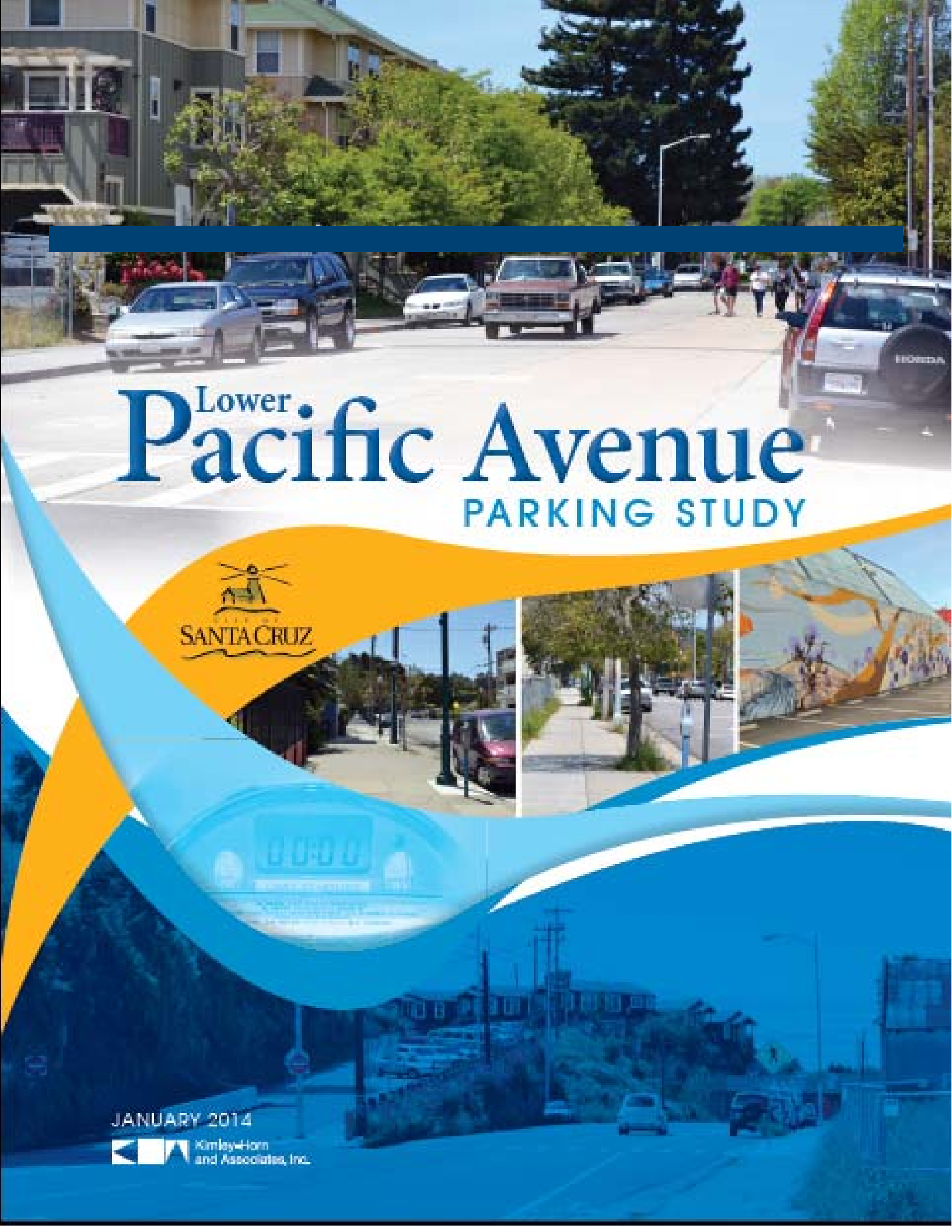
Lower Pacific Avenue

PARKING STUDY

SANTA CRUZ



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Contents

1. EXECUTIVE SUMMARY

The purpose of this parking study is to better understand land use and parking-related issues, develop specific and innovative recommendations, and help design a parking management program that enables the City to help develop parking solutions in phases as the Lower Pacific Avenue area develops in the short- (0–7 years), mid- (7-15 years), and long- (year 15 and beyond) term timeframe. This study provides a review of existing parking supply, analysis of current shoulder season, summer season, and weekday and weekend parking demands, which represent baseline conditions for the study area. Also taken into consideration as part of the analysis are potential impacts of land use on parking needs, stakeholder outreach, and innovative tools for measuring parking demand, resulting in strategies for developing recommendations and improvements to the Lower Pacific Avenue area.

Using the baseline conditions, an analysis of the development projections envisioned for the Lower Pacific Avenue area and the associated parking demands generated by developments is created to determine where and when the study area's parking facilities will no longer be capable of accommodating future demands. The analysis determined that parking demands could no longer be accommodated once the area was built out to long-term development projections. To prepare for the parking needs in the long-term, phasing recommendations provide the necessary framework for an organized strategy that links the timeline of land use and parking development throughout the short, mid, and long term phases to best meet the needs of the Lower Pacific Avenue area.

Phase of Development	Additional Parking Needs	
	Weekday	Weekend
Existing	no additional parking needed	no additional parking needed
Short-Term	no additional parking needed	no additional parking needed
Mid-Term	no additional parking needed	no additional parking needed
Long-Term	400	400

This study formulated recommendations based on existing parking demands, build-out projections, future parking demands analysis, future parking opportunities, and best management practices. The recommendations provide the necessary guidance for the City of Santa Cruz to properly plan for, fund, develop and manage parking facilities in the Lower Pacific Avenue area to meet and mitigate future parking demands.

Specific recommendations for the Lower Pacific Avenue area, which are further discussed in Chapter 6 of this report, include:

- Right-size land use intensity and the associated parking demands when implementing the Riverfront and Lower Pacific Avenue Design Guidelines and Development Incentives (RF/LP) Study density recommendations.
- Promote shared parking opportunities in the short term with underutilized facilities and in the long term with centralized shared parking facilities.
- Enact a policy that encourages and supports evaluated and applicable TDM strategies.
- Implement and utilize paid parking methods to fund parking facility development and area management strategy.
- Assess additional funding opportunities.
- Secure funding for and construct a parking facility to accommodate future parking demands.
- Continue to identify and evaluate Transportation Demand Management (TDM) strategies that might be considered for the study area.

2. INTRODUCTION

The City of Santa Cruz is a vibrant coastal community that includes a sustainable downtown that continues to blossom, and a sense of renewal that is driving new development and key redevelopment opportunities. Within the community there are several assets that add to the draw of the community, including the downtown and the Santa Cruz Beach area. These two areas each serve as an employment source, a destination, and a primary economic generator for Santa Cruz.

Despite the presence of these assets, there is no defined link between the two areas, leaving each isolated from the other. The area in between, known as the Lower Pacific Avenue area, has been the source of previous planning efforts, with specific goals and visions defined to activate the area and create the important link between downtown and the Beach area. The Lower Pacific Avenue area represents one of the greatest opportunities within the community, as it can stimulate additional development, economic potential, and interest in the area by realizing the potential of the previous and ongoing planning efforts. An added benefit of new development in this "in between" area would be a more welcoming and attractive area that helps encourage Beach Area visitors to explore the City's downtown as well.

One of the major priorities for the area is the development of a comprehensive parking strategies plan that outlines strategies for meeting parking demand, managing and reducing vehicular needs through Transportation Demand Management strategies, and implementing shared parking strategies for the area that maximizes development potential while providing a context sensitive, right-sized public and private parking supply.

This report summarizes the process for the development of this comprehensive parking strategies plan, including a summary of existing conditions, a summary of stakeholder outreach, and recommendations and action items needed to help the Lower Pacific Avenue area develop and manage its parking resources and grow from an opportunity to a vital piece of the Santa Cruz community.

2.1 Study Area

This project analyzes the Lower Pacific Avenue Area, which is bound by Laurel Street to the north, the San Lorenzo River to the east, Pacific Avenue to the west (including the businesses and land area adjacent to Pacific Avenue on the west), and the new roundabout at Center Street. The study area boundaries are consistent with previous planning efforts, primarily the Riverfront and Lower Pacific Avenue Design Guidelines and Development Incentives (RF/LP) Study, which reviewed the Lower Pacific Avenue Area as sub-area of a larger planning effort. This study area is shown in **Figure 1**.

Parking in the Lower Pacific Avenue Area includes the on-street parking on each side of Front Street and Pacific Avenue, as well as off-street surface parking lots scattered throughout the area. The Depot Park public parking lot is not included in the study area, but definitely contributes to the parking supply in the area and was considered as part of the analysis for this study area. This study area is located between the City's downtown and tourist-rich Beach area and contains a mixture of land uses including retail, restaurants, residential, and auto-related businesses. At the beginning of this study, there were approximately three to four acres of undeveloped land or surface parking lots within the study area.

During the course of this study, a temporary (minimum of 7 years) 2,500+ seat basketball Arena was constructed on Front Street for the new Santa Cruz Warriors D League basketball team. The new Kaiser Permanente Arena now occupies about 1.25 acres, which was the largest surface parking lot in the area. Additionally, plans are underway for a mixed use development at 555 Pacific Avenue, which is the largest vacant lot (.75 acres) in the study area. Although most of the analyses done for this study reflect conditions prior to construction of the Arena, the presence of the Arena and proposed development of 555 Pacific Avenue factor into recommendations made later in this study.

Figure 1 – Lower Pacific Avenue Area

2.2 Role of Parking in the Lower Pacific Avenue Area

Before defining specific recommendations, it is necessary to reflect on the need for additional parking infrastructure and management strategies in the Lower Pacific Avenue area. Well managed and designed parking can be a catalyst for development in a community, allowing the area to transition more readily by promoting a more holistic parking system that can support a variety of uses. The City of Santa Cruz understood this concept and incorporated the concept into previous City planning efforts by being very specific when outlining the need for additional parking investment in the area. Below are a few excerpts from those studies that define the need and provide a high-level vision for the area's parking infrastructure.

On Parking Regulatory Limitations

The area between Laurel Street and Beach Hill is characterized by an inconsistent development pattern, smaller lot sizes, and an absence of a clear land use direction or design character. The high proportion of the area occupied by surface parking is an indication of its strong potential for redevelopment. In spite of this, the area has been resistant to change. One factor may be that the area was not included in the Downtown Recovery Plan. As a result, ***the area has not benefited from the regulatory mechanisms that have been so successful in supporting redevelopment of upper Pacific Avenue***. Perhaps the two most important regulatory mechanisms for redevelopment are the inclusion of the development in a Parking District and the designation of higher intensity development. The effect of the exclusion of this Area from the Downtown Recovery Plan is that any redevelopment in the area needs to contend with higher parking standards and lower development potentials with land values comparable to the Downtown. Addressing these two factors would greatly enhance redevelopment potential in the area.

RF/LP Study (p. 55)

On the Importance of Parking to the Area

As discussed for the Front Street/Riverfront South subdistrict, one of the most significant actions the City can take to support redevelopment is to address the issue of parking. Unlike the Downtown Extension - Riverfront South subdistrict, the South of Laurel Subdistrict is not included in the Downtown Parking District. Thus, landowners receive neither the benefit of public parking structures that help meet their parking demand nor the lower parking standards that reduce demands for on-site parking.

In order to support redevelopment that will produce higher density mixed-use development and a vibrant commercial mixed use neighborhood south of Laurel Street, some form of structured parking will be required to accommodate the increased parking demand. Unlike the Front Street area, the City also does not own land in the area south of Laurel on which it could build a parking structure. Similar to the establishment of the Downtown Parking District, the City needs to work with landowners to identify the best approach to addressing the parking issue in the area south of Laurel Street.

RF/LP Study (p. 58-59)

On City Actions to Improve Parking

The City should work in partnership with landowners and developers in the South of Laurel subdistrict to develop a public parking strategy that will relieve some of the parking burden that currently is inhibiting redevelopment. Since the City does not own property in the area, the strategy will need to evaluate a number of options for their financial feasibility, including:

- The City buying land and building a parking structure.
- The City entering into a land lease agreement to build and operate a public structure on private land.
- The City entering into an arrangement with a landowner to provide public spaces in a joint public/private structure.
- Landowners forming a parking district with assistance from the City.

To establish a new parking district to serve the South of Laurel subdistrict, the City should adopt parking standards for future development that are consistent with requirements for the existing downtown parking district, and work with landowners to develop a plan for financing and managing the operation of the district.

RF/LP Study (p. 59)

As seen in the previous excerpts, parking in the area is critical to the success of the Lower Pacific Avenue area. Today's surface lots are ripe redevelopment sites, and future developments need to be served by improved parking to ensure their success and the success of the area.

2.3 Goals, Visions and Objectives

Proper parking infrastructure and management is an integral part of any community's growth and development, and the provision of accessible and adequate parking is instrumental in supporting economic growth. The City of Santa Cruz conducted this study, working with community stakeholders and business owners, to support new economic growth and sustainable mixed-use development in the Lower Pacific Avenue area, so that it can achieve the ultimate goal of creating a dynamic, livable, and walkable link between the City's two primary assets, the downtown and the Beach Area.

The Lower Pacific Avenue Parking Study is the City's approach to creating a parking strategy and program to promote and support the ultimate vision for the Lower Pacific Avenue area. As part of this study, the following goals and objectives of this study were defined to help guide the development of policies, recommendations, and phased strategies:

- Build off previous study efforts to formalize the vision for parking in the Lower Pacific Avenue area.
- Evaluate strategies that reduce dependence on the automobile and create a pedestrian friendly community.
- Define and implement best management practices for the parking system that efficiently utilizes existing parking and supports local businesses.
- Evaluate and develop strategies for new parking infrastructure, including phasing and location, options for financing facilities and parking programs.
- Develop a parking management strategy in the Lower Pacific Avenue area that compliments and supports the economic development strategies and goals of the City.

Vision for the Lower Pacific Avenue Area

Enhancements to the parking system within the study area are only a piece of the efforts that aim to promote and develop the Lower Pacific Avenue Area as an active and vibrant extension of Downtown. The comprehensive future of the Lower Pacific Avenue area is envisioned as a complement to Downtown Santa Cruz that is accessible, vibrant, walkable, and bikable area, that easily transitions the high-density of development of Downtown Santa Cruz to the Beach Area.

Objectives related to parking that will help reach this vision include:

- Strengthening pedestrian connectivity between Downtown and the Beach area.
- Providing opportunities for public parking.
- Promoting "park once" mentality.
- Providing parking that supports area redevelopment with mixed land uses and higher densities as envisioned in other area studies.
- Adjusting on-site parking requirements to support dense development and pedestrian friendliness.
- Creating an urban edge by developing buildings that face the street front, placing the parking behind or under structures.
- Providing for bicycle, pedestrian, and transit as viable modes of transportation to reduce vehicle use, improve public health, and improve public-city interaction.

2.4 Stakeholder Outreach

As the study began, the project team and the City of Santa Cruz's Economic Development Department (formerly the Redevelopment Agency) conducted stakeholder outreach to help define area issues and constraints, identify potential phasing solutions and parking recommendations, and generally discuss and vet potential parking management applications within the area. The scope and scale of these meetings varied from individual stakeholder interviews to large group stakeholder meetings. The information generated during these meetings serves as the foundation for the methodologies and recommendations developed for the Lower Pacific Avenue area. The recommendations developed in this study were vetted through these conversations and the information provided by each of the individual stakeholders. The following sections briefly describe the nature and outcome of each of these meetings.

Stakeholder Interviews – April 12, 2011

Following the initial project kickoff meeting with City staff, the project team met with a small group of stakeholders who own or manage several contiguous properties within the Lower Pacific Avenue area. This meeting was meant to be an introduction, allowing each party to identify their goals and vision for the area, while allowing for a discussion of potential strategies for shared parking opportunities.

Some specific items of discussion included the need to identify and implement lower parking requirements in the area that are supportive of urban infill type development (similar to what has been done in the adjacent downtown area). The property owners felt that the timing and phasing of development for a combination of parcels at the junction of Front Street and Pacific Avenue might include low scale (2-3 floors) residential development initially, followed by higher density development with parking structures needed to support development. This would occur if zoning changes that are recommended in the River/Front and Lower Pacific Avenue Development Incentives and Design Guideline (RF/LP) Study completed in 2010 were implemented. These recommendations would allow the height of buildings on the east side of Pacific Avenue and portions of the west side of Front Street to increase from 35 feet to 50 feet.

The stakeholder group also suggested the possibility of mechanical or automated parking structures for residential use to minimize the footprint needed for parking structures. Finally, the group felt that the development of some type of parking district in conjunction with the Lower Pacific Avenue Association would help achieve phased management and implementation goals after the completion of this study.

Stakeholder Meeting #1 – September 22, 2011

At the initial stakeholder group meeting, the project team met with a much broader group of area stakeholders, including business owners, property owners, developers, tenants, and City staff. The scope of the initial meeting was to introduce the study to the area stakeholders, provide them with an opportunity to give feedback on existing conditions and their vision for parking improvements in the area, and to introduce basic existing conditions data and projected build-out conditions.

Specific comments or parking recommendations that were identified at this meeting included:

- The possibility of building a parking garage in the Lower Pacific Avenue area to also serve employee demands in the southern end of the existing Downtown Parking District in the short-term, and for Lower Pacific Avenue area business and property needs in the mid and long-term.
- The possibility of providing parking in this area to support the Beach Area along with a shuttle service to transport pedestrians.

Stakeholder Meeting #2 – November 8, 2011

The second stakeholder group meeting focused on a more detailed review of existing conditions data, projected build-out phasing and parking needs, and the introduction of a menu of parking management and infrastructure strategies that were broken out by phase of development and growth in the area. Following the presentation of the data and build-out phasing, the group discussed the merits of the various strategies and the timeframe and phase of implementation. The discussion was a precursor to the development of specific recommendations for the area, and allowed the project team the opportunity to determine which recommendations would garner the most buy-in from the area stakeholders.

Stakeholder Meeting #3 – December 6, 2011

The third stakeholder group meeting focused on a discussion of specific block-by-block parking demand and management strategies, including the potential for shared parking facilities and the areas they might support. For each block within the study area, the project team discussed the ability to meet development needs while also providing an adequate level of residential and non-residential parking. It was reported that the lower Pacific Avenue area alone could not support a parking district. The remaining options were discussed which included (1) becoming a part of the existing Downtown Parking District, or (2) expanding the area that would be included in that district. It was decided that further exploration was needed on how the area could be expanded to create a viable Parking District. Further meetings were put on hold until this could be accomplished. Potential management options for an expanded new parking district were also introduced at the meeting, including the merits of a parking management district, the benefits of private versus public/private structures, and the areas which this district might reasonably serve.

Stakeholder Interview – January 17, 2012

To further explore the possibility of an expanded new parking district as discussed in the December 6, 2011 stakeholder meeting, the team met with representatives of the Seaside Company (major Beach area land owners) to discuss their potential participation in a parking district. They supported this option with an emphasis that parking fees and meter revenue collected within the new parking district should be retained by the new district similar to what is done in the existing Downtown Parking District.

2.5 Previous Studies and Findings

The Lower Pacific Avenue Area has been the subject of several previous studies and plans that have created design guidelines and recommendations for the ultimate development of the area into that key link between the Beach area and downtown. Various planning efforts have led to the decisions and developments pertaining to the Lower Pacific Avenue study area. The recent River/Front and Lower Pacific Study included plans and guidance to promote desirable development and redevelopment by providing strategies to address future needs within the study area. Additionally, the Beach and South of Laurel Area Plan provided guidance as to the redevelopment of the area south of Laurel Street including the Lower Pacific Avenue study area. This study aims to continue these efforts by helping to further the visions presented in these studies.

The following sections describe these plans and studies which were instrumental in laying the foundation for the Lower Pacific Avenue Parking Study, helping to inform potential strategies and recommendations.

City of Santa Cruz River/Front and Lower Pacific Design Guidelines and Development Incentives

The purpose of the RF/LP Study (May 2010) was to identify specific incentives and design guidelines that will encourage development and/or redevelopment in the areas surrounding Downtown Santa Cruz. The study area was divided into five sub-districts that were identified for redevelopment to complement the Downtown area's economic vitality and pedestrian-oriented environment. The sub-district identified as the Downtown Extension (which includes the Lower Pacific Avenue Area) shares the same boundaries of the study area for the Lower Pacific Avenue Parking Study.

In terms of economic vitality, the RF/LP Study identified the Lower Pacific Avenue sub-district as a transition area from Downtown to the Beach area. Currently, the development patterns in this area discourage connectivity between Downtown and the Beach area. For this area, the study recommended development patterns that are similar to Downtown and with uses that attract beach visitors and encourage them to continue into Downtown (e.g., retail, restaurants, hotels, etc.). To encourage similar development patterns as Downtown, the study recommended promoting a mixture of uses, modifying development standards to allow taller buildings that are closer to the street, and creating public parking. The study identified a lack of public parking as an issue that would need to be resolved in order to encourage higher density, mixed-used development.

The study places some restrictions on the development of the South of Laurel area. According to the vision presented in the RF/LP study, the area cannot redevelop without changing the practice of requiring on-site parking at higher parking standards - standards which negatively impact design and financial feasibility. Currently, most of the sites provide on-site parking. However, continuation of this practice restricts the level and type of development that can occur in the South of Laurel area.

In addition to changes in development, the study also recommended encouraging on-street parking where feasible to provide a buffer between pedestrians and vehicular traffic, as well as discouraging surface parking lots which deter pedestrian traffic and area walkability. Also, the study recommended a "park once" parking management strategy, where individuals are encouraged to park their vehicles and walk to Downtown destinations, to support higher density, mixed-use development. Two recommendations from this study have been implemented. First is the recommendation that the City establish a downtown to

beach trolley shuttle system. The City implement this in 2012 and due to its success during its first two years of operation, the City purchased a second trolley for the 2014 summer tourist season. The second recommendation from the RF/LP Study that has actualized is the implementation of this Parking Study.

City of Santa Cruz Beach and South of Laurel Comprehensive Area Plan

The Beach and South of Laurel Comprehensive Area Plan (October 1998) recognized that the Beach area and the South of Laurel Area are a significant link between Downtown and the beach and should be promoted and developed as such. Where the RF/LP Study only presented recommendations that would require additional work prior to being adopted, the Beach and South of Laurel Comprehensive Area Plan was adopted by the City Council and provides requirements for development of this area. The plan emphasized the need to protect the residential neighborhoods while encouraging development on the underutilized parcels of land. In support of the above goals, like the RF/LP Study, this plan recommends mixed-use development where commercial is on the street-level and residential units are above.

In relation to parking concerns, the plan focused on addressing seasonal parking demands. The concern is finding a balance between providing enough parking to accommodate the Beach visitors, employees, and residents without providing too much unnecessary parking in the off-peak seasons. To balance parking for these users, the plan recommended public/private partnerships and collaboration. Specifically, the plan recommended an employee off-site parking program, installation of parking meters for public on-street parking, and development of a park-and-ride lot for visitors. In addition, the City must also balance accessibility to the Beach area, new development which will require more parking, and limiting surface parking lots. The plan encourages surface lots and parking structures to be placed behind commercial buildings with access from a side street. This will screen parking and encourage pedestrian-oriented development.

City of Santa Cruz Master Transportation Study

The Master Transportation Study (July 2003) objectives were to provide new travel choices into and around the City, reduce vehicular congestion, improve community livability, and achieve a sustainable transportation future. The study recommended parking reductions for areas that can be better served by transit to manage parking supply and encourage desired mixed-use development. Another recommendation that encourages alternate transportation is reserving on-street parking spaces for shared cars or vanpool parking. In addition, it was recommended to reduce parking standards for developments that implement parking cash-out (programs that allow employees to elect to give up a subsidized parking space or to take the cash-equivalent to use alternative modes of transportation to commute to use instead of a personal vehicle) or that set aside landscaped areas for future parking needs. The study also recommends utilizing shared parking as a means of creating viable, centralized parking that requires a smaller footprint or number of spaces. The above strategies work individually and collaboratively to reduce the amount of land dedicated to parking; land that could be repurposed for more intensive land uses that increase economic stability in the community.

2.6 Existing Conditions

Prior to providing recommendations, it is important to understand the existing context of the Lower Pacific Avenue Area. Current parking demands, facilities, and existing land uses provide an overall baseline of the existing conditions. This baseline creates a solid foundation to apply future development and parking demand projections, leading to the creation of recommendations that best fit the context of the Lower Pacific Avenue Area. (As previously noted, the data presented in this Existing Conditions Section of the study was collected and analyzed prior to construction of the Arena.)

Land Uses

The current land uses include a variety of commercial, residential, office, and service uses. **Table 1** provides a breakdown of the actual intensities of each use in the Lower Pacific Avenue area at the time of this study. In later sections of this report, future build-out projections are discussed and are established using these values as the base. The ultimate vision for the area, as defined by RF/LP Study includes a move to more mixed-use high density retail, office, and residential uses throughout the area.

Land uses as of 2011 are shown in **Figure 2**. Note that there are already a number of mixed use developments within the study area, including primarily retail, residential, and office uses. There is also a significant amount of vacant or underutilized land within the study area, including existing surface parking facilities. In total, in 2011 there was approximately 3 to 4 acres of underutilized land within the study area. As previously noted, the Arena now occupies about 1.25 acres and a proposed mixed use development at 555 Pacific Avenue will be built on the largest, .75 acres, vacant lot in the study area. This proposed development would add 5,000 square feet of commercial use and 92 units of housing.

Table 1 – Lower Pacific Avenue Area Land Uses at Time of Analysis

Use	Intensity	Units/Acre
Apartments	754	Dwelling units
Condominiums	1,133	Dwelling units
Adult Care Facility	47	Bed
Auto Sales or Service	20,433	Square Feet
Commercial/Retail	42,733	Square Feet
Restaurant	10,387	Square Feet
Office	3,800	Square Feet
Nightclub or Bar	6,590	Square Feet
Hotel	104	Rooms

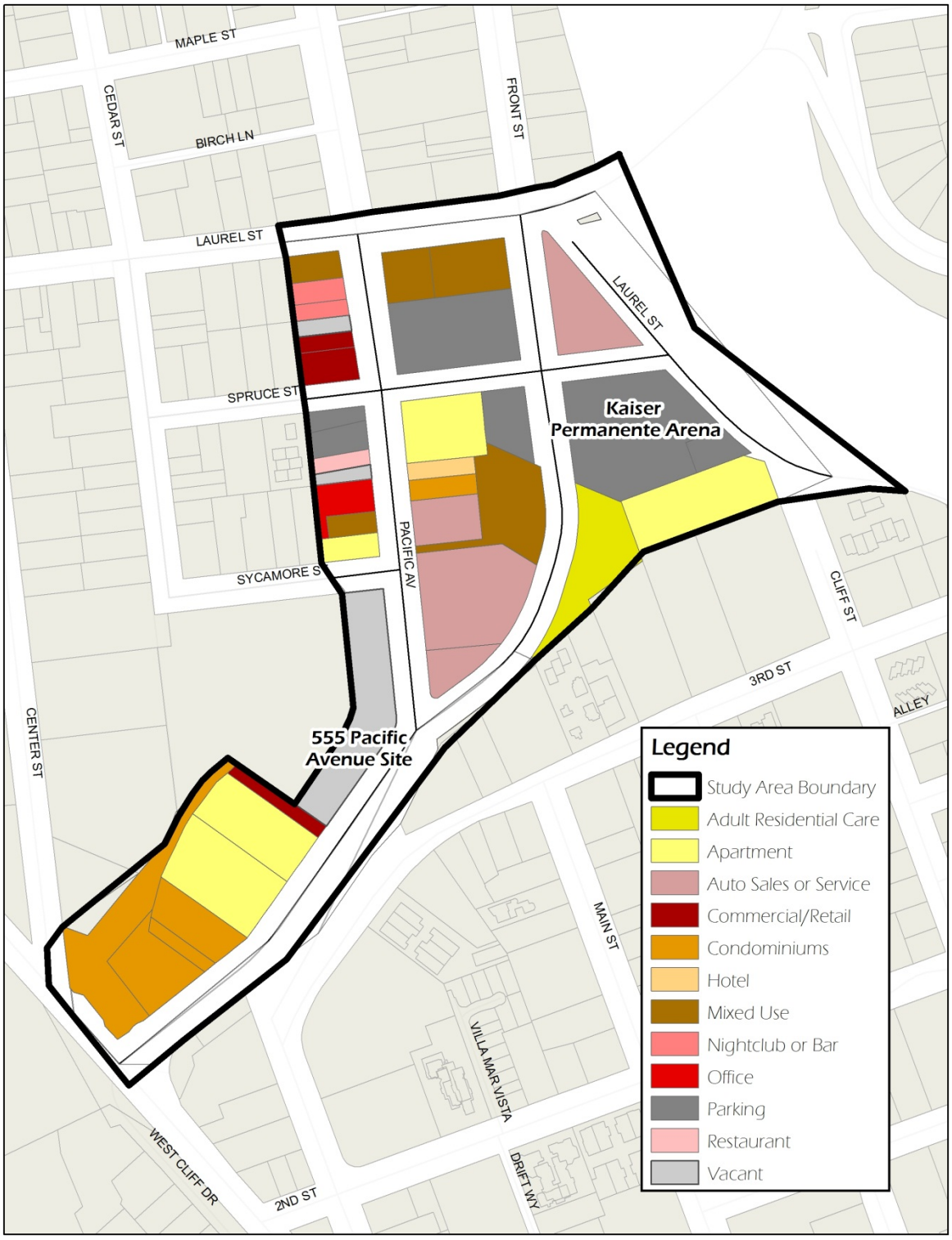


Figure 2 – Lower Pacific Avenue Area Existing Land Uses

Event Demands

The location of the study area makes it a viable parking option for visitors of popular events and destinations outside of the area including Downtown Santa Cruz, the Beach area, and the Arena. It can be observed in the Parking Demand Analysis section of this report that parking demands during events such as Woody's on the Wharf (one of the City's most popular annual events) and events held at the basketball arena exceed parking capacities of the study area. However, providing enough parking to support these demands is not necessarily a viable or efficient strategy to manage parking, because for the greater portion of the year, the facilities will remain far below full occupancy. Instead, this study aims to provide options to accommodate event parking within and around the study area, but will focus on parking infrastructure strategies that will support more frequent demands. In short, this study will not recommend parking to offset event demands because the size and scale of such facilities would negate the development ability of the study area, as envisioned by the City and the previous planning efforts.

Existing Parking Conditions

Before determining the overall parking demand for the study area, it is important to understand the existing parking supply and how it operates. For this study, the project team evaluated the existing parking conditions both on-street and off-street within the study area, including parking utilization and parking duration and turnover. The following sections document the existing parking conditions analysis for the study area.

Existing Parking Characteristics

Overall, there are approximately 590 public and private parking spaces available in the Lower Pacific Avenue area. All of the public parking is found on-street. Off-street parking consists of both private parking surface lots (some of which operate are available for public parking but owned by private entities, which we refer to as publically accessible private lots) and one private residential parking garage. **Figure 3** identifies the location and type of parking assets by isolating each into on-street parking, off-street private parking (dedicated to a specific business or use) and off-street publically accessible private lots (private parking that gives the appearance of public parking to a casual visitor).

There are approximately 165 on-street parking spaces within the study area. On-street parking is located along Pacific Avenue, Front Street, Laurel Street, Spruce Street, and Sycamore Street. The on-street spaces are currently regulated by either time limits or parking meters (with varying time limits and rates). Hours of enforcement and time limits vary throughout the study area. The on-street parking makes up 28 percent of the total available spaces in the study area.

The remaining 72 percent of parking spaces, totaling approximately 425 spaces, are located off-street. Off-street spaces are mostly private or publically accessible private surface lots with the exception of one parking garage, which is attached to a residential complex. Surface lots contain a total of approximately 139 parking spaces and are spread throughout the study area to serve a variety of businesses or uses. Most of the surface lots are dedicated to private off-street parking, with some lots serving adjacent businesses and establishments. In these lots parking is restricted to customer use only. Other private surface

lots are reserved for parking permit use only. This applies to the parking lot now occupied by the Arena. This site, which previously had 161 parking spaces, was used for Seaside Company employees in the summer and UCSC students purchasing permits in the off season months.

As shown in **Figure 3**, there are currently only three surface parking lots that are designated as publically accessible private lots within the study area. **Figure 4** shows these three public parking areas with 300, 600, and 900 foot walking radii projected from their center. As the figure shows, the shortest walking radius (300 feet) incorporates most of the businesses in the central core of the study area. The 600 foot radius includes most of the outlying areas within the northern portion of the study area. The only portion of the study area outside the farthest walking radius (900 feet) is the southernmost area near the new roundabout. While not served by the publically accessible private surface lots within the study area, this southernmost section is served by the public Depot Park surface parking lot. The same walking radii are projected from this lot in **Figure 4** as indicated by the black rings at 300 foot intervals.

More off-street private parking spaces are located just south of the study area at the Depot Park surface lot. Though parking at this location is not convenient for the northern portions of the Lower Pacific Avenue study area, it does serve as available parking for the southern portions of the study area, as well as Beach visitors. The Depot Park lot includes a north lot with 125 parking spaces and a south lot with 69 parking spaces. Parking is $1.00 per hour with a daily maximum of $5.00. Revenue is collected and controlled through a pay-and-display machine, between the hours of 10 am and 8 pm. In addition to transient parking, UCSC students can purchase a quarterly parking permit for $125.

Table 2 – Existing Parking Supply

Existing Parking Supply	
On-Street	165
Off-Street Publicly Accessible Private Lot	130
Off-Street Private Lot	354
Depot Park	194

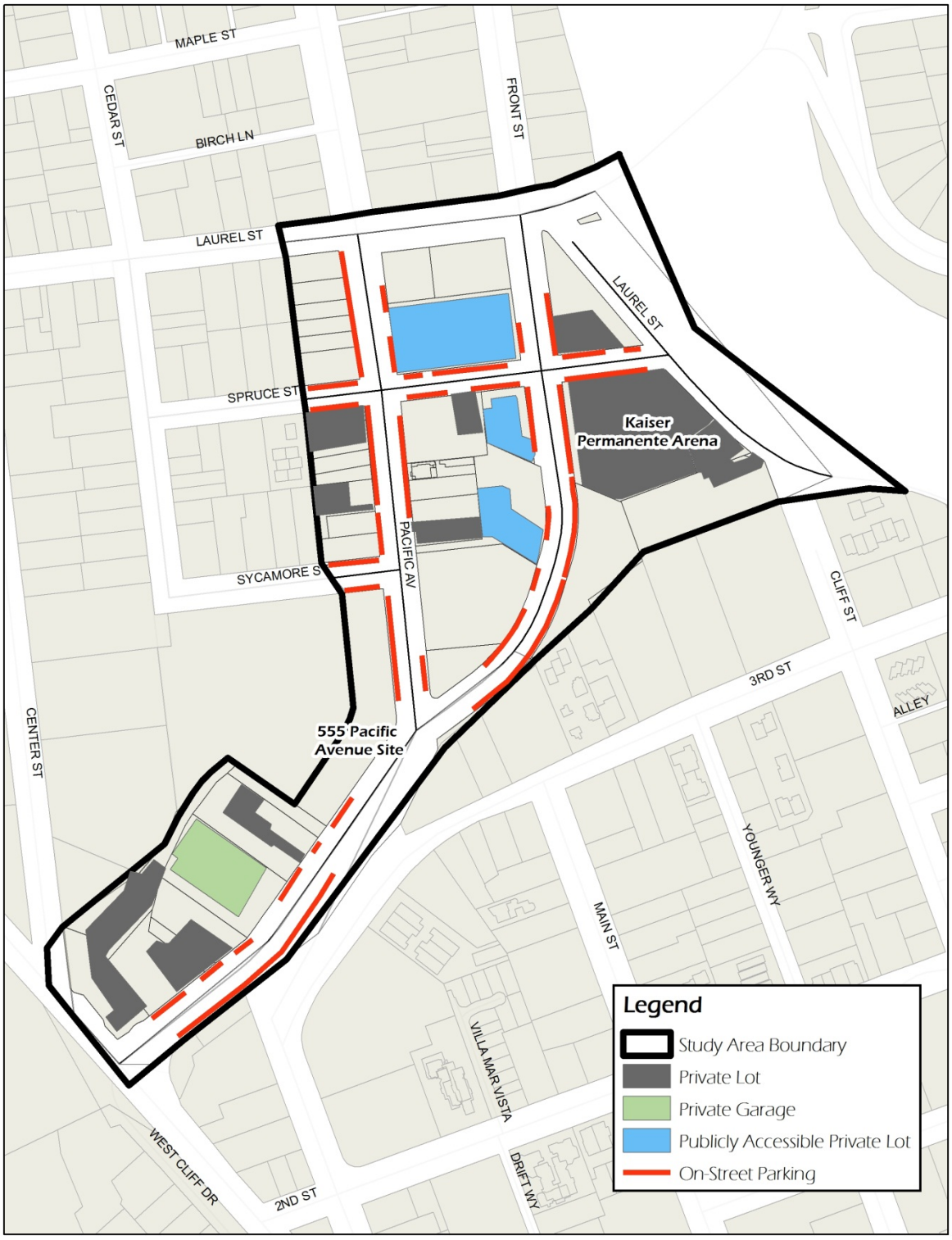


Figure 3 – Lower Pacific Avenue Area Existing Parking

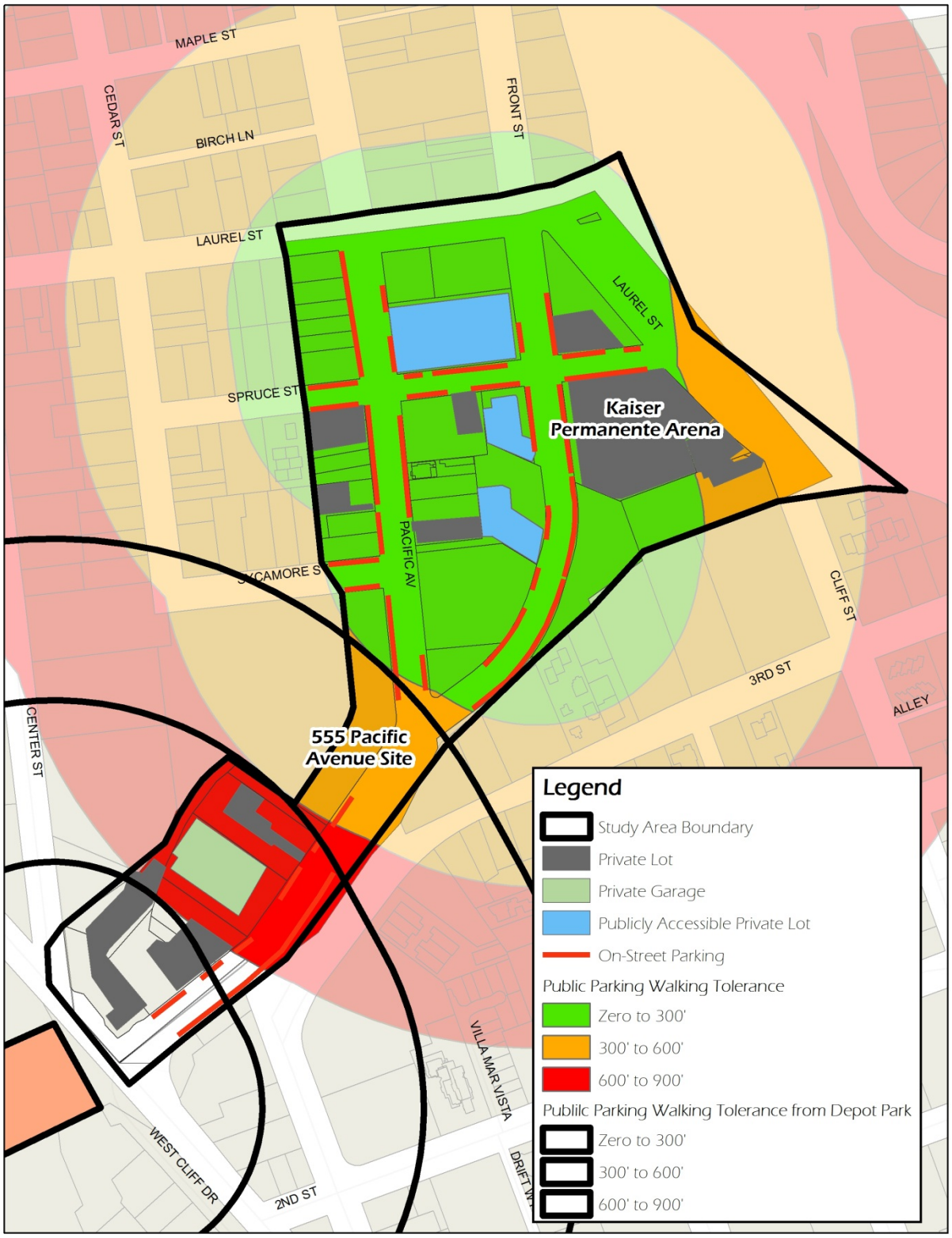


Figure 4 – Lower Pacific Avenue Area Existing Parking Walking Radii

Parking Data Collection

Parking occupancy and duration data was collected in the study area to understand the nature of the actual existing parking demands in the Lower Pacific Avenue area. The data was collected over four different days in May and June, comprising a weekday and weekend day in both the shoulder season and the peak season.

On-Street parking was studied along the following streets:

- Pacific Avenue from Laurel Street to the new roundabout at Center Street
- Front Street from Laurel Street to Pacific Avenue
- Spruce Street from the Laurel Street Extension to just west of Pacific Avenue
- Sycamore Street from Pacific Avenue to just west of Pacific Avenue

Off-Street parking was studied at the following surface lots:

- Southeast corner of Spruce Street/Front Street
- Southwest corner of Spruce Street/Front Street Northeast corner of Spruce Street/Front Street
- Northwest corner of Spruce Street/Front Street

These four lots were chosen because of the varied usage of each lot, including private business use, permit parking, and quasi-public parking usage. **Figure 5** shows the areas that were included in the data collection efforts.

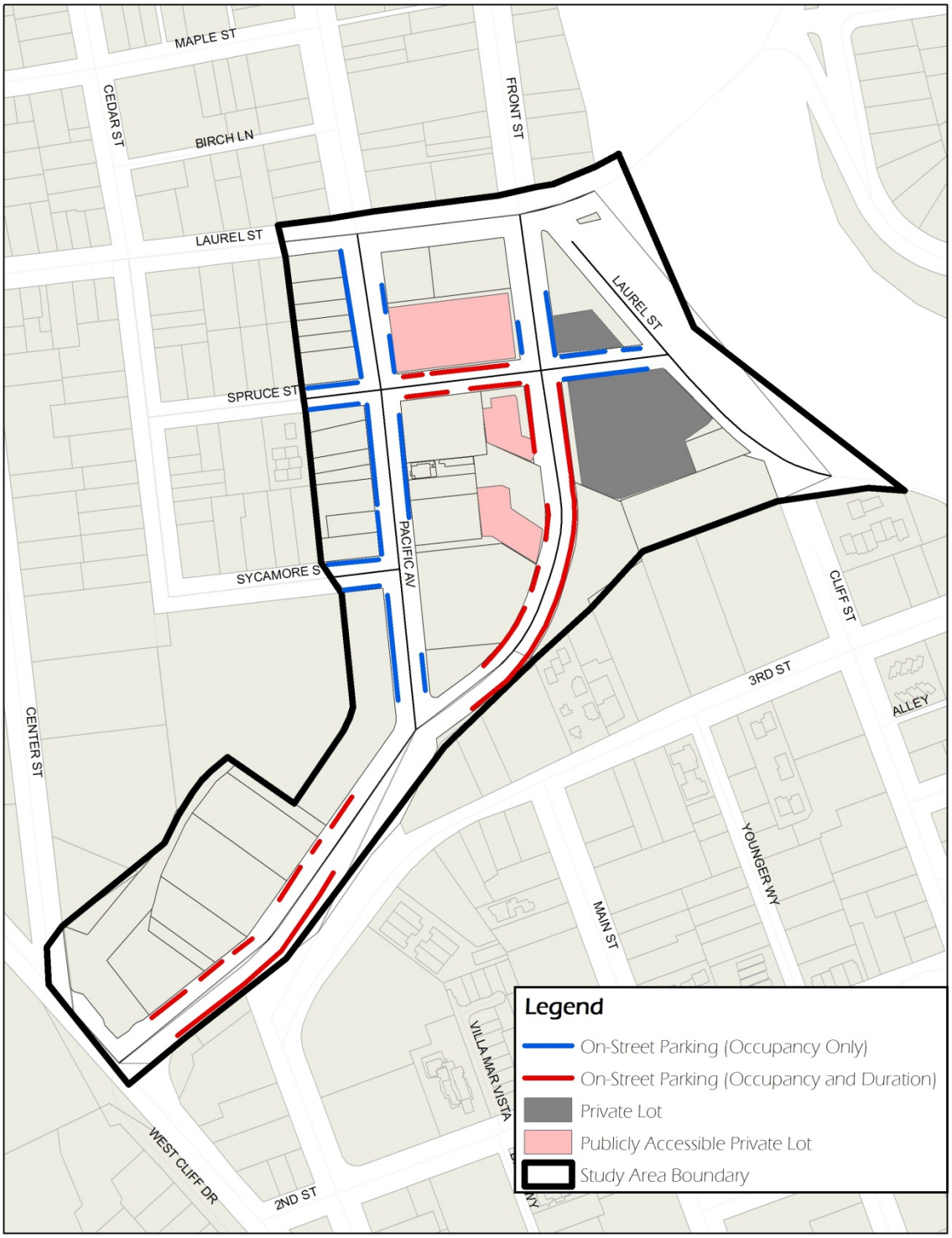


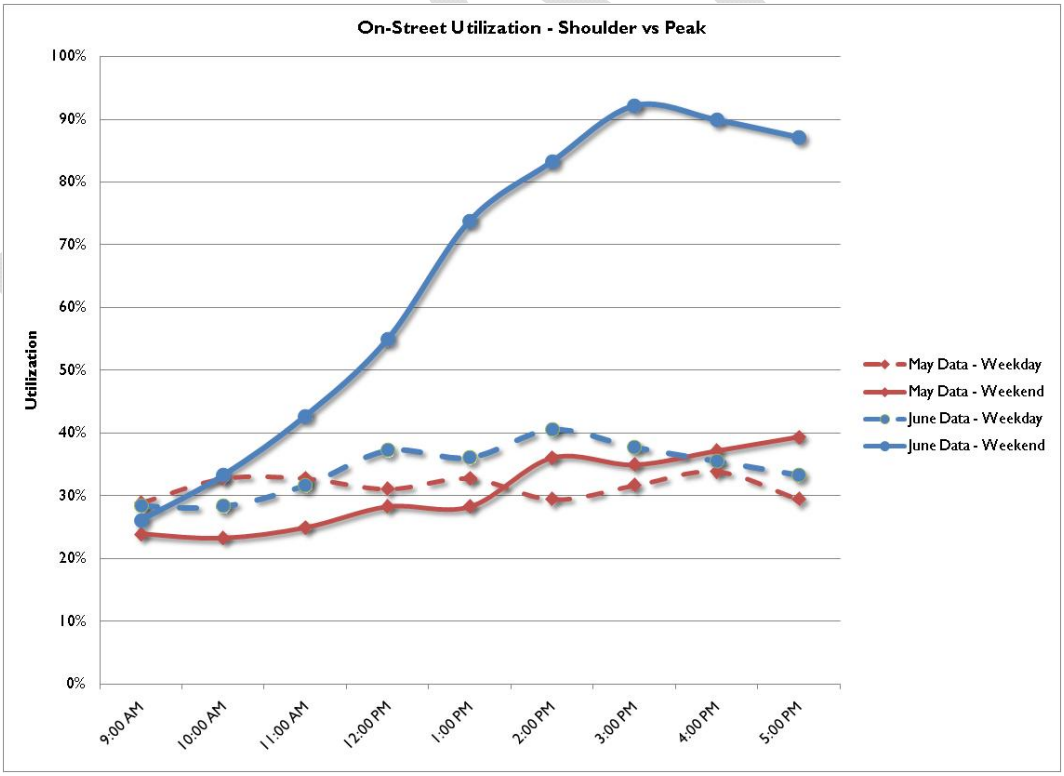
Figure 5 – Lower Pacific Avenue Area Parking Data Collection Areas

Parking Utilization

Parking utilization data was collected on hourly intervals between the hours of 9 am and 6 pm on a typical weekday (Wednesday) and a typical weekend day (Saturday). Data was collected during both the shoulder and peak season periods, in the months of May and June, 2011, respectively. Shoulder season data collection occurred on May 18th and 21st, 2011, while peak season data collection occurred on June 22nd and 25th, 2011.

A comparison of the peaking trends indicates that weekday parking occupancy for on-street parking follows similar patterns for both the peak and shoulder season, with occupancies between 30 and 40 percent, as shown in **Figure 6**. The data indicates that shoulder and peak season weekend utilizations do not follow the same trends; however, it should be noted that peak season weekend data was collected during a special event peaking condition (Woody's on the Wharf). The event was observed in order to capture the highest peak parking demands generated by large events that the study area occasionally encounters throughout the year. Woody's on the Wharf is one of the most popular events and is a representation of a peak demand condition that the Lower Pacific Avenue area observes. It is expected that on a more typical weekend during the peak season, on street parking would probably reach at maximum of 80 to 85 percent of utilization in the study area.

Figure 6 – On-Street Parking Utilization



Similarly, a comparison of shoulder season and summer peaking trends was conducted for off-street parking, as shown in **Figure 7**. Much like the on-street data, the off-street utilization trends for both shoulder and peak season weekdays are very similar, with occupancies between 25 and 35 percent. The peak season weekend utilization is also dramatically higher than the shoulder weekend data and the weekday observations, most likely resulting from higher demand from the previously mentioned special event peaking condition. As with on-street parking, it is expected that a typical weekend would be lower than the peak season with a major event parking shown below. Off Street utilization would probably only reach about 80 to 85 percent utilization on a typical weekend.

Figure 7 – Off-Street Parking Utilization

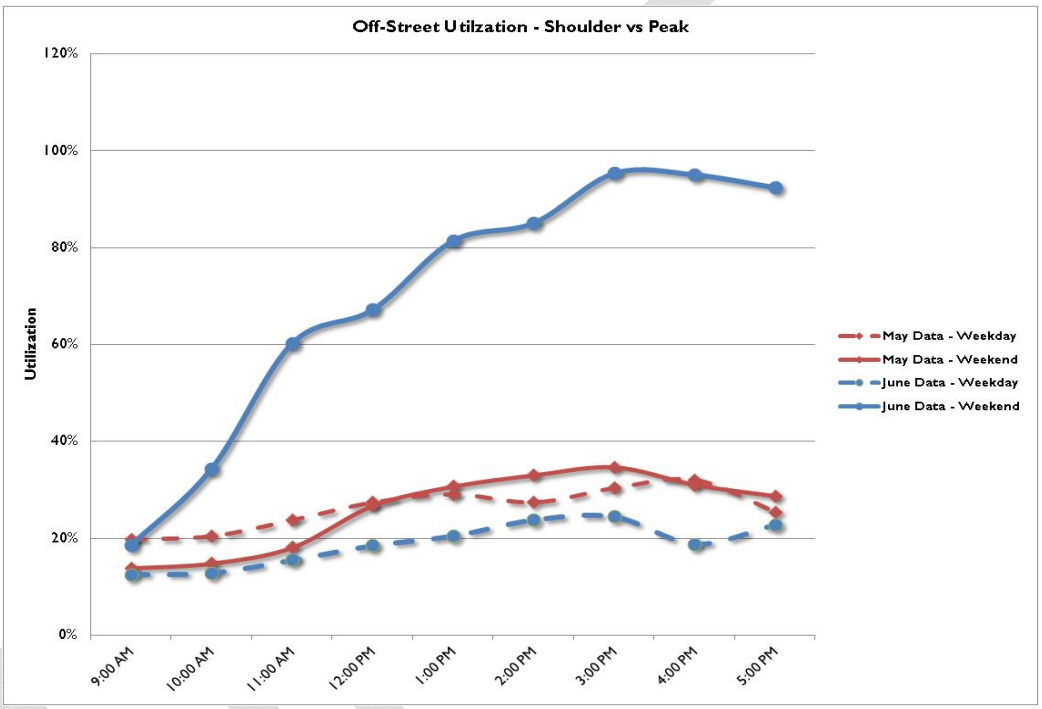


Table 3 shows the peak observed occupancies for on-street and off-street parking.

Table 3 – Peak Parking Occupancies

	Shoulder Season				Summer Peak			
	Weekday		Weekend		Weekday		Weekend	
	Peak	Time of Day	Peak	Time of Day	Peak	Time of Day	Peak	Time of Day
On-Street	34%	4 PM	39%	5 PM	41%	2 PM	90%	4 PM
Off-Street	32%	4 PM	35%	3 PM	25%	3 PM	95%	4 PM

Parking Duration and Turnover

In addition to collecting parking utilization data, parking duration data was collected for three specific blocks of on-street parking within the study area. These three blocks were selected as representative locations based on their usage patterns and proximity to primary demand generators and are represented in **Figure 8**. The locations include:

- Block 1 includes Pacific Avenue between Front Street and Center Street, and includes metered parking which is exempt with a valid permit (Meters with 2 hour limits on the southern side and 12 hour limits on the northern side)
- Block 2 includes Front Street between Pacific Avenue and Spruce Street and includes two hour time enforced parking between the hours of 8 am and 6 pm (No meters and no enforcement after 6pm)
- Block 3 includes Spruce Street between Pacific Avenue and Front Street (Meters with 2 Hour Limits)

Turnover data was collected by denoting vehicle license plate numbers for parked vehicles on each of the blocks described above, on hourly intervals. By collecting parking turnover, it is easier to understand the average durations for given blocks, which helps define specific usage characteristics for the on-street parking system. By defining these characteristics, it is easier to understand whether parking in the area is being utilized for short-term or long-term parking.

Table 4 provides the results of the turnover analysis for each area during each observation period.

Table 4 – Observed Average Parking Durations

Area	Side	Time Limit	Duration (hours)			
			May – Weekday	May - Weekend	June - Weekday	June – Weekend
Block 1	North	12 hours	3.2	4.4	4.6	3.9
	South	2 hours	2.2	2.4	3.0	2.8
Block 2	East	None	5.3	1.3	4.3	3.7
	West	None	6.5	3.3	7.0	2.9
Block 3	North	2 hours	--	0.3	3.7	2.1
	South	2 hours	2.0	3.6	4.0	2.5

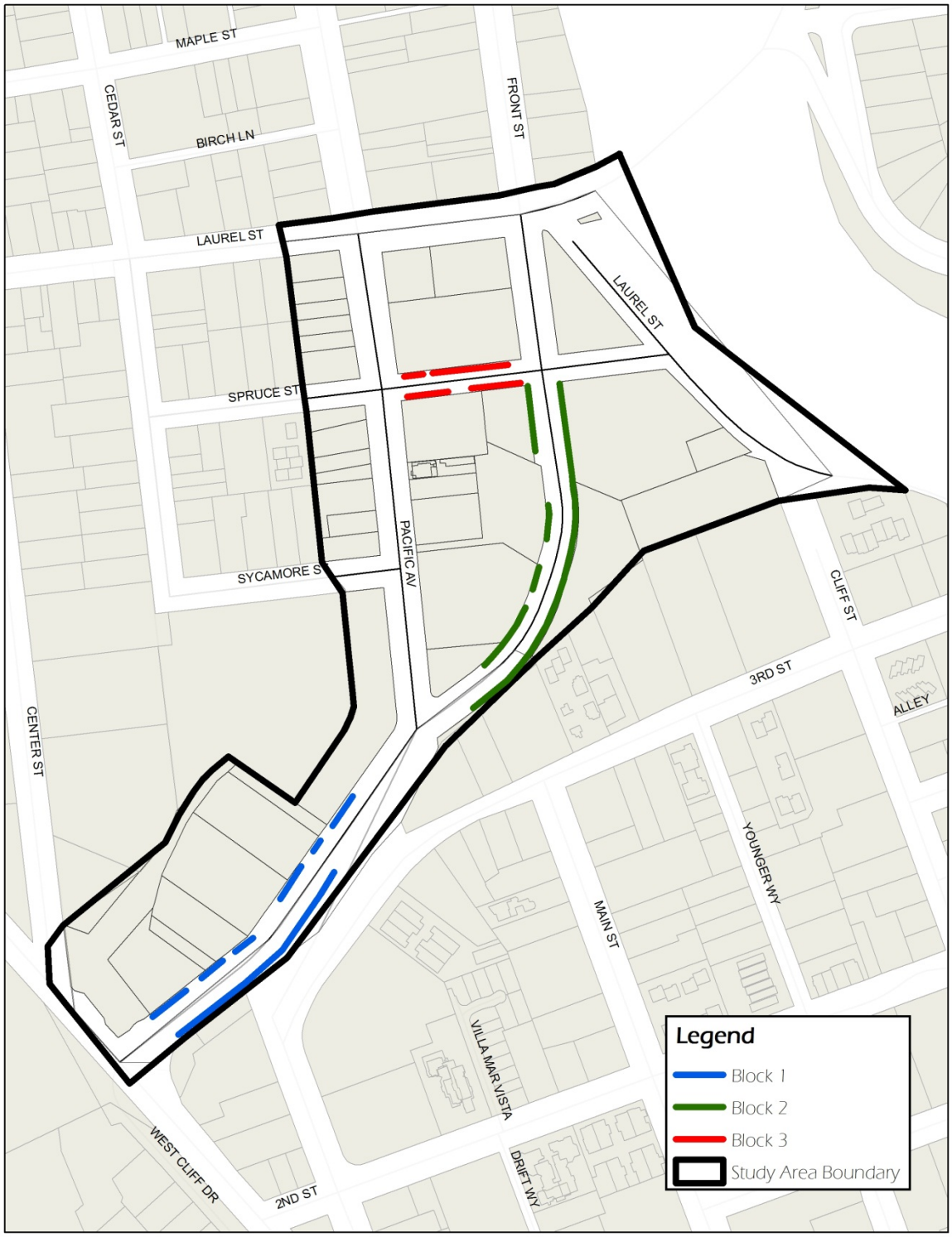


Figure 8 – Parking Duration and Turnover Data Collection Areas

Based on a review of **Table 4**, parking durations vary wildly by block. This is largely due to the various time limits that are in place on each observed block. In some locations, weekday durations were higher than weekend, which could indicate a problem with area or downtown employees parking on-street. This is especially true along the Front Street block between Pacific Avenue and Spruce Street, where on-street spaces are not metered or time restricted.

Time durations in the unmetered spaces averaged at approximately 4 hours, with maximum stays at 7 hours. It may be beneficial to impose parking time limits on these unregulated metered spaces to reflect demands in the area. Additionally, those areas that have two hour time limited parking with meters experience average durations of at least two hours or greater for most of the observation periods. This indicates that patrons are not abiding by the stated regulations, and enforcement staff may not be patrolling the area enough. More thorough enforcement is recommended to increase compliance with the assigned time limits. The areas with 12 hour time limited parking had average durations of 3.2 – 4.6 hours. Although the spaces were not utilized to their full potential at the time of data collection, this asset is provided for long term parkers supported by the existing time limit, and therefore no change to restrictions is recommended.

Over-and-Underutilized Parking Locations

A review of the occupancy data presented in the previous section provides an early indication of parking assets within the study area which may either be ripe for redevelopment opportunities or could be candidate for shared parking supply or development into larger parking infrastructure. These underutilized facilities are areas of potential growth that could catalyze the development in the study area.

At the same time, a handful of facilities in the area exhibit the potential for overutilization. That is not to say that they are highly utilized throughout the entire observation period, but they did exhibit characteristics of approaching or exceeding capacity on numerous occasions. For clarification, approaching capacity is when a facility is between 75 and 90 percent of utilization, while anything above 90 percent is typically at capacity for all intents and purposes,

The primary over-utilized and underutilized facilities are shown in **Figure 9**.

A primary example of the potential of underutilized facilities is the large surface parking lot at the southeast corner of Front Street and Spruce Street, commonly referred to as the Seaside Lot and now the site of the Arena. At the time of the data collection (2011), that lot was a highly underutilized facility that was only available for employee and minimal permit parking. As this study has progressed, that lot has been redeveloped into the Arena, which has the potential to incentivize development in the area as a major destination for Santa Cruz visitors, activating the potential for retail, restaurant, and entertainment uses.

Additional underutilized assets within the area include on-street parking along Pacific Avenue, between Laurel Street and Spruce Street. This section of on-street parking is governed by parking meters. This on-street capacity will prove critical to the development of the area, providing high turnover spaces for short term commercial patrons and area visitors.

The surface lot at the southwest corner of Front Street and Spruce Street also has available capacity that is currently underutilized. This facility, which is owned by the Seaside Company, was considered an opportunity site in the RF/LP Study to serve as a potential catalyst for area development. In the short term, if the Seaside Company would be willing to consider use of

this lot as a shared parking facility, which could improve the likelihood that short-term developments are able to successfully park their demands.

In terms of over utilized facilities, the on-street parking along Front Street within the study area was consistently at or near capacity in the peak season and approaching capacity in the shoulder season. This parking is highly visible for motorists entering the study area from Downtown via Front Street and serves many of the existing retail uses along Front Street.

Additionally, the surface lot at the northwest corner of Front Street and Spruce Street experience periods of high utilization during the observations. Much like the Seaside Lot, this area has undergone transformation, with the on-site uses redeveloping into a Walgreen's pharmacy, reducing or completely eliminating this surface lot as a viable option for public or shared parking.

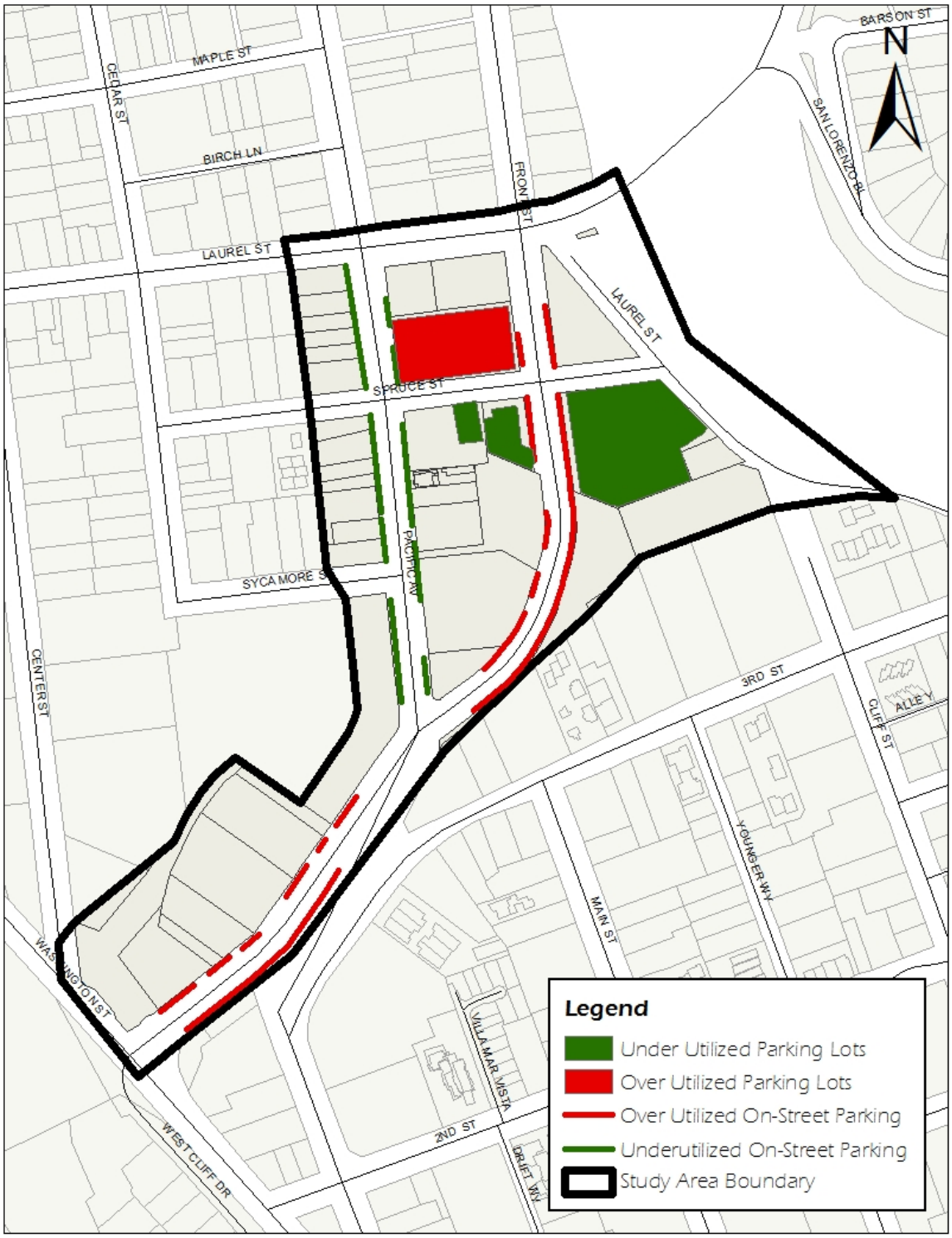


Figure 9 – Over- and Under-Utilized Parking Facilities

3. PARKING DEMAND ANALYSIS

3.1 Existing Parking Demand Analysis

The Lower Pacific Avenue Area is comprised of a mixture of land uses, many of which are new developments. Several new developments have come along in the past few years, including mixed-use retail and residential sites, a boutique hotel, a new Walgreens, and the temporary Arena. Additionally, according to the RF/LP plan the area is expected to redevelop almost completely. However, there is not established timeframe for when this redevelopment may occur.

The Lower Pacific Avenue area is anticipated to develop in three phases – short term (0 – 7 years), mid-term (7 – 15 years), and long term (beyond 15 years). The increased development intensity will consequently generate a rise in parking needs as more people are living, working, and visiting in the Lower Pacific Avenue area. Although increases in parking demands are foreseeable, at what rate is it anticipated? This section will review three scenarios in which varying parking rates are applied to the existing parking system. The existing parking demands were calculated based on the land use mix provided in **Table 1** in Chapter 2. These results represent the existing parking demand at the time of the primary study evaluation period (summer and fall 2011).The three scenarios include existing rates using calibrated demands (from this study's data collection efforts), demands based on current zoning, and demands (assumes maximum/100% development of each site) based on zoning recommended in the RF/LP Study (Downtown Parking District Zoning, which are structured for higher density land uses utilizing shared parking within centralized facilities). . This analysis will identify which parking rate best matches the current environment of the study area, and which should then be applied to future construction throughout the three phases of development in efforts to construct parking that meets future demands.

Table 5[1] below provides the general results for each scenario analysis, as well as an interpretation of the outputs for each analysis. The calibrated model data is based on modeling projections developed from actual field measurements, as defined in the previous Existing Conditions section of the report. The current zoning scenario uses current City zoning regulations as the basis for parking demand calculations. The Downtown Parking District Zoning scenario uses the zoning requirements used in the Downtown Parking District[2].

Note that the "Parking Supply" indicated in **Table 5** includes all parking in the study area, with the exception of the Seaside Lot, which was determine not to serve the demands in the Lower Pacific Avenue area. The parking surplus or deficit indicated in **Table 5** represents the difference in parking and supply and projected demands. Projected demands are based on modeled conditions ("Calibrated Model"), current zoning requirements, and Downtown Parking District Zoning standards.

[1] *Table 5 assumes all residential parking will be built on site.*
[2] *The RF/LP study recommended application of the DT District parking requirements as part of the overall strategy to develop a parking district or shared parking program in the Lower Pacific Avenue area.*

Table 5 – Existing Parking Demand Outputs

Scenario	Parking Supply	Existing Parking Demand	Existing Surplus or Deficit[1]	Notes
Calibrated Model	834	463	371	The results indicate that the study area is 55% occupied during shoulder weekday conditions.
Current Zoning	834	759	75	The results indicate that providing parking based on current City zoning would increase parking occupancy to approximately 90% of total supply.
Downtown Parking District Zoning	834	601	233	The results indicate that providing parking based on zoning requirements equivalent to the existing DT Parking District (which includes reduced parking requirements) would increase parking occupancy to approximately 72% of total supply (occupancy over utilization ranges between 75 – 90%)

3.2 Parking Demand Outputs by Scenario

Based on the above assumptions an overview of the elements generated from the model is provided on the following pages. **Figures 10 and 11** represent the demand model interface, where **Figure 10** represents the model inputs, which define the scenario being run and **Figure 11** represents the demand model outputs, or the results of the scenario

Figures 13-15 on the following pages provide parking demand model outputs for the three scenarios introduced in the previous section. All parking results represent the weekday peak summer season. Detailed analysis for shoulder season results are provided in the Appendix of this report. The Parking Management Section of this report as well as its appendices looks at ways to balance these deficiencies and provide for parking in the future as the area begins to expand.

Prior to reviewing the demand results generated by the model, it is necessary to define two assumptions that factor into each modeled scenario. It was assumed:

- Scenarios will build-out to their full extent
- All future residential development will provide parking on-site for tenants based on preferences of buyers and sellers.

[1] *Surplus or deficit represents the difference between existing parking facilities and parking demand projections based on modeled data, current zoning requirements, and Downtown District zoning standards. This number does not assume new parking for the existing condition.*

Parking Demand Model - Data Output Sheet (Weekday Analysis)

Shared Parking?[A]	Period	Zonal Peak	Hourly Analysis	Seasonal	Residential	Phase[I]
1 Yes	2 Weekday	3 Overall	4 Peak	5 Shoulder Season	6 Reserved	7 Existing

Scenario	Source[B]	Event
8 Existing	9 Code Requirement	10 Normal

Zone	Peak Parking Demand [C]	Non-Residential Parking Demand	Parking Supply [D]	Parking Supply Surplus [E]	Available Proximity Parking [F]	Adjusted Parking Supply [G]	Net Parking Surplus/Deficit [H]
Zone A	58	16	79	21	0	79	21
Zone B	40	40	83	43	0	81	41
Zone C	107	69	110	3	0	109	2
Zone D	68	30	79	11	0	79	11
Zone E	104	12	102	-2	2	104	0
Zone F	120	0	94	-26	20	114	-6
Zone G	225	67	244	19	0	225	0
Zone H	37	5	43	6	0	43	6
Totals	**759**	**239**	**834**	**75**	**22**	**834**	**75**
					Projected Number of Parking Spaces Needed:		**0**

Peak Period: *3:00 PM*
Scenario: *Base analysis year (2011 land uses)*
Event: *Normal parking demand conditions*

Figure 10 – Demand Model Inputs (*Current Zoning*)

The demand model allows for the user to modify a number of factors that define the scenario in which they are interested in. The red boxes in the graphic on the following page indicate the fields a user can modify in the scenario. The following provides an explanation to each of the fields.

1. The effects of shared parking are applied, where appropriate
2. Chooses whether to analyze weekday or weekend demands
3. Determines whether to look at the peak demands for the study area or specific peak demands for individual study areas
4. Determines whether to view the peak hour or individual hours
5. Chooses whether to analyze shoulder or peak season
6. Choose whether residential parking is reserved only for tenants or shared during non-peak hours
7. Proposed project phasing, associated with the Santa Cruz General Plan and the Lower Pacific Avenue Scenarios
8. The scenario to be analyzed, relating to existing and future development levels as defined in the RF/LP Study or the General Plan
9. Source of parking generation characteristics related to parking demand, including calibrated conditions, code requirements, and downtown parking district requirements
10. Applying event demands to the analysis, including basketball and arena events

Parking Demand Model - Data Output Sheet (Weekday Analysis)

Shared Parking?[A]	Period	Zonal Peak	Hourly Analysis	Seasonal	Residential	Phase[I]
Yes	Weekday	Overall	Peak	Shoulder Season	Reserved	Existing

Scenario	Source[B]	Event
Existing	Code Requirement	Normal

1 Zone	2 Peak Parking Demand [C]	3 Non-Residential Parking Demand	4 Parking Supply [D]	5 Parking Supply Surplus [E]	6 Available Proximity Parking [F]	7 Adjusted Parking Supply [G]	8 Net Parking Surplus/Deficit [H]
Zone A	58	16	79	21	0	79	21
Zone B	40	40	83	43	0	81	41
Zone C	107	69	110	3	0	109	2
Zone D	68	30	79	11	0	79	11
Zone E	104	12	102	-2	2	104	0
Zone F	120	0	94	-26	20	114	-6
Zone G	225	67	244	19	0	225	0
Zone H	37	5	43	6	0	43	6
Totals	759	239	834	75	22	834	75

Projected Number of Parking Spaces Needed: 9 0

Peak Period: *3:00 PM*
Scenario: *Base analysis year (2011 land uses)*
Event: *Normal parking demand conditions*

Figure 11 – Demand Model Outputs (*Current Zoning*)

The outputs of the scenario (represented in blue) include:

1. Each zone of the study area as depicted in **Figure 11**
2. Peak parking demand represents the total number of parking spaces required to meet peak parking accumulation with an effective parking supply. The effective parking supply allows a small cushion of spaces (9 %) over the peak parking accumulation to provide for operation fluctuations, misparked vehicles, vehicle maneuvers, and vacancies created by reserving spaces for specific users, such as disabled parking. The cushion reduces the need to search the entire system for the last few parking spaces, thus reducing patron frustration. However it must be noted that 90 percent utilization is just on the edge of being considered "at capacity" as previously described in Section 2.6,
3. The peak parking demands of non-residential uses in the study area. Residential parking demands are separated in this analysis as parking for residents will be provided on site and are not viable options for shared parking.
4. Parking supply includes all available parking spaces identified within the zone, whether provided in parking decks, on-street parking spaces, or surface lots
5. Parking surplus is the supply minus peak parking demand
6. Available Proximity Parking shows the amount of donated spaces that each zone can receive from a neighboring zone, up to the zone's total need. This occurs when one zone does not utilize all of its available parking supply and is able to donate some of that surplus to a zone within acceptable walking tolerances with excess parking demands
7. Adjusted parking supply accounts for proximity parking spaces donated from adjacent zones (if available)
8. Adjusted parking supply minus peak parking demand
9. Total number of spaces needed to serve the demands of the chosen scenario

Figure 12 identifies the eight zones within the study area that were utilized in the demand model analysis. These zones will remain consistent throughout all of the demand model analysis provided in this document. Note that the residential neighborhood west of the study area (Zone H) is included in the map below. Because there exists the potential for future parking impacts to extend into this area, the neighborhood was included in the parking demand analysis.

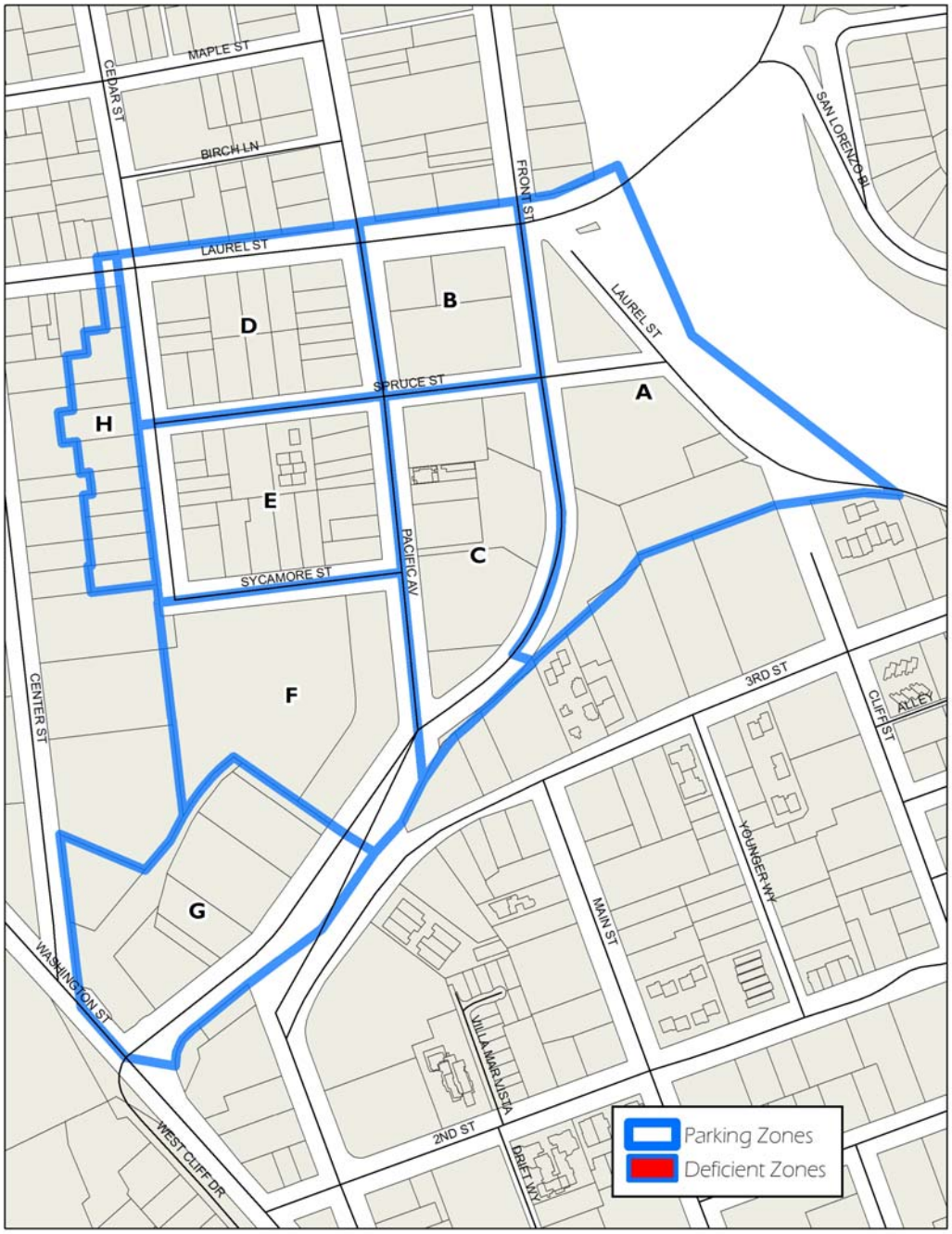


Figure 12 – Study Area Zones

The existing parking demand model based on calibrated conditions is derived from data collected in the field and represents the current parking supply, demand, and surplus/deficit of each defined zone and the study area as a whole.

Parking Demand Model - Data Output Sheet (Weekday Analysis)

Shared Parking?[A]	Period	Zonal Peak	Hourly Analysis	Seasonal	Residential	Phase[I]
Yes	Weekday	Overall	Peak	Shoulder Season	Reserved	Existing

Scenario	Source[B]	Event
Existing	Calibrated	Normal

Zone	Peak Parking Demand [C]	Non-Residential Parking Demand	Parking Supply [D]	Parking Supply Surplus [E]	Available Proximity Parking [F]	Adjusted Parking Supply [G]	Net Parking Surplus/Deficit [H]
Zone A	56	12	79	23	0	79	23
Zone B	9	9	83	74	0	83	74
Zone C	63	42	110	47	0	110	47
Zone D	33	14	79	46	0	79	46
Zone E	87	20	102	15	0	102	15
Zone F	60	0	94	34	0	94	34
Zone G	128	49	244	116	0	244	116
Zone H	27	4	43	16	0	43	16
Totals	463	150	834	371	0	834	371
					Projected Number of Parking Spaces Needed:		0

Peak Period: *12:00 PM*
Scenario: *Base analysis year (2011 land uses)*
Event: *Normal parking demand conditions*

Figure 13 – Existing Parking Demand Based on Calibrated Model Conditions (Shoulder Season)

The existing parking demand model based on current zoning generates parking demand that is based on the parking requirements defined in the current Santa Cruz Municipal Code. The model includes the actual existing parking supplies in the study area, the parking demands based on current code, and the surplus/deficit of each defined zones and the study area.

Parking Demand Model - Data Output Sheet (Weekday Analysis)

Shared Parking?[A]	Period	Zonal Peak	Hourly Analysis	Seasonal	Residential	Phase[I]
Yes	Weekday	Overall	Peak	Shoulder Season	Reserved	Existing

Scenario	Source[B]	Event
Existing	Code Requirement	Normal

Zone	Peak Parking Demand [C]	Non-Residential Parking Demand	Parking Supply [D]	Parking Supply Surplus [E]	Available Proximity Parking [F]	Adjusted Parking Supply [G]	Net Parking Surplus/Deficit [H]
Zone A	58	16	79	21	0	79	21
Zone B	40	40	83	43	0	81	41
Zone C	107	69	110	3	0	109	2
Zone D	68	30	79	11	0	79	11
Zone E	104	12	102	-2	2	104	0
Zone F	120	0	94	-26	20	114	-6
Zone G	225	67	244	19	0	225	0
Zone H	37	5	43	6	0	43	6
Totals	759	239	834	75	22	834	75
					Projected Number of Parking Spaces Needed:		0

Peak Period: *3:00 PM*
Scenario: *Base analysis year (2011 land uses)*
Event: *Normal parking demand conditions*

Figure 14 – Existing Parking Demand Based on Current Zoning (Shoulder Season)

The existing parking demand model based on downtown parking zone standards is based on the reduced parking requirements of the Downtown Parking District. The model includes the actual existing parking supplies in the study area, the parking demands based on Downtown Parking District Standards, and the surplus/deficit of each defined zones and the study area.

Parking Demand Model - Data Output Sheet (Weekday Analysis)

Shared Parking?[A]	Period	Zonal Peak	Hourly Analysis	Seasonal	Residential	Phase[I]
Yes	Weekday	Overall	Peak	Shoulder Season	Reserved	Existing

Scenario	Source[B]	Event
Existing	Downtown Parking Zone	Normal

Zone	Peak Parking Demand [C]	Non-Residential Parking Demand	Parking Supply [D]	Parking Supply Surplus [E]	Available Proximity Parking [F]	Adjusted Parking Supply [G]	Net Parking Surplus/Deficit [H]
Zone A	52	16	79	27	0	79	27
Zone B	25	25	83	58	0	83	58
Zone C	86	57	110	24	0	110	24
Zone D	51	22	79	28	0	79	28
Zone E	89	19	102	13	0	102	13
Zone F	90	0	94	4	0	94	4
Zone G	178	59	244	66	0	244	66
Zone H	30	5	43	13	0	43	13
Totals	601	203	834	233	0	834	233
					Projected Number of Parking Spaces Needed:		0

Peak Period: 3:00 PM
Scenario: Base analysis year (2011 land uses)
Event: Normal parking demand conditions

Figure 15– Existing Parking Demand Based on Downtown Parking District Requirements (Shoulder Season)

Parking Demand Analysis Scenario Results

The results in **Table 5** and **Figures 13-15** show that a true parking deficiency does not exist within the study area, as observed during the field data collection. However, changes in development intensities, in combination with the elimination of parking supplies for new development and modifications to land use characteristics can push the system over the limit, quickly creating an over-capacity situation.

The results also show that the existing parking demand is less than the current zoning and the proposed Downtown District parking requirements would require. While the calibrated rates identified in the model are reflective of the conditions today, adoption of the Downtown District parking requirements, as recommended in the RF/LP Study, will be more reasonable for this study area and will result in a more right-sized parking system moving forward. Furthermore, the Downtown District parking standards are structured to support and reflect the parking demands of higher density developments within shared, centralized parking facilities, which is consistent with the development pattern envisioned for the Lower Pacific Avenue Study area (potential development intensities for the study area are discussed in greater detail in the following sections as well as in the Parking Demand vs. Site Design chapter of this report). If Downtown District parking requirements are not implemented and existing City standards remain, the high level development intensity envisioned for the study area cannot be realized as a result of parking overbuild. Therefore, it is recommended that Downtown District parking requirements be implemented in the Lower Pacific Avenue area to support higher development intensities anticipated in the study area.

3.3 Kaiser Permanente Arena Parking Demand Analysis (Existing Conditions)

As previously noted, in addition to the existing land uses defined earlier, the Lower Pacific Avenue area is home to the new Kaiser Permanente Arena. The Arena has a maximum seating capacity of 2,505 patrons for basketball games (4,000 for concert-style events), which typically would require a large amount of parking spaces to accommodate event demands. As stated previously, providing on-site parking for this sporadic need is not a beneficial strategy, as these facilities would remain seriously underutilized for non-event days. In lieu of recommending parking infrastructure to accommodate periodic events, this study will recommend parking management policies and needs reduction strategies intended to offset demands and provide for parking needs within a smaller footprint within the study area.

As defined in a separate study conducted in parallel with this effort, parking requirements for a 2,505 seat Arena, as established by the Santa Cruz County Code, are 716 spaces (1,140 spaces for a 4,000-seat Arena). By Urban Land Institute (ULI) standards, the Arena needs 827 spaces for 2,505 seats (1,320 spaces for 4,000 seats). As noted in the Arena study, no on-site parking is available for the Arena, so it is dependent upon the surrounding available parking supply, including on-street parking, priced public parking, and parking in Downtown lots within acceptable walking distances (less than 1,600 ft. See **Figure 17** for walking distances and parking facilities). It can be estimated that about 20-30% of the event-goers will arrive from alternative modes of transportation; therefore the overall required parking for the Arena is lower than current requirements project.

Although planning for a parking facility to solely serve the Arena is not an efficient way to manage parking for the study area, it is important to note the parking needs of the popular attraction to understand how it may affect the overall management of parking demands. Taking into account the parking requirements for the Arena, the projected number of users arriving from alternative modes of transportation, and the availability of existing parking, the demand for Arena parking is apparent in its current state, and the demand will further increase in the short, mid, and long-term phases.

In the separate study conducted for the Arena, it was recommended to encourage event attendees to utilize public parking facilities located outside of the immediate study area to serve event demands (**Figure 17** identifies those surrounding parking facilities). Since the completion of that study, the City has stated the use of fringe facilities has been successful in balancing Arena event demands and that event attendees are willing to walk further distances to find a place to park. Additional public parking the study area could support parking demands of the Arena, but should not be counted on as the primary source of parking capacity.

Parking Demand Model - Data Output Sheet (Weekday Analysis)

Shared Parking?[A]	Period	Zonal Peak	Hourly Analysis	Seasonal	Residential	Phase[I]
Yes	Weekday	Overall	Peak	Shoulder Season	Reserved	Existing

Scenario	Source[B]	Event
Existing	Calibrated	Basketball Game

Zone	Peak Parking Demand [C]	Non-Residential Parking Demand	Parking Supply [D]	Parking Supply Surplus [E]	Available Proximity Parking [F]	Adjusted Parking Supply [G]	Net Parking Surplus/Deficit [H]
Zone A	612	568	79	-533	145	224	-388
Zone B	5	5	83	78	0	5	0
Zone C	43	22	110	67	0	43	0
Zone D	73	54	79	6	0	79	6
Zone E	78	11	102	24	0	102	24
Zone F	60	0	94	34	0	94	34
Zone G	129	50	244	115	0	244	115
Zone H	23	0	43	20	0	43	20
Totals	**1,023**	**710**	**834**	-189	**145**	**834**	-189
					Projected Number of Parking Spaces Needed:		**200**

Peak Period: *9:00 PM*
Scenario: *Base analysis year (2011 land uses)*
Event: *Additional event demand scenario (nothing programmed)*

Figure 16 – Existing Parking Demand (Calibrated Model) with Basketball Event (Shoulder Season)

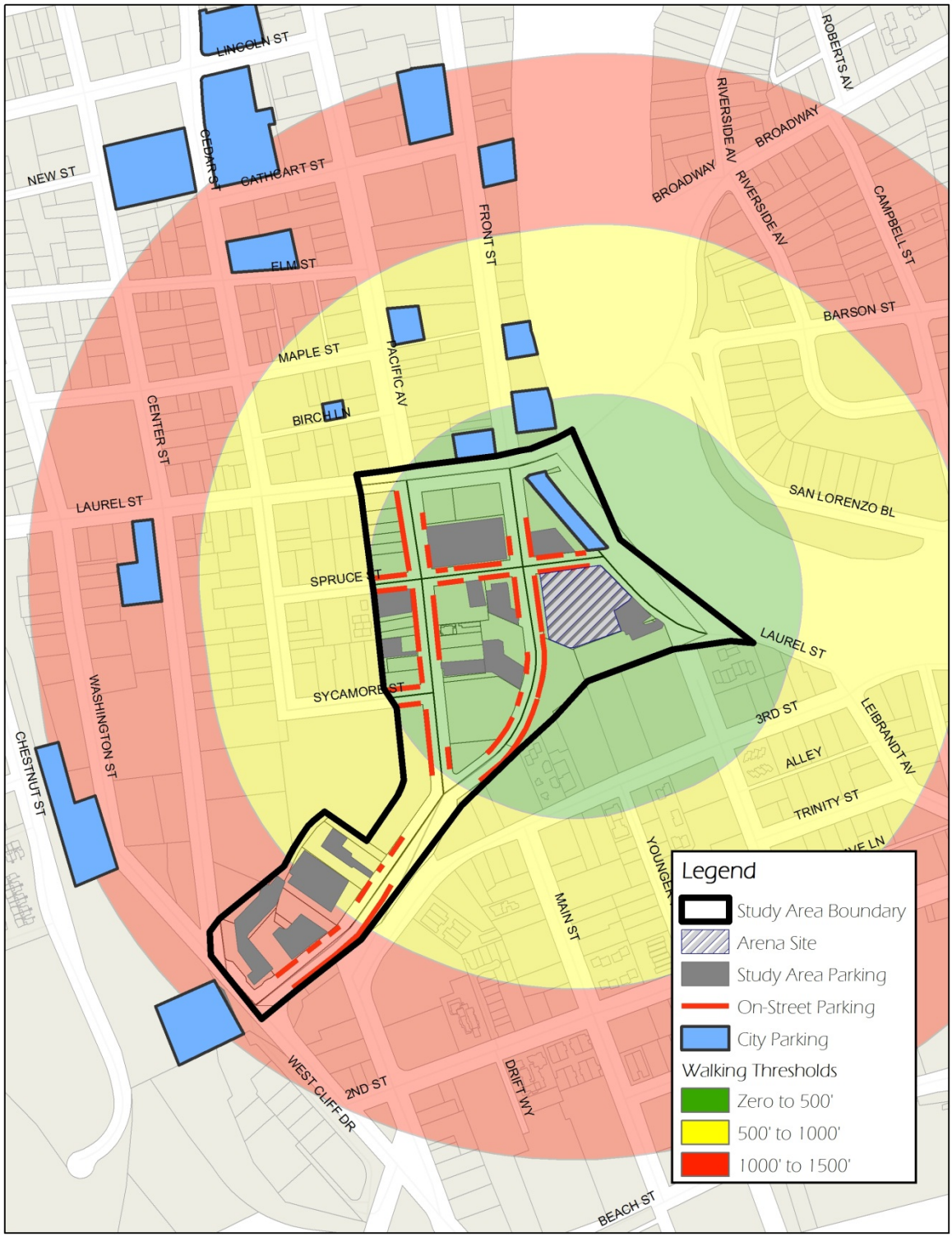


Figure 17 – Maximum Walking Tolerances

3.4 Threshold Build-Out Analysis

A threshold analysis was prepared to identify when, where, and how the Lower Pacific Avenue area could no longer meet projected parking demands of new development; i.e., to determine the point at which new parking facilities must be constructed to accommodate additional development-driven parking demands. To project parking demands, the threshold analysis reviewed future parking demands based on existing parking and land use data, parking supply options (private lots, publicly accessible lots, and on-street parking), current parking requirements, and build-out projections defined by the vision of the RF/LP study. These projections were tested under a variety of conditions, including peak season, shoulder season, time of day, weekend and weekday demand, and events. As parking demands surpass the existing parking supply of the Lower Pacific Avenue area, the parking demand threshold becomes apparent. The identification of the threshold provides insight into the timeframe in which additional parking facilities need to be constructed in order to combat the manifested deficiencies and support the increased parking demands.

In this analysis, it was assumed that to a large degree, parking for new residential development is to be provided on site, given market preferences, and may not provide great opportunities for shared parking (although residential developers may choose to enter into a shared parking agreement as situations permit). With this caveat in mind, in the following threshold scenarios all future residential developments provide parking on-site for tenants and do not share supplies with adjacent land uses. Therefore, the analysis will focus on the parking demands of non-residential land uses during the short- mid- and long-term development phases. The parking deficiencies observed will identify the time and location in which additional parking may be needed to serve public, non-residential parking needs.

Phased Build-Out Conditions (*Short, Mid, and Long Term*)

As part of the analysis of the Lower Pacific Avenue area, the project team identified specific opportunity sites within the study area and then projected parking demands based on their land use density and implementation phasing. **Table 6** provides the breakdown of opportunity site development intensities which includes residential and non-residential development, while **Figure 17** shows the location of each of the opportunity sites. Since the three development phases were defined, five sites were developed (or are under development) and are no longer considered options for future development. These sites are represented with the hatched symbol in **Figure 17** and red text in **Table 6**. The proposed zoning shown in **Table 6** was based on recommendations from the RF/LP study, which requires commercial uses on the ground floor, and allows for residential upper floors. As previously noted, this assumes that each site would be built to capacity pre the RF/LP recommendations. On the east side of Pacific Avenue, this recommendation would significantly increase residential density due to a change in maximum allowable building height from 35 feet to 50 feet.

Table 6 – Opportunity Site Development Intensities

Site #	Phase	Zoning	Residential (dwelling units)		Non-Residential	
			Current Allowable Zoning[1]	RF/LP Study[1]	Current Zoning	RF/LP Study[1]
1[2]	*Long*	*CBD-E*	*27*	*34*	*13,282*	*13,282*
2[2]	*Long*	*CBD-E*	*17*	*21*	*8,434*	*8,434*
3[2]	*Mid*	*CBD-E*	*61*	*77*	*30,421*	*30,421*
4	Mid	RH/MU	32	58	10,742	10,742
5[3]	*Mid*	*RH/MU*	*109*	*139*	*36,369*	*36,369*
6[3]	*Mid*	*RH/MU*	*6*	*17*	*1,865*	*1,865*
7	Long	RH/MU	37	78	18,633	18,633
8	Mid	CBD-E	19	25	9,261	9,261
9	Mid	CBD-E	44	60	22,248	22,248
10	Short	CBD-E	68	86	33,970	33,970
11	Short	CBD-E	14	19	7,143	7,143
12	Short	CBD-E	67	88	33,734	33,734
Total			632	830	226,462	226,462
Total Excluding Redeveloped Opportunity Sites[4]			281	414	135,731	135,731

[1] *The current allowable zoning is based on the maximum allowable dwelling units per parcel as defined by the current City zoning code.*
[2] *The data for sites 1, 2, and 3 was collected prior to development of a Walgreens; these sites are for existing and all phases.*
[3] *The data for sites 5 and 6 was collected prior to their development into the Kaiser Permanente Arena; these sites are no longer considered opportunity sites. The 2,505+ seat basketball Arena will be reflected in the parking demand models for existing and all phases.*
[4] *This total represents all the total development potential of the all opportunity sites excluding the sites (1, 2, 3, 5, & 6) that have been redeveloped since the completion of the analysis.*

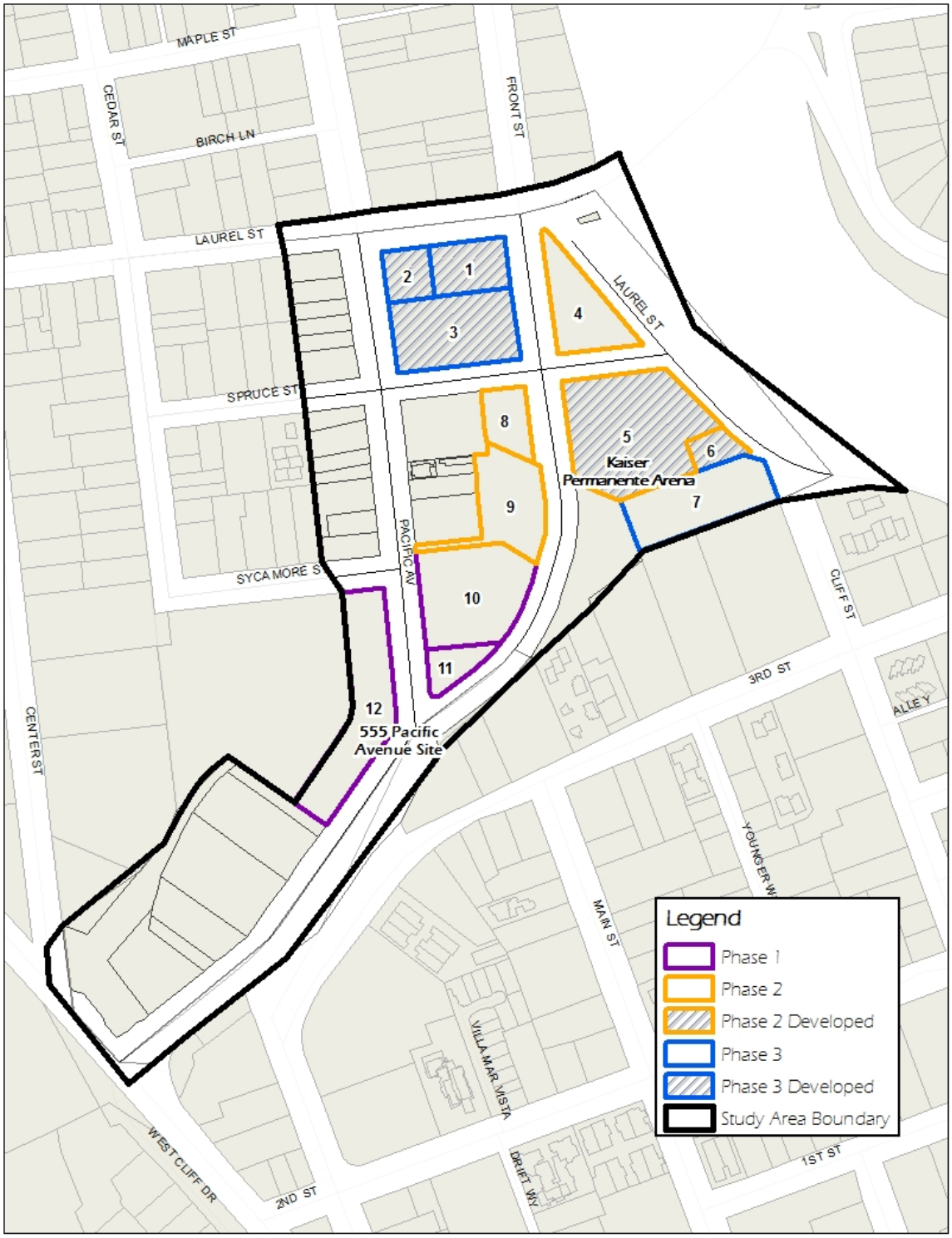


Figure 18 – Opportunity Sites[1]

[1] *The opportunity sites were based on an analysis prepared by DC&E in 2011.*

A baseline for the analysis was developed using the current parking demands for shoulder and peak seasons and existing parking supply as collected during the previously described observation periods. Once the baseline conditions were determined, projected build-outs for each phase were included in the analysis by incorporating the square footage of projected development and the required parking associated with the intensity of development for each phase (short-term, mid-term, and long-term) in which the build-out is affiliated. As the analysis examines each phase of development, parking deficiencies emerge for the overall study area.

The emerging parking deficiencies were further evaluated, detailing which blocks would benefit by sharing parking facilities (for non-residential parking demands) with other blocks due to a block's inability to meet its parking demands. While these deficiencies indicate an inadequate parking supply, it also provides positive evidence for establishing formal shared parking agreements between properties. Further, where blocks can donate and need to receive parking spaces to balance the parking demand, a centralized parking facility for these areas can provide an option to aid in meeting overall parking demands.

Although the threshold analysis includes an analysis of parking demands for peak summer season and for events, the area parking strategy cannot be designed solely to accommodate these extreme conditions as it will ultimately lead to underutilized, inefficient parking in the study area for the majority of the year. Instead of focusing on extremes, the recommendations detailed in this study will be geared towards normal conditions to support the parking needs of conditions most common.

The following tables represent the deficiencies for each phase, based on current parking supplies, which include the recently developed Walgreens and Arena sites, for both shoulder and peak seasons as projected development actualizes. Although parking needs (not including arena needs) can initially be seen during the short-term phase, demands become widely apparent during the mid-term phase for both shoulder and summer peak seasons due to the development of Opportunity Sites 4, 8, and 9. Based on these results, the completed development of the long-term phase is the parking threshold where new parking facilities should be considered to accommodate demands that are expected to exceed this threshold prior to demand manifesting into deficiency.

For the purpose of this study, the parking requirements for the Downtown District are applied as recommended in the RF/LP Study. Application of the current citywide zoning parking requirements would likely serve as a deterrent to new development and redevelopment of existing uses and would result in an oversupply of parking in the area. Rather, the Downtown Parking District standards represent the type of higher-density development anticipated in the redevelopment of the Lower Pacific Avenue study area. The Downtown Parking Requirements reduce residential parking requirements from 2 to 1.5 spaces per residential unit and general retail parking requirements from 4 to 2.5 spaces per 1,000 square feet.

Before discussing the results of the threshold analysis, it must be noted that the deficiencies in the summer threshold analysis will not be utilized as a baseline for assessing future parking needs and by extensions recommendations for the Lower Pacific Avenue area. It is neither feasible nor wise to build parking based on peak conditions, especially in the Lower Pacific Avenue area, as the parking demands significantly decrease after the summer season, resulting in parking supplies remaining largely empty during shoulder months. Therefore, from here on shoulder season parking demands will be utilized as the guidelines for determining future parking demands and the associated parking strategies to support those demands.

Table 7 - Projected Number of Additional Spaces Needed for During Shoulder and Peak Summer Season[1]

Phase of Development	Additional Parking Needs Based on Downtown District Parking Standards[2]		Arena Event Additional Parking Needs Based on Downtown District Parking Standards			
			End Stage Event[3]		Basketball Event[4]	
	Weekday	Weekend	Weekend	Weekday	Weekend	Weekday
Shoulder[5]						
Existing	0	0	600	500	300	200
Short-Term	0	0	700	700	400	400
Mid-Term	0	0	800	800	600	500
Long-Term	400	400	1,100	1,100	800	900
Summer[6]						
Existing	0	0	800	700	500	400
Short-Term	400	400	1,200	1,200	900	900
Mid-Term	600	600	1,400	1,300	1,100	1,000
Long-Term	1,200	1,200	2,000	1,900	1,700	1,600

These scenarios do not include the development of additional parking facilities

Based on the rationale that summer parking demand is not indicative of the actual demands to be planned for, the threshold in which the study area can no longer accommodate parking demand is during the long-term phase of development during the shoulder season with a deficiency of 400 parking spaces. If the study area is built out to the projections proposed in the RF/LP

[1] The projected number of spaces includes only non-residential demands as it is assumed that residential parking would be included in each development. These scenarios do not include the development of additional parking facilities and assume the study area was built out to the fullest extent it could be.
[2] The Downtown District Parking Standards were derived from the RF/LP study and applied to development projections of the Lower Pacific Avenue Area.
[3] 4,000 seats are assumed to be available for an end stage event.
[4] 2,505+ seats are assumed to be available for a basketball event.
[5] Shoulder season generally occurs from September through May when tourist presence and parking demands are low.
[6] Summer season occurs from June through August when tourist activity and parking demand are at peak levels.

study, this parking deficiency emerges as a result of the construction of an additional 414 residential units (assumed to be self-parked on site) and 135,731sf of commercial development. It is important to stress that the development projections identified in the RF/LP study are anticipated and are not concrete, meaning that actual development of the Lower Pacific Avenue may vary from the development levels evaluated by this study. However, the recommendations proposed in this study will still be made with the idea that the study area will develop to the maximum level permitted in the Lower Pacific Avenue area, though parking demands may vary from this analysis as redevelopment occurs.

Although the deficiency does not occur until the long term phase of development, the City can begin to take steps in order to plan for this future deficiency by:

- Continuing to monitor parking supply and demand
- Encourage shared parking agreements between existing and future developments
- Build relationships and coordinate with property owners of Sites 8, 9, 10, and 11 in order to construct the proposed facility
- Coordinate with Sites 8, 9, 10, and 11 on creating site plans that include the construction of the proposed garage

It should be noted that parking deficiencies for the Arena are seen immediately, but as stated previously, this study does not aim to accommodate parking demands for the Arena outright. It will instead focus efforts on managing parking demands during more common study-area-wide occurrences while providing options to mitigate Arena demands.

When evaluating the results of the parking analysis and the outlined deficiencies from the previous tables, the following opportunity sites create specific parking demand problems within the study area.

Table 8 –Parking Demands Based on Opportunity Site

Opportunity Site	Non-Residential Demands (On and Off-Site)	Residential Demands (On-Site)
Short-Term		
Sites 10 & 11	72	158
Site 12	59	132
Mid-Term		
Site 4	19	87
Sites 8 & 9	55	128
Long Term		
Site 7	33	117
Total	**238**	**516**

Parking Demand Model - Data Output Sheet (Weekday Analysis)

Shared Parking?[A]	Period	Zonal Peak	Hourly Analysis	Seasonal	Residential	Phase[I]
Yes	Weekday	Overall	Peak	Shoulder Season	Reserved	Existing

Scenario	Source[B]	Event
Future	Downtown Parking Zone	Normal

Zone	Peak Parking Demand [C]	Non-Residential Parking Demand	Parking Supply [D]	Parking Supply Surplus [E]	Available Proximity Parking [F]	Adjusted Parking Supply [G]	Net Parking Surplus/Deficit [H]
Zone A	52	16	179	127	0	74	22
Zone B	25	25	83	58	0	35	10
Zone C	295	108	110	-185	185	295	0
Zone D	49	20	79	30	0	54	5
Zone E	82	12	102	20	0	88	6
Zone F	312	12	266	-46	46	312	0
Zone G	178	59	244	66	0	205	27
Zone H	30	5	43	13	0	43	13
Totals	**1,023**	**257**	**1,106**	**83**	**231**	**1,106**	**83**
					Projected Number of Parking Spaces Needed:		**0**

Peak Period: *3:00 PM*
Scenario: *Generic future analysis year (for modification and analysis)*
Event: *Normal parking demand conditions*

Figure 19 – Short-Term Parking Demand (Weekday, Shoulder Season, with Downtown District Parking Standards)[1]

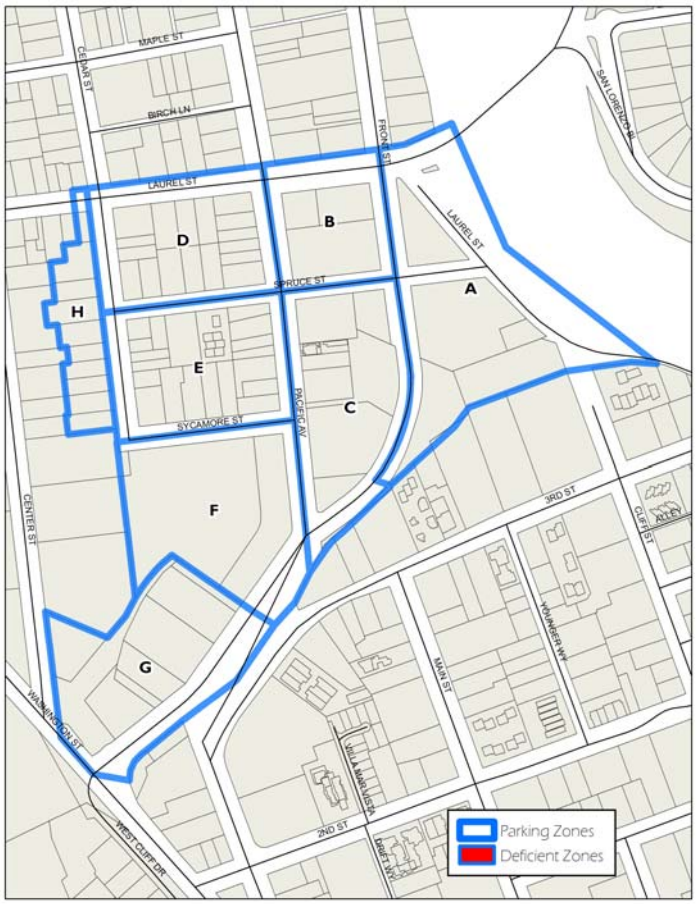


Figure 20 – Short Term Deficient Zones

[1] *For a review of the descriptions of the elements provided in the demand analysis model, see Section 3.1.*

Parking Demand Model - Data Output Sheet (Weekday Analysis)

Shared Parking?[A]	Period	Zonal Peak	Hourly Analysis	Seasonal	Residential	Phase[I]
Yes	Weekday	Overall	Peak	Shoulder Season	Reserved	Existing

Scenario	Source[B]	Event
Future	Downtown Parking Zone	Normal

Zone	Peak Parking Demand [C]	Non-Residential Parking Demand	Parking Supply [D]	Parking Supply Surplus [E]	Available Proximity Parking [F]	Adjusted Parking Supply [G]	Net Parking Surplus/Deficit [H]
Zone A	122	19	179	57	0	122	0
Zone B	25	25	83	58	0	25	0
Zone C	350	163	110	-240	154	264	-86
Zone D	49	20	79	30	0	49	0
Zone E	82	12	102	20	0	86	4
Zone F	312	12	266	-46	46	312	0
Zone G	178	59	244	66	0	205	27
Zone H	30	5	43	13	0	43	13
Totals	**1,148**	**315**	**1,106**	-42	**200**	**1,106**	-42
					Projected Number of Parking Spaces Needed:		**0**

Peak Period: *3:00 PM*
Scenario: *Generic future analysis year (for modification and analysis)*
Event: *Normal parking demand conditions*

Figure 21 – Mid-Term Parking Demand (Weekday, Shoulder Season, with Downtown District Parking Standards)[1]

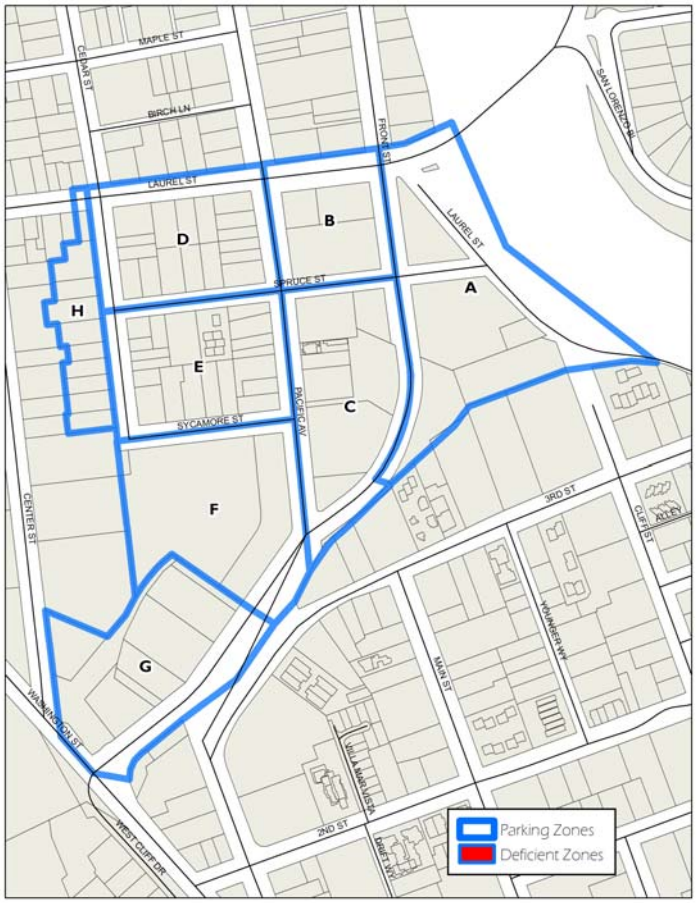


Figure 22 – Mid-Term Deficient Zones

[1] *For a review of the descriptions of the elements provided in the demand analysis model, see Section 3.1.*

Parking Demand Model - Data Output Sheet (Weekday Analysis)

Shared Parking?[A]	Period	Zonal Peak	Hourly Analysis	Seasonal	Residential	Phase[I]
Yes	Weekday	Overall	Peak	Shoulder Season	Reserved	Existing

Scenario	Source[B]	Event
Future	Downtown Parking Zone	Normal

Zone	Peak Parking Demand [C]	Non-Residential Parking Demand	Parking Supply [D]	Parking Supply Surplus [E]	Available Proximity Parking [F]	Adjusted Parking Supply [G]	Net Parking Surplus/Deficit [H]
Zone A	505	51	179	-326	19	198	-307
Zone B	25	25	83	58	0	25	0
Zone C	350	163	110	-240	78	188	-162
Zone D	49	20	79	30	0	49	0
Zone E	82	12	102	20	0	86	4
Zone F	312	12	266	-46	46	312	0
Zone G	178	59	244	66	0	205	27
Zone H	30	5	43	13	0	43	13
Totals	**1,531**	**347**	**1,106**	-425	**143**	**1,106**	-425
					Projected Number of Parking Spaces Needed:		**400**

Peak Period: *3:00 PM*
Scenario: *Generic future analysis year (for modification and analysis)*
Event: *Normal parking demand conditions*

Figure 23 – Long-Term Parking Demand (Weekday, Shoulder Season, with Downtown District Parking Standards)[1]

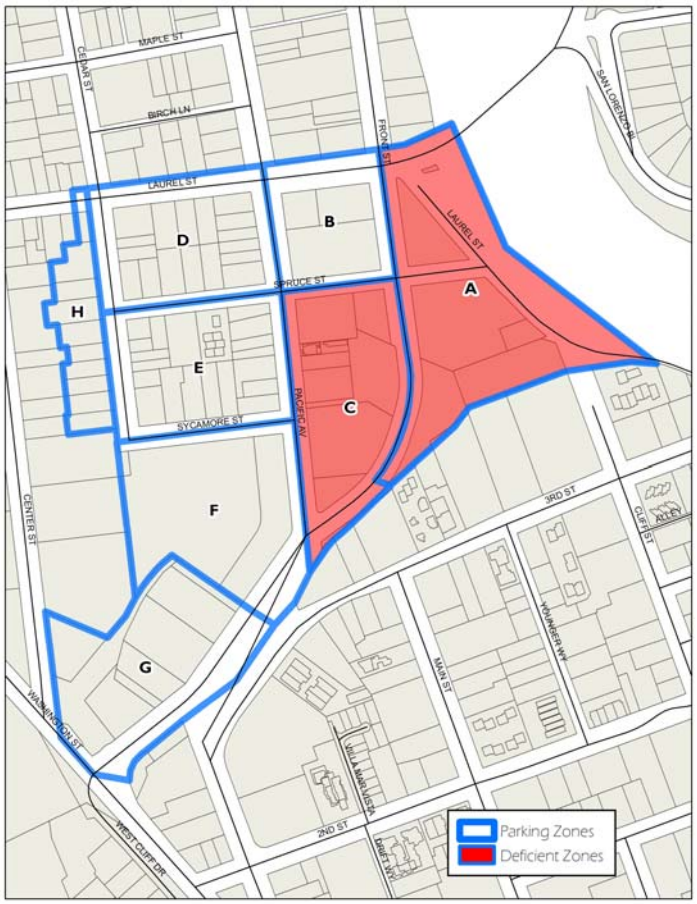


Figure 24 – Long Term Parking Deficient Zones

[1] *For a review of the descriptions of the elements provided in the demand analysis model, see Section 3.1.*

4. PARKING DEMAND VS SITE DESIGN

In the previous section, parking demands associated with development intensities defined in the RF/LP study were analyzed, indicating the amount of parking that would need to be built to accommodate future demands, assuming full build-out of the proposed development intensities using the Downtown District parking requirements to generate parking demands. The results determined that approximately 400 spaces of demand would be needed once the area has reached full-build out conditions (long-term phase). These full build-out plans, provided in the RF/LP study, however, do not include the construction of parking. The study primarily focused on residential and retail development, including build-out of the full footprint of each individual opportunity site.

Parking demands for these proposed new developments will need to be accommodated somewhere in the study area, but where? Does each opportunity site have the land resources to construct the necessary amount of parking to serve its patrons? This section will review the seven opportunity sites[1] and their potential to build parking that is balanced with development intensities of the site to serve future uses including new on-site parking facilities will require a reconfiguration and reduction of development intensities in order to support parking access for residents and the public. With this in mind, an evaluation was made to determine how to maximize development potential and provide on-site parking, while maintaining the goal of reducing the overall parking footprint in the study area. The results of this section will provide insight into parking management and construction options, including potential centralized parking opportunities, which will aid in the creation of recommendations for the Lower Pacific Avenue area.

4.1 Site by Site Evaluation

The parking demand versus site design evaluation looked at each individual site (or grouping of sites) to define the actual amount of redevelopment that could occur, while accommodating for on-site parking using the Downtown District parking standards. The analysis does not aim to change the development standards presented in the RF/LP study, rather, it aims to determine how much physical development can occur given the size of the site using the RF/LP development standards and building parking based on Downtown District requirements. The results verify whether parking demands created by the site design can be accommodated on site or whether they will need to be located in a centralized shared public parking facility. As with the previous analysis, all residential demands were accommodated on-site.

[1] *Sites 1, 2, 3, 5, 6, & 12 are no longer considered opportunity sites as they have been developed since the completion of the RF/LP study or will be developed in the near future.*

For each site, there were three scenarios that were evaluated each representing a potential parking configuration that could occur. These scenarios are described below:

- **Equilibrium** –maximizing development potential while including a surface lot or a four story garage on-site (350 ft² per space standard). In this analysis it is assumed that ground floor retail and upper floor residential units will wrap around the potential surface lot or parking garage.
- **Mechanical Parking** –utilizes mechanical parking which reduces the 350 ft² per space standard to 250 ft² per space, increasing parking potential above-ground parking capacity in either a surface lot or a four story parking garage. In this analysis it is assumed that ground floor retail and upper floor residential units will wrap around the potential surface lot or parking garage. Based on loading and unloading speed, mechanical lifts were only used for residential uses. All other users were determined infeasible due to queuing and peaking conditions.
- **Underground Parking** –does not reduce development intensities, and instead develops an underground parking garage equal in size to that of the development perimeter. This component is provided primarily for comparison purposes, but is not recommended as part of this study due to the costs associated with developing underground parking due to higher water table levels in the study area.

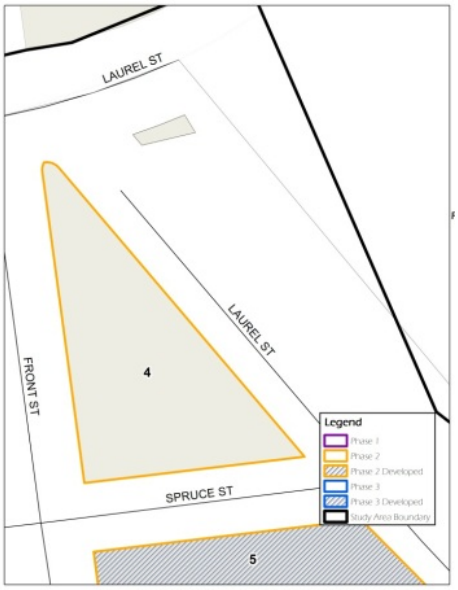
Before beginning the evaluation, there are a few precursors which guide and constrain the site design analysis which include:

- Development restrictions in the study area limit building heights to 50ft or approximately four stories.
- The development configuration that will be analyzed includes ground floor retail and three floors of residential development that will wrap around an interior parking facility (except in the underground facility scenario, which assumes subterranean parking with four levels of above grade development).
- Residential units are assumed to be 1,000 ft² units
- The analysis utilizes a standard of 350 ft² per parking space to determine the number of spaces in a normal above or below ground parking facility, and 250 ft² for the mechanical parking facility option.
- As with the previous analysis, parking development requirements are assumed to be the same as the existing Downtown Parking District standards.

The following sections represent the results for the parking vs. site design analysis for sites 4, 7, 8, 9, 10, and 11. The analysis for Sites 8, 9, 10, and 11 was combined because the development of these sites will likely occur as an assemblage given their proximity and size. The output tables include the original development intensities and residential units described in the RF/LP study, which will be referred to as the "maximum" development density, the reduced intensities for the equilibrium, mechanical, and underground parking scenarios, and the specifications of a parking facility that would fit on the site.

Site 4 Analysis

Site 4 is located in the northeast corner of the study area at the intersection of Front and Spruce streets and currently consists of an auto shop. The RF/LP study allows for this site to contain up to 10,742 ft2 of ground floor retail with up to approximately 58 upper floor residential units.



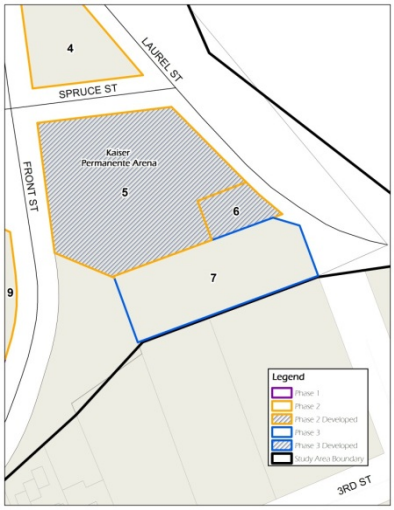
Given the development constraints tor opportunity site 4, development levels were reduced from 10,742 ft² to 4,000 ft² with the potential for 12 rather than 58 upper floor residential units. This reduction allows for a 6,742 ft² parking facility to be developed which could supply a 77 space parking garage or a 19 space surface parking lot. With only 19 parking spaces per level, this size of this parking garage is not feasible. A mechanical parking garage would provide 104 parking spaces in the potential facility, however, it is much more expensive when compared to surface parking and it is unnecessary to develop for 12 residential units. However, a 19 space parking lot could provide parking supply for on-site residential uses. With an underground parking facility, approximately 30 spaces could be developed for a one level facility, but the only way that the underground parking facility would be a viable option to serve parking demands would be to reduce residential units to 30 and reserve spaces for residential use only. The size of site 4 does not allow for non-residential public parking to be developed on site. Instead, public parking would have to be served in another shared parking location within the study area.

Table 9 –Site 4 Parking Supply and Demand Analysis

Site	Maximum Density		Equilibrium		Mechanical Parking		Underground Parking[1]	
	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	Residential
4	10,742ft²	58	4,000ft²	12 units	4,000ft²	12 units	10,742ft²	32 units
Demand								
Residential Parking Demand			*18*		*18*		*48*	
Non-Residential Parking Demand			*10*		*10*		*26*	
Total Parking Demand			*28*		*28*		*74*	
Potential Parking Facility Capacity								
Parking Facility Size			*6,742ft²*		*6,742ft²*		*10,742ft²*	
Spaces in a Surface Lot			*19*		-		-	
Number of Spaces (4 Levels)			*(or) 77*		*(or) 104*		*(or) 30 spaces per level*	
Parking Surplus/Deficit – Ability to Meet Demand								
Surface Lot			-9					
4 Level Parking Garage			+79		+76		-44	

[1] Underground parking is infeasible due to high costs of construction, however is provided for reference.

Site 7 Analysis



Site 7 is located on the eastern edge of the study area, just south of the Arena on Laurel Street, where an apartment complex currently stands. The RF/LP study plans for this site to contain 18,633 ft2 of ground floor retail with 78 upper floor residential units. However, it is more likely that this site might be consolidated with the Arena site, if the Arena were to be made permanent. Furthermore, if the Arena was no longer located on sites 5 and 4, site 7 would likely be consolidated with sites 5 and to make way for a larger development. This analysis, however, will focus solely on the development of site 7.

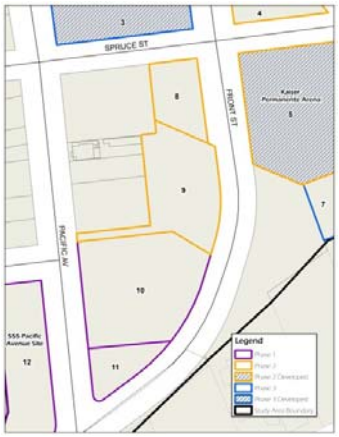
In the equilibrium scenario, an 11,408 ft2 parking facility would allow for 33 spaces to be constructed in a surface parking lot or 130 spaces in a parking garage. A mechanical parking option would increase the parking garage capacity to 180 spaces by reducing the space necessary to fit a vehicle from 350 ft2 to 250 ft2. A 130 space parking garage with 33 parking stalls per level is not likely feasible based on construction costs. A 180 space mechanical parking garage more than provides enough capacity, but is not likely feasible for 21 residential units. Constructing an underground parking facility could provide 53 spaces per level; however multiple underground parking levels would need to be constructed in order to meet the total parking demands of the site. The most likely solution is to construct a surface parking facility (33 spaces) that would meet the on-site residential parking needs for the development. Public parking would have to be served in another shared parking location within the study area.

Table 10 – Site 7 Parking Supply and Demand Analysis

Site	Maximum Density		Residential Parking		Mechanical		Underground[1]	
	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	Residential
7	18,633ft²	78 units	*7,225ft²*	*21 units*	*7,225ft²*	*21 units*	18,633ft²	55 units
Parking Demand								
Residential Parking Demand			*32*		*32*		*82*	
Non-Residential Parking Demand			*18*		*18*		*46*	
Total Parking Demand			*50*		*50*		*128*	
Potential Parking Facility Capacity								
Parking Facility Size			*11,408ft²*		*11,408ft²*		*18,633ft²*	
Spaces Supplied in a Surface Lot			*33 spaces*		-		-	
Number of Spaces Supplied (4 Levels)			*(or) 130*		*(or) 180*		*(or) 53 spaces per level*	
Parking Surplus/Deficit – Ability to Meet Demand								
Surface Lot			*-17*		-		-	
4 Level Parking Garage			*+80*		*+130*		*-75*	

[1] Underground parking is infeasible due to high costs of construction, however is provided for reference.

Site 8/9/10/11 Analysis



Sites 8, 9, 10, and 11 are located in the center of the Lower Pacific Avenue study area along Front Street between Spruce Street and Pacific Avenue. These sites likely provide the best opportunity for mixed use development and a centralized parking facility. Currently, site 8 consists of a parking lot, site 9 consists of a mixed use development with a restaurant and other uses on the ground floor, and sites 10 and 11 consist of an auto sales lot. Development projections in the RF/LP plan for sites 8, 9, 10, & 11 contain 72,622 ft2 of ground floor retail and 190 residential units.

The results of the equilibrium option show that a four level parking garage of 27,756 ft² could fit 317 spaces, with a development intensity reduction of 27,755 ft2 of ground floor retail and 50 residential units. With a modified parking demand of 317 spaces (204 spaces of residential demand and 113 spaces of non-residential demand), the parking garage could meet both the residential and non-residential parking needs of Sites 8, 9, 10, and 11. An underground parking garage would increase the capacity of the facility to 207 spaces per level, however, it would also allow for higher densities of development above grade, increasing parking needs on-site to 467 spaces. An underground configuration might not be feasible based on the costs associated with the development of a subterranean facility. An additional configuration that may work on site could include nested residential parking with stacked mechanical bays and lower level non-residential parking. With that configuration, the facility could provide the necessary 204 spaces of residential parking on 1.5 floors, allowing for 198 spaces of public non-residential parking.

Table 11 – Sites 8, 9, 10, 11 Parking Supply and Demand Analyses

Site	Maximum Density		Equilibrium		Mechanical		Underground[1]	
	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	Residential	Non-Residential	Residential
8 & 9	31,868ft²	85 units	19,750ft²	59 units	19,750ft²	59 units	31,868ft²	85 units
10 & 11	41,112ft²	105 units	25,475ft²	76 units	25,475ft²	76 units	41,112ft²	105 units
Parking Demand								
Residential Parking Demand			*204*		*204*		*285*	
Non-Residential Parking Demand			*113*		*113*		*182*	
Total Parking Demand			*317*		*317*		*467*	
Potential Parking Facility Capacity								
Parking Facility Size			*27,756ft²*		*27,756ft²*		*72,980ft²*	
Spaces Supplied in a Surface Lot			*79*		-		-	
Number of Spaces Supplied (4 Levels)			*(or) 317*		*(or) 604*		*208 spaces per level*	
Parking Surplus/Deficit – Ability to Meet Demand								
Surface Lot			*-238*		-		-	
4 Level Parking Garage			*0*		*+287*		*-259*	

[1] Underground parking is infeasible due to high costs of construction, however is provided for reference.

Conclusions

Based on the results provided in the previous section, the following site specific parking facility recommendations should be implemented to promote maximum development intensities while still allowing parking demands to be accommodated within the Lower Pacific Avenue area:

Table 12 – Proposed Parking Supply for Opportunity Sites

Site	Residential Parking Demand	Non-Residential Parking Demand	Total Spaces On-Site
Site 4[1]	19 space surface parking lot	Cannot be accommodated on site	19 spaces
Site 7[1]	33 space surface parking lot	Cannot be accommodated on site	33 spaces
Site 8, 9, 10, & 11	204 spaces in nested stacked mechanical parking bays	113 spaces of on-site demand plus 85 additional spaces in public parking garage	402 spaces

If developed based on the RF/LP Study recommendations of residential over ground floor commercial development, then sites 8, 9, 10, & 11 are the only opportunity sites that have the potential to provide for both residential and non-residential parking demands on-site. If nested mechanical parking is provided, the parking facility on sites 8, 9, 10 & 11 would provide 198 public parking spaces, enough to cover site specific non-residential demand and additional demands within the study area. The remaining 28 spaces of parking demand from sites 4 and 7 could be accommodated with within this facility as well as in the on-street parking supply within the area. Based on these results, it is recommended that a 402 space parking facility, which would include 204 stacked mechanical spaces and 198 traditionally configured spaces, be constructed to serve both on-site and public parking demands of the study area. To understand spatial requirements, approximately 27,756ft^2 of space would be required to construct a 4 level, 402 space parking garage that will serve the parking needs of Sites 8, 9, 10, and 11 as well as the non-residential parking demand of surrounding sites. Beyond this facility, the remaining opportunity sites can only provide enough on-site parking to meet their residential demands.

The alternative to this combined mechanical and traditional facility on sites 8, 9, 10, & 11 is to build a 317 space traditional facility on the sites. With 317 spaces in an above ground facility, it is not feasible to provide both on-site residential and non-residential parking, while also providing additional shared public parking for the study area. While this certainly helps the area to reach an equilibrium parking supply, it does not provide an additional cushion of public parking supply to meet growing demands of adjacent areas or changing demands as specific land uses are defined for the area.

[1] *Sites 4 and 7 have the potential to be influenced by the use of the larger Arena site, and as a result, mixed use development may not be the most suitable use for these sites. However, this analysis assumes that sites 4 and 7 will develop with ground floor retail and three floors of residential units.*

The results of the parking demand vs. site design analysis show, that constructing a 402 space parking facility on sites 8, 9, 10, & 11 provides the best opportunity to serve future residential and non-residential parking demands within the Lower Pacific Avenue study area. It is recommended that the City work with the property owners to facilitate and support the construction of this facility to accommodate future parking demands (a more in depth discussion on recommendations is provided in subsequent sections of this report).

Figure 24 – Proposed Parking Garage Concept

4.2 Possible Public Parking Alternatives

At this point in time, development projections utilized in this analysis are not set in stone and have the potential to change throughout the short, mid, and long term phases identified in this study. As a result, it will be necessary to review the development patterns and parking demands of the study area once development has actualized to determine whether or not the proposed parking structure will be the most appropriate for providing public parking or if a more suitable alternative exists.

There are however, two potential options that stand out which, if circumstances change, could potentially provide an opportunity for the construction of public parking to accommodate future demands: Site 3 (the Walgreens parking lot) and the city owned land just east of Site 4. Site 3 was not initially included in the analysis because it was considered already developed and was not expected to redevelop within the short, mid, and long term phases defined by this study. However, if the situation arises where the property owner of the Site 3 is interested, a standalone parking garage could be constructed to accommodate the parking needs of the Site 3 as well as surrounding public demands. Given that the Walgreen's existing surface parking lot is, 30,421sf, potentially 348 spaces could be developed in a four level garage. Additionally, the City has stated that there is a potential to close the section of Spruce Street from Pacific Avenue to Front Street (located directly south of the Site 3) to extend the footprint of the garage increasing its overall capacity. The additional 16,000sf as a result of closing this section of Spruce Street could increase the potential size of the garage located on site 3 by approximately 184 spaces, for a total of 532 spaces.

Considerations would have to be made when and if construction of a garage on Site 3 occurs, as it would be located directly in front of the existing entrances to the Walgreens and restaurants to the north. If it is determined that a garage on site 3 is most suitable, the City, property owners, and developers would have to discuss the best garage design that does not impact business access and visibility.

Another drawback to constructing a standalone parking garage, rather than a garage that is tied to new development is that developers and property owners could be less inclined to participate because the there is a longer timeline to realize the return on investment. Additionally, it might be more difficult to get the Walgreens property owner on board to participate in the construction of a public garage because the construction process could impact the Walgreens business for a period of time.

The second possible alternative to the centralized garage on Sites 8, 9, 10, and 11 is to construct a smaller public parking facility utilizing the City owned land located near the levy, just east of Site 4. Although the site is smaller than the other alternatives at 16,800sf, it still provides some space to accommodate future public parking demands with approximately 192 spaces. There is a pump station located at the north end of the site that the City will still require access to if a public facility is constructed. Additionally, the site is slim, which could prohibit functional design of a parking garage.

If a public parking facility is not realized during this studies planning horizon, it will severely limit the development potential of the study area. Developers will be required to build all parking needed on-site, which will limit development intensities. In order to realize the full development potential of the study area, the City should proactively search and the opportunities to construct a centralized public parking structure.

5. PARKING MANAGEMENT: POTENTIAL FOR A PARKING DISTRICT

The results presented in the Demand Analysis section of this report show, that during long-term phase of development, the existing parking supply will no longer be able to accommodate public parking demands by approximately 400 spaces. This deficiency was based on the development levels provided in the RF/LP study and their associated parking demands. Again, it is important to stress that if development plans do not actualize at the anticipated intensities or if zoning regulations are not changed to support denser development, it is likely that the parking deficiency will be much less than the 400 space noted in this study. However, this study will continue planning for the 400 space deficiency to reflect the envisioned development patterns anticipated for the Lower Pacific Avenue area. Planning for the development of additional parking capacities must begin prior to the appearance of parking deficiencies. The results provided in the parking vs. site design analysis, which recommended the construction of a 402 space parking garage (204 parking spaces for tenants and 198 spaces for public use) to negate future parking deficiencies by providing the necessary increase in parking supply to meet the projected future demands and maintain efficiency in the Lower Pacific Avenue area parking system.

Beyond the investment in parking infrastructure, the other primary recommendation of the previous planning efforts was to develop a parking management entity. This entity would help define polices for the Lower Pacific Avenue area and implement, operate, and manage parking assets within the area. The previous planning efforts (specifically the RF/LP study) called for the implementation of a parking district in the area, similar to the one implemented in the downtown

California State Laws on Parking Districts

The implementation of vehicle parking districts enables communities to finance the operation, management, and construction of parking facilities, creating a more holistic parking system to support a community. The community assesses the benefit the property will receive from the improvements and levies some type of payment to offset the provision and management of public parking. Parking districts are initiated by landowners within the community with a vested interest in community enhancement. Landowners can petition for a district, and its approval is dependent upon a vote of other landowners. The state of California has enacted laws to support and manage the implementation of a Parking District within its cities. Two notable laws enable the City to complete these assessments: the Parking District Law of 1943 and the Parking District Law of 1951.

The *Parking District Law of 1943* enables a city to acquire or improve land for maintaining and managing parking facilities and actions related to parking. The law also states that a city can levy taxes for the purpose of paying for the costs associated with improving, acquiring, maintaining, and managing these parking facilities. The funds can also be used to hire staff necessary for project completion, such as engineers. Finally, this law allows a city to raise funds by using parking meters, user fees, and ad valorem taxes.

The *Parking District Law of 1951* also enables cities to form a district and levy assessments to finance projects related to parking, including the acquisition of land and improvements to and construction of parking facilities. The primary difference with this law is the defined ability to allow bonding capacity and provide debt service as a component of the parking district. Under this law, cities can also use the funds to pay employee salaries.

area, that allowed for area-specific parking policies, centralized shared parking, and business and property owner assessments that would provide funding for developing and maintaining parking assets.

While in theory the implementation of a district would provide a viable means of creating and managing the parking assets to serve the Lower Pacific Avenue area and its expected growth, the number of properties and businesses in the Lower Pacific Avenue area may prove to be a barrier to implementation of a parking district within the Lower Pacific Avenue area. Successful parking districts are served and maintained by their business and property owners primarily through the assessment of taxes or levies that fund the program and the facility development and management. This works well for a district with hundreds of property and business owners, who together contribute a manageable assessment. When the district includes less than 10 city blocks and less than 50 subdivided parcels, the assessments can become excessive for each individual property owner.

With this limitation in mind, the project team, City of Santa Cruz, and area stakeholders evaluated several district concepts, each of which had benefits and limitations, including:

1. Creating a new Parking District for the Lower Pacific Avenue study area
2. Becoming part of the Existing Downtown Parking District
3. Create a larger parking district to include the Lower Pacific Avenue and Beach areas

These concepts and their potential to be implemented within the Lower Pacific Avenue area are discussed in the following sections.

5.1 Parking District Option 1: Stand Alone Lower Pacific Avenue Parking District

The initial concept followed the recommendations of the RF/LP study and evaluated the feasibility of a stand-alone district in the Lower Pacific Avenue area. The district would include current businesses and property owners, who would establish an association that would manage and operate parking as a means of promoting and supporting development in the community. The City would participate in the establishment of the association, as required by California state laws (a general overview of the purposes of these laws is previously described in this section). The concept would be similar in nature to the Downtown Parking District, which levies assessments on its businesses to support and improve the downtown area. The business assessments are based on square footage of the business, type of business, and specific zones in which the businesses are located. Since this has proved to be problematic to some degree when buildings do not have any tenants, it is more efficient to base assessments on property owners, or a combination of property owners and businesses.

The Downtown varies greatly compared to the Lower Pacific Avenue area in the size and scale of its coverage area. The Downtown area is more than three times the size of the Lower Pacific Avenue area (in terms of geographic footprint) and has more parking assets (20 surface lots and 2 parking structures) that can be used to support businesses. With over 100 businesses, the costs for operating and maintaining these lots can be spread more broadly amongst business owners. The Lower Pacific Avenue area currently comprises 35 parcels with 24 property owners.

This small number of contributing business and/or property owners will severely inhibit the Lower Pacific area from funding parking asset improvements. The ability to collect sufficient funds from the district assessments would either be limited by size or by the amount of assessment needed to cover the cost of the parking infrastructure. If a 402 space parking facility were constructed in the center of the district, and the primary means of funding this facility were through district assessments, each property owner would be responsible for approximately between $270,800 and $395,000 of assessments (depending on garage costs). Over a 20-year period, that would equate to an annual assessment of between $13,550 and $19,800. As a comparison, a 10,000-square-foot retail establishment in Zone 1 of the Downtown area would contribute approximately $3,500 annually.

This example doesn't factor the cost of operating and maintaining the structure into the assessment costs. For a 400-space facility, the cost to operate and maintain the asset ranges from $500 to $1,200 per space, which adds another $8,500 to $20,000 per property owner's assessment. Clearly, the provision of a parking facility in the district strictly through the use of district assessments is not financially feasible. For the district to function from a pure assessment standpoint, the number of businesses would need to be closer to 150 or 200 businesses. This level of activity in the district would allow for equitable assessments to the Downtown area. Additionally, the use of parking revenues from on-street and off-street assets in the area could lower assessment levels and the burden on property owners. However, this revenue is currently used by the City to help maintain and manage these on street spaces.

5.2 Parking District Option 2: Annexation into Existing Downtown Parking District

Because the size of the area and the number of business owners prohibit a standalone parking district, the second conceptual idea is to annex the Lower Pacific Avenue area into the existing Downtown Parking District. As a discussion point with area stakeholders, this seemed to be a logical alternative. Annexation allows more businesses, which lessens the assessment burden and allows Lower Pacific Avenue businesses to begin paying into the existing Downtown assessment structure.

However, the concept does provide some unique limitations, including allowing the Lower Pacific Avenue area business owners to simply begin receiving the benefits that the Downtown business owners have been investing in for years. This might be negatively perceived by the existing Downtown business owners, who have been paying assessments for many years.

Additionally, while the Downtown area has 22 parking facilities within its asset system, it currently faces a deficiency in the southern portion of its district. To offset this deficiency, the district would need to build a parking facility to support both the Lower Pacific Avenue area and the southernmost businesses in its district. Again, this would provide immediate benefits to the Lower Pacific Avenue business owners, while those business owners in the southern portion of the existing Downtown District would have paid into the development of that facility for many years.

A third limitation to this approach is the ability of the current management structure of the Downtown Parking District to accept the additional properties with its current staffing and operations. The Downtown District parking is managed by the City of Santa Cruz Public Works Department, which has limited staffing capacity to operate, manage, and enforce parking assets within the

Lower Pacific Avenue area. While this could provide an opportunity to enhance the existing management structure, the short-term implementation of the district annexation would likely create a deficit in manpower or management capabilities.

After much discussion of these limitations, annexation was determined to not be a feasible option for short-term management of the Lower Pacific Avenue area parking assets.

5.3 Parking District Option 3: Create a Larger District with the Beach Area

A third alternative strategy is to increase the number of business owners contributing to the district by increasing the geographic area of the district, without annexing or including the Downtown District. This concept provides businesses from both the Lower Pacific Avenue area and the Beach area with the opportunity to enter into a parking district structure with shared benefits and management structure.

While this accomplishes the goal of increasing the number of businesses contributing to the district assessment, thereby accumulating more funds for parking infrastructure investment and lessening the individual burden on property owners, the primary limitation of this strategy is the equitability of the spending of those funds. For example, if a parking facility was constructed in the study area, what benefit would the business owners in the Beach area each receive? While they would receive no benefits from this investment, their assessments would certainly be used to contribute to the funding of that facility. Overall, the geographic separation of the two areas would severely restrict the success of the district management options.

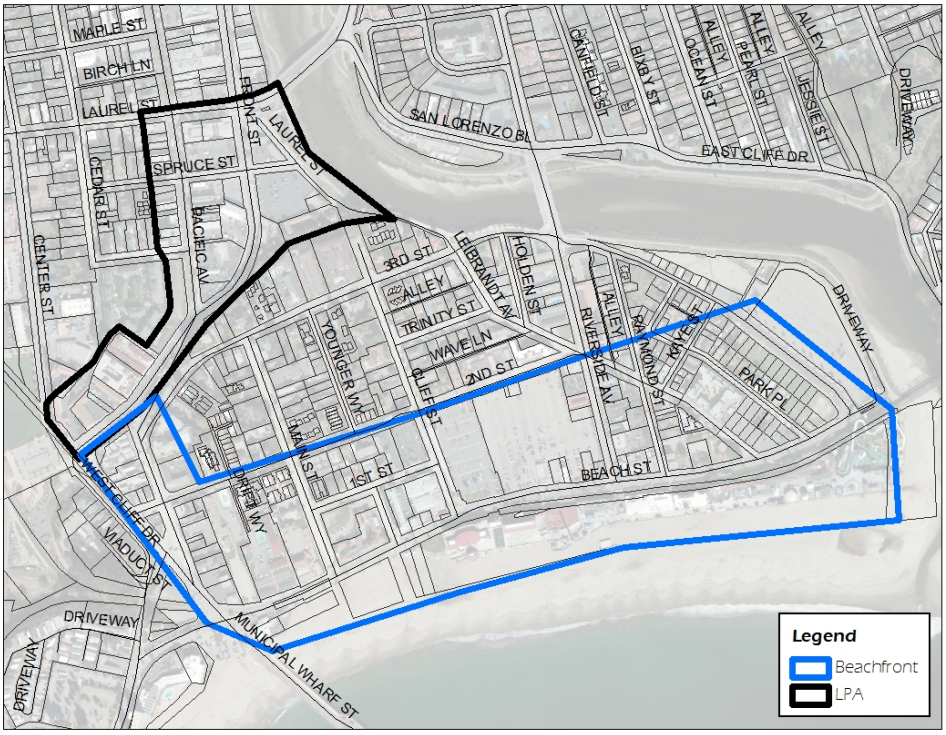


Figure 25 – Expanded District Boundary

5.4 Parking District Option Review

The previous sections reviewed the potential for a parking district to be implemented in the Lower Pacific Avenue study area through implementing a standalone district, annexing into the Downtown District, and creating a parking district with the Beach area. However, the reality of the situation is that the context of the study area in terms of its location, small size, and limited property owner base severely limits potential to create a parking district. After exhausting all of the options, it can be determined that a parking district should not be implemented in the study area to fund the development of the new parking system.

The absence of a parking district removes potential funding opportunities for the proposed parking system, which would have been generated from the Lower Pacific Avenue study area, including revenues from on-street parking, off-street parking, future parking facilities, event parking, and property owner assessments. Because revenue cannot be generated from the study area, funds have to come from other sources in order to develop the 402 space public/private parking garage.

At this point, the only available option to fund the proposed parking facility is through a public-private partnership with the City and private developers in which funds from both entities are combined to fund the construction of the parking garage. This partnership would provide aid in matching the objectives of the City and developers, where the developers have to provide parking for tenants, but the City wants to provide parking for the Lower Pacific Avenue area in a way that supports the visions defined in the RF/LP study.

The City will need to locate and assign funding for the development of the proposed garage and will need to identify potential partners in this venture, which will require further and more extensive discussions and negotiations between the City and private developers to implement. The role that the City plays in this partnership, including which department will participate in the partnership, management roles, operations oversight, ownership, and leasing agreements should be identified more closely to the time of development application submittal for the site.

6. GARAGE CONSTRUCTION

The recommended 402 space parking garage consists of four levels of traditional parking with one level containing mechanical lifts. Total cost of a parking facility varies as a result of facility design and construction and equipment costs. Mechanical parking costs can range from $5,000 to $10,000 per lift, traditional parking space could range from $20,000 - $30,000 per space within the proposed parking garage (based on inferred construction averages).

For the proposed 402 space facility factors that influence its costs could include:

- Adding a roof as opposed to leaving the top floor open
- The placement of mechanical parking as it requires the floor in which it is located to have a higher ceiling height. If the mechanical lifts are located on the top floor that does not have a roof, costs will be lower than a facility with mechanical lifts on lower levels.
- The type of equipment installed in the garage
- Aesthetic elements applied (paint, art, signs, etc.)

It must be noted that the proposed site for a future parking facility is located on private property. In order to build a public parking structure on the site, a partnership between the City and the property owners will need to be established. Public-Private Partnerships are quickly becoming the most viable option to support the construction of public parking on private property, serving both public need and private investment. These public-private partnerships are structured to be mutually beneficial to both parties to incentivize development, through City financial support and shared construction costs. The future Public Private Partnership should be structured to allow parking spaces to be leased to the private property owner as needed, with the remaining spaces available to the general public. This type of lease agreement would provide flexibility in determining how much parking is needed to accommodate private parking demands and could be adjusted as necessary. The revenues could be shared between the public and private partners in the agreement.

The true cost of the parking garage will be narrowed through a more in-depth analysis of the site, the property's land value, and facility design. However, based on industry standards regarding costs per space and an understanding of space costs within the City of Santa Cruz, the **Table 13** below provides a range of potential costs of the proposed 402 space garage.

Table 13 – Potential Garage Construction Costs

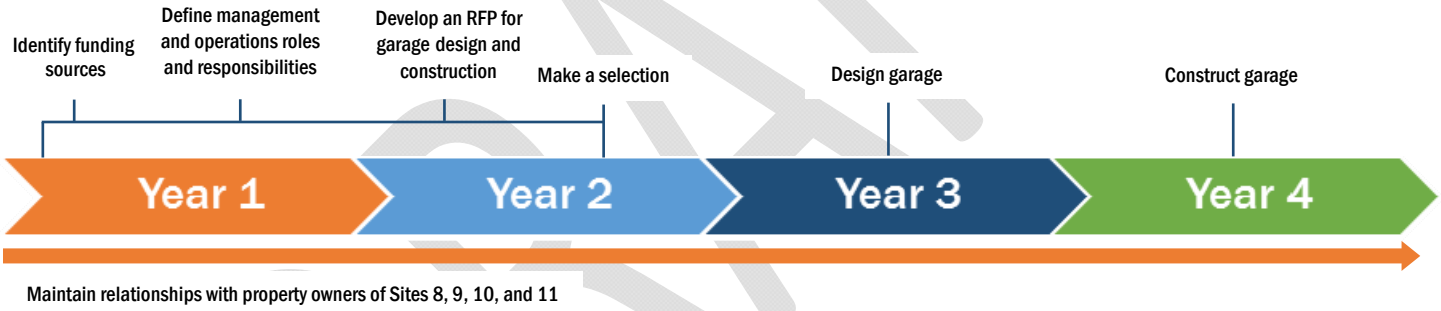
Low Cost	Mid Cost	High Cost
$6.5 million	$8.25 million	$9.4 million

6.1 Planning for Future Development by Building a Centralized Shared Parking Facility

The Lower Pacific Avenue area is expected to see a parking deficiency within the long term phase of development of approximately 400 spaces. In order to mitigate the 400 space deficit, this study recommends the construction of a 400 space centralized shared parking structure. Though the deficiency is expected to emerge within the long term phase, planning for the recommended parking structure should begin in the midterm, approximately four years before long term phase development.

During the first year, the City defines funding strategies for the future structure and enter into an agreement with the property owners of Sites 8, 9, 10, and 11 that will define funding strategies and operations, management, and ownership roles and responsibilities. Throughout the four year process, steps must also be taken to create an RFP to hire a design and construction firm to design and build the structure.

The City should coordinate with owners of sites 8, 9, 10, and 11 to create a funding strategy for the parking structure, beginning in the first year of planning. The timeline graphic below identifies the general steps that should be taken during the mid-term phase of development to construct the recommended parking garage.



6.2 Financing the Construction of the Parking Garage

As discussed in the Chapter Parking Management: Potential for a Parking District the geographic and economic characteristics of the Lower Pacific Avenue area do not permit a Parking District to be established in order to fund the construction of the proposed garage. Private property owners of sites 8, 9, 10, & 11 are not obligated to construct a centralized shared parking facility to accommodate demands of surrounding developments. As a result, some sort of incentive must be offered. Most typically, this incentive is provided in the form of monetary support or flexibility in zoning regulations such as reduced parking requirements, flexible design characteristics, or increases in allowable building height. Although a Parking District cannot be established, there still remains a number of financing instruments available to the City. Below is a description of the various options available for financing parking facilities and includes the requirements for using the instrumental, restrictions, and requirements for revenue or payment pledges. The City of Santa Cruz will need to assess and evaluate each tool and determine

the appropriate source of funding/financing to participate in assisting the Lower Pacific Avenue area in funding the construction of the proposed garage.

User Fees

Many jurisdictions have been able to partially finance construction of new facilities such as parking structures using bonds funded through parking user (meter) revenues and fines. The ability to generate net revenues from meters (after accounting for enforcement and capital costs) depends upon local parking demand and supply dynamics as well as public policy objectives. For example, larger cities with high parking demand are generally capable of charging higher meter rates and spreading enforcement cost over a larger area. Meter revenues could also provide funding for a portion of ongoing O&M costs. User fees can also provide supplemental funding for museums and parks whose principal source of financing is a public or non-profit agency. Many museums and parks charge for selected programs and services, usually at a subsidized rate that is lower than the fee users would pay in the private sector for similar services. In these cases, the pricing of fees is often tiered for different users such as seniors and youth. By providing a sliding scale, user fees can be set in a way that ensures access to all segments of the community.

The potential revenue generation by a user fee program depends on the support of the user base, and also on the extent to which the facilities charging user fees face competition from other recreational opportunities in the community.

Event Parking Pricing

Increased parking rates during event periods, such as Woody's on the Wharf or Arena events, provide a stream of revenue that can be reinvested into the construction of the proposed parking garage.

Developer Financed Public Improvements

A local government may agree to reimburse a private developer for all or a portion of the construction costs for public improvements when those improvements benefit other properties and are turned over to the City for operation and maintenance upon completion. For example, a city may reimburse a developer for constructing street improvements or improvements to existing drainage facilities in infill areas along with the proposed project. The reimbursement can be paid from general fund revenue; however, many cities provide the reimbursement to the developer by giving a credit for impact fees. In rare cases, private developers may build parking facilities.

This generally occurs in dense urban areas, where parking is at a premium and operators are able to charge extremely high parking fees. Potentially, City-owned land could be provided to a developer with the requirement that development of the property include a parking facility.

However, this option could limit the City's control and flexibility. Selling City-owned land and using the revenues to cover a portion of parking structure costs would produce similar results while allowing the City greater involvement in project implementation.

General Obligation (GO) Bonds

General obligation bonds obtain the lowest possible interest rate of cost of borrowing for any given municipality. Because the full faith and credit of the municipality is pledged to such bonds, the rate of interest will reflect the best that the community has to offer. The primary way for a municipality to improve on its own full faith and credit pledge to a bond issue is to purchase municipal bond insurance. The general obligation bonds of local governments are most commonly paid from ad valorem property taxes and other general revenues.

These bonds are considered the most secure of all municipal debt and are limited in California by Proposition 13 to debt authorized by a vote of two thirds of voters in the case of local governments.

Revenue Bonds

The issuance of tax-exempt revenue bonds by local governments is a common financing source for the construction of public facilities and infrastructure improvements. Debt is secured by a dedicated revenue stream rather than by the taxing power of the municipality.

Common sources of revenue include service fees for sewer and water systems, parking garages, stadiums, auditoriums, golf courses, and recreation facilities. Because these fees are viewed as less secure than the municipality's taxing authority, revenue bonds typically carry higher interest costs than general obligation (GO) bonds (see above). When revenue bonds are issued to finance a parking project, the bond issuer pledges to the bond holders the revenue generated by the parking project. Revenue bonds are payable only from specifically identified sources of revenue, including pledged revenues derived from the operation of the financed parking facility, grants, and excise or other taxes. Parking revenue bonds secured solely by the revenues from a single, standalone, municipality owned parking facility are acceptable at a reasonable tax-exempt rate only when irrefutable evidence is presented.

When revenue bonds are issued to finance a parking project, the bond issuer pledges to the bond holders the revenue generated by the parking project. Revenue bonds are payable only from specifically identified sources of revenue, including pledged revenues derived from the operation of the financed parking facility, grants, and excise or other taxes.

Parking revenue bonds secured solely by the revenues from a single, standalone, municipality-owned parking facility are acceptable at a reasonable tax-exempt rate only when irrefutable evidence is presented.

General Fund

The General Fund is the City's most flexible and accessible source of funding for public facilities and infrastructure improvements. General Fund revenue is mainly derived from property tax, transient occupancy tax and sales tax and is used to pay for basic municipal services such as police, fire, and public works. Because the City's General Fund revenue is limited, it should be viewed as a secondary source of financing for public facilities and infrastructure improvements.

Certificates of Participation

A Certificate of Participation (COP) allows the public to purchase a share of the lease revenues paid by a municipal entity for the acquisition or construction of specific equipment, land, or facilities. COP proceeds are then used to fund the project or acquisition. The technique provides long-term financing that does not constitute indebtedness under the state constitutional debt limit and does not require voter approval. Repayment of COPs can come from a variety of sources, including general fund revenues or earmarked funds in the general fund such as special tax proceeds or fees. Potential revenues from tax increases and parking meter fees are discussed below. These sources could also be used to cover operations and maintenance costs.

Conventional Debt Financing

Conventional loans are loans that are not insured or guaranteed by a government agency. This method of obtaining funds for a capital improvement project involves a lending process that is often rigorous, and may result in higher financing costs incurred by the borrower. Banks want to lend to parties that have a clear record of profitable operations, that generate a cash flow sufficient to repay the load, and that have enough collateral or assets to secure the load. Conventional financing requirements include a clean credit record and no bankruptcies or foreclosures.

Transient Occupancy Tax Increase

A transient occupancy tax (TOT) is similar to a sales tax increase as it requires two-thirds voter approval if it is to be dedicated to a specific purpose or simple majority approval if it is to be a general tax. A TOT increase could provide a revenue stream to secure COP financing or other form of debt financing.

User Fees and Enforcement Fines

Many jurisdictions have been able to partially finance construction of parking structures using bonds funded through parking user (meter) revenues and fines. And some jurisdictions utilize meters as a parking management tool to encourage turnover and control employee parking. Ultimately, the ability to generate net revenues from meters (after accounting for enforcement and capital costs) depends upon local parking demand and supply dynamics as well as public policy objectives. For example, larger cities with high parking demand are generally capable of charging higher meter rates and spreading enforcement cost over a larger area. Meter revenues could also provide funding for a portion of ongoing O&M costs.

Private Funding

In rare cases, private developers may build parking facilities. This generally occurs in dense urban areas, where parking is at a premium and operators are able to charge extremely high parking fees. Potentially, City-owned land could be provided to a developer with the requirement that development of the property include a parking facility.

However, this option could limit the City's control and flexibility. Selling City-owned land and using the revenues to cover a portion of parking structure costs would produce similar results while allowing the City greater involvement in project implementation.

6.3 Conclusions and Recommendations

It is clear that there are a multitude of opportunities available to fund the construction of the proposed garage and it will be the City's responsibility to evaluate each for feasibility and appropriateness. It is important to stress again that the site of the proposed garage is located on private property and regardless of the monetary support provided by the City, private property owners are not required to participate in the construction of a private parking garage so it is imperative that the City maintain relationships with property owners to see the garage into fruition through a public private partnership.

7. RECOMMENDED STRATEGIES AND ACTION PLAN

The strategies presented in the following sections were designed to assist the City with the implementation of parking management and infrastructure strategies in the Lower Pacific Avenue study area. These recommendations present short-term, mid-term, and long-term strategies in association with the build-out and threshold analysis presented in the previous sections.

For purposes of this study, the phases used to align recommendations and strategies are presented with the following time horizons, recognizing that the economy can either speed up or slow down these timelines estimates:

- Short-Term: 0 – 7 years
- Mid-term: Years 7 – 15 years
- Long-term: Year 15 and beyond

The general progression of recommendations provides implementation steps compatible with the current and future projections for the area. Potential options and general concepts were initially presented to stakeholders in a very conceptual fashion. After stakeholder discussions, recommendations were developed into a stronger, more formal and detailed options to manage future parking demands in the Lower Pacific Avenue area, as the study evaluated and determined the actual needs and requirements of each phase of development. The general progression of the recommendations is shown in the figure below. Note that since completion of the RF/LP and initiation of this study, two major changes occurred that significantly affect recommendations. First was the loss of a potential source of funding with the dissolution of the City's Redevelopment Agency. Secondly was the location of the temporary Santa Cruz Warriors stadium and potentially a future facility within the study area. Some of these recommendations may be in flux until sources of new funding are developed and the future impact of a stadium is known.

SHORT-TERM

- Implement Downtown parking requirements
- Revise RF/LP build out projections
- Event management
- Improve shared parking management strateiges
- Monitor parking demands
- Promote TDM implementation

MID-TERM

- Revise RF/LP build out projections
- Support shared parking arrangemenTs
- Identify garage funding options
- Construct shared parking garage
- Develop parking credit program

LONG-TERM

- Revise RF/LP build out projections
- Evaluate operations management
- Asset and equipment maintenance and upgrades
- Audit program and review operations

The following recommendations are presented by phase and are largely built from the demand projections developed in the area threshold analysis and the best management practice recommendations (presented in the Best Management Practices document provided in the Appendix of this report). While the Best Management Practices provide a general overview of the purpose and benefits of parking and transportation management recommendations, the following sections provide specific implementation strategies for the City of Santa Cruz and the stakeholders of the Lower Pacific Avenue area.

7.1 Short Term Recommendations (Now to Year 7)

The short-term recommendations provided in this section are intended to provide a foundation for the future of the Lower Pacific Avenue area, beginning the implementation of policies, ordinances, management strategies, and future infrastructure development. Strategies are provided for the following topics:

- Revisions to Build-Out Projections
- Event Management
- Parking Management
- Shared Parking Policies
- TDM Strategies

Revisions to Build-Out Projections

The build-out projections presented in Chapter 3 represent ideal build-out conditions in the Lower Pacific Avenue area. The short-term phase included two proposed development sites, including Sites 10/11 and Site 12. **Table 14** below shows the proposed build-out conditions (based on the RF/LP study) and the revised build-out conditions, based on parking asset implementation and site constraints. As discussed in Chapter 4, the development projections provided in the RF/LP study cannot be realized due to site constraints. As a result, it is recommended that the RF/LP build out projections be reduced to the densities provided in **Table 14** below to allow for maximum development potential while still allowing residential parking demands to be accommodated on-site. In all actuality, the build-out conditions will likely differ from these expectations based on developer preference and site constraints as well as the level of implementation of the RF/LP zoning recommendations.

Table 14 – Recommended Build Out-Out Land Use Changes (Short Term)

Site #	RF/LP Build-Out		Recommended Build-Out		
	Dwelling Units	Non-Residential	Dwelling Units	Non-Residential	Associated Parking On-Site
10	86	33,970ft²	63	21,045ft²	402 spaces (accommodated in parking garage on sites 8, 9, 10, &11)
11	19	7,143ft²	13	4,430ft²	402 spaces (accommodated in parking garage on sites 8, 9, 10, &11)

12	88	33,734ft²	140	5,200ft²	172

The variation in the Site 12 build-out is directly attributable to the current site plans for the 555 Pacific site1, which provided the increased residential intensity and the decreased non-residential intensity2. Most residential demand can be parked on-site within the proposed 172 parking spaces, with spillover visitor demand placed in shared parking throughout the district, including the proposed parking facility discussed in the previous section.

Implementation of the parking facility on site for Sites 10 and 11 has a net reduction of 29 dwelling units and 15,638 square feet of non-residential usage. This results in a parking demand reduction of approximately 134 spaces. The on-site residential for Sites 10 and 11 will need approximately 114 parking spaces, which could be accommodated as permitted parking in an on-site surface parking facility. Additionally, needs reduction strategies (namely unbundling parking supply from residential leases) could impact the overall parking demand as well. This is discussed in the following recommendations.

Recommendation: Reduce the RF/LP build out projections for Sites 10, 11, and 12 to allow for maximum development potential, while providing space for the proposed 402 space parking structure to be constructed on site.

Event Management Strategies

The location of the Lower Pacific Avenue area makes it a prime parking area for arcade, Beach area, Downtown, and Arena events. As seen during the initial parking demand observation, Woodies on the Wharf pushed parking demands to near capacity. The Arena has the potential to bring in as many as 4,000 visitors whose parking needs cannot be supplied by the facilities within the Lower Pacific Avenue area, as the threshold analysis presented. Events such as these can strain parking supplies within the area, but because this demand is irregular, it does not constitute the need to construct facilities solely for event purposes.

To better manage the intermittent nature of the increased parking demands from popular events, event management strategies should be implemented in the short term to better provide for and mitigate demands. Early planning and implementation of event management strategies will provide added support as the area develops based on build-out projections.

- Implementing event rate parking prices to act as a strategy to reach priority users or push event goers to use alternative modes of transportation. This provides an added benefit of increased City revenues to be reinvested into the recommended parking facility.
- Current opportunities for remote parking and shuttle facilities may exist between the Deport Park parking facility and the basketball arena. With the projected increase in parking demand for the area combined with the large amount of visitors received by the Arena, it may be a viable option for a small scale shuttle service based at the Depot parking

[1] *555 Pacific includes: 94 SOUs, 4,680 square feet of ground-floor commercial space within four tenant spaces, 123 parking spaces (81 below and 42 at ground level). Its 100% parked on site.*

[2] *The residential portion of 555 Pacific utilized the City's Small Ownership Unit Ordinance which encourages the development of small starter homes by eliminating the density cap as well as other modifications to requirements*.

facility. Potential opportunities for shuttle services could extend outside of the study area to allow users to park in the area and, for example, be shuttled to the Beach area and to arcade events.

- Continue to encourage event attendees to utilize fringe City parking facilities, which have proven to be successful for Arena events

Recommendation: Continue to utilize City parking facilities outside of the study area to accommodate event demands. Additionally, evaluate the potential to implement a shuttle service to and from the Depot Park surface lot to serve attendees and employ event rate parking prices to balance event demands.

Reduced Parking Requirements

A theme common to most successful urban parking areas is the inclusion of reduced parking requirements for the land uses within its defined boundaries. The Downtown Parking District for Santa Cruz is a great example. The ordinance recognizes that land use patterns are different for the Downtown area and includes reductions for parking demands to account for clustered mixed-use development and enhanced transportation alternatives. The vision for the Lower Pacific Avenue area is consistent with the Downtown development patterns and should reflect that mindset. The parking demand analysis as well as the parking occupancy data collected as part of this study, supports the need for reduced parking requirements within the Lower Pacific Avenue area to more accurately reflect actual demands and support the Downtown development patterns envisioned for the area. This study echoes the recommendations of the RF/LP study and recommends that the Downtown Parking District parking requirements be incorporated in the Lower Pacific Avenue parking district ordinance.

Recommendation: Implement Downtown District parking requirements in the Lower Pacific Avenue area.

Shared Parking Policies

The City has a municipal ordinance in place (24.12.290) that details the application procedures for a shared parking facility. The procedures, which require a legal agreement between parties and a parking study (which may be waived by the Planning Commission), are consistent with the process for establishing a shared parking facility (minus the required special use or minor conditional use permit) and should be maintained as such. However, the legal agreement does not provide any details regarding coordination among the users of the facilities, how conflicts between uses will be avoided and addressed, liabilities, maintenance, cleaning and utility cost responsibilities, termination process if necessary, and how any applicable supplemental covenants should be addressed in the agreement. To better assist parties interested in establishing a shared parking facility, it is recommended that an easy-to-follow template for shared parking agreements be provided. An example template is located in Appendix F.

The Santa Cruz Municipal Code also addresses Cooperative Parking Facilities. These shared facilities implement the Park Once concept, which allows multipurpose trips to be accomplished by utilizing the facility. Sites participating in cooperative parking agreement may receive a 10% reduction in parking requirements.

As supported in the Santa Cruz City Code, the Downtown Parking District promotes the use of shared parking facilities in areas with the highest potential by use of in-lieu fees to fund the facilities. The shared parking facility must be within walking distance

to be applicable. The benefit that the Lower Pacific Avenue area offers is that the entire district is within acceptable walking distances for shared parking facilities. Because shared parking is not required for businesses, it is recommended that the City contact property owners whose uses may support shared parking between adjacent uses to discuss participating in a shared parking agreement.

A deterrent for shared parking support among property owners is the concern that shared parking limits their available parking supply to accommodate parking demands, which hinders their ability to reach costumers and lowers access to potential revenues. To counteract these concerns, the City could provide zoning incentives to encourage shared parking. In exchange for an agreement:

- Development regulations could be modified including increased building heights of building coverage to incentivize property owners to enter into a shared parking agreement
- The allowable floor area ratio (FAR) recommended by the RF/LP Study could be increased for every parking space eliminated through shared parking. The type of shared uses determine the capacity of the reduction of spaces where an increase in building size for some uses may require additional parking, counteracting the purpose of this incentive.

Shared parking is not required by ordinance; therefore, the City must reach out to the property owners in the area to promote the idea of entering into a shared parking agreement as a means of increasing developable area through coordinated parking management. Incentives may be provided to encourage the agreement, which could include providing flexibility in zoning regulations such as reduced parking requirements or flexible design characteristics. It is important that the City encourage the creation of shared parking agreements as it is the best option, in the short term, in managing short-term demands from a facility standpoint. As the proposed parking facility is constructed, it will begin to serve as the area's shared parking supply, allowing more developable area adjacent to the facility.

In the short-term, parking demands of the development of Sites 10, 11, and 12 could begin to challenge the ability of the study area's on-street parking and public facilities to support additional demand. After analysis of the demand projections and potential areas in which shared parking may be implemented, the surface lot at the southwest corner of Spruce Street and Front Street appears to be the most viable candidate to create a shared parking agreement to provide for the parking needs of the development of Sites 10 and 11 (Site 12 is not included in this agreement as it is expected to construct on-site parking with a limited amount of additional public parking). Additionally, the Walgreens parking facility could be considered as a potential addition to shared parking in the area, although it is not expected that the development would participate in such an agreement.

It may be beneficial to add to City Code 24.12.290 by delineating what is necessary to establish a working shared parking arrangement, including how minimum parking spaces and demand are calculated. To strengthen the language of the Santa Cruz Shared Parking Code, the City should add language that documents the requirements and expectations of a shared parking agreement more clearly. Example policies are found in the Appendices, which define specific expectations and guidance for applying a shared parking reduction and outlines potential details that should be discussed prior to property owners in the

area entering in to an agreement (i.e., liabilities, insurance, taxes, etc.). It is recommended that the City utilize this type of document to ensure that the shared parking agreement is thorough and to prevent future conflicts.

Recommendation: Modify the City's shared parking policy by adding more detailed information in City Code 24.12.290 regarding shared parking agreement requirements, guidance, and expectations, develop a shared parking agreement template to provide interested parties, and encourage property owners and developers to enter into shared parking agreements.

Transportation Demand Management (TDM) Strategies

The following specific TDM strategies are recommended for the Lower Pacific Avenue area in the short-term, and should continue through the mid and long term phases and beyond. The City currently has documented policies that will support some of the TDM recommendations detailed below. However, additional recommendations will require policy changes, or new policies, to support reduce parking demand in the study area. These strategies should be implemented in the short term, in preparation of meeting increased demands as future development occurs in the mid- and long-term phases. For a more detailed description of TDM strategies, please see the Best Management Practices in Appendix A.

UNBUNDLE PARKING

In many cases, unpriced parking spaces are "bundled" with building costs, allowing for parking spaces to be sold as part of the building purchase or lease, regardless of need. "Unbundling" these parking spaces permits spaces to be sold separately from building space so that occupants have the option to pay for parking spaces they actually use and those who do not own vehicles are not being charged for parking spaces they do not occupy. For example, a unit may be rented for $1,000 per month with one parking space provided, or the same unit could be rented for $850 a month with the option of $150 per month for a parking space. Charging for parking spaces through unbundled parking enforces direct payment by motorists and is a more equitable pricing option, as only motorists who actually use the space are charged.

Unbundled parking can be implemented in residential, office, retail, and industrial uses where building space is rented, leased, or sold. Although unbundled parking is initiated by individual developers and building owners, public policies can encourage or mandate it. Reform practices to support unbundled parking include:

- Reduce or eliminate minimum parking requirements for buildings with unbundled parking.
- Require that parking be a separate line item in building leases in order to make the cost of parking explicit to renters.
- Create transportation management associations and parking brokerage services to facilitate unbundling.
- Increase enforcement of parking regulations to avoid spillover problems from vehicle owners parking off site[1]

In the case where there is a surplus of parking spaces, building owners must be able to lease or sell the excess spaces to surrounding uses, allowing owners to make up for an overshoot in the estimated required parking spaces .

[1] *Parking Management Best Practices, Litman*

It is recommended to encourage developers to unbundle parking for developments that sell, lease, or rent space in the Lower Pacific Avenue area. As additional sites that sell, lease, or rent units develop, the City should reach out to these building managers to discuss the implementation of unbundled parking and the benefits it provides. In order to encourage residential developments to unbundle parking, the City could institute a new policy that requires new multi-family residential developments to unbundle the cost of parking. The City should evaluate the appropriateness of this new policy and determine how it might be implemented throughout the City. Appendix D provides example policy language implemented in San Francisco that requires unbundled parking for multi-family residential developments for reference.

POTENTIAL REDUCTION IN PARKING DEMAND

As a parking demand reduction strategy, unbundling functions similarly to pricing parking in which parking fees discourage vehicle ownership, reducing parking and vehicular demand for downtown Santa Cruz. Typically, unbundled parking in a residential setting can reduce vehicle ownership by 5 to 15 percent.

See Appendix A for more information on unbundled parking.

Recommendation: Develop unbundled parking policy for multi-family residential developments to encourage residents to elect eliminate one or all household vehicles, reducing parking demands in the study area.

PAID PARKING

Currently, on-street parking facilities within the study area are not at full capacity, even during peak season. It is not recommended at this time to implement increased parking prices, however as demands for parking increase in the study area, price increases for paid public on-street parking and parking lots should be considered to balance demands in the area. Demand for on-street parking in the short term most likely will not require new meters or significant increases in pricing; however, these considerations should be planned for the future. Additionally, rates for on-street parking should be maintained consistent with rates from the Downtown Parking District and in balance with rates for the off-street system.

In the future if increases prices are implemented in the study area, revenues generated should be reinvested back into the parking needs of the study area into a fund for the proposed shared parking facility.

It is also recommended that improved payment technologies such as the ParkCard utilized throughout other areas of the City be implemented in the study area to increase user convenience.

POTENTIAL REDUCTION IN PARKING DEMAND

A typical reduction of parking by pricing spaces is between 10 and 30 percent. This shift in demand reduces area traffic congestion, increases turnover rates, increases facility cost savings, shifts transportation modes, and provides additional revenues.

See Appendix A for more information on parking pricing.

Recommendation: Manage the study area's parking demand by implementing paid parking when necessary and extend the ParkCard payment technologies to the Lower Pacific Avenue area to facilitate the payment process.

SMART GROWTH

As development continues in the Lower Pacific Avenue area over the next decade, it would be wise to begin implementing smart growth policies to support sustainable development of these projects. Policies should be implemented throughout the City as a means of facilitating more efficient development as proposed in the RF/LP study. Smart growth policies and practices that would support the objectives of the Lower Pacific Avenue Area related to parking include:

- Parking management strategies that support efficiency, such as shared parking
- Connected and accessible networks of streets, sidewalks, and paths
- Minimizing or restricting large, underutilized parking lots
- Enhanced walking and cycling infrastructure
- Conservation and enhancement of urban green space

The implementation of the aforementioned policies through code modifications will guide development in a smart growth-oriented direction where the code language may determine permitted land uses, building height, building location, lot coverage, setbacks, and parking requirements.

POTENTIAL REDUCTION IN PARKING DEMAND

In comparison to traditional sprawl development, smart growth practices can reduce per capita vehicle ownership by 10 to 30 percent and per capita vehicle miles traveled by 20 to 50 percent.

See Appendix A for more information on smart growth.

Recommendation: Encourage smart growth development strategies in the Lower Pacific Avenue area as it begins to redevelop.

REDUCTION IN PARKING REQUIREMENTS FOR NONAUTOMOBILE USE PROGRAMS

The Santa Cruz Municipal Code 24.12.290.7 allows for a 10% potential reduction in parking requirements for commercial or industrial uses that employ transportation demand management strategies such as variations in work schedules, subsidized transit passes for employees, and vanpool/carpool programs, if they have an enforcement structure in place to ensure the success of the program. The City should encourage future Lower Pacific commercial developments to implement TDM strategies through the use of this code through the reduced parking requirement incentive (*the ordinance is provided for review in the Appendix D).*

Recommendation: Encourage new commercial developments in the study area to implement a TDM program, taking advantage of the reduce parking requirement incentive provided by Municipal Code 24.12.290.7

EXISTING TDM PROGRAMS

There are existing agencies that support TDM strategies and programs within Santa Cruz including Santa Cruz County Regional Transportation Commission, Santa Cruz Area Transportation Management Agency (TMA), Bike to Work, and Ecology Action. The TDM programs supported by these entities are mainly geared towards commuters and cycling. It is recommended that the programs supported by these agencies be extended and marketed to the property and business owners within the Lower Pacific Avenue area to promote information disseminations, vanpool formation and maintenance, carpool and vanpool ridematching, and cycling.

Recommendation: Market existing TDM programs to existing and new businesses in the Lower Pacific Avenue area.

PARKING REGULATIONS

In reference to the observed average parking durations (Chapter 2) conducted for weekend and weekday parking during the shoulder and peak seasons, time durations exceeded limits for Pacific Avenue and Spruce Street with limits of two hours for every time period observed. This indicates that users are not abiding by the limit or the limit is not enforced by staff. Observed durations for the north side of Pacific Avenue, with a 12-hour limit, were much less than the prescribed requirements (3.2 to 4.6 hours on average), indicating that the time limit in these areas should likely be decreased to meet average characteristics. As the average time limit did not exceed five hours, with an overall average of four-hour durations, time limits for this location could be lowered to four hours to increase turnover rates and still meet the general needs of users.

Though it is anticipated that future residential parking development will occur on-site, a permitting process may still be developed to ensure these residents have access to parking in the facilities designated to them. The Santa Cruz Municipal Code Chapter 10.41 establishes the City as a preferential permit parking zone, allowing the establishment of a permit parking zone or the extension of an existing zone (with 75% occupied on-street parking) to provide residents with permitted parking. The code also provides opportunities to permit zones that allow merchants, commuters, and daily users to use permit parking. The full ordinance is provided in Appendix D.

See Appendix A for more information on parking regulations.

Recommendation: Implement a preferential permit parking zone in the Lower Pacific Avenue area to ensure residents of the study area have available parking near their place for residence and reduce on-street time limits from 12 hours to 4 hours to increase turnover rates.

TRANSPORTATION ALTERNATIVES

The City of Santa Cruz has already taken strides to promote transportation alternatives through its Master Transportation Study in addition to other successful efforts and should continue to extend further support for cycling, walking, and transit use.

Bicycle initiatives are already being undertaken by the City. Santa Cruz earned a Silver Level rating by the League of American Bicyclists in part because its bicycle mode share is ten times the national average. The City should continue to promote cycling by maintaining and enhancing existing bike networks and facilities (including in the Lower Pacific Avenue area). This may

include providing a bicycle locker location in the area (potentially at the arena location, which receives a large amount of visitors and is located near a transit stop).

The trolley system is another successful example in support of transit by the City with the added benefit, in the case of the Lower Pacific Avenue area, that the trolley system eases some of the parking demand pressure brought on by downtown and Beach area visitors. The City should continue to support other alternative transportation methods including walking and transit use to continue to be included in City initiatives through improvements in infrastructure, facilities, and accessibility.

See Appendix A for more information on transportation alternatives.

Recommendation: Continue to promote transportation alternatives throughout the City and in the Lower Pacific Avenue area, including the use of the city's trolley system.

Monitor Parking Demand

Based on the parking demand analysis, the development projections and subsequent parking demands in the short-term phase can be accommodated within existing parking supply. Again, these development projections are not set in stone, and actual development levels may differ, alerting parking demand in the study area. As a result, the City should continue to monitor parking demands in the short-term phase to determine whether the public parking deficiency may occur earlier or later than anticipated.

Recommendation: Monitor parking demands as the study area develops.

7.2 Mid-Term Recommendations (Year 7 to Year 15)

The mid-term recommendations provided in this section continue development of the Lower Pacific Avenue area through an evaluation of the short-term implementations and the ongoing implementation and management of parking assets and programs. Strategies are provided for the following topics:

- Revisions to Build-Out Projections
- Infrastructure Needs
- New Parking Garage

Revisions to Build-Out Projections

The build-out projections presented in Chapter 3 represent anticipated build-out conditions in the Lower Pacific Avenue area. As discussed in Chapter 4, the development projections provided in the RF/LP study cannot be realized due to site constraints. As a result, it is recommended that the RF/LP build out projections be reduced to the densities provided in **Table 15** below to allow for maximum development potential while still allowing residential parking demands to be accommodated on-site In all actuality, the build-out conditions will likely differ from these expectations based on developer preference and site constraints. The mid-term included three proposed development sites, including Sites 8/9 and Site 4. The table below shows the proposed

build-out conditions (based on the RF/LP study) and the revised build-out conditions based on parking asset implementation and site constraints.

Table 15 Recommended Build Out-Out Land Use Changes (Mid Term)

Site #	RF/LP Build-Out		Revised Build-Out		
	Dwelling Units	Non-Residential	Dwelling Units	Non-Residential	Associated Parking On-Site
4	58	10,742	12	4,000ft^2	19
8	25	9,261	17	5,808ft^2	402 spaces (accommodated in parking garage on sites 8, 9, 10, &11)
9	60	22,248	42	13,942ft^2	402 spaces (accommodated in parking garage on sites 8, 9, 10, &11)

The variation in the Site 4 build-out is attributable to the ability to provide on-site parking for the development's residential uses. Based on available square footage on-site and average space requirements for a parking facility, that site will only be able to provide approximately 12 spaces in a surface parking lot to serve tenants.

Implementation of a parking facility to serve sites 8 and 9 (as well as 10 & 11) has a net reduction of 26 dwelling units and 11,759 square feet of non-residential usage for sites 8 & 9. This results in a parking demand reduction of approximately 75 spaces. The on-site residential for Sites 8 and 9 will need approximately 88 parking spaces, which could be accommodated as permitted parking in an expanded surface parking facility or the proposed structured parking facility, as defined in the next section. As described previously, needs reduction strategies (namely unbundling parking supply from residential leases) could impact the overall parking demand as well.

Recommendation: Reduce the RF/LP build out projections for Sites 4, 8, and 9 to allow for maximum development potential, while providing space for a parking facility to be constructed on site.

Infrastructure Needs

Even with these newly introduced demands, the sites' parking needs can be met by the existing surplus of parking within the study area, although the overall surplus in the area is dwindling during mid-term phasing. However, this doesn't mean that the parking assets should be held constant in the mid-term phase. Below are two strategies to implement parking within the district.

MAINTAIN EXISTING PARKING PHILOSOPHY AND ABSORB PARKING SURPLUS

Under this strategy, the new developments would simply utilize shared parking where appropriate to manage the additional parking demands. The sites might be required to build on-site parking for residents, but the public demand (commercial space and residential visitors) could utilize available parking in the area, including underutilized facilities and on-street parking. This would not require an initial investment in parking by the area property owners or the City.

Recommendation: Encourage property owners to participate in a shared parking agreement to maximize the use of existing parking supplies and accommodate new parking demands.

MONITOR PUBLIC PARKING DEMAND

As stated, it is likely that development would occur at different levels than defined in this report, and as a result, parking demands of the study area will also likely vary. As result, parking demands should be monitored as the development changes, as short and mid-term development is constructed and operational and more definitive plans for long-term phase development will be available to include in the analysis. This effort will be necessary during the mid-term phase of development to ensure non-residential demands are expected to surpass capacity and to determine that the size of the proposed garage reflects the anticipated deficiency in non-residential parking demands.

Recommendation: Monitor parking demands as the study area develops.

PROACTIVELY PLAN FOR FUTURE DEVELOPMENT BY BUILDING A CENTRALIZED SHARED PARKING FACILITY

The Lower Pacific Avenue area is expected to see a parking deficiency within the long term phase of development of approximately 400 spaces. In order to mitigate the 400 space deficit, this study recommends the construction of a 400 space centralized shared parking structure. Though the deficiency is expected to emerge within the long term phase, planning for the recommended parking structure should begin in the midterm, approximately four years before long term phase development. Additionally, the garage should be built concurrently with development of sites 8 and 9 during the mid-term phase for economies of scale.

During the first year, the City defines funding strategies for the future structure (the Garage Construction section of this report provides a list of opportunities for funding a garage) and enter into an agreement with the property owners of Sites 8, 9, 10, and 11 that will define funding strategies and operations, management, and ownership roles and responsibilities. Throughout the four year process, steps must also be taken to create an RFP to hire a design and construction firm to design and build the structure. The timeline graphic below identifies the general steps that should be taken during the mid-term phase of development to construct the recommended parking garage.

Construct garage

Year 1 | Year 2 | Year 3 | Year 4

Recommendation: Construct a 402 space centralized shared parking garage on Sites, 8, 9, 10, and 11.

Parking Credit Program

A municipality may employ a parking credit program to finance shared parking by assisting developers to meet minimum parking requirements through the sale of credits for utilizing available public parking spaces (it may be used to fund new facility construction). This strategy aims to maximize the use of excess parking, meet property parking requirements, and recover costs to manage public parking facilities. The spaces purchased through the parking credit program will not be designated as private for the patrons of the purchaser, but will instead remain designated for public use.

If the City of Santa Cruz implements a paid public parking facility in the mid-term phase, a parking credit program should be implemented to utilize excess spaces within that facility. The revenue generated from the parking credit program and revenue collected from the facility by motorists should be reinvested to cover the costs of facility construction and district management. Participation in the parking credit program by developers can be encouraged if the cost of participating is less than that of constructing on-site parking.

As an example, the City of Pasadena implemented a parking credit program (referred to as a Zoning Credit Parking Program) within the Old Pasadena parking district. Considered one of the more successful applications of a parking district, the City of Santa Cruz should follow the City of Pasadena process for implementing a parking credit program within the area. The zoning credit program allows new developments to count public parking towards the on-site parking requirements, reducing the need to build small fragmented parking lots throughout the community. The parking credits program in Old Pasadena cost little for businesses to participate in and issues a 1.5 parking credit per public space. The decrease in on-site parking shifted parking to public parking facilities in which users paid a fee to use. The ordinance defines the number of maximum allowable zoning credits, the overfill of facilities due to shared parking, the use of on-street spaces, and the maximum walking distances allowable in the zoning credit agreement.

Additionally, to receive parking credits within Old Pasadena, an application process requires a completed application worksheet, a copy of the grant deed, a copy of the current Property Tax Statements, floor plans, site plans, an authorization letter, and the Zoning Parking Credit application fee (*See the Appendix for the detailed document*).

In order to implement a parking credit program, the City should define a boundary of the parking credit program. The City should decide whether a purchase of one parking credit is equal to a reduction in on-site parking by one space, or, as in the example of Old Pasadena, issue 1.5 parking credits per public space.

Pricing Example

Hollywood's City Council voted to implement a parking credit pilot to manage West Hollywood's parking problems, where credits are priced at an annual fee of $375 per credited space with an application fee of $650. This credit fee is readjusted each fiscal year by the Consumer Price Index. The Pasadena credit pricing is set at $200 per year where a price cap was placed in 1994.

Maximum Walking Tolerances

If the City chooses to implement a parking credit program, either to make use of existing excess parking or to support shared parking facilities, a policy on acceptable walking tolerances from the parking facility to destinations must be established. Maximum walking tolerances are typically influenced by a combination of factors including the condition of the pedestrian infrastructure, climate, line of sight, safety, and pedestrian barriers. The current walking tolerances noted in the Santa Cruz Municipal code are set at a maximum of 300 feet. In comparison to other cities and literature review, maximum walking tolerances may extend to 1,600 feet. To extend the capabilities of parking facilities within the study area, the maximum walking distance established in the Santa Cruz Code should be revisited and increased to no greater than 1,600 feet.

As an example, Pasadena created a walking distance policy to support the zoning credit program in the Old Pasadena parking district. In Pasadena, maximum walking tolerances are defined as:

Table 16 – Pasadena Maximum Walking Thresholds

Zoning District	Customer/Visitor Spaces	Employee Spaces
Commercial District	1,000 feet	1,500 feet
Other Districts	500 feet	1,000 feet

Recommendation: Once the proposed garage is constructed, develop a parking credit program that will allow developments within a defined distance to purchase a space in the garage to meet minimum parking requirements.

7.3 Long-Term Recommendations (Year 15 and Beyond)

The long-term recommendations provided in this section are intended to help the Lower Pacific Avenue area refocus its vision and define the ongoing direction of the area. The long-term period should also see the continued management of parking assets and programs. Strategies are provided for the following topics:

- Revisions to Build-Out Projections
- Asset Management and Equipment Replacement
- Infrastructure Management

Revisions to Build-Out Projections

The build-out projections presented in Chapter 3 represent ideal build-out conditions in the Lower Pacific Avenue area. As discussed in Chapter 4, the development projections provided in the RF/LP study cannot be realized due to site constraints. As a result, it is recommended that the RF/LP build out projections be reduced to the densities provided in **Table 18** below to allow for maximum development potential while still allowing residential parking demands to be accommodated on-site. In all actuality, the build-out conditions will likely differ from these expectations based on developer preference and site constraints. The long-term included one proposed development site – Site 7[1]. The remaining proposed build-out sites from the previous study are now the site of the Walgreen's development, which was assumed to be a firm land use, even in the long-term planning horizon. The table below shows the proposed build-out conditions (based on the RF/LP study) and the revised build-out conditions, based on parking asset implementation and site constraints.

Table 16 – Recommended Build Out-Out Land Use Changes (Long Term)

Site #	RF/LP Build-Out		Revised Build-Out		
	Dwelling Units	Non-Residential	Dwelling Units	Non-Residential	Associated Parking On-Site
7	78	18,633	5421	7,225ft²	33

The variation in the Site 7 build-out is attributable to the ability to provide on-site parking for the development's residential uses. Based on available square footage on-site and average space requirements for a parking facility, that site will only be able to provide approximately 33 spaces in a surface parking lot to serve residents of the site.

Recommendation: Reduce the RF/LP build out projections for Site 7 to allow for maximum development potential, while providing space for a 33 space surface lot to serve residential demands.

Asset Management and Equipment Replacement

The City and the District should continue the asset management plan, including a review of parking revenue control technology both on and off street, to determine if maintenance activities or equipment replacement opportunities could improve the overall efficiency of the parking assets within the district. The typical lifespan of revenue control equipment is 10-15 years, and the systems recommended as part of the mid-term recommendations may need replacement before the end lifespan of the long-term planning horizon.

[1] *Development of Site 7 will likely not occur without the redevelopment of the Arena.*

Recommendation: Analyze and monitor existing parking technologies and equipment for on and off street assets to support quality customer service and effective parking asset management.

Infrastructure Management

This recommendation assumes that the proposed parking facility identified in the mid-term has been constructed and is operational by the beginning of the long-term. With that asset in place, it will be imperative that the district management entity efficiently operates, manages, and maintains the facility, which will enable the district to return revenues that support the ongoing cost of managing and operating all parking assets.

In the long-term, the City should conduct a financial and operational audit of the facility to ensure that the operating procedures are both efficient and effective. The audit should be centered on the following questions and objectives related to the operation and its financial controls:

- What are the contractual requirements that the operator is obligated to fulfill?
- What additional policies and procedures have been established in the Lower Pacific Avenue area pertaining to the parking operation, its administration, and financial controls?
- What are the additional policies and procedures that have been established by the operator for its internal operational and administrative controls?
- Are the policies and procedures established by both the City and the operator effective in maintaining an efficient operation and adequate financial controls?
- Is the operator in compliance with its contractual requirements and those set out in policies, procedures, and directives from the City?
- Is the operator's staff managing the facilities in accordance with its own policies and procedures?
- What opportunities are there for improving operational efficiency, management effectiveness, customer service, and financial controls?

The City should also define a maintenance strategy for the proposed parking facility to ensure its proper operation and lifespan. A good maintenance plan, especially for structured parking, can increase the lifespan of a parking facility considerably and lower the overall maintenance costs by a third over a 25-year lifespan.

Few things make a greater impression on first-time visitors than the cleanliness and maintenance of your parking facilities. Beyond first impressions, however, few areas provide a greater potential return on investment than a comprehensive parking system maintenance program.

A few best practices related to parking facility appearance and maintenance are noted below.

- Paint interior surfaces white to enhance the perception of cleanliness and safety and to improve lighting levels.
- Develop a comprehensive preventative maintenance program for all essential systems.

- Parking Access and Revenue Control System
- Elevators
- Lighting and Energy Management Systems

- ❖ Organize and track parking facility warranties in a binder. Schedule warranty inspections six months prior to warranty expiration. Document inspections with digital photos (ideally with time/date stamps) and written reports.
- ❖ Regularly schedule facility condition appraisals by an experienced parking consultant and develop a prioritized program of facility maintenance repairs.
- ❖ Set aside adequate maintenance reserve funds based on a prioritized facility maintenance action plan developed as part of your regular condition appraisal assessment.

The four general categories of parking facility maintenance include:

1.) Housekeeping – This work is typically conducted by in-house staff and consists of basic cleaning, sweeping, slab wash downs, etc. "Housekeeping" includes items such as sweeping, trash collection, cleaning of signs, lights, stairs, etc.

2.) System Maintenance – This includes tasks necessary to ensure proper operations of systems and components. "System Maintenance" includes items such as landscaping, painting, equipment, lighting, electrical, and signage maintenance.

3.) Annual General Maintenance and Repairs – Annual general maintenance would usually be performed by outside contractors, although in some cases the operator's staff may perform the work. This work is not typically included in a capital cost budget and may be combined with the System Maintenance category. "General Maintenance" would include items such as:

- ❖ Concrete Repairs - Isolated concrete slab, beam, joist, tee, topping, etc. repairs. In some cases, periodic concrete repairs (every five years) are included; however, isolated repairs between this interval should be anticipated.
- ❖ Masonry Repair – Isolated masonry repair should be anticipated (spot tuck pointing, damaged masonry unit replacement, resetting cap stone, etc.).
- ❖ Sealants/Expansion Joint – Repair/replacement of isolated sealant (floor and façade) or expansion joint failure (not included under five-year warranty). Leaking at slab cracks may also require sealant installation. Leaking joints should be repaired as soon as possible after discovery and evidence of leaking should be removed.
- ❖ Deck Coating – Isolated deck coating repairs (not included under the five-year warranty). Wear of the topcoat should be repaired prior to damage to the underlying base membrane.
- ❖ Painting – Painting touchup (spot / seasonal painting) should generally be performed as damage is observed. It is anticipated that repainting of exposed steel and concrete surfaces would be performed every 10 to 15 years, and parking stripes reapplied every 2 to 3 years.
- ❖ Graffiti Removal – Graffiti removal should be completed as soon as possible after the application.
- ❖ General Electrical Repairs & Maintenance – Isolated corrosion damage, switchgear maintenance, panel maintenance.

- Light Fixture Repair / Replacement – Individual light fixture repair or replacement will require immediate attention.
- HVAC – Office, restroom, and Elevator HVAC repairs.
- Plumbing – Isolated replacement of drain lines and floor drain grates; isolated cleanout of drains / lines; periodic sump pump repairs.

4.) Periodic Repairs, Protection, and Improvements (Capital Expenditures) – This work is generally performed by outside contractors under the direction of parking consultants experienced in restoration and will consist of replacing/repairing damage to waterproofing or structural elements.

Annual Maintenance Costs by Category

Housekeeping, Operations & Operator Maintenance – Costs will vary based on specific operations requirements, but will approximate $350 to $450 per space per year.

Annual General Maintenance and Repairs – Costs will approximate $0.10 to $.15/ft² per year ($35 to $50 per space per year), depending on condition and type of structural system.

Periodic Repairs, Protection, and Improvements (Capital Expenditures) – The maintenance reserve fund can likely be lower during the first 10 years of the facility's life and increased to accommodate improvement planning budgets. For a new structure, this item may range from $75 to $100 per space per year for the first 10 years.

Recommendation: Define a maintenance strategy and conduct a financial and operational audit for the proposed parking structure to ensure that the facility is operating efficiently and effectively and enhance the lifespan of the garage.

8. ACTION PLAN

The previous chapter documented the recommended steps that should be taken in efforts to effectively manage future parking demands of the Lower Pacific Avenue area as it redevelops. This section condenses those recommendations into an action plan that outlines the specific recommendation, the party(s) responsible for implementing the recommendations, timeframe for implementation, and potential costs.

Short Term			
Recommendation	**Responsible Party**	**Timeframe**	**Cost**
Follow-up Study			
Following final decisions relating to location of the Santa Cruz Warriors permanent stadium, consider doing a financial feasibility study that includes options for funding a parking structure including the potential for development incentives, transfer of development rights, plus other funding options indicated in this report.	City of Santa Cruz	Year 2-3	City staff time and effort
Parking Management			
Implement Downtown District Parking standards in the Lower Pacific Avenue Area	City of Santa Cruz	Immediate	City staff time and effort
Implement development projections in the Lower Pacific Avenue area to reflect the build out projections for sites 10 and 11 provided in this report.	City of Santa Cruz and Developers	Immediate	City staff time and effort and construction costs
Initiate/continue discussions with property owners and/or developers of sites 8, 9, 10, & 11 to explore opportunities to construct a parking structure that would include public parking.	City of Santa Cruz and property owners of sites 8, 9, 10, and 11	Immediate and On-going	City staff time and effort
Monitor short term development levels and public parking demand	City of Santa Cruz	On-going	City staff time and effort
Event Parking Management			
Implement higher parking rates during special events	Property Owners and Managers of Kaiser Permanente Arena and City of Santa Cruz	Year 3-Year 7	City staff and Owners and Managers of Arena time and effort
Evaluate the potential for a shuttle service from remote parking facilities for arena events	Property Owners and Managers of Kaiser Permanente Arena	Year 3-Year 7	$30,000 -$65,000 per shuttle

Shared Parking			
Modify City Code 24.12.290 by adding in more detail regarding requirements of a shared parking agreement, expectations, and guidance.	City of Santa Cruz	Immediate	City staff time and effort
Develop a shared parking agreement template to guide interested parties in establishing a shared parking agreement.	City of Santa Cruz	Immediate	City staff time and effort
Promote shared parking opportunities in the short term with existing facilities	City of Santa Cruz and property owners	Immediate and On-going	City staff time and effort
Transportation Demand Management			
Develop unbundled parking policy for multi-family residential developments	City of Santa Cruz	Immediate	City staff time and effort
Evaluate on-street parking demand to determine whether increased prices are necessary to balance demands	City of Santa Cruz	On-going	City staff time and effort
Implement ParkCard payment technologies in the study area	City of Santa Cruz	Year 3-Year 7	$500 per meter for new technology; $250 per meter for upgrade"
Encourage new development to participate in nonautomotive use programs to receive reductions in parking requirements	City of Santa Cruz	On-going	City staff time and effort
Market existing city-wide TDM programs to study area property and business owners and encourage them to have their employees participate		On-going	City staff time and effort
Reduce 12 hour on-street time limits to 4 hour limits	City of Santa Cruz	Immediate	$5 per meter
Mid Term			
Recommendation	**Responsible Party**	**Timeframe**	**Cost**
Parking Management			
Implement development projections in the Lower Pacific Avenue area to reflect the build out projections for sites 8 and 9 provided in this report.	City of Santa Cruz and Developers	Year 7	City staff time and effort and construction costs
Utilize existing parking surplus	City of Santa Cruz	On-going	City staff and property owner time and effort
Evaluate potential for other opportunities to construct public parking	City of Santa Cruz	On-going	City staff time and effort
Garage Construction and Management*			
Develop an agreement between the City and the property owners regarding facility funding, operations and management, and ownership roles and responsibilities	City of Santa Cruz and property owners of sites 8, 9, 10, and 11	4 years before garage construction	City staff time and property owner and effort

Build a Centralized Shared Parking Facility - Identify funding sources - Develop an RFP for garage design and construction - Select design and construction consultant(s) - Design garage - Construct garage	City of Santa Cruz and property owners of sites 8, 9, 10, and 11	Year 11-Year 15	$6.5 - $9.5 million
Develop a Parking Credit Program - Define maximum walking tolerance - Determine the reduction provided by one parking credit - Determine the cost of a parking credit	City of Santa Cruz	After garage construction	City staff time and effort
Long Term			
Recommendation	**Responsible Party**	**Timeframe**	**Cost**
Parking Management			
Implement development projections in the Lower Pacific Avenue area to reflect the build out projections for sites 7 provided in this report.	City of Santa Cruz and Developers	Year 15	City staff time and effort and construction costs
Monitor long term development levels and public parking demand	City of Santa Cruz	On-going	City staff time and effort
Analyze and monitor existing parking technologies and equipment for on and off street assets	City of Santa Cruz	Year 15 and Beyond	Technology Investments: $2-$9 per space
Define a maintenance strategy for the facility	City of Santa Cruz, property owners of sites 8, 9, 10, and 11, or private parking management firm (*Depends on management and ownership agreement)*	After garage construction	Maintenance Investments: $2-$193 per space
Conduct a financial and operational audit of the parking facility	City of Santa Cruz, property owners of sites 8, 9, 10, and 11, or private parking management firm (*Depends on management and ownership agreement)*	After garage construction	$5,000 - $10,000 per facility

**This recommendation is dependent on the determination that the proposed parking garage will be necessary to meet future public parking demands*
***Depends on the type and cost of technology implemented*

APPENDIX A – BEST MANAGEMENT PRACTICES

The following section provides a review of best practices in efficient parking management and parking need reduction strategies. The preliminary introduction into these strategies will provide the necessary background information that will lead into the presentation of the specific recommendations for the short, mid, and long-term timeframes for the Lower Pacific Avenue area. Best practices listed in this chapter should be assessed by the City to determine which best fit the resources of the City, though recommendations will be made to facilitate in the implementation of each strategy to reach the desired outcome of efficient management and need reduction.

Shared Parking

Shared parking is the use of a parking facility that accommodates the parking demands of multiple adjacent land uses without preventing each individual use's ability to provide parking for its patrons. The shared nature of this concept reduces the number of parking spaces required for the facility, increases the facility capacity, and utilizes the space more efficiently. Typically, shared parking can reduce parking requirements 10 to 30 percent, depending upon specific conditions.

Shared Parking Space Approach

In this strategy, parking spaces are shared by the group of motorists serviced by the facility rather than parking spaces being assigned to them. In many instances, users of a parking facility arrive and leave at differing times, do not stay for as long as other users, or utilize alternative modes of transportation. Ultimately, the demand for parking spaces does not equal the amount of users at any given time. For example, a group of 100 residents can share between 60 and 80 parking spaces because residents work at different times, complete daily errands at different times, and some may not even own a vehicle. To provide options for patrons, parking spaces may be reserved at a higher price but shared spaces can be priced at a lower rate (if pricing for parking).

Shared parking can be applied in many situations. It is particularly appropriate where:

- Land values and parking facility costs are high.
- Clustered development is desired.
- Excessive pavement is undesirable[1].

[1] *Shared Parking, VTPI.*

Adjacent Site Approach

In the adjacent site approach to shared parking, the parking demands of the adjacent uses vary by hour, by day, or by season. Due to the variance in peak demand times, the parking facility is able to adequately serve the demands of the adjacent uses with less than the maximum parking spaces needed to serve the adjacent on an individual basis in private parking facilities. For example, a small office may need 25 spaces for its employees and the neighboring movie theatre requires 100 spaces. On an individual basis, a total of 125 spaces would be needed for both uses, but because the peak demand periods of the uses vary from weekday to evenings and weekends, the parking facility may be shared between the theater and office with a total of 100 spaces.

Weekday Peaks	Evening Peaks	Weekend Peaks
Banks	Auditoriums	Religious Institutions
Schools	Bars and Clubs	Parks
Medical Clinics	Meeting Halls	Shops and Malls
Offices	Restaurants	
Professional Services	Theaters	

Public Parking

Public parking is provided by a municipality that serves multiple surrounding uses, similar to the purpose of the adjacent site approach. Municipalities may require developers or building owners to pay an in-lieu of fee to pay for public parking facilities instead of requiring private off-street parking for each property. On-street parking is considered one of the better shared public parking options because of its accessibility. Due to its convenience, on-street parking may need to be regulated or restricted for parking demand management in high-demand areas.

To determine the minimum number of parking spaces for a shared facility:

I. Determine the minimum amount of parking required by each proposed “user” of the shared facility by time period,

II. Sum all of the required parking spaces by time period for each proposed user, and

III. Set the minimum required parking spaces for the shared parking facility at the maximum total across all time periods.

Maximum Walking Distances

Within shared parking facilities, there is a maximum distance that users are willing to walk to get from a parking space to a destination. Shared parking is confined by this maximum distance— passing this threshold pushes users to drive to their next destination, thereby surrendering the purpose of a shared parking facility that serves multiple destinations or the Park Once trip concept. Such distances are influenced by a combination of factors including the condition of the pedestrian infrastructure, climate, line of sight, safety, and pedestrian barriers. The table below lists the general acceptable distances accepted by destination and user type. Note that the analysis for this study in Section 3, shows slightly different, more conservative distances (i.e. 0-300 ft; 300-600 ft; and 600-900 ft) which better reflect the types of users and land uses of the study area.

Table 11 – General Acceptable Walking Distances by Destination and User[1]

Adjacent (Less than 100 ft.)	Short (less than 800 ft.)	Medium (less than 1,200 ft.)	Long (less than 1,600 ft.)
People with disabilities Deliveries and loading Emergency services Convenience store	Grocery stores Professional services Medical clinics Residents	General retail Restaurant Employees Entertainment center Religious institution	Airport parking Major sport or cultural event Overflow parking

Parking Credit Programs

A municipality may employ a parking credit program to finance shared parking by assisting developers to meet minimum parking requirements through the sale of credits for utilizing available public parking spaces (it may be used to fund new facility construction). This strategy aims to maximize the use of excess parking, meet property parking requirements, and recover costs to manage public parking facilities. The spaces purchased through the parking credit program will not be designated as private for the patrons of the purchaser, but will instead remain designated for public use.

Old Pasadena implemented a parking credit program as part of a parking district management effort that is considered one of the most successful applications of a parking district. The parking credits program in Old Pasadena cost little for businesses to participate in and issues a 1.5 parking credit per public space. The decrease in on-site parking shifted parking to public parking facilities in which users paid a fee to use. The public parking facility fees supported by the parking credits pushed parking revenues to 66% of all parking revenues (2001).

Implementation of a Parking Credit Program

Implementation of a parking credit program first involves establishing guidelines for the program. A boundary of the parking credit district is determined and a parking count of all available public parking in the district is conducted. The municipality can

[1] Shared Parking: Sharing Parking Facilities Among Multiple Users,, *Victoria Transport Policy Institute (2013).*

decide whether a purchase of one parking credit is equal to a reduction in on-site parking by one space, or, as in the example of Old Pasadena, issue 1.5 parking credits per public space.

Public parking spaces utilized for parking credits must be within acceptable walking distances from the purchasing destination to be considered viable alternatives for on-site parking. Old Pasadena established the following maximum walking distances for its program:

Table 12 - Old Pasadena Maximum Walking Distances

Zoning District	Customer / Visitor Spaces	Employee Spaces
Commercial District	1,000 feet	1,500 feet
Other District	500 feet	1,000 feet

Pricing Example

Hollywood's City Council voted to implement a parking credit pilot to manage West Hollywood's parking problems, where credits are priced at an annual fee of $375 per credited space with an application fee of $650. This credit fee is readjusted each fiscal year by the Consumer Price Index. The Pasadena credit pricing is set at $200 per year where a price cap was placed in 1994.

Best Practices

Best practices in shared parking have evolved to support effective implantation and management (*VTPI*):

- *Establish standard procedures for implementing shared parking, which specify how to calculate minimum parking requirements for different combinations of land uses, acceptable walking distances, requirements for sharing agreements, verification, and enforcement.*
- *Educate planning officials and developers regarding the potential for shared parking and procedures for implementing it.*
- *Provide a maximum amount of on-street parking and encourage use of in-lieu fees to fund additional public off-street parking as a substitute for private off-street parking.*
- *Use Transportation Management Associations or local planning agencies to provide shared parking matching and brokerage services.*
- *Ensure sufficient pedestrian access and appropriate signage for users are provided concerning Shared Parking.*
- *Perform regular parking studies and solicit feedback from users to identify problems with Shared Parking.*
- *Anticipate potential spillover problems and respond with appropriate regulations and enforcement programs.*

Concerns

In planning practices where auto-oriented design is heralded, parking planning is reflective of the desire to provide the highest amount of parking spaces for users. Property owners may not be willing to share parking facilities with concerns of not being able to provide adequate parking for costumers.

Shared Parking Ordinances

The City of Pasadena implemented a parking credit program (referred to as a Zoning Credit Parking Program) within the Old Pasadena parking district. Considered one of the more successful applications of a parking district, the City of Santa Cruz should follow the City of Pasadena process for implementing a parking credit program within its parking districts, potentially extending this opportunity to the Lower Pacific Avenue area. The ordinance detailing the Zoning Credit Parking Program for Old Pasadena is included in Appendix D.

Additionally, to receive parking credits within Old Pasadena there is an application process requiring a completed application worksheet, a copy of the grant deed, a copy of the current Property Tax Statements, floor plans, site plans, an authorization letter, and the Zoning Parking Credit application fee (*included in Appendix F*).

If the City chooses to implement a parking credit program to make use of existing excess parking and provide for centralized public parking facilities, a set of maximum walking tolerances that delineates the maximum walking distance between the parking facility and the destination who purchased the parking credit must be established in which the public parking credit space the purchasing development must be decided. Within the Old Pasadena parking district, maximum walking distances are set at:

Table 13 – Maximum Walking Distances for Parking Credit Spaces

Zoning District	Customer / Visitor Spaces	Employee Spaces
Commercial District	1,000 feet	1,500 feet
Other District	500 feet	1,000 feet

These maximum walking distances are a general standard for pedestrian tolerances and will fit the needs of users in Santa Cruz. The current distance established within the Santa Cruz County Code is set at 300 feet. This distance could be increased to extend the availability of parking credits, where the increase in walking distances is supported by other cities that have successfully implemented this type of program.

Transportation Demand Management Strategies

As parking demands for the Lower Pacific Avenue area increase as development occurs, it will be beneficial to the City to implement Transportation Demand Management (TDM) strategies in concert with the specific recommendations (detailed in Chapter4) as a needs reduction strategy to demand. The following recommendations should be reviewed by the City as additional approaches that will assist in managing future parking demands for the Lower Pacific Avenue area.

Paid Parking

Paid parking charges motorists directly for parking use and additionally is a method for managing and reducing parking demands. This includes pricing on-street parking, parking lots, and commercial parking. Pricing strategies to mitigate parking demands include pricing parking higher during peak times to drive users to less active and less expensive times. Pricing the most convenient spaces higher can also help push long-term users and non-priority users to further parking facilities. Pricing incentives can also shift travel methods and shorten parking durations.

Benefits and Concerns

A typical reduction of parking by pricing spaces is between 10 and 30 percent. This shift in demand reduces area traffic congestion, increases turnover rates, increases facility cost savings, shifts transportation modes, and provides additional revenues. Revenues from pricing motorists directly allow for parking facility costs to be recovered and may additionally be reinvested back into the community through additional parking, alternative transportation, business, or community development initiatives. By reducing parking demand, paid parking ensures that parking spaces are nearly always available, albeit at a price, and cruising for a parking space, a contributing factor for traffic congestion, is also reduced.

For motorists who want to park “free,” in convenient locations, and for as long as they would like (regulations on parking uses are discussed later in this section), paid parking may be seen as a burden or annoyance. In efforts to reduce parking demand through pricing, some customers may be deterred from shopping in an area, especially if competitors offer free and convenient parking. Commercial areas who market free parking are often less successful than those who have priced parking.

Obstacles and Potential Solutions

Below is a table that contains potential obstacles that may be associated with parking pricing and the associated solution.

Table 14 – Potential Obstacles and Solutions for Paid Parking[1]

Objections and Obstacle	Customer / Visitor Spaces
User convenience, delay, and frustration with pricing systems and enforcement practices.	Use more convenient pricing systems. Use meters that offer multiple payment options (coins, bills, credit, debit, and pay-by-phone) and only charges for the exact amount of time a vehicle is parked. Improve user information on their transport and parking options. Ensure that enforcement is fair, friendly, and courteous.
High transaction costs, including expenditures on equipment (parking meters) and operations, which consume a significant portion of revenues (often hundreds of dollars annually per space).	Use more cost effective pricing systems including multi-space meters (each of which serves about ten spaces) and integrated systems that achieve scale economies.
Spillover impacts (motorists parking illegally in nearby parking lots or on residential streets).	Implement parking pricing as part of an integrated parking management program that includes improved parking regulation, user information, and enforcement which anticipate and address spillover impacts.
Reduced business and economic activity if competitors offer unpriced parking.	Design parking pricing to improve business access by favoring delivery and customer vehicles, providing convenient information to customers on their transport and parking options, and supporting other modes. Use portion of revenues to support local economic development. Offer targeted discounts and exemptions, such as customer parking validation.
Financial burden on motorists, particularly those with lower-incomes	Implement parking pricing in ways that maintain affordable parking options (such as free or low-priced parking a few blocks away) and improvements to alternative modes. Use revenues in ways that benefit lower-income people.
Where parking supply is abundant it seems inefficient to price parking, if this results in spaces left unoccupied.	Allow parking supply to be reduced to optimal level. Rent or lease excess parking spaces, or convert land to other uses
General unhappiness and distrust of government (perception that taxes are excessive, services are poor, and mayor are overpaid)	Implement parking pricing in a transparent and predictable way. Clearly define how revenues will be used and how this benefits citizens.

[1] Parking Pricing Implementation Guidelines, *Victoria Transport Policy (2011).*

Methods for Pricing

Below is a table that contains methods for pricing and their associated costs, convenience, elasticity, and enforceability.

Table 15 – Pricing Methods[1]

Type	Description	Capital Costs	Operating Costs	User Convenience	Price Adjustability	Enforceability
Pass	Users purchase and display a pass	Low	Low	Medium	Poor to medium	Good
Time-Coded Tickets	Parkers purchase a punch-card for a certain amount of time	Low	Medium	Medium	Medium	Good
Single-Space Meters	Parkers prepay a mechanical or electronic meter located at each space	High	High	Mechanical meters: low; electronic meters: medium	Mechanical meters: poor; electronic meters: good	Mechanical meters: poor; electronic meters: good
Smart Meters	Parkers prepay electronic meters which automatically reset when vehicles leave	High	High	Medium	Good	Good
Pay Box	Parkers prepay into a box with a slot for each space	Low	Medium	Low	Poor to Medium	Poor
Pay-And-Display Meters	Parkers prepay a meter which prints a ticket that is displayed in their vehicle	Medium	Medium	Medium	Mechanical meters: poor; electronic meters: good	Good
Per-Space Meters	Parkers pay for a specific space using electronic meters	Medium	Medium	Medium	Very good	Good
In-Vehicle Meter	Parkers display an electronic meter inside their vehicle when parked	Medium	Low	High	Moderate	Good
Attendant	Parkers pay an attendant when entering or leaving parking lot	High	High	High	Good	Good
Valet	Parkers pay an attendant who parks their car	Low	High	High	Good	Good
Controlled Access	Parkers pay a machine when entering or leaving parking lot	High	Moderate	Medium	Good	Poor
Automatic Vehicle Identification	System automatically records vehicles entering and leaving a parking area	High	Medium	High	Good	Good
Global Location Technology	Satellite-based systems automatically track parking use and calculate parking fees.	High but declining	High but declining	High	Very high	Good

[1] Parking Pricing Implementation Guidelines, *Victoria Transport Policy (2011).*

Implementation Best Practices

Parking pricing should be implemented effectively so that travel modes, times, and destinations are shifted to reduce parking demand to 85 to 90 percent occupancy rate and where prices are high enough to deter certain users but low enough to not discourage parking altogether.

- Regularly check occupancy (quarterly) to adjust rates to fit demand and revenue balance
- Adjust rates as needed to maintain optimal utilization (i.e., 85% peak occupancy)
- Structure rates to favor short-term uses in core areas and encourage longer-term parkers to shift to other locations.
- Provide special rates to serve appropriate uses, such as for evening and weekend events.
- Use revenues to improve enforcement, security, facility maintenance, marketing, and mobility management programs that encourage use of alternative modes.
- Employ convenient, easy-to-use, electronic payment systems that take multiple payment methods, allow users to pay by phone or internet, and charge users for only the amount of time parked in the facility.
- Price parking where facilities are costly, where land is valuable, or parking facilities are structured.
- Price parking where development affordability is an objective.
- Employ newer systems that produce printed receipts and record data for auditing, which prevents fraud and increases convenience for customers, operators, and local governments.
- Employ new payment systems that manage several spaces, which reduce operating costs and increase revenue.

Parking Regulations

Parking regulations control user type, time duration, and time period in order to prioritize parking facility use and manage parking demand by shifting peak demand periods and locations. Such regulations allow priority users to be reached and set up parking durations that match the need of the priority users, increasing parking turnovers.

Common Parking Regulations

Below is a table containing common parking regulation methods and their intended objectives.

Table 16 – Parking Regulation Methods[1]

Name	Description	Favored Activity
User or vehicle type	Spaces dedicated to loading, service, taxis, customers, rideshare vehicles, disabled users, buses, and trucks	As specified
Duration	Limit parking duration (5-minute loading zones, 30 minute adjacent to shop entrances, 1- or 2-hour limits)	Short term users, such as deliveries, customers, and errands
Time period restrictions	Prohibit occupancy at certain times, such as before 10 am to discourage employee use or between 10 pm and 5 am to discourage resident use	Depends on restrictions
Employee restrictions	Require or encourage employees to use less convenient parking spaces	Customers, deliveries, and errands
Special events	Have special parking regulations during special events	Depends on restrictions
Accommodate short-term users	Provide options for vehicles that make numerous short stops, such as special parking passes	Delivery and service vehicles
Residential parking permits	Use Residential Parking Permits (RPPs) to give area residents priority use of parking near their homes	Residents
Options for special users	Establish a system that allows specific parking spaces to be reserved for service and construction vehicles	Vehicles used for special activities
Restrict overnight parking	Prohibit overnight parking to discourage use by residents and campers	Short-term parkers
Street-cleaning restrictions	Regulations that prohibit parking on a particular street one day of the week to allow street sweeping	Street cleaning. Ensures that motorists move their vehicles occasionally.
Large vehicle restrictions	Limit on-street parking of large vehicles such as freight trucks and trailers	Normal-size vehicles
Arterial lanes	Prohibit on-street parking on arterials during peak periods to increase traffic lanes	Vehicle traffic over parking
Abandoned vehicles	Have a system to identify and remove abandoned vehicles from public parking facilities	Operating vehicles

[1] *Parking Management: Strategies Evaluation and Planning, Victoria Transport Policy (2012).*

Benefits and Concerns

Restricting user, time, and location allows for priority users to be reached, given enough time to complete business, and leave in time for another priority user to find a space. This process increases turnover rates and promotes space efficiency.

Implementing parking restrictions effectively requires enforcement and facility management by either the municipality or a third party, increasing municipal costs. If regulations are managed in combination with additional parking demand strategies, most notably pricing parking, revenue accrued from paying for parking and parking citations can be recovered to compensate for these costs.

Best Practices

There are three general steps in developing parking regulations:

I. Identify and prioritize the facility users.

II. Choose appropriate regulations to favor specific objectives (the table above details types of objectives and associated user groups).

III. Determine how regulations will be enforced and displayed to inform users by providing adequate signage communicating times, user, duration, and payment; painting the curb to delineate parking location; providing maps and brochures to further detail regulations; and communicating how violations to the regulations are enforced.

Understanding user types helps implement optimal time restrictions to increase turnover rates. For example:

- Passenger drop-of areas require very short time periods (3 to 10 minutes).
- Quick errands such as a coffee run require short time periods (15 to 30 minutes).
- Longer errands, shopping, or dining require between 30 minutes and four hours, but typically 90-minute to two-hour limits are implemented to accommodate this type of priority user.
- In efforts to prevent commuters from using residential or customer spaces, three- to four-hour time limits are applied to make space for customers.
- For commuters and residents long-term periods are applied (eight hours or more).

- Parking restrictions, as parking pricing, should be implemented to be flexible to reflect the fluctuating needs of parking conditions.

Unbundled Parking

In many cases, unpriced parking spaces are "bundled" with building costs, allowing for parking spaces to be sold as part of the building purchase or lease, regardless of need. "Unbundling" these parking spaces permits spaces to be sold separately from building space so that occupants have the option to pay for parking spaces they actually use and those who do not own vehicles are not being charged for parking spaces they do not occupy. For example, a unit may be rented for $1,000 per month with one parking space provided, or the same unit could be rented for $850 a month with the option of $150 per month for a parking space. Charging for parking spaces through unbundled parking enforces direct payment by motorists and is a more equitable pricing option, as only motorists who actually use the space are charged.

Benefits and concerns

As a parking demand reduction strategy, unbundling functions similarly to pricing parking in which parking fees discourage vehicle ownership, reducing parking and vehicular demand for downtown Santa Cruz. Typically, unbundled parking in a residential setting can reduce vehicle ownership by 5 to 15 percent.

For unbundled parking to function, free or less expensive parking options should not be located nearby. If free parking options are available, those attempting to avoid the parking space fee could cause spillover parking problems in the surrounding area.

Implementation

Unbundled parking can be implemented in residential, office, retail, and industrial uses where building space is rented, leased, or sold. Although unbundled parking is initiated by individual developers and building owners, public policies can encourage or mandate it. Reform practices to support unbundled parking include:

- Reduce or eliminate minimum parking requirements for buildings with unbundled parking.
- Require that parking be a separate line item in building leases in order to make the cost of parking explicit to renters.
- Create transportation management associations and parking brokerage services to facilitate unbundling.
- Increase enforcement of parking regulations to avoid spillover problems from vehicle owners parking off site[1]

In the case where there is a surplus of parking spaces, building owners must be able to lease or sell the excess spaces to surrounding uses, allowing owners to make up for an overshoot in the estimated required parking spaces .

[1] *Parking Management Best Practices, Litman.*

Parking Maximums

A parking maximum is a parking reduction strategy that aims to reduce the occurrence of underutilized parking spaces by placing an upper limit on the number of spaces allowed by a development or in an area. Typically, the maximum is set based on the square footage of a specific land use, such as 1 unit per 500 square feet for retail use. Some municipalities choose to implement parking maximums in addition to parking minimums. An example of the maximum and minimum allowable spaces per a set square footage of uses is provided from the Town of Somerville, Massachusetts:

		Minimum Spaces	Maximum Spaces
1.	**Residential Uses**	1 per unit	1.5 per unit
2.	**Other Residential Uses**	1 per 1000 square feet	1 per 500 square feet
3.	**Institutional Uses**	1 per 1000 square feet	1 per 500 square feet
4.	**Educational Uses**	0.5 per employee	1 per employee
5.	**Office Uses**	1 per 1000 square feet	1 per 500 square feet
6.	**Business Service Uses**	1 per 1000 square feet	1 per 500 square feet
7.	**Retail/Rental Uses**	1 per 1000 square feet	1 per 500 square feet
8.	**Restaurants**	1 per 500 net square feet	1 per 250 square feet
9.	**Hotel/Motel Uses**	0.5 per guest room	1 per guest room
10.	**Research and Development**	1 per 1000 square feet	1 per 500 square feet
11.	**Warehouse/Distribution**	1 per 1500 square feet	1 per 1000 square feet
12.	**Wholesale Business**	1 per 1500 square feet	1 per 1000 square feet
13.	**Industrial Uses**	1 per 1500 square feet	1 per 1000 square feet
14.	**All Other Permitted Uses**	As needed, not to exceed 1 per 500 square feet	

NOTE: Square feet refers to net floor area unless otherwise indicated.

Benefits and Concerns

A typical reduction in parking demand through parking maximums is by 10 to 30 percent, reducing traffic congestion and cruising and increasing efficiency of the facility. In addition to reducing unnecessary, unutilized parking spaces, parking maximums support efficient use of land and parking facility space and promote compact development through parking supply reduction. By extension, compact development supports walkability of downtown Santa Cruz. Additional benefits to compact development include reducing the urban heat island effect, decreasing storm water runoff, and reducing environmental and economic costs of parking facilities.

When attempting to project future parking demands of a development or an area, it is possible to under-forecast potential demands, adding to spillover problems. Developers may see this as a hindrance for future customer access and therefore as a revenue restraint, especially when compared to businesses without parking restrictions.

Best Practices

Parking maximums should be established in combination with other parking management strategies as a holistic approach to reducing parking demand. Strategies to implement and support the use of parking maximums include:

- *Apply parking maximums in addition to or instead of minimum parking requirements.*
- *Use incentives, such as density bonuses, to encourage developers and businesses to reduce excessive parking supply and rely more on parking management strategies.*
- *Use tax incentives to discourage excessive supply (e.g., apply a higher tax rate on parking facilities that exceed a certain size).*
- *Make parking maximums and supply reductions predictable and gradual, so markets have time to adjust.*
- *Implement parking maximums and caps in conjunction with other strategies to improve travel options and address spillover problems.*
- *Include parking facilities when calculating a building's development floor area ration and revise floor area ration upward accordingly, which provides an incentive to minimize parking supply since it can be traded off for leasable space*[1].
- Limit the amount of land devoted to parking, pushing structured parking facilities for developers who request additional parking spaces.
- Set up transferable parking entitlements to maintain overall parking maximum while providing developers that insist on increasing their parking facility with some flexibility.

Smart Growth

Smart growth is a development strategy that increases transportation and land use efficiency through compact, clustered development. The increased densities and accessibility made possible by such policies foster walking, cycling, and transit as viable alternatives to auto travel, reducing the overall demand for parking. A main principle in smart growth policies is accessibility; accessibility to work, home, and other daily trips.

Benefits and Concerns

In comparison to traditional sprawl development, smart growth practices can reduce per capita vehicle ownership by 10 to 30 percent and per capita vehicle miles traveled by 20 to 50 percent. Vehicle demand reduction is just one benefit of a long list of benefits provided by smart growth practices. Benefits of increased density extend to lowered costs for infrastructure,

[1] *Parking Management Best Practices, Litman.*

transportation, energy, and water resources, as well as decreased emissions. Advantages to smart growth also encompass social benefits including equitable transportation options, increased opportunity for social interaction and cohesion, and beautification benefits.

Traditional development has allowed for the creation of large, underutilized, and excessive parking. In the mindset of the auto-dependent, this parking excess is seen as a positive; where convenient and cost-free (although ultimately paid indirectly through taxation) parking is heralded. Smart growth aims to mitigate these impacts to support alternative transportation and reduce parking and parking demands, much of which is not supported by auto-dependent individuals who may push back on smart growth initiatives.

Implementation

Smart growth policies cannot be implemented singularly, but must be implemented in combination to achieve efficient development objectives. No individual smart growth policy can achieve the goal of smart growth without the support of other policies.

- Encourage mixed land uses, compact development, transit development, increased building heights, and infill development.
- For the Lower Pacific Avenue area, density should be encouraged with the added realization that parking must be able to support denser land uses.
- Foster urban design to establish a character distinct to Santa Cruz.
- Reform tax and utility rates to encourage businesses to locate in accessible locations.
- Manage parking for efficiency.
- Create a network of connected streets, sidewalks, and paths.
- Encourage buildings to orient entrances to the street front.
- Discourage large parking lots or other unattractive land uses in commercial areas.
- Continue to support walking and cycling conditions.
- Preserve urban green space.
- Support diverse housing options to create more affordable housing opportunities.

The impact on vehicular travel by these strategies is broken down by category in the table below, but again, greater reduction in vehicular travel is influenced by the collective application of these strategies.

Table 17 – Smart Growth Strategies and Travel Impacts[1]

Factor	Definition	Travel Impacts
Density	People or jobs per unit of land area (acre or hectare).	Increased density tends to reduce per capita vehicle travel. Each 10% increase in urban densities typically reduces per capita VMT by 1-3%.
Mix	Degree that related land uses (housing, commercial, institutional) are located close together.	Increased land use mix tends to reduce per capita vehicle travel, and increase use of alternative modes, particularly walking for errands. Neighborhoods with good land use mix typically have 5-15% lower vehicle-miles.
Regional Accessibility	Location of development relative to regional urban center.	Improved accessibility reduces per capita vehicle mileage. Residents of more central neighborhoods typically drive 10-30% fewer vehicle-miles than urban fringe residents.
Centeredness	Portion of commercial, employment, and other activities in major activity centers.	Centeredness increases use of alternative commute modes. Typically 30-60% of commuters to major commercial centers use alternative modes, compared with 5-15% of commuters at dispersed locations.
Factor	**Definition**	**Travel Impacts**
Network Connectivity	Degree that walkways and roads are connected to allow direct travel between destinations.	Improved roadway connectivity can reduce vehicle mileage, and improved walkway connectivity tends to increase walking and cycling.
Roadway design and management	Scale, design and management of streets.	More multi-modal streets increase use of alternative modes. Traffic calming reduces vehicle travel and increases walking and cycling.
Walking and Cycling conditions	Quantity, quality and security of sidewalks, crosswalks, paths, and bike lanes.	Improved walking and cycling conditions tends to increase non-motorized travel and reduce automobile travel. Residents of more walkable communities typically walk 2-4 times as much and drive 5-15% less than if they lived in more automobile-dependent communities.
Transit quality and accessibility	Quality of transit service and degree to which destinations are transit accessible.	Improved service increases transit ridership and reduces automobile trips. Residents of transit oriented neighborhoods tend to own 10-30% fewer vehicles, drive 10-30% fewer miles, and use alternative modes 2-10 times more frequently than residents of automobile-oriented communities.
Parking supply and management	Number of parking spaces per building unit or acre, and how parking is managed.	Reduced parking supply, increased parking pricing and implementation of other parking management strategies can significantly reduce vehicle ownership and mileage. Cost-recovery pricing (charging users directly for parking facilities) typically reduces automobile trips by 10-30%.
Site design	The layout and design of buildings and parking facilities.	More multi-modal site design can reduce automobile trips, particularly if implemented with improved transit services.
Mobility Management	Policies and programs that encourage more efficient travel patterns.	Mobility management can significantly reduce vehicle travel for affected trips. Vehicle travel reductions of 10-30% are common.

[1] *Smart Growth: More Efficient Land Use Management, Victoria Transport Policy Institute (2012).*

Transportation Alternatives

To reduce vehicular and parking demand, it is essential to provide for alternative modes of transportation including walking, cycling, and transit. These non-motorized transportation methods support parking reduction strategies in several ways:

- *Improving walkability (the quality of walking conditions) expands the range of parking facilities that serve a destination. This increases the feasibility of sharing parking facilities and use of remote parking facilities.*
- *Improving walkability increases park-once trips (parking in one location and walking rather than driving to other destinations), which reduces the amount of parking required at each destination.*
- *Walking and cycling improvements encourage transit use since most transit trips involve walking or cycling links.*
- *Walking and cycling improvements can help reduce total vehicle ownership and use in an area. People who live and work in more walkable and cyclable communities tend to own fewer vehicles and take fewer vehicle trips than those in more automobile-oriented locations.*[1]

Benefits and Concerns

When combined with other parking demand strategies such as parking fees, it is estimated that 5 to 10 percent of vehicle trips can be shifted to transportation alternatives (mostly walking and cycling). In pedestrian-friendly areas, parking requirements may be reduced 10 to 30 percent due to efforts supporting pedestrian and bicycle travel in combination with additional transportation demand management strategies. Benefits of increased walkability and bikeablity of an area extend beyond parking demand decreases to include economic, social, and environmental benefits including savings in parking facility costs, reduced auto-related pollution, reduced use of non-renewable energy, improved public health, and improved social interaction between users.

Costs associated with implementing pedestrian and bicycle improvements differ based on the situation, but may include vehicular restrictions, construction and maintenance costs, and security services.

Implementation

- Providing for transportation alternatives should be combined with additional management strategies including smart growth principles to best support pedestrian and bicycle use.
- Strategies to improve pedestrian and bicycle infrastructure include:
- Identify problems in the existing pedestrian and bicycle infrastructure to determine where improvements are needed.
- Promote safety and comfort by providing crosswalks, lighting, shading, pedestrian amenities, traffic-calming measures, and signage for motorists to reduce auto-pedestrian conflicts.

[1] *Parking Management Best Practices, Litman*

- Support beautification measures such as shade trees, potted plants, and well-designed building facades to facilitate and encourage walking.
- Include Americans with Disabilities Act (ADA) design guidelines in sidewalk infrastructure.
- Promote accessibility and connectivity by providing multiple and direct access points both in and out of parking facilities, connected sidewalks, and bike lanes.
- Provide bicycle storing facilities.

Pedestrian distance thresholds determine the acceptable distance a person is willing to walk to reach a destination. Such thresholds can be influenced by the walking environment, stop durations, and type of service that impact that effectiveness of strategies to encourage walking as a means of parking demand reduction. Generally speaking, the maximum walking distance to arrive at a destination is approximately .25 miles (or 1,345 feet).

Remote Parking for Employees and Shuttle Service for Events

Remote parking facilities are a less expensive or free option for long-term parkers, such as commuters, to utilize where parking at popular or final destinations are restricted by time, price, or availability. In this strategy, cost and time savings as well as improved convenience are more desirable than a parking space nearest to final destinations. Shuttle services can be provided to further support remote parking by taking users to and from destinations, such as schools, business centers, or special events.

Benefits and concerns

Reductions in parking demand from remote parking facilities vary by situation (type of users, price of remote facility in comparison to final destination parking factors, shuttle availability, walking and cycling conditions, and additional remote parking incentives). Generally speaking, though, off-street parking requirements can be reduced by 10 to 30 percent when a destination utilizes remote parking facilities. With the use of remote parking facilities, priority users can be reached in high demand areas, while those who choose remote parking incur reduced parking costs. The use of shuttle services also allows for increased distances between parking facilities and destinations, which may provide better utilization of space closer to popular destinations.

Without the proper use of incentives, remote parking may be seen as an inconvenience where time and financial costs of parking near destination is more convenient than remote parking.

Implementation

To implement remote parking:

- *Create a comprehensive parking inventory, that is, a survey of the number and type of spaces throughout an area to help identify opportunities to use remote parking.*
- *Create a transportation management association or designate another organization (such as a chamber of commerce) to provide parking brokerage.*
- *Provide parking brokerage service.*
- *Provide information and incentives for motorists to use remote sites, targeting those that are most suitable, such as commuters and long-term visitors.*
- *Integrate remote parking with other parking management strategies, such as shared parking, overflow parking plans, and smart growth practices.*
- *Use regulations and pricing to encourage use of remote and urban fringe parking facilities.*
- *Provide security for vehicles in remote parking lots and for people walking between remote lots and destinations.*

Transportation Demand Management (TDM) Programs

TDM programs combine complementary TDM strategies to amplify the effectiveness of the cumulative benefits to reach the objective of reduced overall parking demand. For example, transit improvements, pedestrian improvements, and smart growth policies, as a whole, aim to reduce vehicular demand and would be as effective if implemented singularly. Whichever combination of TDM strategies are implemented, the general rule for TDM programs is that there should be a balance between providing for travel choice and providing incentives to reduce auto use.

Benefits and Concerns

As previously stated, combining TDM strategies through coordinated TDM programs maximizes the overall outcome in parking reduction. The additional benefits provided by each individual TDM strategy is dependent on the strategy employed, but reduction in vehicular use maintains the benefits of reduced congestion, increased cost savings on parking facilities, reduced emissions from auto use, increased parking availability for priority-users, and increased public health by way of alternative transportation methods.

Opposition to the implementation of TDM programs can be found where mindsets are set on expanding capacities rather than managing demands, especially as funding, planning, and management practices facilitate this type of thinking. It is often difficult to change this mindset in individuals and groups at both the private and public level who are able to implement this sort of change.

Best Practices

TDM programs are often funded and managed by municipalities or through grant programs. Program managing entities are generally established between existing municipal transportation agencies, in a division of the existing transportation agency, or as a partnership between municipalities and community organizations.

Responsibilities of a TDM program may include:

- *Coordinating planning, evaluation, and data collection.*
- *Implementing marketing programs.*
- *Responding to problems and complaints.*
- *Providing services such as ridematching, shuttles, bike and pedestrian promotion, and event transportation*
- *Providing parking management, parking pricing, and parking brokerage services.*
- *Coordinating arrangements for shared parking.*
- *Pedestrian and bicycle improvements, and security improvements that encourage use of alternative modes I*
- *Coordinating activities with other organizations, such as TMAs and Commute Trip Reduction Programs*
- *Supporting integrated transportation and land use planning to improve Accessibility and reduce vehicle travel (Access Management, Smart Growth and Location Efficient Planning)*[1].

Among successful TDM program implementations, best practices have evolved:

- Make TDM programs comprehensive, including as many transportation improvements and incentives as appropriate for a particular situation.
- Include both positive and negative incentives. TDM programs tend to be most effective when they improve consumers' travel choices and provide incentives to use alternatives to driving when possible.
- Apply contingency-based planning by identifying the solutions that will be deployed if needed to address future problems.
- Do not limit TDM programs to commute trips.
- Integrate transportation and land use planning as part of a comprehensive TDM program.
- Involve stakeholders in TDM program planning and implementation, including transportation and land use planning agencies, transit providers, businesses, residents, and employees.
- Be sensitive to equity concerns by applying incentives equally (for example, by applying parking pricing to administrators as well as staff) and by providing positive incentives that balance negative incentives.
- Establish stable program funding.
- Produce an annual "State of the Commute" report, which describes TDM programs and resources, travel trends, and comparisons with other communities.

[1] *Transportation Management Programs, VTPI.*

APPENDIX B – PARKING AS AN ECONOMIC DEVELOPMENT STRATEGY

The idea that parking can be an effective economic development strategy has gained increasing acceptance as innovative programs from around the country have successfully proven this concept. However, as the principles have become more accepted, many communities are asking:

- What new trends are emerging?
- What are the specifics strategies that have proven to be most successful?
- What are realistic 'return on investment' ratios?

Successful Strategies

For the agencies or departments charged with downtown development and revitalization, recognizing the need for both a long-term strategic plan and a specific, action-oriented business strategy to guide decisions on the use of public resources is the first key step in defining a parking and economic development policy. One approach to developing a downtown business strategy is to establish specific targets for housing, office, retail, and hotel development within the urban districts. This business strategy would ideally reflect the shared vision for the downtown and the community at large as defined in a downtown strategic or master plan. This was largely accomplished for the City of Santa Cruz and the Lower Pacific Avenue area in the recent RF/LP study.

As the Lower Pacific Avenue area moves towards defining, managing, and planning its future parking assets, it will be important to recognize a few simple strategies that will provide a solid foundation for success. Many of these key concepts have been implemented in projects of varying degrees and have been utilized widely throughout Santa Cruz and in other cities. As simple as these concepts may seem, they are nonetheless important to reinforce and acknowledge when launching a new initiative.

When utilizing public resources as a means to catalyze development (i.e., building parking as a means of stimulating growth), the managing agency should outline guidelines and strategies that ensure successful development results from the infrastructure investment. In particular, the strategy for defining successful partnerships between parking and development should follow a few simple rules.

I. Projects that will utilize the publicly provided resource should reflect defined district master plan goals. Targeting specific development projects that move forward the shared vision of the district is especially important for helping the area achieve its desired goals. There are often many potential development projects to consider, but prioritizing those projects that move the community forward in the desired direction can provide justification for providing reasonable incentives. Understanding which projects are most valued by the community, or are most likely to be developed, can help determine if parking is a potential development incentive.

II. A defined set of community or district development goals educates the development community on the types of projects the City and Downtown District will respond favorably to. In other communities, savvy developers actively seek out community development plans and attempt to align their overall project components with the defined district vision in the hopes of streamlining the development approval process. When this works, everyone wins.

III. Understand upfront what you would like the development to accomplish in terms of community enhancement and whether it's worth sacrificing a limited public asset (public parking spaces) to accomplish their goal.

IV. Define expected return on investment relationships relative to parking and other infrastructure investments.

V. Be flexible and consider all options relative to the development agreement and partnerships.

VI. Parking strategy should be based on an "idealized build-out" of the community, defined by this study and the RF/LP study, in which the parking development plan is designed to support the desired build-out.

VII. If a developer is building a public parking structure as part of a public/private development, agree up front on the cost per parking space since it is virtually impossible to delineate what is/isn't part of a parking structure. Once this price is established, it is easier to sort between various bids for the site since the variables are reduced.

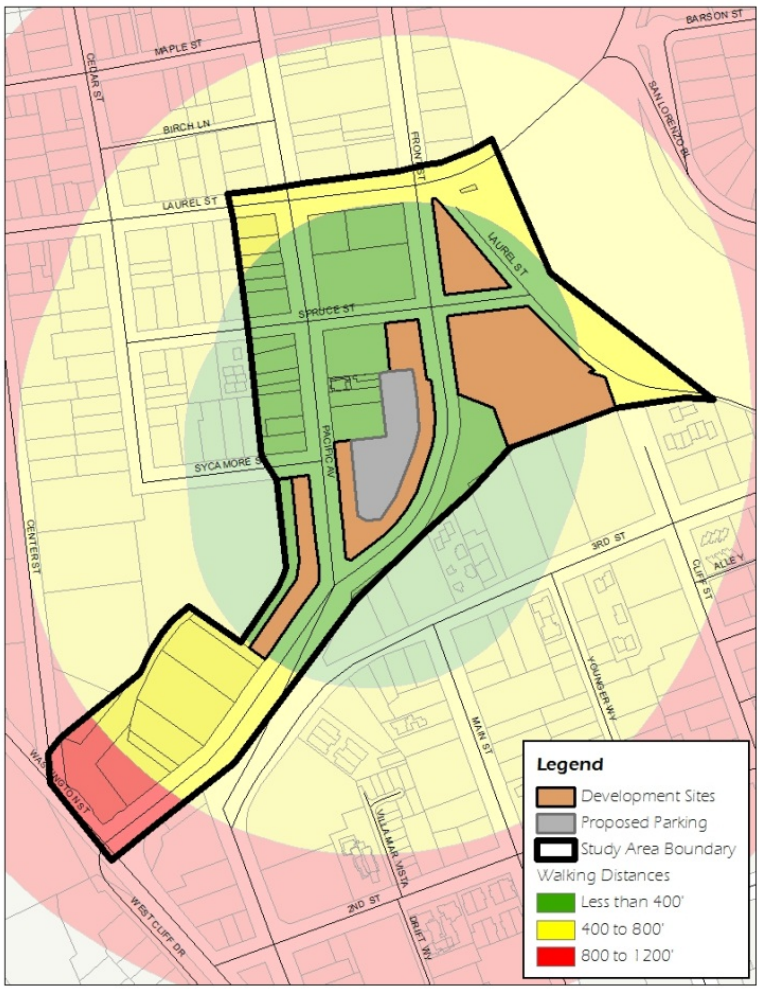
Innovative municipal parking programs, urban redevelopment agencies, business improvement districts, and downtown development authorities have led the charge to leverage investments in strategic parking and mixed-use facility development as a key strategy to improve their communities and stimulate additional economic development opportunities.

A key trend is that many of these parking programs have developed more advanced and sophisticated planning capabilities in recent years. They have well-defined "parking analysis zones" within their planning areas and actively monitor changes to off-street parking supply and demand. They also have begun measuring and tracking changes to on-street utilization. Using creative and demand-based pricing and regulation strategies (time-limits, special permitting strategies, etc.) they are beginning to maximize the value of their limited on-street resources by more effectively promoting turn-over. Price is being used, as recommended by Dr. Donald Shoup of UCLA, to achieve a goal of an on-street vacancy rate of 15%. This has had the related effect of also increasing off-street parking revenues.

These advances in planning and management are being combined with another, and perhaps more important trend – a philosophy that aims at making parking (and therefore the "overall community experience") more visitor friendly. It is important to note that "friendly" does not equal "free." Parking is never free, even when there is no direct charge to the customer – someone somewhere is paying the price for providing not only the space, but the electricity, the maintenance, the cleaning, etc.

APPENDIX C - PARKING INVESTMENT STRATEGY

As an example of how this policy might be applied in the Lower Pacific Avenue area, potential development and new parking infrastructure in the center of the area is examined. In the image to the right, the potential development projects are shown in brown, and a potential new parking facility is shown in grey. The parking facility has the potential for approximately 400 spaces, which would likely require an approximate investment of $8,000,000 (using a per space average cost of $20,000). Using a 5 to 1 return on investment guideline, the targeted return would be $40,000,000.



Three other potential development sites are shown in the figure to the right, representing the Arena site, 555 Pacific Avenue site, and one additional opportunity site at the northeast intersection of Front Street and Spruce Street. The number of projects the proposed parking facility could support depends on several variables such as project size, proximity to the parking facility, types of users, and, most significantly, the combination of land uses.

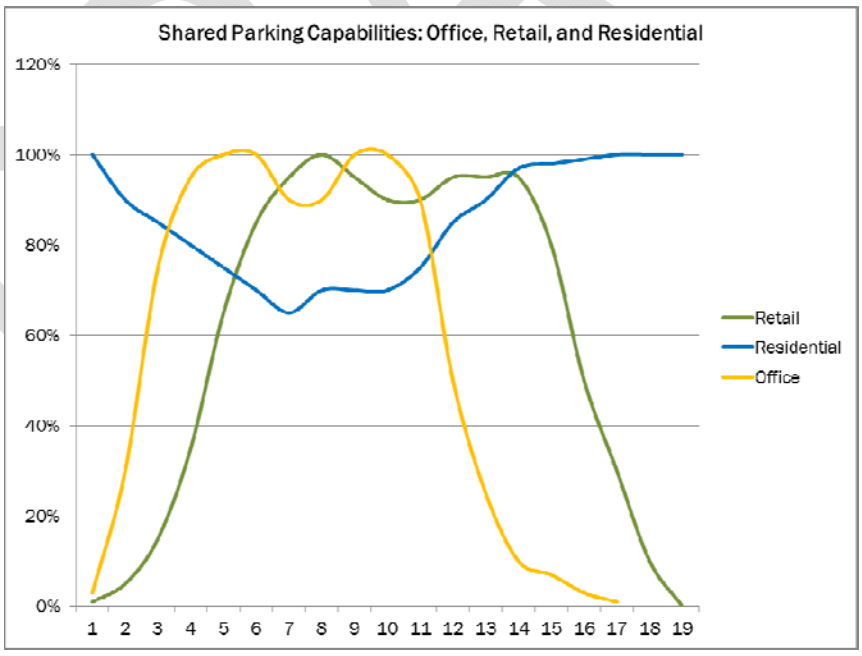
The combination of land uses is significant because it defines the potential for shared parking. Certain land uses, because they offer complementary (i.e., not overlapping) peak parking demand periods can provide for greater shared parking benefits (for a more thorough explanation see the Best Management Practices chapter of this report). One of the best examples of these "complementary land uses" is hotels, where the typical peak parking accumulation occurs overnight as opposed to an office use that has its parking accumulation peak between 10:00 AM and 3:00 PM.

HYPOTHETICAL EXAMPLE OF SHARED PARKING

Consider this hypothetical development scenario:

Development Description: A moderate sized mixed-use development containing office, retail, and residential uses.			
Land Use	**Units**	**Parking Demand Ratio**	**Stand-alone Parking Requirement**
Office	90,000 Sq. Ft.	4 spaces / 1,000 Sq. Ft.	360 spaces
Retail	10,000 Sq. Ft.	4 spaces / 1,000 Sq. Ft.	40 spaces
Residential	165 dwelling units	1.5 spaces / Unit	250 space
		Total:	**650 spaces**

The following graphs illustrate the typical parking accumulation patterns for a mix of office, retail, and residential uses. The patterns for office and retail have offsetting peaks, while office/retail and residential are virtually inverse of each other. That is to say they have "complementary" as opposed to "overlapping" peak parking accumulation patterns.



Through the application of shared parking, the 650-space demand for the uses can be minimized by several hundred spaces. A parking demand reduction of 250 spaces could be applied. The new total, 400 spaces, represents an investment value of $8,000,000 at a construction cost averaging $20,000 per space plus the cost of land.

Because the residential uses can be accommodated in off-peak demand periods, many of the 400 spaces can accommodate another development to help achieve the investment target — assuming control of the spaces has not been taken out of the equation by assigning ownership or legal control to another entity. If ownership or legal control has been relinquished, the City must view this as a loss not only of the investment in the spaces, but also the potential loss of another development project that could have been supported by these spaces.

This does not mean the hypothetical parking facility can fully support these developments on its own. Instead, by allowing access to a certain number of leased spaces at market rates, combined with the shared parking benefits from one or more complementary developments, the district could get very close to achieving its desired return on investment. This could translate into significant community and economic development. The key point in this exercise is that assigning exclusive use agreements or other practices that significantly restrict parking space usage could significantly reduce new community investment.

Development of parking within the Lower Pacific Avenue area should provide an opportunity for “park once” trips through the implementation of centralized shared parking facilities. Parking facilities should be designed to support a mixture of uses, including event demands from the Arena, proposed new development, and existing land uses that will remain and potentially be redeveloped during the planning horizon of this study.

APPENDIX D – ORDINANCES

Santa Cruz Municipal Code – Permit Parking Ordinance 10.41

10.41.080 RESIDENT PARKING PERMITS.

The local authority may issue a maximum of three resident parking permits to each residence for which an application is made. Resident parking permits are issued to the resident for the resident's vehicle. The resident parking permit is not transferable between vehicles. The resident parking permit is only valid when used adjacent to the holder's residence. Adjacent is defined as within three blocks of the residence address. The resident permit is valid for one year after the annual start date of the permit parking program.

10.41.090 GUEST PARKING PERMITS.

The local authority may issue a maximum of two guest parking permits to each residence for which application is made. The guest parking permits are transferable between the resident's guest vehicles. Residents who do not possess a driver's license, and who do not qualify for the resident parking permit, may purchase guest parking permits. The guest parking permit is only valid when used adjacent to the holder's residence. Adjacent is defined as within three blocks of the residence address. The guest permit is valid for one year after the annual start date of the permit parking program.

10.41.100 DAILY PARKING PERMITS.

The local authority may issue a maximum of thirty daily parking permits per year to each residence for which application is made. The daily permit is valid on the day that it is activated and used. The daily parking permit is only valid when used adjacent to the holder's residence. Adjacent is defined as within three blocks of the residence address.

10.41.105 COMMUTER PARKING PERMITS.

The local authority may, upon proof that sufficient street parking is available for residents in the area, sell permits to commuters who may pay to park on a specified street segment or block face.

10.41.110 ADDITIONAL PARKING PERMITS.

The local authority may, upon an analysis of on-street and off-street parking supply and demand, make a finding that sufficient on-street parking is available to issue additional resident, and/or daily parking permits. The issuance of more than the allotment of permits per this ordinance will follow a finding that a special situation applies and warrants an exception.

10.41.130 DIRECT SERVICE PROVIDER PARKING PERMITS.

The local authority may, upon written request, issue a maximum of five guest permits to a public agency, nonprofit organization or volunteer group that provides direct services to residents or occupants in a program area. These parking permits may be limited to specific days of the week and times of the day. Requests for more than five guest permits will be addressed on a daily, weekly, or monthly basis at the discretion of the local authority.

10.41.140 NON-RESIDENT PARKING PERMITS.

The local authority may issue parking permits to the following non-residents:

(a) Non-resident Property Owner. A parking permit may be issued to a non-resident property owner within the permit parking program area. The requester must provide proof of property ownership in the program area.

(b) Border Resident. The local authority, upon having acceptable proof, may issue parking permits to residents living within 300 feet of a program area when they do not have access to on-street parking fronting their property's address.

(c) Specialty Parking Permit. The local authority, upon having acceptable proof that the need exists, may issue specialty parking permits that are unique to a specific program area. Such specialty parking permits shall be defined in the appropriate master list kept by the public works department.

10.41.150 PERMIT PARKING AT METERED PARKING ZONES.

The local authority may designate specific areas where parking permits are valid at metered parking zones. These areas will be defined in the master list for each program area where this is appropriate.

10.41.160 BEACH AREA MERCHANT PARKING PERMITS.

The local authority may designate specific street segments in the Beach area where merchants may purchase and display parking permits. The street segments will be defined in the master list for the Beach area's program area. The master list will also stipulate the type and quantity of parking permits to be sold to Beach area merchants.

Santa Cruz Municipal Code – Shared Parking Ordinance 24.12.90

The off-street parking requirements of this part may be satisfied or modified in alternate ways:

4. Cooperative Parking Facilities. The parking requirements for two or more uses of the same or different types on the same parcel may be reduced by the Zoning Board as part of a special use permit procedure if it can be demonstrated that the nature of the uses of the facility will result in multipurpose trips being made to the site or trips being made to individual uses at different times of the day or week. The Zoning Board may permit no more than a ten percent reduction of the total number of spaces than would be required if each use was assessed independently.

5. Shared Parking Facilities. Off-site parking facilities may be shared by two or more commercial uses if their entrances are located within three hundred feet of the parking facility and if their hours of operation do not coincide, provided they:

a. Receive special use and design permits so that design criteria are met and conditions of use may be established along with periodic review;

b. Submit a written document guaranteeing maintenance, hours of operation and specifying length of agreement;

c. Submit a signage program to notify users at all location(s) of shared parking facilities;

d. Demonstrate how the shared parking arrangement will fulfill the intent of this part.

e. The use permit upon which the shared parking proposal depends shall terminate upon lapse of written agreement specified in subsection (5) (b) above unless otherwise modified by the Zoning Board

Santa Cruz County Code –Transportation and Parking Demand Management Ordinance 13.10.553

Transportation and Parking Demand Management. Parking requirements prescribed for any use or combination of uses on the same or adjoining sites may be reduced by the approving body based upon a detailed alternate transportation and parking demand management program supplied by the applicant, and certified by the County, which may include, but is not limited to, provision of special transit incentives for employees, the operation of effective pooling programs, priority parking for carpools, charter buses, club buses, company cars, employer's contribution to bus service cost, home delivery services or flexible work hours. Any proposed reduction greater than 20 percent shall include adequate evidence supporting the validity of a larger reduction.

In evaluating the request, the approving body shall consider, among other factors:

I. Projected effectiveness of carpool, vanpool, staggered work hours or similar transportation programs.

II. Proximity to public transportation facilities serving a significant portion of employees and/or customers.

III. Evidence that employees and/or customers utilize, on a regular basis, transportation alternatives to the automobile.

IV. Evidence of land owned, leased or otherwise guaranteed for use by developer that can be held in contingency reserve to be used for supplying additional parking in the event that the program does not reduce parking demand by the required amount.

Where an alternate transportation and parking program is employed and plans approved which reduce the number of required off-street parking spaces for a development, a written agreement between the landowner(s) and the County must be approved. Such an agreement must be in satisfactory form and content to County Counsel and is subject to approval by all appropriate approving bodies. This agreement shall be in a form capable of and subject to being recorded to constitute a covenant running with the land. The agreement shall include:

A. A guarantee that the program will not be diminished, suspended, eliminated, or in any way be operated at a lower level of effort on the part of those responsible for its implementation without prior County approval.

B. A provision for bi-annual certification of the program by the County which will include, among other things, review of past year's effort to encourage employee's and customer's use of alternative transportation, and an accounting of the number of persons targeted by the program that actually and regularly employ techniques promoted by the program. Such a report shall update that section of the plan outlining efforts to increase participation in the program during the coming years. The County shall retain the option to require changes, including, but not limited to, the uses' intensity and program as are needed to achieve the required reduction in peak parking demand.

City of Madison, Mississippi Shared Parking Ordinance

When the parking reduction has been shown to be feasible by using the demand calculations as determined by Table 1, Parking Occupancy Rates, the applicant shall submit a parking demand summary sheet showing the process for calculating the reduction as outlined in this section. (Note: The default rates from the Table 1, Parking Occupancy Rates are set to include a small "safety margin" of parking beyond that minimally needed to serve an average peak demand. Therefore a local study of parking demand may yield a greater reduction in parking required.)

(1.) The minimum number of parking spaces that are to be provided and maintained for each use shall be determined based on standard methods for determining minimum parking supply at a particular site.

(2.) The gross minimum number of parking spaces shall be multiplied by the "occupancy rate" as determined by a study of local conditions (or as found in Table 3), for each use for the weekday night, daytime and evening periods, and weekend night, daytime and evening periods respectively.

(3.) The gross minimum numbers of parking spaces for each of the purposes referred to for each time period shall be added to produce the aggregate gross minimum numbers of parking spaces for each time period.

(4.) The greatest of the aggregative gross minimum numbers of parking spaces for each period shall be determined.

This table defines the percent of the basic minimum needed during each time period for shared parking.

Table 1 Parking Occupancy Rates

Uses	M-F 8am-5pm	M-F 6pm-12am	M-F 12am-6am	Sat. & Sun. 8am-5pm	Sat. & Sun. 6pm-12am	Sat. & Sun. 12am-6am
Residential	60%	100%	100%	80%	100%	100%
Office/ Warehouse /Industrial	100%	20%	5%	5%	5%	5%
Retail	90%	80%	5%	100%	70%	5%
Hotel	70%	100%	100%	70%	100%	100%
Restaurant	70%	100%	10%	70%	100%	20%
Movie Theater	40%	80%	10%	80%	100%	10%
Entertainment	40%	100%	10%	80%	100%	50%
Conference/Convention	100%	100%	5%	100%	100%	5%
Institutional (non-church)	100%	20%	5%	10%	10%	5%
Grocery	50%	100%	20%	100%	50%	20%
Institutional (church)	10%	5%	5%	100%	50%	5%

Local Parking Study

When the parking reduction has been shown to be feasible by using a local parking demand analysis, the following three items must be submitted: (1.) A parking demand analysis prepared by a qualified parking or traffic consultant, a licensed landscape architect, city planner, or urban planner or civil engineer, which substantiates the basis for granting a reduced number of spaces. A local parking study shall be subject to the approval of the Community Development Director and Planning and Zoning Commission. The study shall take into account the following three factors:

(a.) Existing parking surveys. Parking surveys shall determine parking occupancy rates of morning, afternoon and evening peaks on the seven different days of the week. The seven days of observation may take place over the span of

two consecutive, typical weeks. In the case of new construction or addition of new uses, the surveys shall observe another circumstance with similar mixed uses. A combination of similar circumstances may be necessary to cover all the proposed land uses. The approximate square footages of the various land uses of the specimen projects shall be compared to the proposed project to allow the ratios of uses to be rated accordingly. In the case of an enlargement, or substitution of existing uses, the surveys shall document the occupancy rates of the existing parking facility.

(b.) Proximity and convenience factors. The following factors may influence the Planning Commission's approval of the parking reduction figures:

- Distance between sharing uses and the parking facility
- Pedestrian connections among sharing uses and the parking facility
- Vehicular connections
- Whether parking will be paid
- Location--proximity to the CBD and general development density.
- Proximity to major transit corridors or stations.
- Special trip reduction programs, such as subsidized vanpooling, transit, shuttle or telecommuting
- Need for any reserved parking spaces. (Parking spaces to be shared cannot be reserved for specific uses or individuals except during off-peak hours.)

(c.) Captive market parking requirements. Parking requirements for retail, restaurant, hotel, convention and conference uses may be reduced where it can be determined that some portion of the patronage of these businesses comes from other uses (e.g., employees of area offices patronizing restaurants) located within a maximum walking distance of 500 feet.

Parking requirements may be reduced up to 90 percent as appropriate. Whenever practical, such a reduction should be supported by surveys at similar establishments.

(2.) A covenant must be executed guaranteeing that the owner will provide the additional spaces directly or by payment of in-lieu fees if the City, upon thorough investigation of the actual use of parking spaces at the building within two years of initial occupancy, recommends to the Planning and Zoning Commission that the approved reduction be modified or revoked. Said covenant shall meet the same requirements for covenants set forth in other sections of this document. The City must document insufficient parking supply by showing occupancy rates over 98 percent for a least two consecutive hours on at least three separate days within a single month.

(3.) Fee of guarantee. The owner shall pay a fee which will be applied towards the cost of a parking study of actual parking accumulation to be carried out within one to two years of occupancy.

(4.) Exception: The covenant guaranteeing either additional spaces or payment of in-lieu fees (2. above) and the fee for follow-up parking study (3. above) may be waived when the Planning and Zoning Commission will certify that previous experience of similar shared parking projects indicates it is unlikely a serious deficiency would result.

City of Pasadena Zoning Parking Credit Ordinance 17.46.030

I. Areas of applicability. This Section shall apply to areas of the City for which the Council has established a zoning credit parking program

II. Written contract required. Notwithstanding any other provision of this Chapter or Chapter 17.30 (Central District Specific Plan), zoning credit parking spaces ("zoning credit") must be provided by means of contracts with the City of the Parking Authority in compliance with this Section. A contract meeting the following requirements shall be deemed to be in compliance with the parking requirements of Table 4-6 (Off-Street Parking Space Requirements).

a. Zoning credits. The designated number of parking spaces available for zoning credit purposes shall also be available for public parking. The contract may provide that the owner of the parking facility in which the zoning credits are located is free to retain any revenue from parking fees or to utilize the spaces for any purpose.

b. Nontransferable provisions. The entitlement to use the zoning credits is conferred on a specified property in order to satift² y the parking requirements for a specified use. The zoning credits shall not satift² y the parking requirements for any other land use and shall not be tranft² erred to any other property.

c. Reversion of spaces. Any and all rights to use the zoning credits which are not used within three years of the execution date of the contract shall not, unless the period is extended by the City or Parking Authority, as appropriate, be conferred on the specified property and shall automatically revert to the City or Parking Authority, as appropriate.

d. Allowable refunds. The contract may allow for refunds of zoning credit fees upon the occurrence of conditions to be specified in the contract.

III. Future or planned parking facilities.

a. Future parking facilities. In the case of parking spaces that are to be developed, owned, or operated by the City or Parking Authority, the granting of zoning credits may be accomplished by indicating that the contract applies to a certain number of spaces which the City or Parking Authority intends to locate in a parking facility to be built in the future and for which financing has been obtained.

b. Spaces in planned public parking facilities. Zoning credits for parking may be granted in planned public parking facilities to be owned or operated by the City or Parking Authority for which financing has not been obtained, provided the applicant demonstrates an alternative means for meeting the parking requirements identified in this Chapter if financing is not obtained.

IV. Maximum number of zoning credit spaces.

a. Number of zoning credit spaces. In no case shall the total number of zoning credits designated in a parking facility exceed the actual number of spaces in the parking facility.

b. CD-1 Old Pasadena Historic Core Precinct. In the CD-1 Old Pasadena Historic Core Precinct, a parking facility used for the zoning credit parking program and which has a capacity of 100 spaces or more, may oversubscribe zoning credits by not more than 50 percent of the total provided in the parking facility. The Zoning Administrator and the Traffic Engineer may institute measures to accommodate parking within the parking facility during any part of the day or night as necessary to accommodate the parking demand. The measures may include tandem and valet parking.

c. On-street parking spaces. On-street parking spaces may be granted as zoning credits in the area identified as the S. Lake Ave. Parking Credit District Boundary Map. The number of on-street parking spaces used as zoning credits shall be established by resolution.

V. Distance requirement. A contract meeting the above requirements shall be deemed to be in compliance with the distance requirements identified in Table 4-4 (Maximum Distances for Off-Site Parking).

City of Portland, Oregon–Parking Maximum Ordinance 33.266.115

33.266.115 Maximum Allowed Parking Spaces

I. Purpose. Limiting the number of spaces allowed promotes efficient use of land, enhances urban form, encourages use of alternative modes of transportation, provides for better pedestrian movement, and protects air and water quality. The maximum ratios in this section vary with the use the parking is accessory to and with the location of the use. These maximums will accommodate most auto trips to a site based on typical peak parking demand for each use. Areas that are zoned for more intense development or are easily reached by alternative modes of transportation have lower maximums than areas where less intense development is anticipated or where transit service is less frequent. In particular, higher maximums are appropriate in areas that are more than a 1/4 mile walk from a frequently-served bus stop or more than a 1/2 mile walk from a frequently-served light rail or streetcar stop.

II. Maximum number of parking spaces allowed. Regulations in a plan district or overlay zone may supersede the regulations in this subsection.

a. Surface parking. Where more than 25 percent of the parking accessory to a use is on surface parking lots, both the structured and surface parking are regulated as follows. Parking accessory to a use includes accessory parking that is on- and off-site:

i. Generally. The maximum number of parking spaces allowed is stated in Tables 266-1 and 266-2, except as specified in subparagraph B.1.b, below;

ii. Exception for sites not well-served by transit. For sites located more than 1/4 mile from a transit stop with 20-minute peak-hour bus service and more than 1/2 mile from a transit stop or station with 20-minute peak-hour light rail or streetcar service, the maximum number of parking spaces allowed is 125 percent of the amount stated in Tables 266-1 and 266-2. Peak hour service is measured on weekdays between 7:00 AM and 8:30 AM and between 4:00 PM and 6:00 PM. Applicants requesting

this exception must provide a map identifying the site and all transit stops and stations within 1/2 mile of the site and Tri-met schedules for all transit routes within 1/2 mile of the site.

b. Structured parking. Where 75 percent or more of the parking accessory to a use is in structured parking, both the structured and surface parking are regulated as follows. Parking accessory to a use includes accessory parking that is on- and off-site:

   i. Generally. There is no maximum number of parking spaces, except as provided in subparagraph B.2.b, below;

   ii. Parking accessory to Medical Centers and Colleges. The maximum parking allowed that is accessory to Medical Centers and Colleges is stated in Tables 266-1 and 266-2.

c. Exception in the EG and I zones. In the EG and I zones, there is no maximum number of accessory parking spaces for either structured or surface parking where both B.3.a. and b. is met, and either B.3.c. or d. is met:

   i. The site is at least eight acres in area;

   ii. The site is located more than 1/2 mile from a transit stop or station with 20-minute peak-hour light rail or streetcar service; and

   iii. At least 700 of the accessory parking spaces are in a structure; or

   iv. The structured parking is in a structure with at least three floors, and parking is on at least three floors of the structure.

City of San Francisco, California – Unbundled Parking Ordinance

City of San Francisco City Planning Code, Section 167 – *Sec. 167 Parking costs separated from housing costs in new residential buildings.*

A. All off-street parking spaces accessory to residential uses in new structures of 10 dwelling units or more, or in new conversions of non-residential buildings to residential use of 10 dwelling units or more, shall be leased or sold separately from the rental or purchase fees for dwelling units for the life of the dwelling units, such that potential renters or buyers have the option of renting or buying a residential unit at a price lower than would be the case if there were a single price for both the residential unit and the parking space. In cases where there are fewer parking spaces than dwelling units, the parking spaces shall be offered first to the potential owners or renters of three-bedroom or more units, second to the owners or renters of two bedroom units, and then to the owners or renters of other units. Renters or buyers of on-site inclusionary affordable units provided pursuant to Section 315 shall have an equal opportunity to rent or buy a parking space on the same terms and conditions as offered to renters or buyers of other dwelling units, and at a price determined by the Mayor's Office of Housing, subject to procedures adopted by the Planning Commission notwithstanding any other provision of Section 315 et seq.

B. Exception. The Planning Commission may grant an exception from this requirement for projects which include financing for affordable housing that requires that costs for parking and housing be bundled together.

APPENDIX E - FINANCING PARKING IMPROVEMENTS

Financing parking facilities by public agencies in light of the loss of redevelopment funding strategies presents a more challenging endeavor than in previous years. However, there remains a number of financing instruments available to the City and the district — some more challenging than others, and all requiring a planned strategy for implementation, and in some cases a longer time process to successfully use a particular financing mythology.

Below is a description of the various options available for financing parking facilities and includes the requirements for using the instrumental, restrictions and requirements for revenue or payment pledges. The City of Santa Cruz will need to assess and evaluate each tool and determine the appropriate source of funding/financing to participate in assisting the Lower Pacific Avenue area in providing additional parking inventory.

Property and Business Improvement District (PBID) Assessments

Assessments established under a Property and Business Improvement District (PBID) are levied on businesses and real property within the PBID boundaries. Under the Property and Business Improvement District Law of 1994, revenues from PBID assessments may be used to fund capital improvements and maintenance costs for projects such as: parking facilities; benches, trash receptacles and other street furniture; public restrooms; fountains; parks; street improvements; sidewalks; plazas. A PBID formation petition, which is initiated by property owners, requires the signature of more than 50 percent of the property owners, weighted by assessment liability. PBIDs are formed with an initial term of five years.

When this period expires, the PBID may be renewed for another five years. However, if debt is issued to finance capital improvements, assessments can be levied until the bonds mature. The term of debt service for PBID bonds is not to exceed 30 years. Without bond issuance, the maximum term for a PBID district is 10 years.

Assessment District

Under the Improvement Act of 1911 and the Improvement Bond Act of 1915, a city may establish an assessment district to levy additional taxes in order to issue bonds to fund public facilities and improvements that directly benefit property owners in the district. An AD is a useful tool in financing public facilities and infrastructure, and maintenance and services costs that benefit a specific area. Eligible projects may include: street paving and grading; curbs, gutters, streetlights and landscaping; water supply systems; storm drains; sanitary sewers; parks and recreation facilities. Unlike a Mello-Roos district (see below), the formation of the AD requires a majority vote of property owners that is proportionate to their assessment. In addition, AD bonds may only fund improvements within the district, and a nexus must be established between the improvements to be financed and benefits to the district's property owners. ADs are typically used as financing mechanisms for installing public improvements in areas of new development, but it is also possible to use them for existing development if a nexus can be established between the amount of the assessment, the public facility or improvement to be funded, and the benefit to property owners in the AD.

Mello-Roos Community Facilities District

Under the 1982 Mello-Roos Community Facilities District Act, a city may establish a CFD to levy taxes and issue bonds in order to fund public facilities and infrastructure, and public services. Formation of the CFD, which may be initiated either by the City Council or by a petition from property owners, must be approved by a 2/3 majority of registered voters in the district. In contrast to an assessment district (see above), Mello-Roos districts do not have a benefit nexus requirement and tax levies can be used to fund projects with general benefit. Mello-Roos bonds may be used to pay for public infrastructure projects such as: street and roadway improvements, including traffic signals and lighting; landscaping; bridges; water and sewer facilities; parks; libraries; police and fire stations. Mello-Roos can also be used to fund public services such as police, fire and emergency, public works, storm drainage maintenance, parks and open space maintenance, recreation, and library services. Public facilities and infrastructure projects that are financed under Mello-Roos must have a useful life of five years or more. Mello-Roos bonds, which are tax-exempt, are usually not rated. The debt is secured by taxes levied on property within the CFD and the bonds are not fiscal obligations of the city or county where the CFD is located.

Downtown Parking District

The City can establish a Downtown Parking District to provide financing for the development of a parking facility. The annual assessment levied on property within the district can be used to fund new construction, pay debt service, and pay operations and maintenance costs. New commercial developments in the district that create parking impacts have the option of paying an in-lieu fee as a substitute for providing on-site parking. Revenue generated by the in-lieu fee program can be used to fund the construction of parking facilities as well as maintenance and operations.

User Fees

Many jurisdictions have been able to partially finance construction of new facilities such as parking structures using bonds funded through parking user (meter) revenues and fines. The ability to generate net revenues from meters (after accounting for enforcement and capital costs) depends upon local parking demand and supply dynamics as well as public policy objectives. For example, larger cities with high parking demand are generally capable of charging higher meter rates and spreading enforcement cost over a larger area. Meter revenues could also provide funding for a portion of ongoing O&M costs. User fees can also provide supplemental funding for museums and parks whose principal source of financing is a public or non-profit agency. Many museums and parks charge for selected programs and services, usually at a subsidized rate that is lower than the fee users would pay in the private sector for similar services. In these cases, the pricing of fees is often tiered for different users such as seniors and youth. By providing a sliding scale, user fees can be set in a way that ensures access to all segments of the community.

The potential revenue generation by a user fee program depends on the support of the user base, and also on the extent to which the facilities charging user fees face competition from other recreational opportunities in the community.

Developer Financed Public Improvements

A local government may agree to reimburse a private developer for all or a portion of the construction costs for public improvements when those improvements benefit other properties and are turned over to the City for operation and maintenance upon completion. For example, a city may reimburse a developer for constructing street improvements or improvements to existing drainage facilities in infill areas along with the proposed project. The reimbursement can be paid from general fund revenue; however, many cities provide the reimbursement to the developer by giving a credit for impact fees. In rare cases, private developers may build parking facilities.

This generally occurs in dense urban areas, where parking is at a premium and operators are able to charge extremely high parking fees. Potentially, City-owned land could be provided to a developer with the requirement that development of the property include a parking facility.

However, this option could limit the City's control and flexibility. Selling City-owned land and using the revenues to cover a portion of parking structure costs would produce similar results while allowing the City greater involvement in project implementation.

General Obligation (GO) Bonds

General obligation bonds obtain the lowest possible interest rate of cost of borrowing for any given municipality. Because the full faith and credit of the municipality is pledged to such bonds, the rate of interest will reflect the best that the community has to offer. The primary way for a municipality to improve on its own full faith and credit pledge to a bond issue is to purchase municipal bond insurance. The general obligation bonds of local governments are most commonly paid from ad valorem property taxes and other general revenues.

These bonds are considered the most secure of all municipal debt and are limited in California by Proposition 13 to debt authorized by a vote of two thirds of voters in the case of local governments.

Revenue Bonds

The issuance of tax-exempt revenue bonds by local governments is a common financing source for the construction of public facilities and infrastructure improvements. Debt is secured by a dedicated revenue stream rather than by the taxing power of the municipality.

Common sources of revenue include service fees for sewer and water systems, parking garages, stadiums, auditoriums, golf courses, and recreation facilities. Because these fees are viewed as less secure than the municipality's taxing authority, revenue bonds typically carry higher interest costs than general obligation (GO) bonds (see above). When revenue bonds are issued to finance a parking project, the bond issuer pledges to the bond holders the revenue generated by the parking project. Revenue bonds are payable only from specifically identified sources of revenue, including pledged revenues derived from the operation of the financed parking facility, grants, and excise or other taxes. Parking revenue bonds secured solely by the

revenues from a single, standalone, municipality owned parking facility are acceptable at a reasonable tax-exempt rate only when irrefutable evidence is presented.

When revenue bonds are issued to finance a parking project, the bond issuer pledges to the bond holders the revenue generated by the parking project. Revenue bonds are payable only from specifically identified sources of revenue, including pledged revenues derived from the operation of the financed parking facility, grants, and excise or other taxes.

Parking revenue bonds secured solely by the revenues from a single, standalone, municipality-owned parking facility are acceptable at a reasonable tax-exempt rate only when irrefutable evidence is presented.

General Fund

The General Fund is the City's most flexible and accessible source of funding for public facilities and infrastructure improvements. General Fund revenue is mainly derived from property tax, transient occupancy tax and sales tax and is used to pay for basic municipal services such as police, fire, and public works. Because the City's General Fund revenue is limited, it should be viewed as a secondary source of financing for public facilities and infrastructure improvements.

Parking Tax Districts

A parking tax district typically addresses a narrow selection of issues directly related to parking. In cases where the municipality is the sole provider of parking, the collection of parking taxes tends to be applied in a uniform manner on an assessed value basis or as a fee per space based on zoning parking standards or requirements, and typically with a partial exemption for parking spaces provided above a threshold percentage. Typically, no commercial property is 100 percent exempt unless its owner provides 100 percent of the parking requirements mandated through the zoning ordinance within the district. Single-family residential property is usually exempt, but multi-family apartments usually are not exempt.

Examples of some California cities with this strategy are provided below.

- Covina, California has a vehicle Parking District Tax. This tax is assessed only on the difference between the number of spaces provided and the number required by the zoning ordinance. There are no exceptions to this tax for owners who provide parking.
- Alhambra, California includes parking within a Business Assessment District Tax. This tax is assessed uniformly on all commercial property based on the gross receipts of the business. Because this tax supports functions other than parking, such as beautification, cleaning, signage, etc., there are no exceptions for parking provided.
- Fullerton, California owns almost all of the off-street parking within the city, and all businesses within the parking district were assessed a parking district tax to retire bonds for the construction of parking. No exemptions were offered as almost no properties supplied their own parking needs.

Because the bond debt was retired several years ago, the parking tax district was also retired.

Special Assessments

Special assessments are charges to real property based upon a benefit conferred by a public improvement, in this instance, parking. In order to collect special assessments from property owners, the City would need to establish a Parking District. A special assessment would require the support of the owners of a majority of the proposed district. Alternatively, the City could generate similar revenues through an increase in the business license tax without voter approval. It is assumed that in either case residential development would be excluded from this fee. Business license taxes can be assessed based on the land use of the business.

For example, an annual assessment of $0.62 per square foot of retail restaurants, $0.42 per square foot of office/light industrial, and $0.31 per square foot of lodging could be charged to the businesses. These fees would be based on future land use projections and would be charged as the land develops. If parking facilities are built before all projected development occurs, the City may experience a funding gap period during which General Fund loans or alternative short-term funding mechanisms would be required to pay for capital costs and operations costs.

Certificates of Participation

A Certificate of Participation (COP) allows the public to purchase a share of the lease revenues paid by a municipal entity for the acquisition or construction of specific equipment, land, or facilities. COP proceeds are then used to fund the project or acquisition. The technique provides long-term financing that does not constitute indebtedness under the state constitutional debt limit and does not require voter approval. Repayment of COPs can come from a variety of sources, including general fund revenues or earmarked funds in the general fund such as special tax proceeds or fees. Potential revenues from tax increases and parking meter fees are discussed below. These sources could also be used to cover operations and maintenance costs.

Conventional Debt Financing

Conventional loans are loans that are not insured or guaranteed by a government agency. This method of obtaining funds for a capital improvement project involves a lending process that is often rigorous, and may result in higher financing costs incurred by the borrower. Banks want to lend to parties that have a clear record of profitable operations, that generate a cash flow sufficient to repay the load, and that have enough collateral or assets to secure the load. Conventional financing requirements include a clean credit record and no bankruptcies or foreclosures.

Transient Occupancy Tax Increase

A transient occupancy tax (TOT) is similar to a sales tax increase as it requires two-thirds voter approval if it is to be dedicated to a specific purpose or simple majority approval if it is to be a general tax. A TOT increase could provide a revenue stream to secure COP financing or other form of debt financing.

User Fees and Enforcement Fines

Many jurisdictions have been able to partially finance construction of parking structures using bonds funded through parking user (meter) revenues and fines. And some jurisdictions utilize meters as a parking management tool to encourage turnover and control employee parking. Ultimately, the ability to generate net revenues from meters (after accounting for enforcement and capital costs) depends upon local parking demand and supply dynamics as well as public policy objectives. For example, larger cities with high parking demand are generally capable of charging higher meter rates and spreading enforcement cost over a larger area. Meter revenues could also provide funding for a portion of ongoing O&M costs.

Private Funding

In rare cases, private developers may build parking facilities. This generally occurs in dense urban areas, where parking is at a premium and operators are able to charge extremely high parking fees. Potentially, City-owned land could be provided to a developer with the requirement that development of the property include a parking facility.

However, this option could limit the City's control and flexibility. Selling City-owned land and using the revenues to cover a portion of parking structure costs would produce similar results while allowing the City greater involvement in project implementation.

APPENDIX F – MODEL AGREEMENTS AND APPLICATIONS