Figure i.5)

The sites are located within Sub Area 1, directly adjacent to Sub Area 3. Both Sub Areas have a current parking deficit.

Bayard and Hornblend Street Site, Concept 1

This site north of Hornblend Street is rectangular in shape and is currently vacant. This parcel lends itself to an efficient sloping-floor design. The proposed structure concept has five levels (including rooftop parking), 2.5 underground and 2.5 above ground or at surface level (See Figure i.3). The total size of the structure would be approximately 120,000 square feet, which provides approximately 350 parking spaces. Construction cost of the facility with reasonable amenities (exclusive of property costs, architectural and engineering fees, construction engineering and management, and legal and financing costs) would be approximately \$6,000,000, or \$17,140 per space.

Bayard and Hornblend Street Site, Concept 2

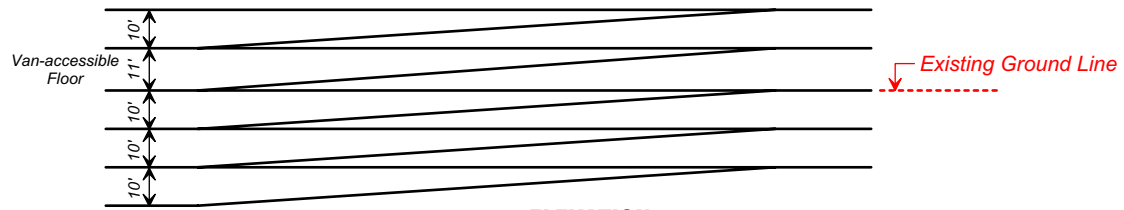
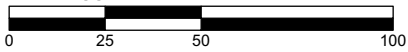
This concept extends the limits of the site approximately 150 feet to the west and 50 feet to the east. This parcel lends itself to the same sloping-floor design as the Concept 1 structure, however, it is larger than the Concept 1 structure, which allows for a more efficient design. The proposed structure concept has five levels (including rooftop parking), 2.5 underground and 2.5 above ground or at surface level (See Figure i.4). The total size of the structure would be approximately 238,750 square feet, which provides approximately 760 parking spaces for a net gain of 665 spaces. Construction cost of the facility with reasonable amenities (exclusive of property costs, architectural and engineering fees, construction engineering and management, and legal and financing costs) would be approximately \$12,000,000, or \$15,790 per space. When considered on a per-net-new space basis, the cost is approximately \$18,050 per space.

Bank of America Parking Lot Site

This site south of Felspar Street is rectangular in shape and is currently occupied by a Bank of America parking lot. This parcel lends itself to an efficient sloping-floor design. The proposed structure concept has five levels (including rooftop parking), 2.5 underground and 2.5 above ground or at surface level (See Figure i.5). The total size of the structure would be approximately 120,000 square feet, which provides approximately 350 parking spaces, for a net gain of 294 spaces. Construction cost of the facility with reasonable amenities (exclusive of property costs, architectural and engineering fees, construction engineering and management, and legal and financing costs) would be approximately \$6,000,000, or \$17,140 per space.



Approximate Scale in Feet



ELEVATION

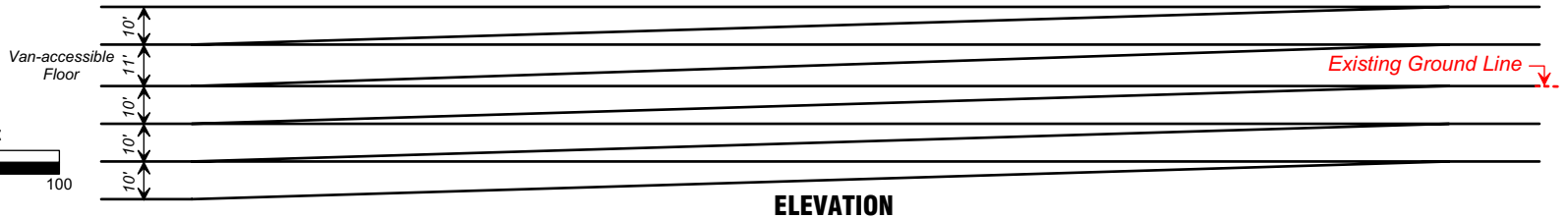
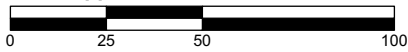
Approximately 350 parking spaces
(2.5 levels below ground, 2.5 levels at or above ground).

**PACIFIC BEACH
BAYARD AND HORNBLEND STREET SITE
PARKING GARAGE CONCEPT NO. 1**

Figure i.3



Approximate Scale in Feet



Approximately 760 parking spaces
(2.5 levels below ground, 2.5 levels at or above ground).

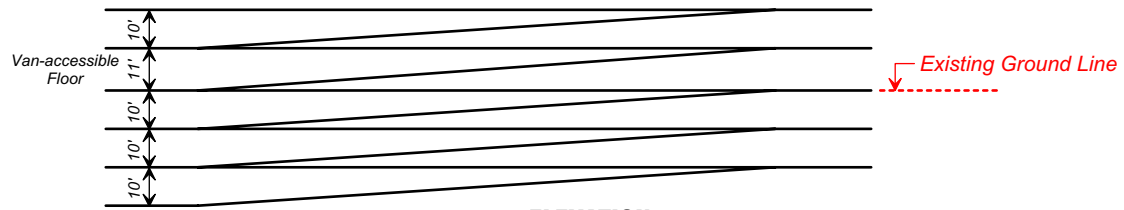
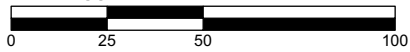
**PACIFIC BEACH
BAYARD AND HORNBLEND STREET SITE
PARKING GARAGE CONCEPT NO. 2
Figure i.4**



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Approximate Scale in Feet



ELEVATION

Approximately 350 parking spaces
(2.5 levels below ground, 2.5 levels at or above ground).

**PACIFIC BEACH
BANK OF AMERICA PARKING LOT SITE
PARKING GARAGE CONCEPT**

Figure i.5

7.0 Financial Planning Techniques

A number of possible funding mechanisms were considered for their applicability to finance parking improvements in the Pacific Beach area, such as:

- Parking Revenue Bonds
- Valet Parking - Leasing and/or Franchise Programs
- Parking Assessment District Bonds
- Tax Increment Financing
- Public/Private Partnerships
- In-Lieu Parking Fees
- Special Grants and Funding Programs
- Transient Occupancy Tax

The following highlights some of the key funding mechanisms discussed in the report:

Parking Revenue Bonds

Revenue collected from new and/or existing parking facilities can be used to support the issuance of bonds. However, revenue from a new parking structure is typically not sufficient to cover both the operating costs and the annual debt service for the bond payments. In addition, because there are certain risks in depending on the revenues from parking as the sole backing for a bond issue, the bond underwriters will require that the revenue from the parking exceed the debt service requirement by 50 percent or more. It should also be noted that the City's current policy regarding parking meter fees is that 45 percent of the revenue collected returns to the community, 45 percent goes to the City's General Fund, and 10 percent is allocated for operations, maintenance, and administration of the paid parking facility. As a result, in order to use parking revenue as a source for funding a parking structure or other major improvement, additional sources of revenue need to be developed.

Valet Parking - Leasing and/or Franchise Programs

The City is exploring the possibility of selling or leasing the right to operate valet parking on City streets in commercial areas. While the City currently licenses valet operators, it does not collect any revenue from this transaction. The opportunity may exist for the City to enter into an agreement with private companies to lease on-street valet spaces and/or to operate a "Valet Parking Franchise." Under the lease arrangement the City would lease spaces at a rate equivalent to the rate of occupying a metered parking space for a full day. Under the Valet Parking Franchise arrangement the City would solicit competitive bids from companies that could operate valet services for a specified area or community. The qualified high bidder would be awarded a contract to operate a Valet Parking Franchise for the specified area. In return the City would earn revenue from the licensing of the franchise and/or the franchisee's operations. The City of Santa Monica recently developed a leasing program for on-street valet parking. The Valet Parking Franchise program has not yet been used in California.

Pacific Beach may be a candidate for either program, as valet parking for evening and weekend shopping, restaurant, and entertainment activities could be popular. Revenues from these programs could be used to help support the construction and/or operation of new parking facilities.

Parking Assessment District Bonds

An assessment district is a mechanism where the property owners within the district boundary agree to assess themselves through property taxes to fund the desired parking improvements. A two-thirds approval vote is required of all the property owners in the district, with the vote based on the assessed valuation of the property. The assessment is limited to the benefits conferred and fees and charges are limited to the cost of providing the service. Very strong property owner support is required to set up such a district.

Transient Occupancy Tax

Another general source of funding to support the parking improvements in Pacific Beach could be an increase in the City’s Transient Occupancy Tax (TOT). A substantial amount of parking in Pacific Beach is related to visitor activities. This funding mechanism should be evaluated in further detail.

8.0 Parking Program Costs

Parking program costs include the costs of developing a parking structure and the annual costs to maintain and operate a structure.

Bond Issue Costs

Table 8.1 below summarizes the construction and total bond issue costs of the two parking structure concepts in Pacific Beach. Construction costs are the actual costs to physically construct the parking structure, while the bond issue costs include the total costs of parking structure development, including land costs, design fees, and the cost of obtaining financing for the structure. The average cost of developing structured parking in Pacific Beach on land not owned by the City will be approximately \$28,580 to \$32,560 per space.

Site	Description	Parking Spaces	Construction Cost	Construction Cost per Space	Total Bond Issue Amount	Total Cost per Space
Bayard & Hornblend, Concept 1	5 levels (2.5 below grade)	350	\$6,000,000	\$17,140	\$11,395,700	\$32,560
Bayard & Hornblend, Concept 2	5 levels,(2.5 below grade)	760	\$12,000,000	\$15,800	\$21,722,600	\$28,580
B of A Parking Lot Site	5 levels (2.5 below grade)	350	\$6,000,000	\$17,140	\$11,395,700	\$32,560

Assuming that a smaller structure is constructed (providing 350 spaces), the total bond issue would be just under \$11,400,000. This amount financed over a 25-year period at a 7.5 percent interest rate would require an annual debt service of \$1,010,900, or about \$2,888 per space.

Operating Costs

Operating and maintenance (O&M) costs cover such ongoing expenses as utilities, custodial services, landscape maintenance, administration and management, repairs, and other related items. O&M costs can vary considerably between municipalities and by the type of facilities available. Variables include type of facility (surface lot or parking structure), type of parking revenue collection system, reserve for major maintenance and repairs, and insurance costs. O&M costs for parking structures are generally higher than for surface lots. Operation of a parking structure will add to the costs the city currently incurs for maintenance of surface lots and administration. It was assumed that O&M costs would run in the range of \$400 to \$500 per space for any new parking structure. An average of \$450 per space was used in the analysis in this report.

9.0 Potential Parking Revenues

A comparative analysis of similar sized City parking rates was performed forming the basis for this on-street parking revenue analysis and the off street parking cost/revenue analysis.

Potential Parking Fees

An important consideration in the development of a paid parking program is to set the amount of the parking fees to be paid. Typically operators of private parking facilities will set the fees at the highest amount the market will bear, as they want to sell all or most of their parking each day to maximize their income. Public parking fees typically take other factors into consideration. For example, the fees should be high enough to cover the costs of the parking program, but not so high as to discourage business or to encourage employees and visitors to park in nearby neighborhoods. For the purposes of the revenue analysis in this study, an hourly rate of \$0.50 per hour, and a monthly rate of \$65 per month was used.

Parking Structure Revenues

Once constructed, a parking structure could possibly generate enough revenues from parking to cover the operating costs of the structure and the costs of the debt service and debt service coverage requirement on the bonds that would be issued to finance the development of the structure. For the purpose of this analysis, public off-street parking fees of \$0.50 per hour for short-term parking and \$65 per month for employee parking were assumed. Spaces designated for employee parking would earn \$65 per month or \$780 per year. However, it is common practice to oversell permits for these spaces by 10 percent or more. Assuming 10 percent oversell would yield revenue of approximately \$860 per year per space for employee parking. For short term parking the characteristics of the area as determined in the existing conditions analysis suggest that the average duration is about 2.7 hours and that a typical spaces turns over 2.6 times per day.

At a fifty cents per hour fee this suggests that a short-term space could generate \$3.50 per day or about \$1,008 per year assuming 288 days of operation. 288 days of operation assume that a structure will be utilized seven days per week between the Memorial Day and Labor Day weeks, and five days per week for the remainder of the year. The analysis assumed that 60 percent of the parking spaces would be used for employee parking and the remaining spaces would be used for short-term parking.

This analysis also assumed a ramp-up period of five years in which time the percent utilization of public spaces is assumed to incrementally increase as the public becomes accustomed to the location of the structure. It is assumed that 55 percent of the available public parking spaces will be utilized in the first year of operation. This value is expected to increase by 10 percent per year, until practical capacity of 85 percent is achieved by the fourth year of operation.

This analysis suggests that the revenue from the parking structure alone would not be enough to cover all the costs of developing the structure and that additional revenues would be necessary, even once practical capacity is achieved in the structure, assumed in the fourth year of operation. Additionally, this assumes that 100 percent of the net revenues would be applied to cover the operating costs of the structure and debt service on the bonds, which may not be the case given the City's current policy on paid parking revenues as identified previously.

Table 9.1 shows the combined results of the cost and revenues analysis presented above for each of the parking structure alternatives evaluated in Pacific Beach.

Site	Description	Parking Spaces	Total Bond Issue Amount	Annual Operating Costs	Annual Revenue	Net Revenue	Annual Debt Service & Coverage	Net Income Surplus/ (Deficiency)
Bayard & Hornblend, Concept 1	5 levels (2.5 below grade)	350	\$11,395,700	\$157,500	\$284,100	\$126,600	\$1,516,350	(\$1,389,750)
Bayard & Hornblend, Concept 2	5 levels (2.5 below grade)	760	\$21,722,600	\$342,000	\$616,900	\$274,900	\$2,890,500	(\$2,615,600)
B of A Parking Lot Site	5 levels (2.5 below grade)	350	\$11,395,700	\$157,500	\$284,100	\$126,600	\$1,516,350	(\$1,389,750)

It is unlikely that any of the structures could generate enough revenue to cover the annual operating costs, the annual debt service, and the debt service coverage requirement. They all would have a net income deficiency ranging from a low of (\$1,389,750) for the 350-space structures to (\$2,615,600) for the 760-space structure.

In order to overcome this deficiency an additional source of revenue would be necessary.

On-Street Parking Revenues

As indicated previously, on-street metered parking is not recommended at this time because it was determined that their use would not make a significant difference in existing parking supply and in fact may exacerbate deficiencies or increase pressure on prime parking because there are insufficient off-street parking facilities available to accommodate longer-term parkers that would be displaced by the use of on-street parking meters. However, when additional parking facilities are provided, implementing on-street metered parking in high-demand areas would aid in financing new parking facilities and increase on-street parking availability. For this analysis, three streets were targeted as candidates for paid on-street parking:

- Garnet Avenue from Ocean Boulevard to Dawes Street;
- Hornblend Street from Ocean Boulevard to Dawes Street; and
- Grand Avenue from Ocean Boulevard to Dawes Street.

The 429 parking spaces on these three streets could generate on average \$1,710 per day on weekdays and \$710 per day on weekends. On an annual basis (with Sundays free), on-street parking could generate approximately \$480,000. Assuming a 20 percent cost for administration, enforcement and revenue collection, the net revenue from on-street parking would be in the order of \$385,000. The amount allocated for administration, enforcement, and revenue collection is closer to 10 percent per the City of San Diego's current policy described earlier. If on-street parking revenues are used as a factor to subsidize the bond issue then the net revenue should also consider the capital costs of procuring and installing parking meters. This cost is dependent on the type of meter used, number of meters, and location, which is outside the scope of this study.

Implementing paid on-street parking on Garnet, Hornblend and Grand Avenue would yield \$385,000, which would not be sufficient in itself to overcome the revenue deficiencies.

10.0 Conclusions and Recommendations

As presented earlier, there is clearly an existing parking deficiency throughout the study area. The following parking management strategies are provided to help alleviate parking deficiencies.

- A) Increase on-street parking supply by converting certain parallel parking spaces to diagonal parking spaces (as specified in the report).
- B) Increase on-street parallel parking efficiency by providing painted guide markings.
- C) Extend parking enforcement times to 8:00 P.M. This provision would discourage long term visitors from utilizing parking spaces intended for visitors. Employees would also be less likely to vehicle shuffle within time restricted parking spaces.
- D) Develop a comprehensive signage program to maximize visitor awareness to public parking locations. This could be prepared in conjunction with a community-wide

public parking map which would identify all available public parking locations as well as the time limits and parking fees, if any, associated with each of the locations. The program should consider directional signage in advance of the primary entry points to the area and also within the area. The basic idea is to attract the visitor's attention to parking locations before they get to the primary activity corridor.

- E) Explore shuttle service and satellite/peripheral parking possibilities to alleviate long term parking in the core activity areas of downtown Pacific Beach.
- F) The community or City should consider acquiring existing private surface lots and converting them to low-cost public parking and/or constructing one or more public parking facilities in Sub Areas 1 and 3. These additional facilities could be surface lots or parking structures.
- G) Encourage employees working in the core activity area to park in lots further away from the core area.
- H) Improve transit service and encourage increased carpooling for the business portions of the community in order to reduce parking demand.
- I) Provide bicycle-parking facilities (bicycle lockers and/or parking racks) in the visitor areas of the community, such as the areas along Ocean Boulevard, Mission Boulevard, and Garnet Avenue.
- J) Implement a public awareness campaign to promote awareness of the availability of alternate public transportation that would connect visitors and employees to the Pacific Beach Area.

While the above parking management strategies could be employed to help alleviate parking deficiencies, the combination of all these parking management strategies will not significantly increase parking supply or decrease parking demand to accommodate the existing and anticipated parking demand growth in the area.

As parking is an essential service provided to all residents and visitors to the community, it is vital that solutions to meet these current and predicted deficiencies be found. Construction of surface parking facilities or acquisition of private lots for conversion to low cost public lots may be a short-term strategy, but it will not accommodate long-term parking needs. The community and the City will need to plan for future parking needs through management strategies and additional public parking facilities.

Therefore, it is recommended that the community and City plan for one or more future parking structures in Sub Areas 1 and 3. Additionally, the parking management strategies identified in the report should be reevaluated as additional parking facilities are provided.

If the community and the City decide to move forward with the development of a parking structure, there are a number funding mechanisms that should be considered to help finance the parking structure, as indicated below:

- A) The City should consider establishing a parking assessment district or and In lieu-fee program.

- B) The City should further evaluate the concept of “Valet Parking Franchise Program.” Funds from this program could be earmarked for the parking construction and/or operation of a parking structure.
- C) The City should pursue “Special Grants and Funding Programs.”
- D) The City should pursue public/private partnerships.
- E) The City should consider the use of the Transient Occupancy Tax.
- F) The City should consider charging a fee for the use of any new parking facilities. The demand justifies charging a fee. Discount fees could be charged for monthly parking and an hourly rate charged for short-term or daily parking. The amount of revenue generated by parking fees would be far short of the amount needed to cover the costs of operation and debt service of the bonds issued to fund the construction of the structure.

The best approach would be to pursue a combination of these measures, as no single measure appears likely to generate enough funds to finance development of a parking structure.

- END -

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PACIFIC BEACH

VISITOR ORIENTED PARKING FACILITIES STUDY – PHASE II

Introduction

Wilbur Smith Associates (WSA) was retained by the City of San Diego to provide an assessment of existing parking supply and demand conditions; estimate future parking demand conditions; determine the extent of parking deficiencies; develop a set of practical alternatives to mitigate these deficiencies; and to conduct a conceptual analysis identifying parking program costs and financing techniques to implement parking improvements in the visitor oriented area of Pacific Beach.

The study area (See Figure 1.0) is visitor-oriented, with many commercial establishments catering to visitors, while other areas of the community are primarily residential.

This report is divided into five sections, as follows:

- 1. Issues & Existing Supply/Demand Analysis:** This section identifies existing parking issues and provides an analysis of existing supply and demand.
- 2. Future Supply/Demand:** This section provides an analysis of future supply and demand.
- 3. Analysis of Possible Future Parking Structure:** This section presents an analysis of potential parking structure sites, construction costs, parking program costs and financing techniques for a possible future parking structure.
- 4. Recommendations:** This section presents the recommendations of the study.

Background

Pacific Beach is a regional destination that attracts tourists, beach goers, and visitors. Visitors, as generally defined by the San Diego Convention and Visitors Bureau, include local residents from the region, overnight leisure visitors, and overnight commercial visitors.

There are two primary activity corridors in the study area: 1) the Mission Boulevard commercial district, including Bayard and Cass Streets; and 2) the Grand Avenue/Garnet Avenue Business District. The Mission Boulevard district includes restaurants, bars, shops, theaters, nightclubs, hotels, and other commercial and entertainment establishments. The Grand Avenue/Garnet Avenue district includes various businesses and other commercial establishments. Both corridors also include residential areas. The parking characteristics and travel patterns of these activity corridors were considered in the analysis of parking demand.



Study Area Boundary

Pacific Beach Community

City of San Diego Visitor Oriented Parking Survey

Figure 1.0

1.0 Issues & Existing Supply/Demand Analysis

This section provides an assessment of existing parking conditions and parking demand in the Pacific Beach area of San Diego. The section also documents observations and issues, parking characteristics, existing parking demand and supply within the community, and provides conclusions pertaining to the analysis of existing parking supply and demand.

1.1 Existing Parking Supply and Usage Patterns

A parking survey was conducted during peak and off peak seasons to determine existing parking characteristics such as parking supply, occupancy, accumulation, duration and turnover. City staff conducted the field survey during August and November of 2000. Data was collected hourly from 11:00 A.M. to 8:00 P.M. for weekday and weekend conditions. This data was then analyzed to determine turnover, duration, and occupancy for specific Sub Areas of the community (See Figure 1.1). These Sub Areas were developed based on characteristics of the activity corridors and known travel patterns.

Parking Supply

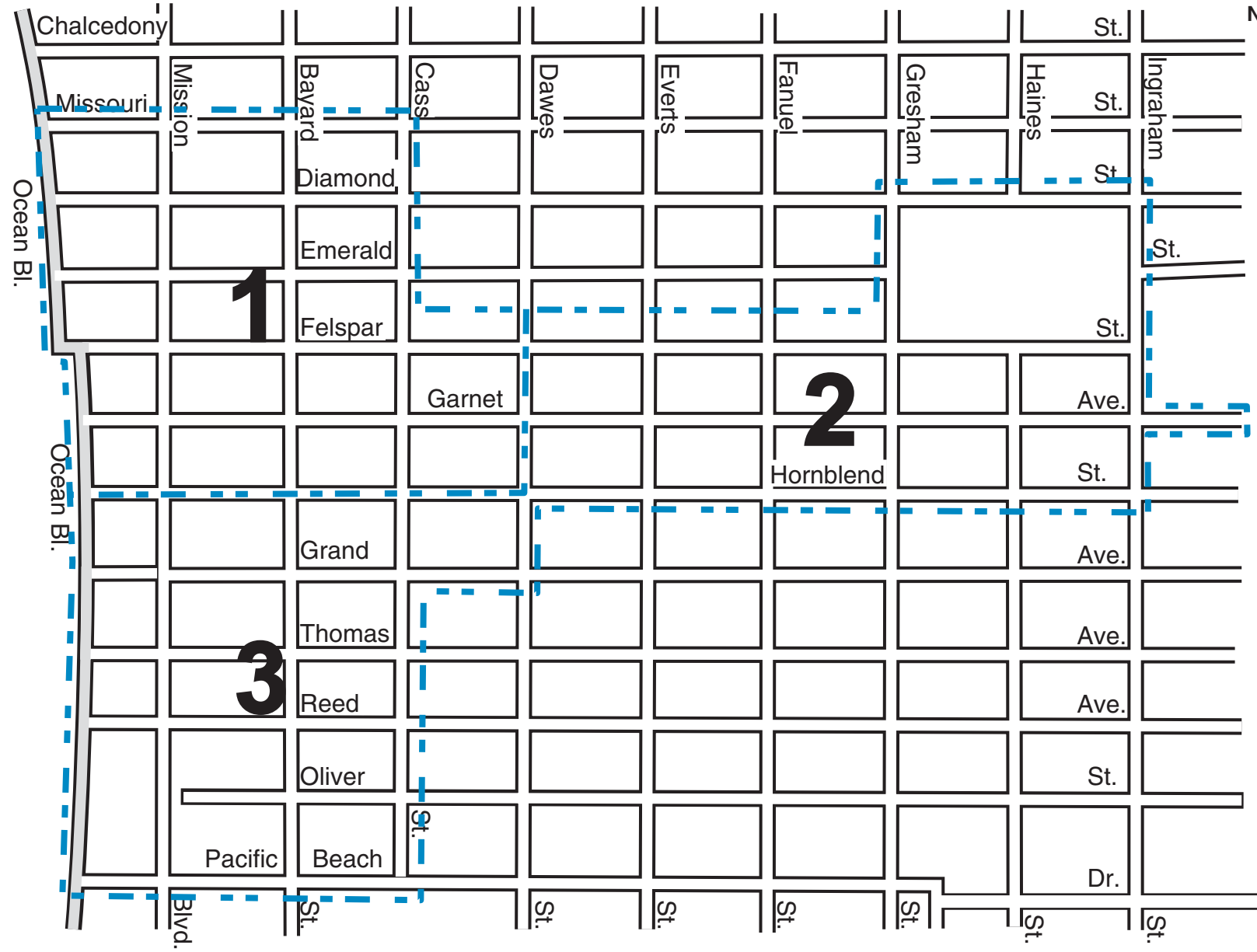
There are three primary types of parking supply available to the general public in the Village area: 1) On-street public parking spaces, 2) off-street parking in private lots, and 3) valet parking. The majority is provided in the 2,480 on-street parking spaces, which comprise approximately 73 percent of the total parking supply (3,392) in the study area. Approximately 912 spaces (27 percent) are provided in off-street private and valet lots. Current fees for off-street private lots and valet services are as follows:

- Daily flat rate fees range from \$3.00 to \$6.00 depending on location and season.
- Time limit fees are \$1.00 per 30 minutes, with no maximum fee.
- Valet service flat rate fees range from \$3.00 to \$5.00 year round.

Many of these private lots also provide monthly permit parking and are only partially available for general public parking.

Parking Occupancy

Parking occupancy is the number of vehicles observed in a parking lot or along the street at any given point in time. Full occupancy of every parking space is not considered realistic due to significant delays and safety concerns as motorists search for available parking spaces. Industry standards indicate that practical capacity should be in the range of 85 percent to 90 percent occupancy. For purposes of this study we assume 85 percent occupancy as the practical parking capacity to maintain adequate traffic circulation conditions.



4

- 1** Sub-Area Identification
- Sub-Area Boundary

Pacific Beach Sub Areas
City of San Diego Visitor Oriented Parking Survey

Figure 1.1

As expected, the analysis indicates that on street parking occupancy in the primary activity corridors generally exceeds practical capacity on weekdays and weekends for peak and off-peak seasons at the following locations (See Figures 1.2 and 1.3):

- Emerald Street from Ocean Boulevard to Cass Street
- Feldspar from Ocean Boulevard to Dawes Street
- Garnet Avenue from Ocean Boulevard to Dawes Street
- Hornblend Street from Ocean Boulevard to Dawes Street
- Grand Avenue from Ocean Boulevard to Bayard Street
- Thomas Avenue from Ocean Boulevard to Mission Boulevard
- Dawes Street from Hornblend Street to Feldspar Street
- Cass Street from Thomas Avenue to Emerald Street
- Bayard Street from Thomas Avenue to Emerald Street

However, off-street parking in these areas is underutilized. Possible explanations for this include:

- a) On-street parking is free while off-street parking requires a fee.
- b) Beach visitors will park farther away and walk to their destination to avoid paying a parking fee.

Parking Accumulation

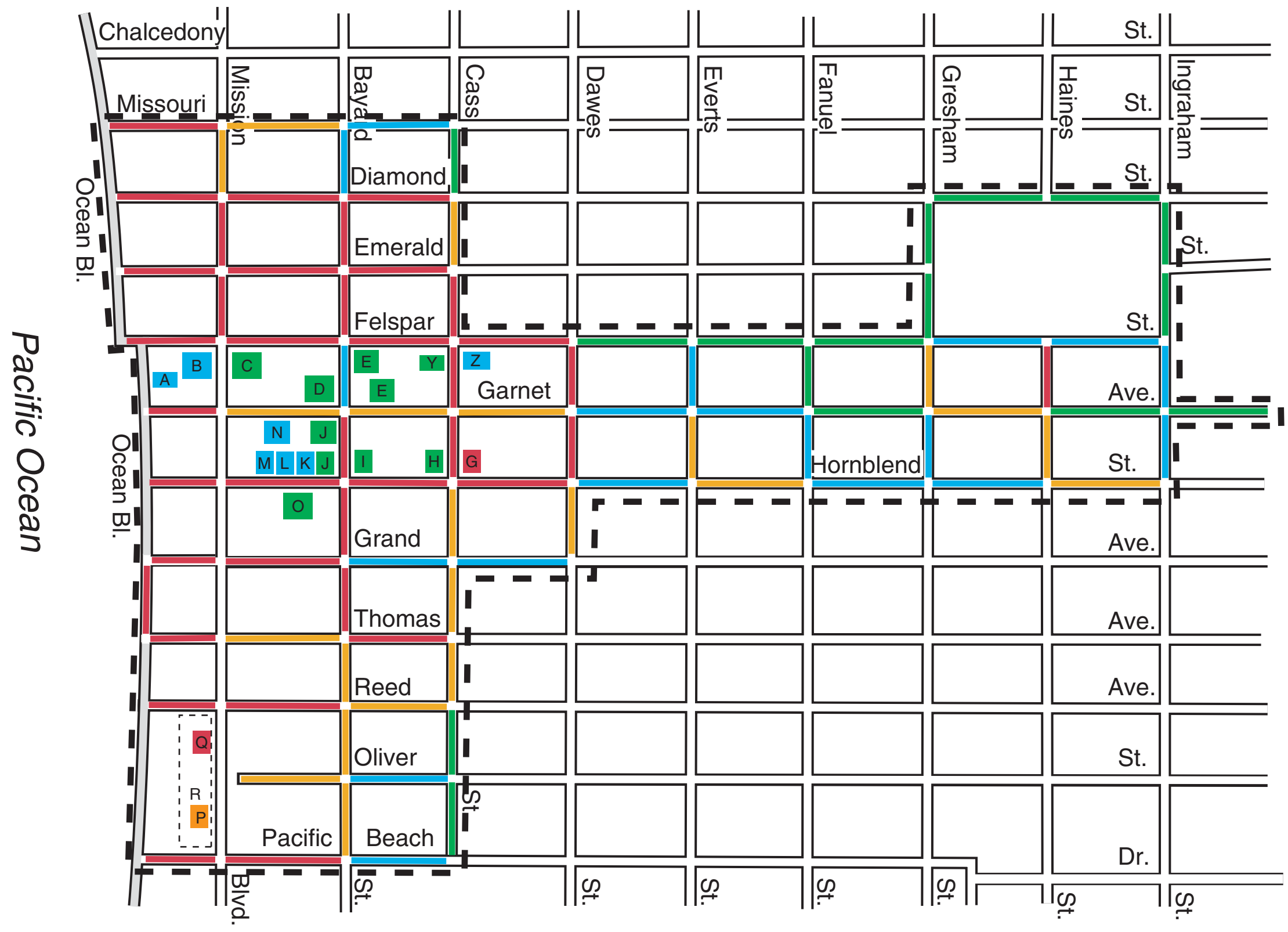
The accumulation of parked vehicles is a direct measure of parking space usage during different periods of the day.

Parking demand levels in the business district areas tend to remain high during all survey periods (peak and off-peak, weekday and weekend). Parking spaces closer to the coastal areas tend to remain at high levels throughout the day during the peak season. During the off-peak, however, parking levels reduce in the late afternoon along the coast as the sun begins to set. Parking levels in the residential areas peak during the morning and early afternoon. These levels generally taper off in the mid to late afternoon. Accumulation in each Sub Area is shown in Figures B.1 through B.6 in the Appendix.

Parking Duration and Turnover

Parking duration is the average length of time that a space remains occupied by a given vehicle, while turnover is the average number of vehicles occupying one parking space during the survey period. For the majority of the study area, a license plate survey was used to determine duration and turnover characteristics of parking space utilization for on-street and off-street parking facilities within the community. The remaining areas utilized an occupancy-only survey. Using both methods allowed for a larger survey study area.

↑
NO SCALE



LEGEND:

- 85 - 100% Occupancy
- 70 - 84% Occupancy
- 50 - 69% Occupancy
- 00 - 49% Occupancy

AVERAGE OCCUPANCY RATES FOR WEEKDAY PARKING
Pacific Beach Community
 City of San Diego Visitor Oriented Parking Survey

Figure 1.2

↑
NO SCALE



LEGEND:

- 85 - 100% Occupancy
- 70 - 84% Occupancy
- 50 - 69% Occupancy
- 00 - 49% Occupancy

AVERAGE OCCUPANCY RATES FOR WEEKEND PARKING
Pacific Beach Community
 City of San Diego Visitor Oriented Parking Survey

Figure 1.3

Duration times were observed to be generally consistent with posted time limits. Most time-restricted areas exhibit average durations below the posted limit. Parking duration and turnover characteristics for each Sub Area are summarized in Table 1.1 below.

Table 1.1 Duration and Turnover Characteristics					
Sub Area		Weekday		Weekend	
		Average Duration (hours)	Average Turnover (vehicles)	Average Duration (hours)	Average Turnover (vehicles)
1 Mission Blvd./Garnet Ave. District n/o Hornblend & w/o Dawes	Peak Season	2.5	3.1	2.9	3.0
	Off-Peak Season	2.1	2.3	2.2	2.6
2 Garnet Ave. Corridor e/o Dawes to Ingraham	Peak Season	2.3	2.4	2.5	2.5
	Off-Peak Season	3.4	1.3	4.1	1.4
3 Mission Blvd./Grand Ave. District s/o Hornblend & w/o Dawes	Peak Season	2.7	2.7	3.1	2.6
	Off-Peak Season	2.3	2.2	2.6	2.1

Visitor and Employee Parking Characteristics

Studies have shown that employees will generally tolerate walking longer distances from their vehicles to their destination than people shopping or taking care of personal business. It has also been cited that motorists parking for a longer duration, such as employees, were willing to accept longer walking distances. Visitors to the beach area also have the tendency to walk longer distances as observed during the course of this study. Numerous individuals and families parked four to six blocks, or more, away from the beach area and walked to the beach.

Studies have also shown that short-trip visitors, those that spend less than one-hour in an area such as this, will typically walk about one block from their parked vehicle to their primary destination. Visitors that are familiar with or frequent the area have the tendency to circulate around the block a few times until a convenient curb space becomes available. Short-trip visitors that are not familiar with the area may become frustrated by the lack of available on-street parking and drive away without completing their trip purpose.

Issues and Observations

There are a number of issues identified through field observations and discussions with City staff and members of the community. One of the key issues identified relates to employee parking. Although survey data indicates that parking space time limits are for the most part adhered to, local business owners and residents have raised concern with employee vehicle shuffling and washing chalk marks off of tires.

Vehicle shuffling entails employees (or otherwise) parking for the duration of a posted time limit and subsequently moving the vehicle to a nearby parking space to avoid exceeding the limit. The occurrence of vehicle shuffling would potentially lower the survey duration results that were found in this study.

During the course of this study it was observed that off-street parking is generally underutilized. Possible explanations for this include:

- On-street parking is free while off-street parking requires a fee.
- The majority of visitors park less than two-hours, which may discourage them from paying a fee to park in an off-street lot.
- Visitors may perceive some off-street parking as being closed to the public.
- There are many distractions in these areas and off-street parking and signage may not be clearly visible to visitors.

Other issues and observations include:

- There are a large number of vehicles circulating the area seeking more convenient on-street parking spaces.
- Vehicles are parked in restricted zone parking at curb faces, along alleys, and curb returns.
- Employee and visitor parking spillover to residential areas.

1.2 Existing Parking Supply/Demand Balance

Parking demand refers to the amount of parking needed in a specific area. Since drivers can only park where parking is provided, occupancy rates alone do not necessarily indicate the demand for a particular area.

Latent Demand

Latent demand refers to that demand which is not directly visible in an area. Latent parking demand during peak periods can be considered in two forms. One form involves parkers who cannot find a parking space within an area they would prefer to park and ultimately park outside the preferred area. This is also sometimes referred to as spillover. This form of latent demand is very common for beach goers as evidenced by occupancy rates along the residential streets of Sub Areas 1 and 3, which includes Diamond Street, Emerald Street, Feldspar Street, Thomas Avenue, Reed Avenue, Oliver Avenue, and Pacific Beach Drive.

The second form of latent parking demand involves parkers who become so frustrated when required to search for an empty parking space that they ultimately leave the area. Observations of travel patterns and parking occupancy levels in the area strongly suggest that this form of latent demand exists, but it is difficult to quantify.

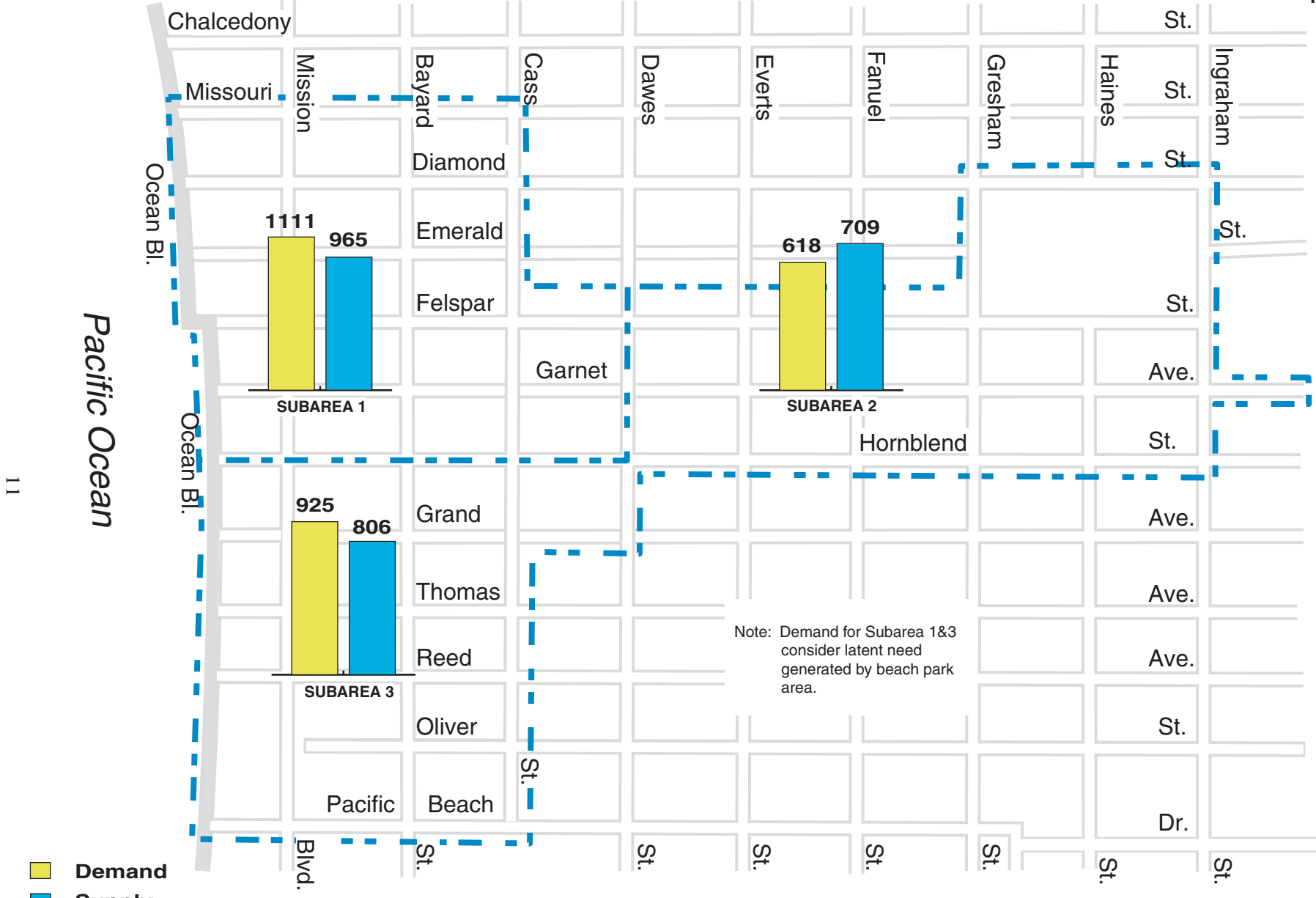
Existing Parking Demand

An average and peak parking demand was determined and compared to the existing parking supply. The average demand presented is the highest daily average encountered for the on- or off-peak season, weekday or weekend for each Sub Area. The peak demand presented is the highest individual hour encountered for the on- or off-peak season, weekday or weekend for each Sub Area. Table 1.2 presents the parking demand versus supply for Sub Areas within the community.

Sub Area	Parking Supply	Average Demand	Average Deficiency (Surplus)	Peak Demand	Peak Deficiency (Surplus)
1 Mission Blvd./Garnet Ave. District n/o Hornblend & w/o Dawes	965	1,111	146	1,139	174
2 Garnet Ave. Corridor e/o Dawes to Ingraham	709	618	(91)	816	107
3 Mission Blvd./Grand Ave. District s/o Hornblend & w/o Dawes	806	925	119	952	146
Totals	2,480	2,654	174	2,907	427

As indicated above, average and peak parking demand exceeds supply in most areas. This analysis includes utilizing the underutilized off-street spaces that were identified previously. In other words, if all the on-street and public off-street parking spaces were utilized there would still be a shortage of parking spaces. Figures 1.4 and 1.5 present the average and peak parking demand, respectively, by Sub Area.

There are a number of parking management strategies that could be employed to help alleviate on-street parking deficiencies, as identified below.

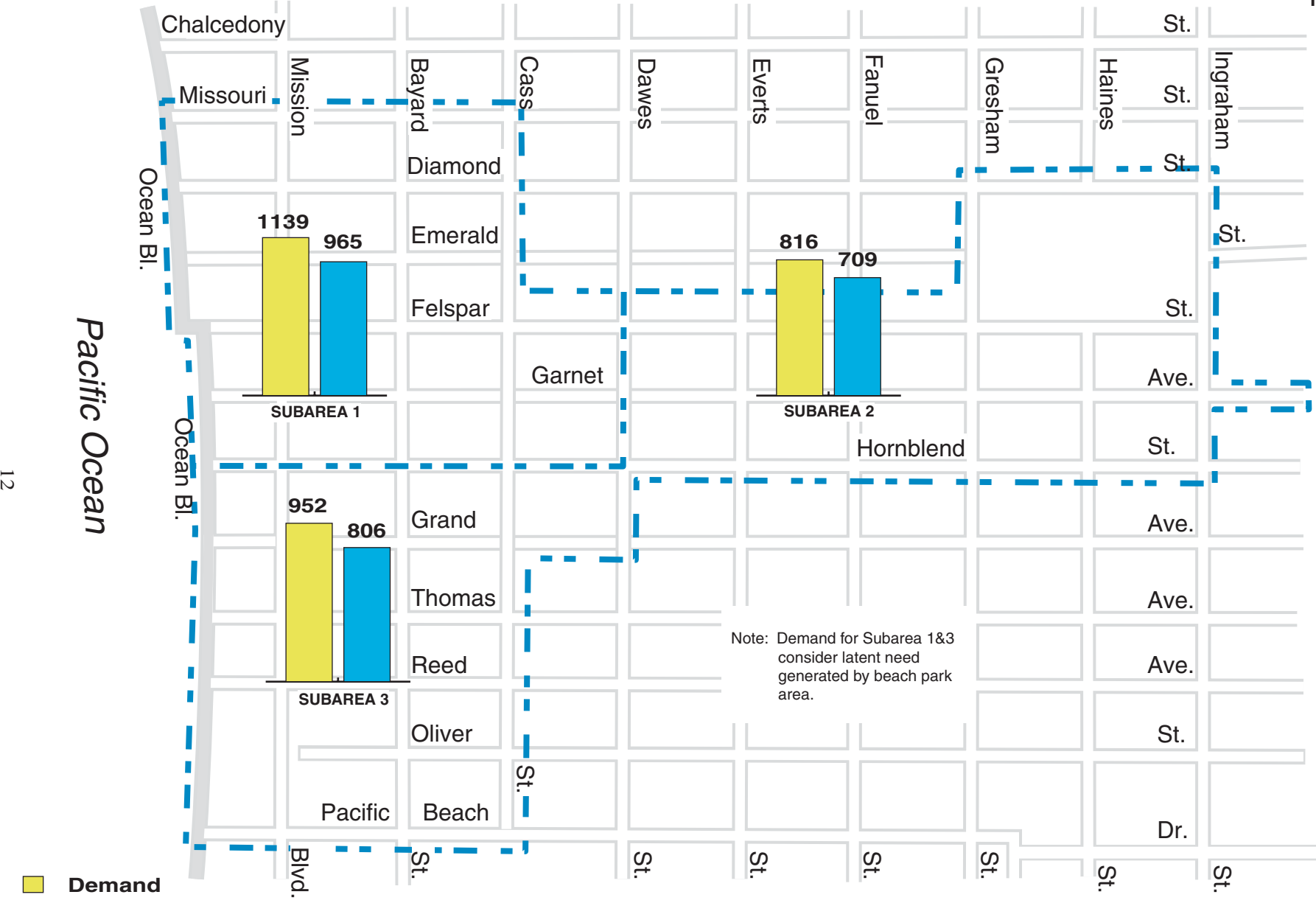


Note: Demand for Subarea 1&3 consider latent need generated by beach park area.

- Demand
- Supply
- Sub-Area Boundary

**Pacific Beach On-Street Parking
Existing Demand For Average Occupancy
City of San Diego Visitor Oriented Parking Survey**

Figure 1.4



Pacific Beach On-Street Parking
Existing Demand For Peak Hour Occupancy
City of San Diego Visitor Oriented Parking Survey

Figure 1.5

1.3 Parking Management Strategies

Parking management strategies help to balance parking supply and demand and improve parking efficiency. A number of these strategies were evaluated for this study as identified below.

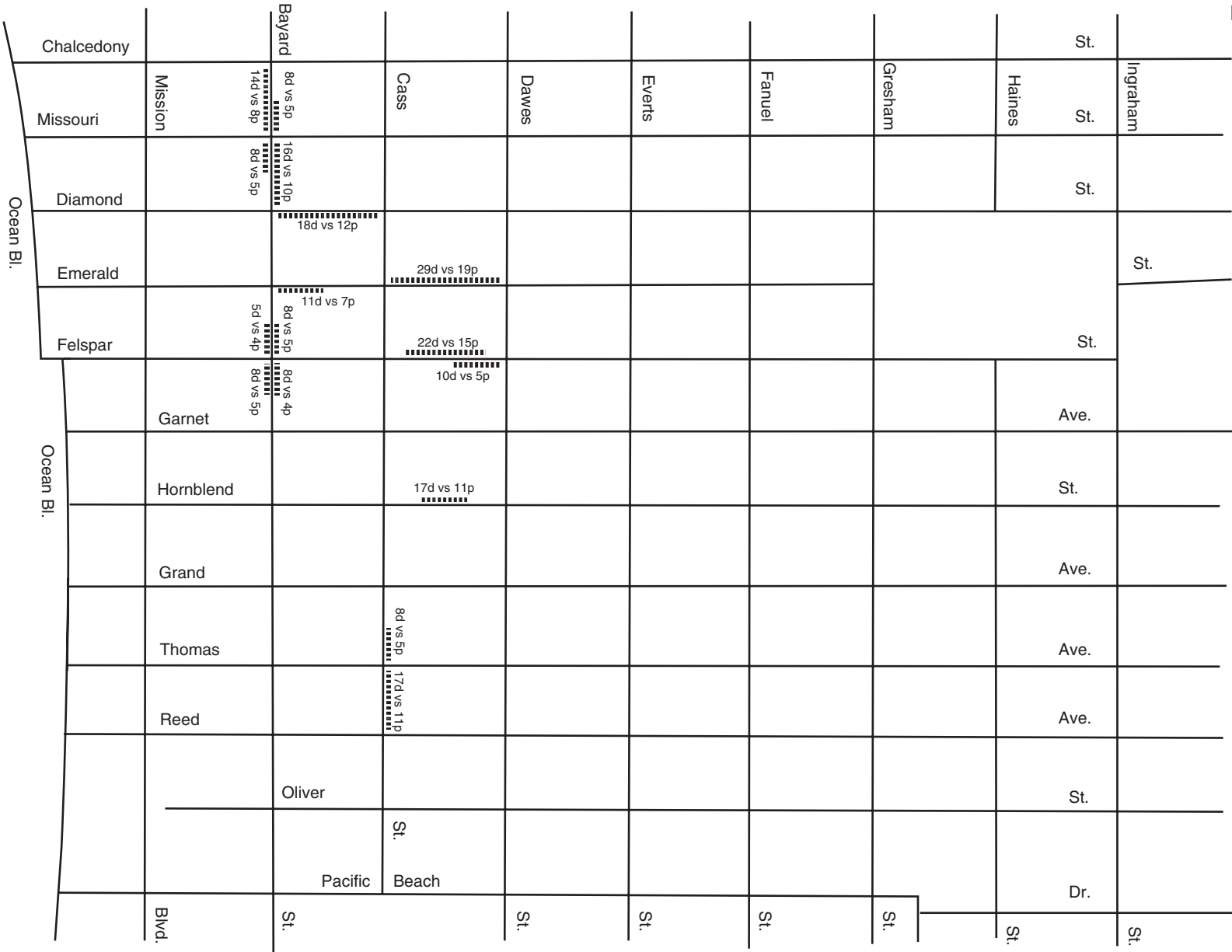
Parking Space Striping & Parking Zones

Several areas have been identified where existing parallel parking could potentially be converted to angle parking and where parallel parking guides could be installed to maximize parking efficiency. Angle (or diagonal) curbside parking can increase the number of spaces on a given block. Only about ten parallel parking spaces can be provided in 235 feet of curb space. However, the same distance can accommodate about 18 angle (45-degree) spaces. Note that this “rule of thumb” estimate does not take into account the loss of spaces due to driveways, fire hydrants, etc.

Other advantages of angled parking are: 1) drivers generally perceive it as easier to enter and exit than parallel parking and 2) drivers are safer entering and exiting vehicles. To increase the parking supply by several spaces, parallel parking locations may be converted to diagonal parking at the locations shown in Figure 1.6. The Pacific Beach Community Planning Committee prefers that any new diagonal parking be limited to one side of the street and that any new diagonal parking requests should be brought before the planning committee for recommendation for approval by the City Council before implementation. As indicated on Figure 1.6, diagonal parking could be accommodated on either side of Bayard Street at the indicated locations. A preferred side for diagonal parking implementation at these Bayard Street locations, if any, could be determined during planning committee review.

Inefficient curb utilization is a common problem associated with parallel parking when markings are absent from the pavement surface. Field surveys as well as area resident and employee testimony have indicated that parallel parking areas in Pacific Beach are often inefficiently parked. The provision of parallel parking guide markings throughout the Pacific Beach area could increase the number of parking spaces by increasing the utilization of available curb space. This becomes increasingly important in areas where high turnover can be expected (i.e. areas with parking time limits).

Although converting select areas of parallel parking to angle parking and providing parallel parking guide markings could potentially increase the number of spaces in the community, the deficiency found under existing conditions would not be accommodated by these means alone.



LEGEND:

- Potential for Diagonal Parking to Add Spaces
- d Diagonal Parking
- p Parallel Parking

Pacific Beach Community
Potential Locations For Diagonal Parking
City of San Diego Visitor Oriented Parking Survey

Figure 1.6

Parking Regulations and Zoning

Current zoning and parking regulations were reviewed and compared with other municipalities in Southern California that are similar to the area of this study. It appears that the City parking regulations are consistent with these other communities and the parking regulations are continually updated to reflect current growth conditions throughout the City. There are no recommended changes in parking regulations and zoning. However, the following issues were noted, which are related to regulatory/zoning requirements.

- In some residential areas, garages have been converted to living and storage spaces, thereby reducing on-street parking supply.
- Motor homes and recreational vehicles are sometimes parked on-street overnight and/or for a long period of time. This is more prevalent in the residential areas during the summer season. This also reduces on-street parking supply.

Parking regulations and zoning requirements should be strictly enforced.

Parking Enforcement

The City's Parking Management Department provides parking enforcement in Pacific Beach from the hours of 8:00 A.M. to 5:00 P.M. daily. The parking enforcement officer rotates exclusively throughout the community during that period of time. Discussions with the City's Parking Management Department indicated that the level of violations or abuse of parking regulations appears to be normal as compared to other areas of the City. Other than employee vehicle shuffling, the most common violations involve illegal parking along curb returns, designated loading zones, and red curb zones. Field observations indicate that these violations appear to be more prevalent in the evening hours.

In order to reduce parking regulation violations and abuse it is recommended that parking enforcement be increased throughout the day and the hours of parking enforcement operations be extended to 8:00 P.M.

As indicated previously, vehicle shuffling by employees appears to be widespread throughout Pacific Beach. Strict enforcement of parking regulations, particularly time limits on curb parking, can be effective in reducing demand for on-street parking spaces and forcing longer-term parkers, such as employees, to off-street parking facilities. Employees parking in on-street spaces meant for short-term parking is a common problem for most cities. Employees often try to exceed parking time limits by wiping chalk marks off tires and shuffling their vehicle from one space to another. These occurrences could be reduced by utilizing an enforcement system which involves keying specific license plate numbers into a hand-held unit. However, such a system would involve additional staff resources as the process takes significantly more time as compared to the current method of tracking time limit parking, which is chalking tires.

Posted Time Limits

Posted time limits were reviewed in comparison to parking duration, turnover and occupancy to determine what changes, if any, are needed. On-street time limits should be set to maximize the opportunity for short-term visitor use, while off-street parking facilities should accommodate longer-term parking. Much of the area is currently posted with 2-hour limits. Expanding these time limits to the residential areas would only exacerbate deficiencies or increase pressure on prime parking because there are insufficient parking facilities available to accommodate longer-term parkers that would be displaced by these time limits. Based on this evaluation changes in posted time limits are not recommended. Posted time limits for all areas should be reevaluated as additional parking facilities are provided.

Signage

The lack of adequate comprehensive signage is typically one of the key reasons that off-street parking facilities are underutilized. A comprehensive signage and wayfinding program could increase utilization of off-street parking facilities and increase the availability of on-street parking spaces. Therefore, it is recommended that a comprehensive signage program be developed to maximize visitor awareness to public parking locations. This could be prepared in conjunction with a community-wide public parking map which would identify all available public parking locations as well as the time limits and parking fees, if any, associated with each of the locations. The program should consider directional signage in advance of the primary entry points to the area and also within the area. The basic idea is to attract the visitor's attention to parking locations before they get to the primary activity corridor.

Residential Parking Permit Program

Residential parking permits are typically implemented to "protect" residential neighborhoods from spillover parking from adjacent commercial land uses. In this case they do not directly address the supply and demand balances and in fact may exacerbate deficiencies or increase pressure on prime parking because there are insufficient off-street parking facilities available to accommodate parking spaces that would be displaced by the use of residential parking permits. Therefore, residential parking permits are not recommended at this time. However, the concept of residential parking permits should be evaluated periodically as additional parking facilities are provided in the future. It should be noted that several residents have contacted the City's Traffic Engineering Division to participate in such a program.

Shuttle Service and Satellite/Peripheral Parking Facilities

Bus shuttle services from satellite/peripheral-parking facilities are frequently considered as a means to limit the amount of new parking in a downtown or major activity center. The Metropolitan Transit Development Board is current studying the feasibility of providing a bus rapid transit service to the Pacific Beach area. The study is known as the North Bay & Beach Area Transit Study and it is currently on going.

The Sun Runner bus shuttle service operated in the Pacific Beach area from 1983 to 1993. The service was mildly successful in that it achieved the primary goal of providing an alternative transportation mode for visitors going to the beach areas.

During its most successful year Sun Runner ridership reached approximately 31,800 over a 75-day period. The service was discontinued primarily due to costs associated with maintenance and refurbishment of the aging rubber-tired trolley vehicles.

Shuttles are most cost-effective when there is a relatively constant stream of potential passengers; a relatively simple route; and the shuttle origination point is a short distance from the destination point. Additionally, satellite/peripheral-parking facilities should be located in areas with efficient access and high visibility. Satellite/peripheral-parking facilities could provide shuttle bus service for employees and visitors alike. The service could operate during peak season and special event periods. Shuttle operations and maintenance costs can be substantial. Joint use or shared use opportunities should be considered.

Shuttle Service and satellite/peripheral-parking facilities are not recommended as the only means of addressing parking deficiencies in the Village area. The concept of providing shuttle service and satellite/peripheral-parking facilities requires further study and should be done in cooperation with the Metropolitan Transit Development Board's current North Bay & Beach Area Bus Rapid Transit Study.

Parking Meter Installation

Parking meters can increase the availability of on-street parking through price differentials and higher turnover. Studies have shown that installation of parking meters increases turnover of on-street parking spaces by about 70 percent. Parking meters force longer-term parkers to use off-street lots. Enforcement of time limits is also simplified by the installation of parking meters, and revenue is generated by the collection of meter fees. However, implementing parking meters can be a very sensitive issue within a community.

The possibility of using parking meters was reviewed in comparison to parking duration, turnover and occupancy. It was determined that their use would not make a significant difference in existing parking supply and in fact may exacerbate deficiencies or increase pressure on prime parking because there are insufficient off-street parking facilities available to accommodate longer-term parkers that would be displaced by the use of on-street parking meters. Based on this evaluation parking meters are not recommended at this time. However, the use of parking meters should be considered as additional parking facilities are provided.

Reduced Off-Street Parking Rates

As indicated previously, existing off-street lots throughout the study area are underutilized. One reason for this is that off-street lots require a fee while on-street parking is free. Reducing the off-street parking rate in select locations, such as the lots along Hornblend between Mission Boulevard and Cass Street, could divert some of the on-street parking to these off-street lots. This could be done as a joint public/private partnership with the city and landowner or the business community and landowner. It should be noted that this strategy is not a long-term solution.

Other Management Strategies

Employees working in the core activity areas should be encouraged to park in areas further away from the core area. Efforts should be made to reduce parking demand through improved transit service, increased carpooling, and promotion of telecommuting/alternative work schedules for the business portions of the community.

A public awareness campaign should be implemented to promote awareness of the availability of alternate public transportation that would connect visitors and employees to the Pacific Beach Area.

Additionally, bicycle-parking facilities (bicycle lockers and/or parking racks) should be provided in the visitor areas of the community, such as the areas along Ocean Boulevard, Mission Boulevard, and Garnet Avenue.

1.4 Conclusions

Based on the data analysis and observations there is clearly a shortage of parking supply in the core area of Pacific Beach. Specifically, there is a need for additional parking facilities that could accommodate employees and visitors. If employees had designated parking areas it would free up on-street and off-street prime parking spaces for visitors.

Parking demand generally exceeds practical capacity on weekdays and weekends for peak and off-peak seasons. At first glance it seems that the parking shortage is really just a shortage of convenient low cost parking spaces. However, it is much more than that. There is a shortage of parking supply. If all the on-street and public off-street parking spaces were utilized there would still be a shortage of parking spaces.

There are a number of parking management strategies that could be employed to help alleviate on-street parking deficiencies, as identified above. However, the combination of all these parking management strategies will not significantly increase parking supply or decrease parking demand in the peak periods. Therefore, it is recommended that the City consider the feasibility of acquiring existing private surface lots and/or constructing one or more parking facilities in Sub Areas 1 and 3. These additional facilities could be surface lots or parking structures. Additionally, the parking management strategies identified above should be implemented as indicated.

2.0 Future Supply/Demand

This section addresses the future parking needs of the Pacific Beach community and provides an assessment of future parking demand for two planning horizon years (2005 and 2020).

2.1 Future Parking Supply/Demand Balance

The supply/demand balance was forecast for planning horizon years 2005 and 2020. The area is effectively “built out” meaning that there is no new development planned. However, the area has great potential for redevelopment and infill development. It is assumed that these redevelopment and infill development projects will be required to provide parking either on-site or through shared parking lease agreement arrangements.

Future Demand Methodology

Forecasting future parking demand in a visitor oriented area such as Pacific Beach is challenging as there is no source of data that predicts long-term trends relating to tourism, beach goers, and local visitors. No major land use changes were identified which would affect future parking demand, therefore, for purposes of this study, it was assumed that parking demand in Pacific Beach would increase, as the population in the surrounding region increases.

The rationale for this assumption relates to the special character of the area – visitor oriented. Pacific Beach is a regional destination that attracts tourists, beach goers, and visitors. Visitors, as generally defined by the San Diego Convention and Visitors Bureau, include local residents from the region, overnight leisure visitors, and overnight commercial visitors. According to a 1997 study of overnight visitors conducted for the San Diego Convention and Visitors Bureau, the Mission Bay area beaches ranked second as one of the top five attractions visited in San Diego. SeaWorld ranked number one and Old Town ranked number four. That study also identified that overnight leisure visitors and overnight commercial visitors had different characteristics. Leisure visitors traveled to San Diego primarily by personal vehicle, whereas the majority of commercial visitors arrived to San Diego by air. About 30 percent of the leisure visitors came from Southern California and 12 percent each came from Northern California and Arizona.

Population estimates published by the San Diego Association of Governments (SANDAG) were used to determine projected growth rates between current and planning horizon years (2005 and 2020) as indicated in Table 2.1.

Year	Population (City of San Diego)	Growth Rate (Horizon/Existing Population)
2000	1,289,148	-
2005	1,403,874	9%
2020	1,693,533	31%

Half of the existing parking demand was assumed to be generated by employees of the area while the remaining half was assumed to be visitor generated. As shown above, the visitor generated portion of the existing demand levels were grown by 9 percent and 31 percent to estimate parking demand figures for the years 2005 and 2020. The employee portion of the parking demand is assumed to remain constant.

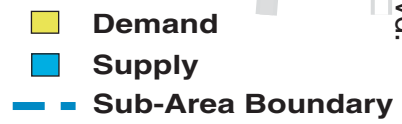
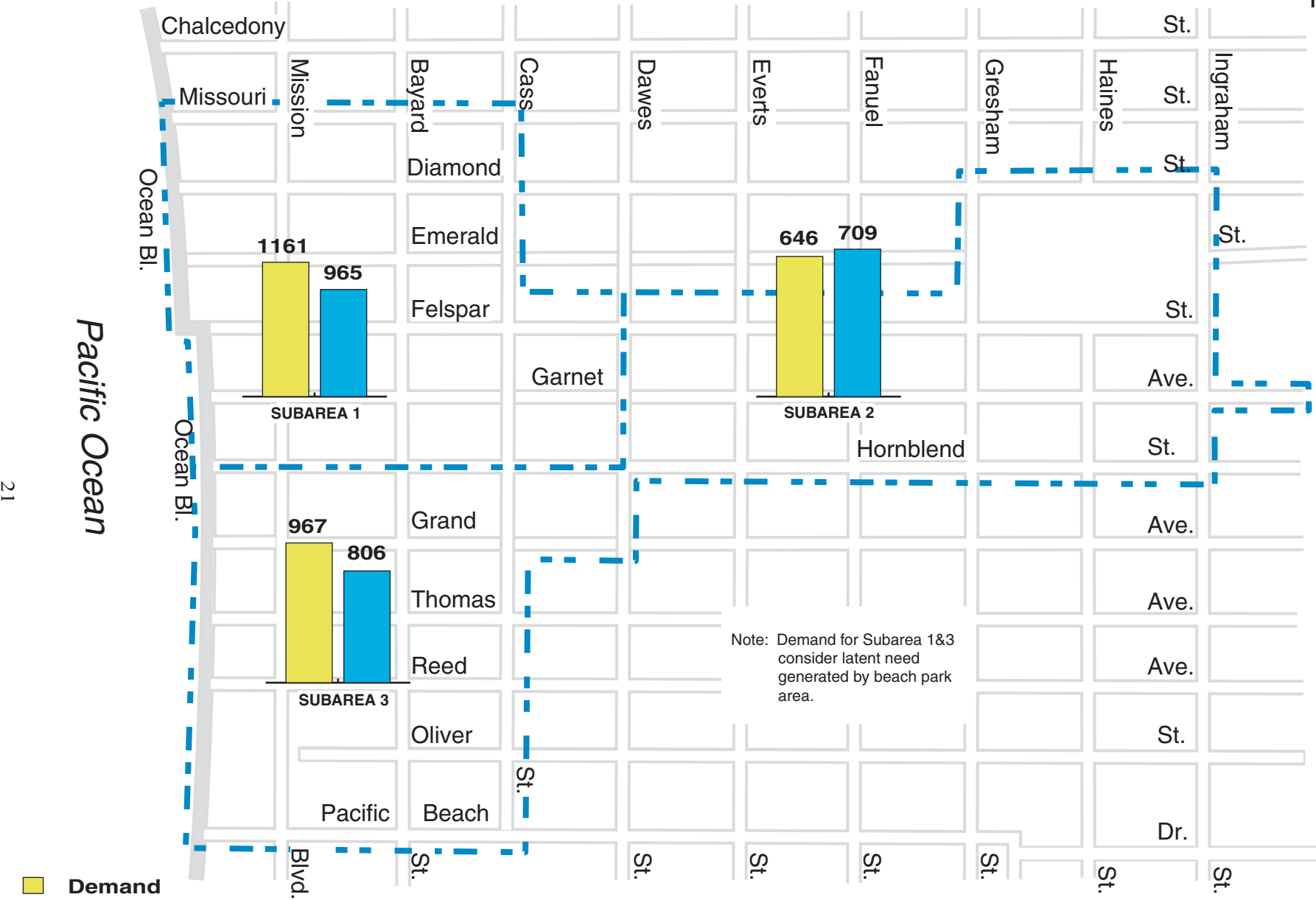
Based on the assessment of existing conditions, a parking deficiency already exists in Pacific Beach. The existing demand analysis demonstrates that Sub Areas 1 and 3 have the greatest need for additional parking facilities. By examining the parking demand for years 2005 and 2020 and determining which Sub Areas exhibit the greatest need for additional parking spaces, a parking facilities siting process can focus on these particular areas.

Year 2005 Parking Demand

Table 2.2 presents the projected year 2005 parking demand versus existing supply for the Sub Areas within the community of Pacific Beach. The average demand presented is the highest daily average expected for the on- or off-peak season, weekday or weekend for each Sub Area. The peak demand presented is the highest individual hour expected for the on- or off-peak season, weekday or weekend for each Sub Area. Figures 2.1 and 2.2 present the projected year 2005 average and peak parking demand, respectively, by Sub Area.

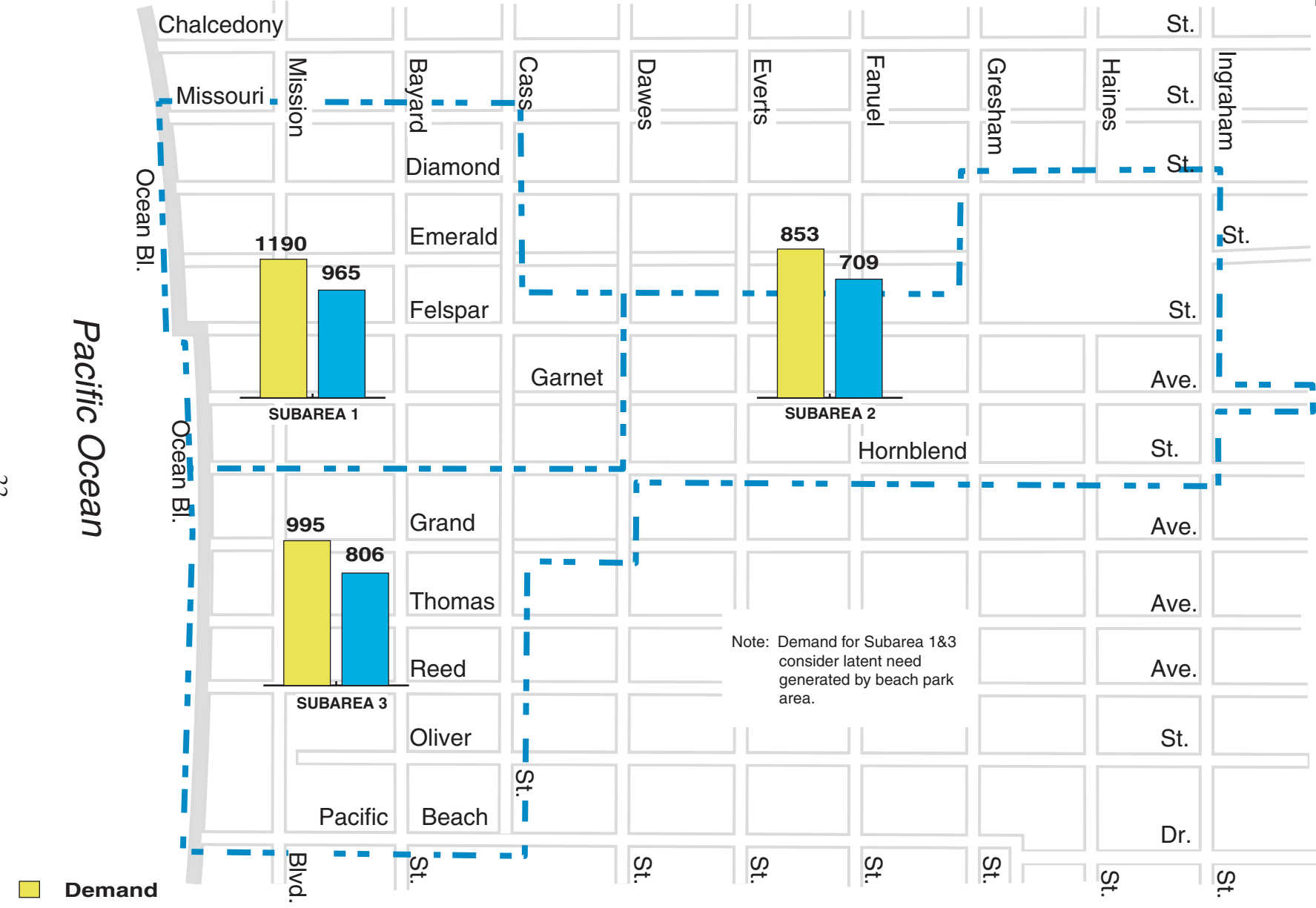
Similar to existing conditions, Sub Areas 1 and 3 exhibit the greatest need for additional parking spaces in 2005, with peak deficiencies of 225 and 189 spaces, respectively. Sub Area 2 is shown to need additional spaces under peak conditions, with a deficiency of 144 spaces projected. However, over the course of a day, Sub Area 2 does not demonstrate a consistently high parking deficiency since the average demand value is accommodated by the available parking supply.

Sub Area	Parking Supply	Average Demand	Average Deficiency (Surplus)	Peak Demand	Peak Deficiency (Surplus)
1) Mission Blvd./Garnet Ave. District n/o Hornblend & w/o Dawes	965	1,161	196	1,190	225
2) Garnet Ave. Corridor e/o Dawes to Ingraham	709	646	(63)	853	144
3) Mission Blvd./Grand Ave. District s/o Hornblend & w/o Dawes	806	967	161	995	189
Totals	2,480	2,773	293	3,038	558



**Pacific Beach On-Street Parking
2005 Demand For Average Occupancy
City of San Diego Visitor Oriented Parking Survey**

Figure 2.1



Note: Demand for Subarea 1&3 consider latent need generated by beach park area.

- Demand
- Supply
- Sub-Area Boundary

**Pacific Beach On-Street Parking
2005 Demand For Peak Hour Occupancy
City of San Diego Visitor Oriented Parking Survey**

Figure 2.2

Year 2020 Parking Demand

Table 2.3 presents the projected year 2020 parking demand versus existing supply for the Sub Areas within the community of Pacific Beach. The average demand presented is the highest daily average expected for the on- or off-peak season, weekday or weekend for each Sub Area. The peak demand presented is the highest individual hour expected for the on- or off-peak season, weekday or weekend for each Sub Area. Figures 2.3 and 2.4 present the projected year 2020 average and peak parking demand, respectively, by Sub Area.

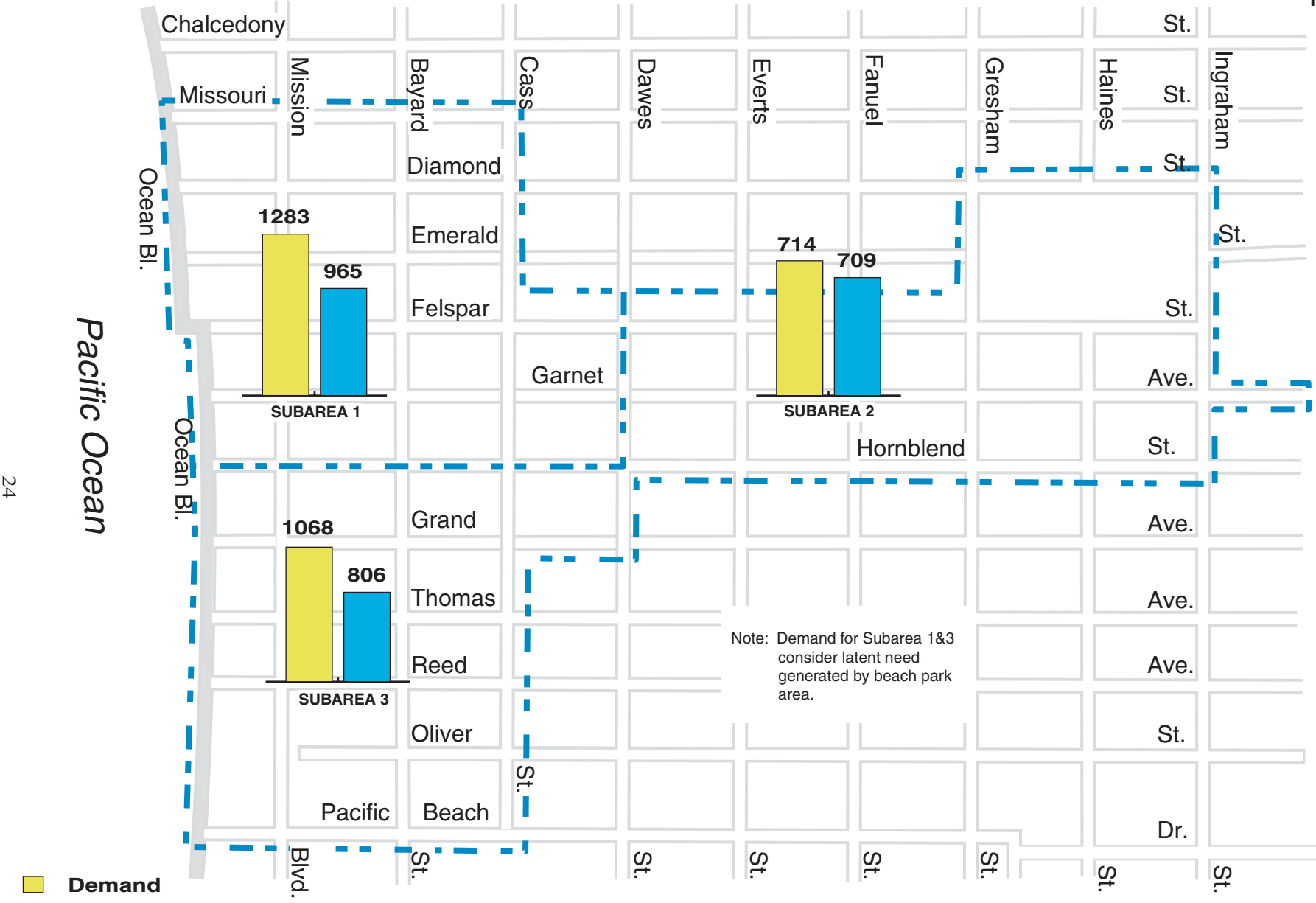
Sub Areas 1 and 3 continue to exhibit the greatest need for additional parking spaces in 2020, with peak deficiencies of 350 and 294 spaces, respectively. Sub Area 2 is projected to become deficient throughout the day, with a peak deficiency of 233 spaces projected. Both the peak and average parking demand for Sub Area 2 are expected to exceed available supply in 2020.

Sub Area	Parking Supply	Average Demand	Average Deficiency (Surplus)	Peak Demand	Peak Deficiency (Surplus)
1) Mission Blvd./Garnet Ave. District n/o Hornblend & w/o Dawes	965	1,283	318	1,315	350
2) Garnet Ave. Corridor e/o Dawes to Ingraham	709	714	5	942	233
3) Mission Blvd./Grand Ave. District s/o Hornblend & w/o Dawes	806	1,068	262	1,100	294
Totals	2,480	3,065	585	3,357	877

2.2 Conclusions

The analysis of future parking needs shows that there is a significant shortage of parking supply and that the demand is likely to increase along with the growth of the community and tourism in the area. This shortfall is expected to increase to 558 spaces by year 2005, and to 877 spaces by 2020. As parking is an essential service provided to all residents and visitors to the community, it is vital that solutions to meet these current and predicted deficiencies be found. Construction of surface parking facilities or acquisition of private lots for conversion to low cost public lots may be a short-term strategy, but it will not accommodate long-term parking needs. The community and the City will need to plan for future parking needs through management strategies and additional public parking facilities.

Therefore, it is recommended that the community and City plan for one or more future parking structures in Sub Areas 1 and 3. Additionally, the parking management strategies identified previously, such as metered on-street parking, residential parking permits, and shuttle services be reevaluated as additional parking facilities are provided.

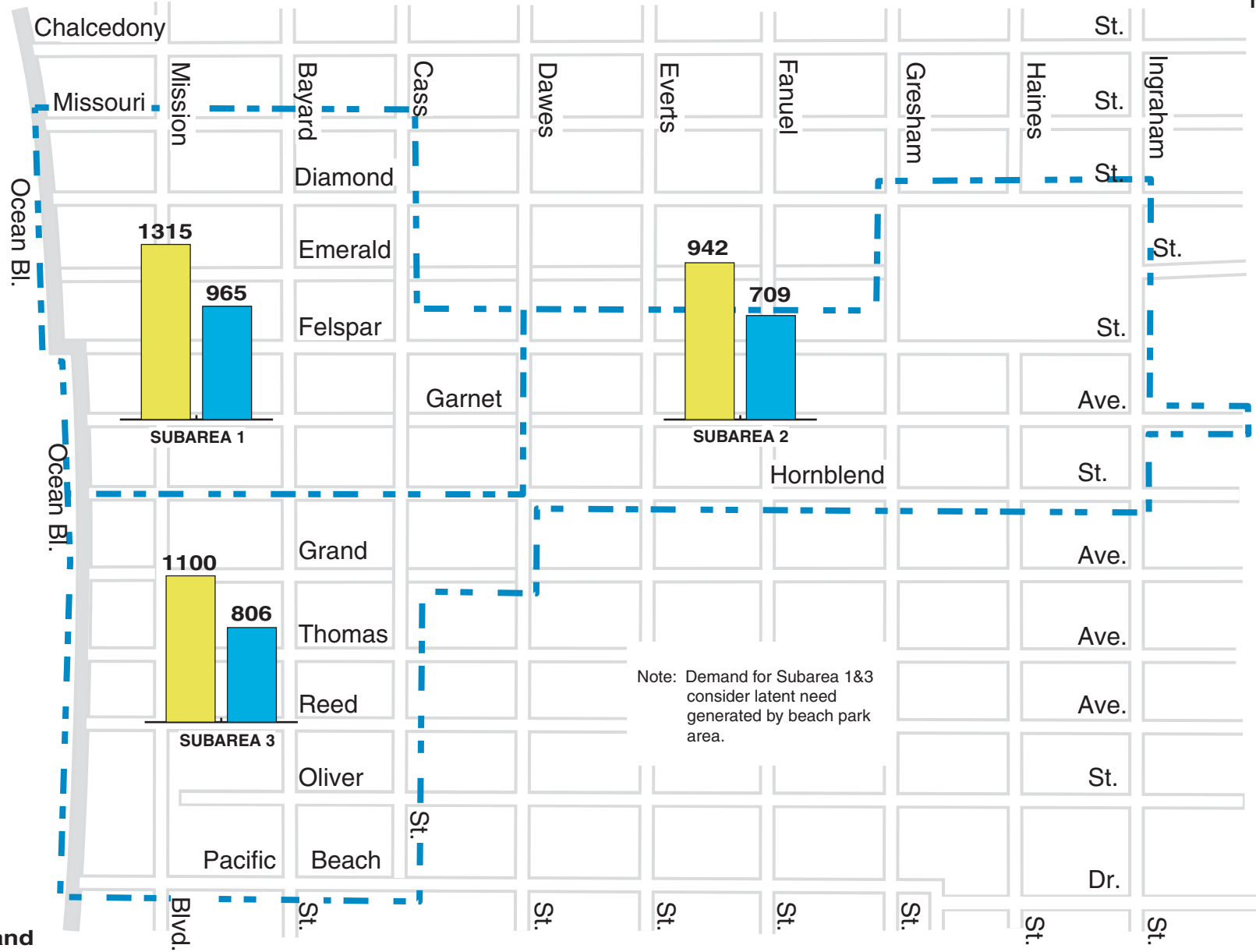


Note: Demand for Subarea 1&3 consider latent need generated by beach park area.

- Demand
- Supply
- Sub-Area Boundary

**Pacific Beach On-Street Parking
2020 Demand For Average Occupancy
City of San Diego Visitor Oriented Parking Survey**

Figure 2.3



- Demand
- Supply
- Sub-Area Boundary

**Pacific Beach On-Street Parking
2020 Demand For Peak Hour Occupancy
City of San Diego Visitor Oriented Parking Survey**

Figure 2.4