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February 19, 2015

Robert Majka  
City Manager  
City of Cocoa Beach  
2 South Orlando Avenue  
Cocoa Beach, FL 32932-2430

Re: *Parking Master Plan*  
*Walker Project #: 15-2026.00*  
*Cocoa Beach, Florida*

Dear Mr. Majka,

We are pleased to provide the attached finalized parking plan for downtown Cocoa Beach. The report provides a plan with specific actionable items designed to improve the parking in downtown. It has been a pleasure to work with you, your staff, and the Parking Planning Committee.

We sincerely appreciate the opportunity to assist the City of Cocoa Beach on this project and remain available to discuss as the plan is implemented.

Sincerely,  
WALKER PARKING CONSULTANTS

Jon Martens, AICP, CAPP  
Parking Consultant

JRM:jrm

Ahead of the Curve  
in creative parking solutions

PARKING MASTER PLAN

## DOWNTOWN COCOA BEACH

COCOA BEACH, FLORIDA

Prepared for:  
THE CITY OF COCOA BEACH

FEBRUARY 19, 2015

**FINAL REPORT**



**WALKER**  
PARKING CONSULTANTS

PROJECT NO. 15-2026.00

PARKING MASTER PLAN

**DOWNTOWN  
COCOA BEACH**  
COCOA BEACH, FLORIDA

Prepared for:  
THE CITY OF COCOA BEACH

FEBRUARY 19, 2015



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# DOWNTOWN COCOA BEACH

## PARKING MASTER PLAN



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FEBRUARY 19, 2015

PROJECT # 15-2026.00

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### EXECUTIVE SUMMARY

Public parking within the Downtown Redevelopment Area is limited, representing only a third of the total parking supply. Public parking is limited to on-street parking spaces and a few small off-street paid lots in high demand areas. The majority of spaces are considered private, which limit the use to residents, employees, or patrons of a specific business. Visitors are drawn to downtown Cocoa Beach for the beach and the downtown businesses. These two land uses have different parking needs and patterns of use, which do not necessarily complement one another. Downtown Core businesses include restaurants, retail, and services, which tend to need a high level of turnover in parking; while beach visitors tend to want to park and stay for the day, at least as long as the weather is nice.

On good weather weekends and during events, several private lots transform into cash-only paid parking establishments to meet the increased parking demand, with rates heavily influenced on supply demand. This tends to lead to price fluctuations in response to surrounding lots and increasingly higher rates for patrons as the lots fill. The initial impression for visitors is likely that public parking is either insufficient or uncontrolled chaos as they are bombarded with a mirage of homemade and temporary “park here” signs, and casually dressed staff working from beach chairs.

Filling the beach parking demand through temporary lots adds to increased visitors without direct access to restrooms or showers and adds litter and trash when not collected after the temporary lots are vacated by the staff. This only adds to the perception of friction between the Core Downtown businesses and beach visitors.

A unified and holistic approach is needed to manage the parking within the downtown area to bring order to the current parking environment and assist in the overall redevelopment plan for downtown Cocoa Beach.

### PARKING ADEQUACY

From an adequacy perspective there are issues within the Core Area, which for our analysis includes the blocks from North Street 2<sup>nd</sup> Street to the north, the Atlantic Ocean to the east, South Street 1<sup>st</sup> Street to the south, and Brevard Avenue to the west. This deficit is most prevalent on good weather weekends when beach patronage is high. During these periods public parking is judged to be short by 53± spaces, assuming the current temporary lots are in operation. If the temporary unimproved lots are not included, the shortage increases to nearly 200± spaces. Other areas to the north and south of the Core Area are judged to have adequate parking, although the most convenient spaces experience high occupancy during peak demand periods.

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### KEY RECOMMENDATIONS

The Downtown Cocoa Beach Community Redevelopment Plan outlines the Downtown Core as one of the key properties for redevelopment within the downtown area. Parking will play a key role in this process. In this report, we provide parking management concepts and ideas to benefit the parking system both now and in the future. The overriding objectives for the downtown parking program:

- Improve public perception of parking.
- Ensure the most convenient spaces are available to visitors.
- Improve both visitor and employee parking options within the Core Area.

To accomplish these objectives, we recommend the implementation of short-term (1 year), mid-term (1 – 3 years), and long-term (over 3 years) parking management strategies.

#### *Short-Term (1 year)*

- Continue the implementation of the uniform signage package for the all City owned public parking lots in downtown in accordance with the Land Design South recommendation.
- Give notice to violators of unpaved and non-conforming parking lots providing paid parking.
- Update the code to include any paid parking lot regardless of ownership.
- Complete the on-going evaluation of smart meters to determine the best solution for Cocoa Beach. Include in the analysis an understanding and demonstration of an integrated citation system, to allow checking of meter payment on one device for payment by phone, outstanding citations, and potentially a graduated fine system.
- Begin the replacement of existing single space meters with the selected solution to accept payment by credit card and improve monitoring of meters, prioritizing the replacement based on the historical use and demand of existing meters.
- Change meter rate for the Downtown area so all meters are \$2.00 per hour.
- Test the feasibility of portable restrooms and showers to assist separating Beach visitors and Downtown visitors.
- Continue to monitor voided tickets with the goal of getting them down to 10 percent.
- Pave and landscape existing City grass lot adjacent to the old fire station to meet code for use as a public lot, primarily for employees.
- Reduce 3-hour time limit in Downtown Core to a maximum of 2-hour parking, with up to two spaces per block face set for 30-minute parking if supported by adjacent businesses.
- Reduce hours of enforcement for metered and time-limit parking to encourage evening parking with the goal to benefit downtown restaurants and businesses.



### *Mid-Term (1 – 3 years)*

- Upgrade or replace electronic ticket writers based on an integrated system with the new meters if not already completed.
- Develop parking brochure with map of public parking facilities and add webpage of public parking options to city website and city app.
- Implement an ambassador approach to parking enforcement.
- Add graduated parking fine schedule, including a warning ticket to educate visitors and a higher fee to discourage frequent violators.
- Complete the replacement of existing single space meters with smart meters where the demand makes the replacement a feasible solution.
- Invite proposals for private development or partnership to add a parking structure with commercial space in the Core Area.
- Re-evaluate parking rates, fines, time limits, and voided citations.
- Update land development code to including adjusting how requirements are calculated, specifying shared parking reduction request, and allowing fee-in lieu of providing parking.
- Request proposals and consider procurement of a License Plate Recognition enforcement system to be used in parking enforcement to monitor time limit parking and permit parking.

### *Long-Term (over 3 years)*

- Review parking demand and overall parking management plan.
- Evaluate effectiveness of parking management plan.
- Continue to seek private development that includes a public parking structure in the Core Area if that has not yet occurred.



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# DOWNTOWN COCOA BEACH

## PARKING MASTER PLAN



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### INTRODUCTION

The City of Cocoa Beach, Downtown Community Redevelopment Authority is in the process of developing a master parking plan for the Downtown. Walker Parking Consultants ("Walker") was engaged to complete this comprehensive parking plan to provide supply/demand and alternatives and a parking management plan for the Cocoa Beach CRA with the goal of achieving a balance between the different user groups that utilize the area's limited parking, including locals and beach visitors.

### STUDY AREA

The study area follows the Downtown Redevelopment Area, which is generally bordered by Cocoa Isles Boulevard to the north, the Atlantic Ocean to the east, Ramp Road to the south, and an undulating boundary to the west generally following Cedar Avenue north of Minuteman Causeway and Brevard Avenue south of Minuteman Causeway.

The parking supply includes a mix of on-street spaces, private off-street lots, public paid lots, and City lots. Each block within the study area is assigned a unique block number for further reference and analysis throughout this report. A map of the area is provided on the following page in Figure 1.

# DOWNTOWN COCOA BEACH

## PARKING MASTER PLAN



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Figure 1: Cocoa Beach CRA Study Area



Source: City of Cocoa Beach CRA, Google Maps and Walker Parking Consultants

### DEFINITION OF TERMS

Several terms used in this report have unique meanings when used in the parking industry. To help clarify these terms and enhance understanding by the reader, definitions for some of these terms are presented below.

- **Demand** – The number of parking spaces recommended to satisfy visitor, employee and resident demand on a given day.
- **Demand Generator** – Any building, structure, business, or attraction that brings individuals into the study area, thereby increasing parking demand and occupancy.
- **Effective Parking Supply (EPS)** – The actual inventory adjusted to provide the optimum number of parking spaces before parking is typically perceived as being insufficient. This “cushion” in the parking inventory accounts for some spaces lost due vehicles parked in two spaces, spaces lost for repair or temporary blockage and for the time needed for patrons to locate the last few available spaces. The cushion also accounts for the dynamics of vehicles moving in and out of spaces which can lead to “cruising” for the last few open spaces.
- **Effective Supply Factor (ESF)** – The adjustment factor used to calculate the Effective Parking Supply.
- **Inventory** – The total number of parking spaces identified and counted during survey day observations. The intent of this study is to account for all parking within defined geographical areas of study.
- **Occupancy (Counts)** – The number of vehicles observed parked on each survey day.
- **Parking Adequacy** – The difference between the effective parking supply and demand.
- **Private Parking** – A parking space that is restricted from public access and reserved for private use, regardless of ownership.
- **Public Parking** – A parking space that is available for use by the general public on an hourly, daily and/or monthly basis.
- **Survey Days** – The days that the parking occupancy counts were conducted in the study areas.
- **Survey Times** – The time of the survey on the Survey Day. The time generally represents the start time of the data collection.

### PARKING SYSTEM USERS

Downtown Cocoa Beach attracts a diverse group of users with varying parking needs. The following summarizes the users and their typical parking needs:

**Employees** – Parking for employees encompasses a broad range of users, including government, retail, restaurants, and commercial services. Employee parking is typically long-term parking and is recommended to be located in peripheral parking areas and not the most convenient spaces. This group currently has options to park in private lots, permit and meter lots, as well as on-street in several areas. This group is typically best managed by providing a financial incentive or disincentive if parking in the spaces designated for short-term customer or visitor parking.

**City Hall Visitors** – Visitors to city hall include many users on specific business. Parking is typically short-term and should be convenient. On-street and a conveniently located surface lot behind City Hall work well for these users.

**Beach Visitors** – Beach visitors include a combination of short- and long-term parkers. Beach visitors utilize metered city beach lots, private pay to park lots, as well as on-street parking around the downtown area. Such visitors should be provided with directions to designated beach parking, such as the metered lots along the ocean side of Atlantic to dissuade them from utilizing on-street parking in the downtown core.

**Shoppers** – Shoppers are typically short-term parkers and should be provided with the most convenient parking options. Currently this is on-street parking and several private off-street parking lots for each particular establishment. Signage should direct shoppers to the off-street parking and on-street parking regulations should be clearly posted.

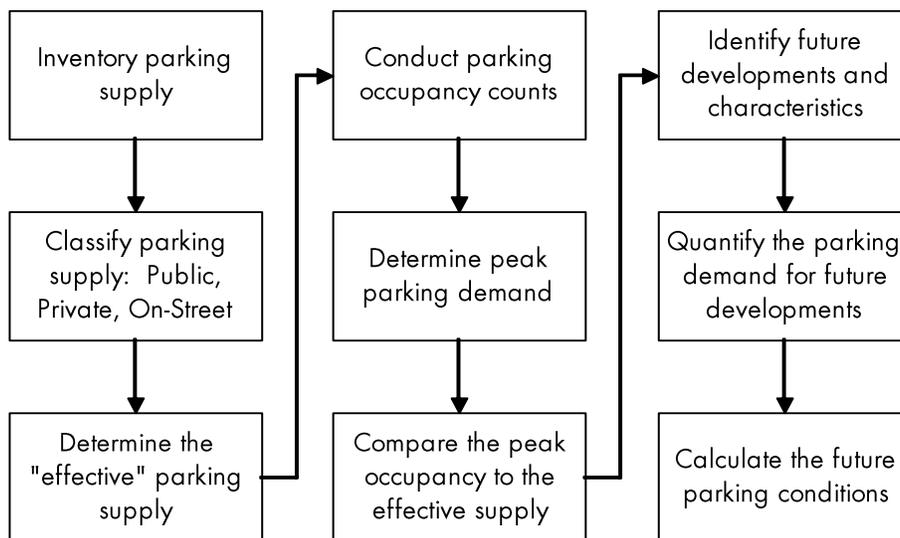
**Restaurant Patrons** – Like shoppers, restaurant patrons require the most convenient parking options and they are typically short-term parkers. Because parking is enforced from 9:00 a.m. to 5:00 p.m. Monday – Friday only, the main concern is during the lunch hour. A majority of restaurant patrons require less than the posted three hours of parking during the lunch hour and there are no on-street enforcement hours after 5:00 p.m. during the typical dinner service.

### STUDY METHODOLOGY

Walker reviewed the inventory of parking spaces within the study area and adjusted the supply to the "effective" parking supply. In addition, the inventory was tabulated by block and categorized as on-street, off-street, public or private. Observations within the study area were made the weekend of July 4<sup>th</sup> and during the week of July 7<sup>th</sup>. Parking demand within the study area was determined by conducting occupancy counts on a block-by-block basis at 10:00 a.m. 2:00 p.m. and 6:00 p.m. to determine the peak parking occupancy and demand on a typical weekday. Parking adequacy by block was determined by comparing the observed peak parking occupancy against the effective parking supply.

Proposed developments were reviewed to consider the future impact on parking. We provide typical parking demand ratios based on Walker's research and the Urban Land Institute's (ULI) recommended parking demand ratios based on the type and size of the future land uses. The following flow chart summarizes the steps taken to project existing and future parking conditions in the study area.

Figure 1: Parking Conditions Flow Chart



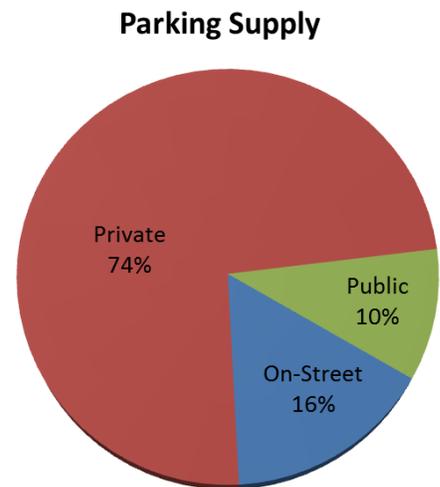
Source: Walker Parking Consultants

**CURRENT CONDITIONS**

This section of the report documents our understanding of the current parking supply and demand characteristics of the study area. The information contained herein serves as the basis for analysis of the parking supply and needs. Included in this section is a discussion of parking supply, effective supply, observed parking occupancy, current parking demand and dynamics of the parking system.

**PARKING SUPPLY**

A total of 3,457 spaces were inventoried within the study area, which includes all observable parking within the study area excluding private driveways or area inaccessible to the general public. The predominant source of parking is within private parking lots. This includes parking restricted for a particular business or residential project and not available to the general public for parking. On-street parking accounts for 16 percent of the spaces and is generally available as unlimited free parking with some metered areas along the beach and 3-hour time limits imposed in the core of downtown centered at Minuteman Causeway, Atlantic Avenue and Orlando Avenue. Ten percent of the supply is available to the general public as paid parking on either City owned lots or private lots. Within this classification of parking there are a couple of unimproved surface lots used for paid parking primarily for beach visitors.



The parking supply is further broken down into sub-types for analysis, including metered parking, off-street paid parking on grass, City pay lots and off-street private parking. The following table provides the detailed breakdown tabulated by Walker.

Table 1: Parking Supply

	On-Street		Off-Street				Total Spaces
	Meters	No Charge	Public (Paid)	Public Grass	City Lot (Paid)	Off-Street Private	
Supply	134	423	46	143	151	2,560	3,457

Source: Walker Parking Consultants

During peak parking demand conditions, as observed over the July 4<sup>th</sup> weekend, some private lots convert to paid lots. This is typically referred to as "special event" parking in the parking industry and is fairly common during high parking demand periods.

**EFFECTIVE PARKING SUPPLY**

The inventory of parking within the study area is adjusted to allow for a cushion necessary for vehicles moving in and out of spaces and to reduce the time necessary to find the last few remaining spaces when the parking supply is nearly full. We derive the effective supply by deducting this cushion from the total parking capacity, which allows for vacancies created by restricting parking spaces to certain users, vehicles parked over the line, minor construction, and temporary debris blocking spaces.

A parking system operates at peak efficiency when parking occupancy is at 85 to 95 percent of the supply. When occupancy exceeds this level patrons may experience delays and frustration while searching for a space; moreover, the parking supply may be perceived as inadequate, even though spaces are available within the parking system. As a result, we use the effective supply when analyzing the adequacy of the parking system, rather than the total supply or inventory of spaces. The following factors affect the efficiency of a parking system:

- Capacity – Small scattered surface lots operate less efficiently than a single point with a large number of public parking spaces. Parking that is spread out is typically more difficult to find during periods of high demand and providing wayfinding to each small parking area is not ideal.
- Type of users – Monthly or regular parking patrons tend to know where to find the available spaces more efficiently than infrequent visitors because they are familiar with the layout of the parking and when spaces will be available.
- On-street vs. Off-street – On-street parking is less efficient than off-street due to the time it takes patrons to find the last few vacant on-street spaces. In addition, patrons are typically limited to parking on one side of the street at a time and often must parallel park in traffic to use an on-street space. In some cases on-street spaces are either not striped or are signed in a confusing manner, which may lead to lost spaces and frustrated patrons.

For this analysis, we applied a general *Effective Supply Factor* (“ESF”) of 85% for the on-street spaces, 95% for off-street private parking and 90% for off-street public spaces. The total Effective Parking Supply (“EPS”) is calculated at 3,215 spaces, as shown in the following table.

**Table 2: Effective Parking Supply**

	On-Street		Off-Street				Total Spaces
	Meters	No Charge	Public (Paid)	Public Grass	City Lot (Paid)	Off-Street Private	
Supply	134	423	46	143	151	2,560	3,457
ESF*	0.85	0.85	0.90	0.90	0.90	0.95	
Effective Supply	115	362	41	129	136	2,432	3,215

\*Calculated and tabulated by block

# DOWNTOWN COCOA BEACH

## PARKING MASTER PLAN



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### PARKING DEMAND

To determine the parking patterns of patrons in the study area, the level of use of the parking facilities was evaluated. An understanding of these parking patterns helps define both patron types and parking issues. Occupancy counts were taken for on- and off-street parking spaces on Wednesday, July 9<sup>th</sup> to capture weekday parking demand levels and over the July 4<sup>th</sup> weekend. Three counts were made at 10:00 a.m., 2:00 p.m., and 6:00 p.m. on Wednesday and one count was made on the Saturday of the July 4<sup>th</sup> weekend between 2:00 p.m. and 6:00 p.m. The following tables provide the observed parking occupancy rates for each specific type of parking. The parking occupancy rate is calculated by dividing the total number of observed parked vehicles by the total parking capacity.

**Table 3: Observed Parking Occupancy - Weekday**

Type	Supply	10:00 AM	2:00 PM	6:00 PM	
<b><u>On-Street</u></b>					
Metered	134	27	53	25	
Occupancy		20%	40%	19%	
Open Spaces		107	81	109	
No Charge	423	153	192	146	
Occupancy		36%	45%	35%	
Open Spaces		270	231	277	
<b><u>Off-Street</u></b>					
Public (Paid)	189	36	125	35	
Occupancy		19%	66%	19%	
Open Spaces		153	64	154	
City Lot	151	41	79	41	
Occupancy		27%	52%	27%	
Open Spaces		110	72	110	
Private	2,560	676	896	770	
Occupancy		26%	35%	30%	
Open Spaces		1,884	1,664	1,790	
<b>Total</b>	<b>3,457</b>	<b>933</b>	<b>1,345</b>	<b>1,017</b>	
<b>Occupancy</b>		<b>27%</b>	<b>39%</b>	<b>29%</b>	
<b>Open Spaces</b>		<b>2,524</b>	<b>2,112</b>	<b>2,440</b>	

**Overall peak occupancy was observed during the mid-day count with 39 percent of the total parking supply being occupied.**

**The highest occupancy by type of parking was the paid public parking lots with 60 percent occupancy.**

**Occupancy is typically not considered a problem until it reaches or exceeds 85 – 90 percent of the parking supply.**

Source: Walker Parking Consultants

# DOWNTOWN COCOA BEACH

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Table 4: Event Weekend Parking Observations

Type	Supply	Peak
<b><u>On-Street</u></b>		
Metered	134	126
Occupancy		94%
Open Spaces		8
No Charge	423	252
Occupancy		60%
Open Spaces		171
<b><u>Off-Street</u></b>		
Public (Paid)	189	179
Occupancy		95%
Open Spaces		10
City Lot	151	111
Occupancy		74%
Open Spaces		40
Private	2,560	1139
Occupancy		44%
Open Spaces		1,421
<b>Total</b>	<b>3,457</b>	<b>1,807</b>
Occupancy		52%
Open Spaces		1,650

**Overall peak occupancy during the July 4<sup>th</sup> weekend was observed on the Saturday between 2:00 p.m. and 6:00 p.m. with 52 percent occupancy.**

**While overall the occupancy rate does not indicate a parking shortage, paid public parking was at 95 percent occupancy and on-street meters were at 94 percent occupancy.**

**Poor weather impacted the weekend observation, with overcast conditions and intermittent rain showers.**

Source: Walker Parking Consultants

While the overall peak observed parking demand does not in itself indicate a shortage of parking, when parking is considered on an individual block or general public parking, the occupancy of some areas indicate parking issues. This is especially true for the observations over the July 4<sup>th</sup> weekend. Occupancy levels for paid off-street parking and on-street meters exceeded 90 percent.

# DOWNTOWN COCOA BEACH

## PARKING MASTER PLAN



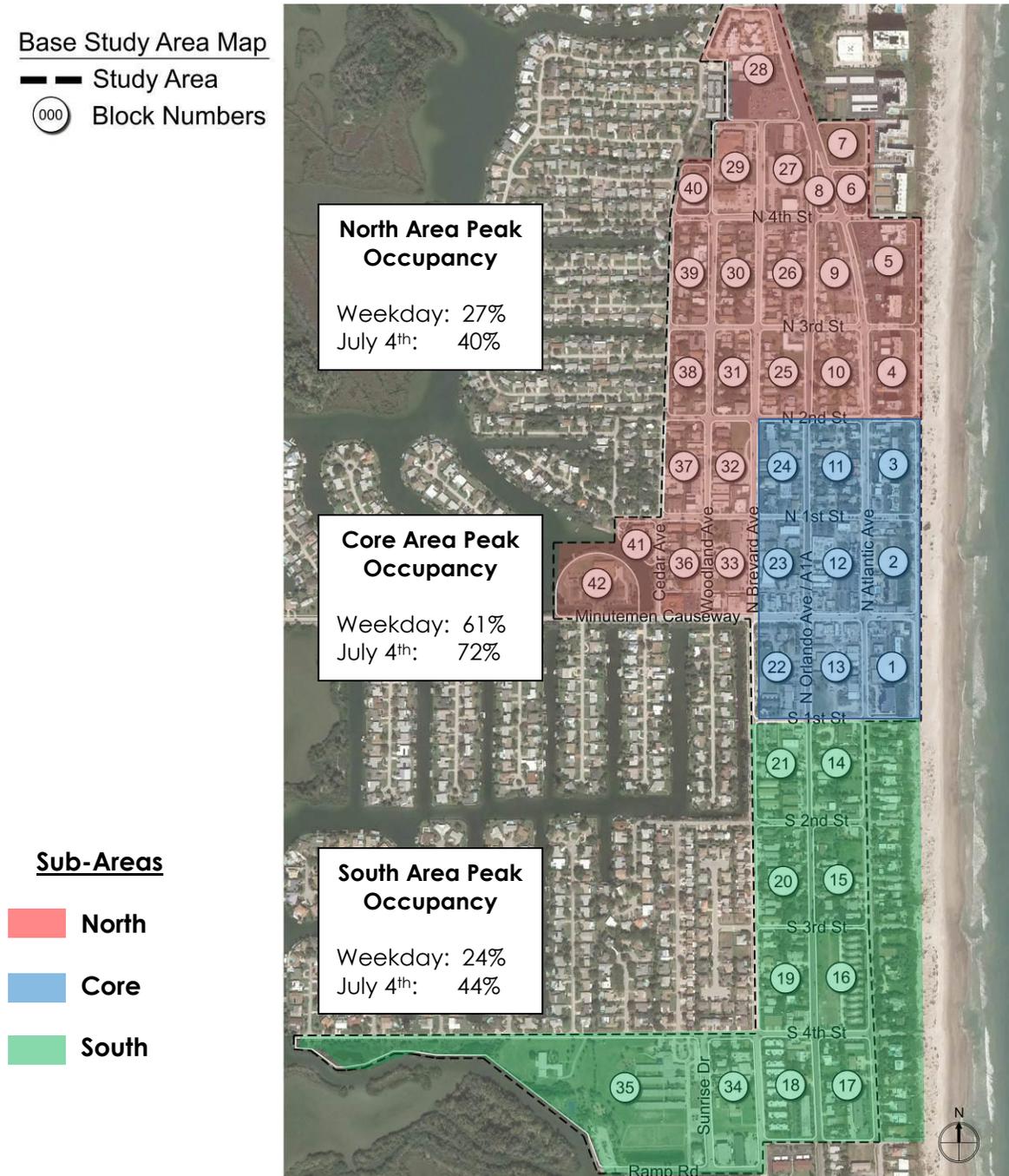
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### AREA DEMAND

The study area is further analyzed by considering the geographic area. The overall study area was split into three areas: Core Area, North Area, and South Area. Each Area is highlighted in the following map with the peak occupancy indicated.

Figure 2: Parking Demand by Area Map



Source: Walker Parking Consultants

# DOWNTOWN COCOA BEACH

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### CORE AREA DEMAND

Further analysis of the data shows that parking demand within the Core Area during peak demand periods is problematic for patrons looking for public parking options, especially during an event period. On-street parking reached 100 percent occupancy in the Core Area during the July 4<sup>th</sup> weekend and non-metered spaces 97 percent. Off-street paid parking during this period was observed at 95 percent. Private parking had the lowest occupancy during this period at 59 percent.

Table 5: Core Area Parking Occupancy

Type	Core Area Supply	Weekday	July 4th
<b><u>On-Street</u></b>			
Metered	32	22	32
Occupancy		69%	100%
Open Spaces		10	-
No Charge	158	149	154
Occupancy		94%	97%
Open Spaces		234	4
<b><u>Off-Street</u></b>			
Public (Paid)	189	125	179
Occupancy		66%	95%
Open Spaces		38	10
City Lot	151	79	111
Occupancy		52%	74%
Open Spaces		72	40
Private	737	397	433
Occupancy		54%	59%
Open Spaces		340	304
<b>Total</b>	<b>1,267</b>	<b>772</b>	<b>909</b>
<b>Occupancy</b>		<b>61%</b>	<b>72%</b>
<b>Open Spaces</b>		<b>495</b>	<b>358</b>

**Even with poor weather conditions, only four on-street spaces were not taken in the Core Area.**

**Off-street paid parking was 95% occupied and City lots were 74% occupied.**

Source: Walker Parking Consultants

### DESIGN DAY

The level at which the parking supply is designed to satisfy is known as the *Design Day*. The design day should be a day that meets the parking demand adequately on most days of the year, but not necessarily the absolute peak day, when parking demand will exceed the effective parking supply cushion or cause patrons to park further away from their destination. Our observations were conducted during a typical weekday in July and over the July 4<sup>th</sup> weekend, which is listed as one of the largest events of the year in terms of attendance.<sup>1</sup> A list of events was provided by the City, with the largest events from 2013 listed in the following table.

**Table 6: List of Special Events**

MONTH	EVENT	DATE OF EVENT	LOCATION	ATTENDANCE
<b>MARCH</b>	BEACH & BOARD FEST	March 3-10, 2013	SHEPARD PARK	15,000 per day
	PROJECT GRADUATION - 5K RUN	March 16, 2013	COVE & COCOA ISLES NEIGHBORHOODS	150
	NOLAN'S ST. PADDY EVENT	March 16-17, 2013	NOLANS LOT & WINN DIXIE PLAZA	~ 800 per day
	PADDY CASSIDY'S EVENT	March 17, 2013	PADDY'S LOT & PUBLIX PLAZA	Approx. 200
	CB ROTARY SEAFEST	March 23, 2013	LORI WILSON PARK	200+
	EASTER SURF FEST	March 29-31, 2013	CB PIER	250+
<b>APRIL</b>	JDRF WALK	April 6, 2013	LORI WILSON PARK	500+
	CB TRIATHLON	April 14, 2013	VARIOUS AREAS	~ 450
<b>MAY</b>	SUPER BOAT PARTY	May 17, 2013	DOWNTOWN CB	200+
<b>JUNE</b>	1ST BAPTIST/ORLANDO	June 2, 2013	SEA AIRE MOTEL-BEACH	400
<b>JULY</b>	CB FIREWORKS	July 5, 2013	SHEPARD PARK	8,000-10,000
<b>AUGUST</b>	BACK TO SCHOOL BASH	August 4, 2013	1ST METH CHURCH	300
	NKF SURF FEST	Aug 31-Sept 2, 2013	CB PIER	2,000-3,000 per day
<b>OCTOBER</b>	BEACH VOLLEYBALL	October 5-6, 2013	INT'L PALMS-BEACH	150 per day
	OUR SAVIOURS FEST	October 24-27, 2013	CHURCH GROUNDS	~ 8,500
	USA BCH RUNNING CHAMP	October 27, 2013	CB PIER BEACH	400
<b>NOVEMBER</b>	FIA INT DOG SURFING	November 2-3, 2013	LORI WILSON PARK-BEACH	500 per day
	LEGENDS OF SEAGULLMEN	November 9, 2013	DOWNTOWN CB	500
	MINUTEMEN MINGLE	November 29, 2013	DOWNTOWN CB	500
	ART OF AUTOMOBILE	November 30, 2013	LUTHERAN CHURCH	150
	SPACE COAST ART FEST	Nov 30-Dec 1, 2013	DOWNTOWN CB	~ 30,000 per day
<b>DECEMBER</b>	CITY CHRISTMAS PARADE	December 7, 2013	DOWNTOWN CB	800-1,000
	WHO WE PLAY FOR PARTY	December 21, 2013	JUICE N JAVA	200

Source: City of Cocoa Beach

While not all the special events listed in the above table are located directly in the Downtown area, the added attendance to the surrounding area will likely bring additional visitors to the study area.

<sup>1</sup> List of Special Events 2013, City of Cocoa Beach

# DOWNTOWN COCOA BEACH

## PARKING MASTER PLAN



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To further test the data collection period, the total parking transactions recorded on the Main Lot (Yen Yen lot) were compared by month (2013 data). The results indicate July was the 3<sup>rd</sup> highest month in terms of activity, accounting for 11.9 percent of the total transactions in 2013.

Table 7: Main Lot Transactions - 2013

Month	Transactions	% of Total
January	1,603	5.8%
February	1,967	7.1%
March	3,023	10.9%
April	3,238	11.7%
May	3,476	12.6%
June	3,371	12.2%
July	3,296	11.9%
August	2,838	10.3%
September	1,742	6.3%
October	1,366	4.9%
November	739	2.7%
December	987	3.6%
Totals:	27,646	100%

***Our observations were made in July, which ranks as the 3<sup>rd</sup> highest month in terms of activity based on the number of transactions at the Main Lot.***

Source: City of Cocoa Beach and Walker Parking Consultants

Based on the data collection period the observed peak demand captured for the Downtown area during the July 4<sup>th</sup> weekend is generally representative as the Design Day demand; however, weather on during that weekend was poor, with overcast skies and scattered rain showers. A comparison of activity levels from 2013 to 2014 was made to determine how much the weather may have hampered demand in the study area.

Based on comparison data provided by the City, activity levels at the Main Lot were off by roughly 10 percent over the July 4<sup>th</sup> weekend when considering the weekend as a whole and the busiest day for each period.

To account for this variance, the observed peak demand is adjusted by 10 percent to account for poor weather during the observations.

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### PARKING ADEQUACY

Parking adequacy is the ability of the parking supply to accommodate the parking demand. The following tables show the calculated adequacy during the observation periods as well as the adjusted design day demand. The top table details the entire area and the bottom table details the Core Area. Parking demand is subtracted from the effective supply to determine the adequacy for each type of parking.

**Table 8: Parking Adequacy by Type for Observed and Design Day Periods**

Overall Area	On-Street			Off-Street Public			Off-Street Private			Total Adequacy
	Effective Supply	Peak Demand	Adequacy	Effective Supply	Peak Demand	Adequacy	Effective Supply	Peak Demand	Adequacy	
Weekday	477	245	232	306	204	102	2,432	896	1,536	1,870
Event Weekend	477	378	99	306	290	16	2,432	1,139	1,293	1,408
Design Day	477	416	61	306	319	(13)	2,432	1,253	1,179	1,227

Core Area	On-Street			Off-Street Public			Off-Street Private			Total Adequacy
	Effective Supply	Peak Demand	Adequacy	Effective Supply	Peak Demand	Adequacy	Effective Supply	Peak Demand	Adequacy	
Weekday	165	171	(6)	306	204	102	700	397	303	399
Event Weekend	165	186	(21)	306	290	16	700	433	267	262
Design Day	165	205	(40)	306	319	(13)	700	476	224	171

Source: Walker Parking Consultants

Considering the entire study area, the current parking supply generally indicates adequate parking to support weekday parking demand, with a small deficit in off-street public parking. The current weekday design day is judged to have a surplus of 1,227 spaces.

When considering only the Core Area, the Design Day overall surplus is reduced to 171 spaces; however, this is somewhat misleading, as it includes a significant number of private spaces which are not readily available to the public. Public parking is at a deficit level for both on-street (40) and off-street parking (13) within the Core Area. Off-street private parking is judged to have a surplus of 224 spaces, which bring the overall Core Area to a surplus condition. Based on our adjusted design day, public parking is judged to have a deficit of roughly 53 spaces within the Core Area. The deficit increases to roughly 200 when non-conforming paid parking lots are excluded from the total.

Parking issues can be identified and confirmed when considering the area on a block-by-block basis. The following map illustrates parking demand, with red indicating areas where parking is either not available or difficult to find, and yellow showing areas where parking occupancy is close to the level where it is perceived to be an issue. Green areas indicate low demand. The data is based on the overall peak demand observation period.

# DOWNTOWN COCOA BEACH

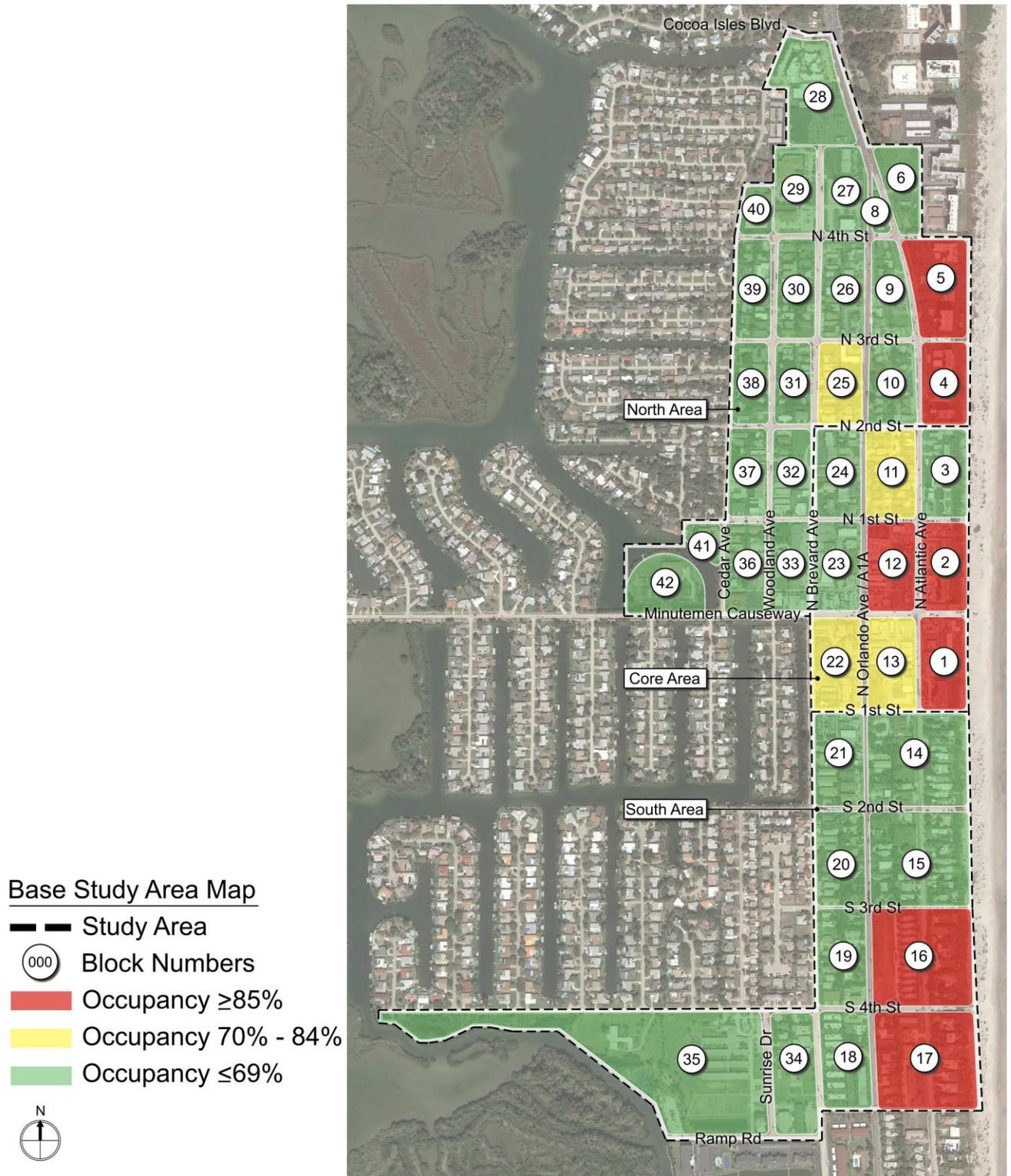
## PARKING MASTER PLAN



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Figure 3: Parking Demand Heat Map



Source: Walker Parking Consultants

**LENGTH OF STAY SURVEY**

A sample of specific parking spaces was made by recording the status of each parking space as either empty or with a portion of the license plate number on an hourly basis over the course of the survey day. The data is used to derive the average length of stay and occupancy of the spaces over the course of the day. A total of 257 spaces were included in the sample. The overall average length of stay was 1.9 hours. Within the sample a few vehicles remained parked during the entire observation period and several were noted as parking for four or more hours; however, most vehicles were parked for three hours or less, as shown in the following table.

**Table 9: Overall Average Length of Stay**

LPI Length of Stay Results		Sample	Length of Stay									Average
Street:	Location/ Type:		1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	
Atlantic	S 1st St	17	39	22	4	6	2	1	0	0	1	1.9
Atlantic	S 1st St	34	50	26	24	8	2	1	1	1	0	2.1
Orlando	Minuteman	29	82	18	3	5	1	3	1	2	1	1.7
Minuteman	Brevard	15	48	19	8	1	0	0	0	0	0	1.5
Orlando	Minuteman	17	41	15	6	3	0	1	1	1	0	1.8
Minuteman	Brevard	17	44	13	6	2	2	0	0	1	0	1.7
N 4th Beach	Meters	19	5	5	6	2	2	0	0	0	0	1.8
Slater Way Beach	Meters	10	10	10	6	2	2	0	0	0	0	2.1
N 2nd Beach	Meters	15	17	6	6	2	2	0	0	0	0	1.9
N 1st Beach	Meters	15	14	16	6	2	2	0	0	0	1	2.4
S 1st Beach	Meters	16	12	8	6	2	2	1	0	1	0	2.3
S 2nd Beach	Meters	14	10	2	6	2	2	0	0	0	0	1.2
S 3rd Beach	Meters	11	2	6	6	2	2	0	0	0	0	1.8
S 4th Beach	Meters	16	13	13	6	2	2	0	0	0	0	1.6
S 5th Beach	Meters	12	5	3	6	2	2	0	1	0	0	2.1
Totals:		257	392	182	105	43	25	7	4	6	3	1.9
Total Hours:			392	364	315	172	125	42	28	48	27	

Source: Walker Parking Consultants

The same data was used to determine the occupancy pattern over the course of the day. Overall peak occupancy was observed at noon with 68% of the spaces occupied in the sample. Some sample areas were completely full at this hour while others were very low. The peak hour data is provided in the following table and hourly occupancies for the survey day sample in the following bar chart.

# DOWNTOWN COCOA BEACH

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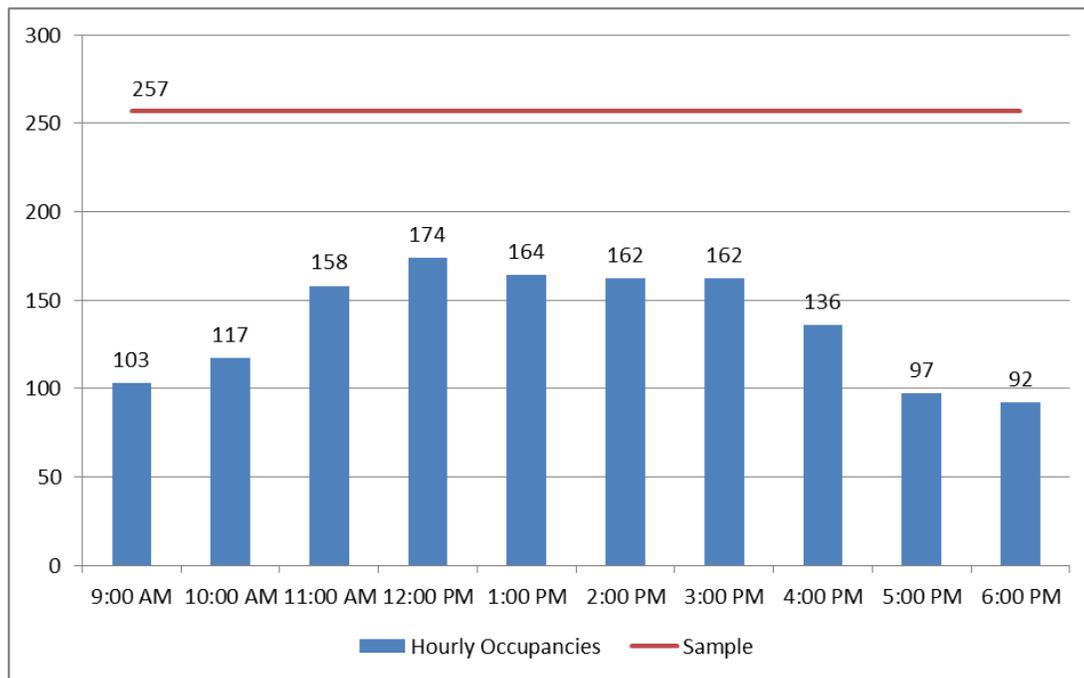
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Table 10: Average Occupancy (Sample)

Street:	From/Type:	To/Area:	Total Inventory	Peak Hour Occ. 12:00 PM	% Occupied (at peak)
Atlantic	S 1st St	N 1st St	17	17	100%
Atlantic	S 1st St	N 1st St	34	32	94%
Orlando	Minuteman	N 2nd St	29	22	76%
Minuteman	Brevard	Atlantic	15	13	87%
Orlando	Minuteman	N 1st St	17	17	100%
Minuteman	Brevard	Atlantic	17	14	82%
N 4th Beach	Meters	Beach	19	4	21%
Slater Way Beach	Meters	Beach	10	7	70%
N 2nd Beach	Meters	Beach	15	10	67%
N 1st Beach	Meters	Beach	15	14	93%
S 1st Beach	Meters	Beach	16	7	44%
S 2nd Beach	Meters	Beach	14	3	21%
S 3rd Beach	Meters	Beach	11	1	9%
S 4th Beach	Meters	Beach	16	11	69%
S 5th Beach	Meters	Beach	12	2	17%
<b>Total Occupancies</b>			<b>257</b>	<b>174</b>	<b>68%</b>

Source: Walker Parking Consultants

Figure 4: Summary of Hourly Occupancies (sample)



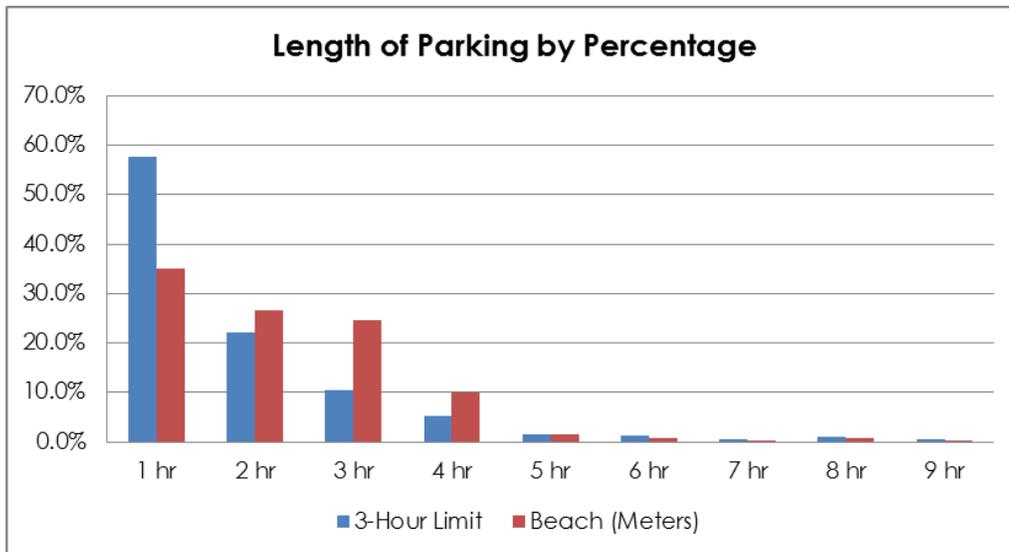
Source: Walker Parking Consultants

### 3-HOUR TIME LIMIT AND METERED BEACH PARKING AREAS

Length of stay varied based on the type and location of the parking. Within the three-hour time limit restricted areas, the average length of stay was 1.8 hours; within the metered beach parking areas the average length of stay was slightly longer at 2.1 hours. Average length of stay was found to decrease the further the space was located from the beach.

The following figure shows the percentage of vehicles observed parking by type over the course of the day within the 3-hour limit and metered beach areas. Nearly 60% of the vehicles observed in the three-hour time limit spaces stayed for less than one hour.

Figure 5: Length of Parking by Percentage and Type



Source: Walker Parking Consultants

### TIME LIMIT PARKING

The current 3-hour time limit found across the Core Area does not support the typical downtown business needs. Our observations indicate the 3-hour time limit is used by some employees and beach visitors wanting to avoid having to pay for parking.

We recommend the current time limits be reduced to a maximum of 2 hour parking with a limited number of clearly marked 30-minute spaces, where appropriate based on the adjacent businesses. This will encourage higher turn-over for the local downtown businesses without alienating to visitor wanting to go to a restaurant for lunch, where shorter time limits would be problematic. We also recommend removing the time limit in the evenings to encourage patronage of downtown restaurants in the evenings when a majority of the beach visitor parking demand is no longer an issue. A suggested ending time for enforcement is 7:00 p.m., which means anyone parking after 5:00 p.m. can park without concern for exceeding the time limit, assuming a 2-hour posted time limit.



### ENFORCEMENT OF THE TIME LIMIT

Enforcement of the time limit should be done on a consistent basis both during the weekday and weekend to ensure the spaces turnover. The current enforcement method utilizes a walking patrol to log vehicle data, including the wheel stem position. A follow-up check three hours later is done to determine if the vehicle has moved based on the vehicle and wheel stem position. Effectiveness of this enforcement is limited, as it only allows checking based on the posted time limit (3 hours). If a check is made and someone parks right after the initial recording, that vehicle can effectively park for six hours without risk of a violation, as the first time the vehicle is checked and recorded will be three hours after the initial check.

Mobile License Plate Recognition (LPR) systems are available with special cameras mounted to capture the plate, vehicle location, and wheel stem location automatically. The photo on the right highlights two of the cameras mounted to record both the plate and wheel stem details. A computer checks the data to determine the length of stay based on the previous data inputs. This allows more frequent checks to eliminate holes in the enforcement of time limits. The cameras capture date/time stamped images of the vehicle at each pass to further verify the same vehicle was parked beyond the posted time limit.



The cost for one LPR camera equipped vehicle is \$20,000 - \$30,000, plus the vehicle.

### METERED BEACH PARKING

The metered beach parking areas are posted with a six hour time limit, enforced 24 hours per day. Our observations indicate a steady decline in the number of patrons parking with very few staying beyond four hours. Parking demand after dark was also greatly diminished, with limited demand for evening parking at the beach.

We recommend enforcing the meters during daylight hours when the beach is typically used by visitors. Suggested hours are from 6:00 a.m. to 10:00 p.m. seven days a week. The six hour time limit should be eliminated as the meters are upgraded with the rate serving as a deterrent to parking for extended periods.

### FUTURE CONDITIONS

The basis for projecting short-term future parking conditions is typically based on adding specific planned developments to the study area or potential projects within a given timeframe. While there are no specific projects for Downtown Cocoa Beach, the Downtown Cocoa Beach Community Redevelopment Plan<sup>2</sup> ("Redevelopment Plan") provides a window on potential redevelopment activity and opportunities within the study area.

The Redevelopment Plan provides several options, all focused on enabling and encouraging redevelopment to the area. The focus point is recommended to occur within the four-block Downtown Core, bordered by Orlando Avenue to the west, S 1<sup>st</sup> Street to the south, Atlantic Avenue to the east, and N 1<sup>st</sup> Street to the north, with Minuteman Causeway acting as the core east-west central corridor between these blocks. Various options and visions are included, such as:

- Activating alleyways for pedestrian traffic;
- Relocating City Hall;
- Building a historic museum;
- Adding a parking garage;
- Adding new commercial space; and
- Converting Minuteman Causeway to pedestrian only traffic.

Beyond this initial redevelopment area, the vision indicates further development to the north of the CRA boundary where Orlando Avenue and Atlantic Avenue merge, with this area detailed as a potential location for a new and relocated City Hall.<sup>3</sup>

### SHORT-TERM OPPORTUNITIES

The Downtown Vision Plan states that over the next five years an estimated 60,000 to 70,000 square feet of net new retail demand is projected within the broader area which includes the Downtown area. Of this, a portion can be expected to occur within Downtown Cocoa Beach and should be encouraged. The report further recommends focusing on strengthening and growing restaurant and dining establishments due to the large demand from outside the Downtown area.

The data indicates added parking demand in the short-term in the Core Area. The extent of the demand will vary based on the actual new land uses. Restaurant demand has one of the highest parking demand generation rates, with demand of rates of 10 to 20 parking spaces per 1,000 square feet of gross leasable area during the peak hour varying by type of restaurant. This demand ratio does not include adjustments for drive ratio or captive factors, nor does it include shared parking, all of which can reduce the overall demand.

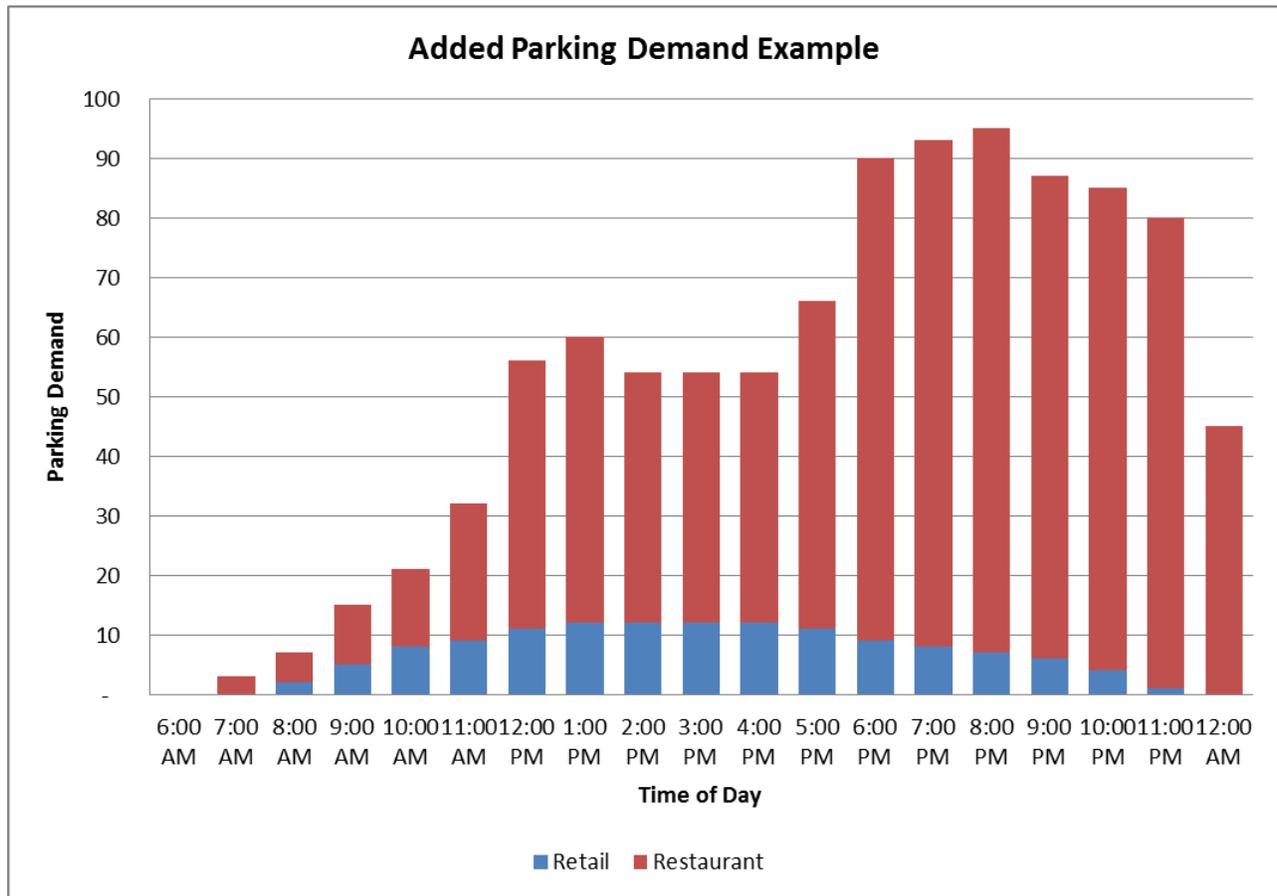
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<sup>2</sup> Dated March 2012 with assistance from Zyscovich Architects

<sup>3</sup> Downtown Cocoa Beach Vision Plan

To illustrate the impact of potential future development within the Core Area using the Downtown Vision Plan data, we have assumed 15 percent of an estimated 70,000 total square feet of new commercial space is added to the Core Area. Of this new space, we assume 60 percent to be restaurant and 40 percent shopping/retail space. Using time of day, drive ratio, and captive adjustments, this mix of land uses adds 95 vehicles to the demand during peak hour conditions.

Figure 6: Example of Added Parking Demand Potential (Short-Term)

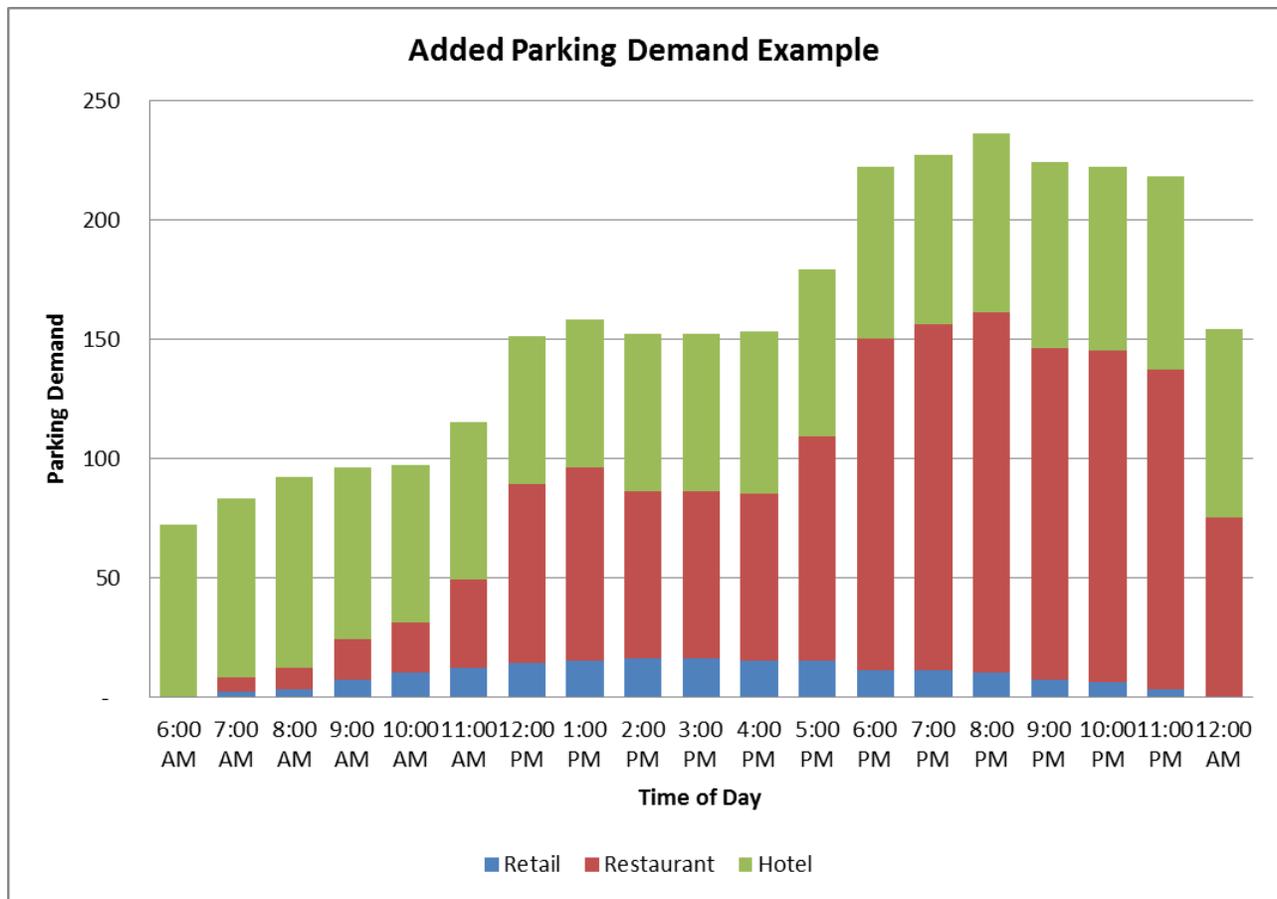


Source: Walker Parking Consultants

**MID- LONG-TERM OPPORTUNITIES**

Recommendations for redevelopment in the 5-10 year range includes expanding to include a boutique hotel with 50-100 rooms, expanding on the arts, and providing additional cultural and entertainment uses to attract visitors and provide benefits to the residents. Parking demand rates vary for each of these land uses. To illustrate the potential demand, the figure below increased retail and restaurant space to 5,000 and 10,000 square feet and a 75 room hotel. Peak demand adds roughly 235 spaces during peak hour conditions, assuming all the development is added to the Core Area.

**Figure 7: Example of Added Parking Demand Potential (Mid-Long Term)**



Source: Walker Parking Consultants

Key to encouraging these redevelopment activities are support from the City, incentives, and public acceptance. In any scenario, parking will play a key role in the overall plan and can be used as an incentive to encourage redevelopment activity.

**PARKING ALTERNATIVES ANALYSIS**

This section of the report addresses the request for alternatives for improving the existing parking supply through layout improvements and/or adding potential new parking areas.

**MAXIMIZING EXISTING RESOURCES**

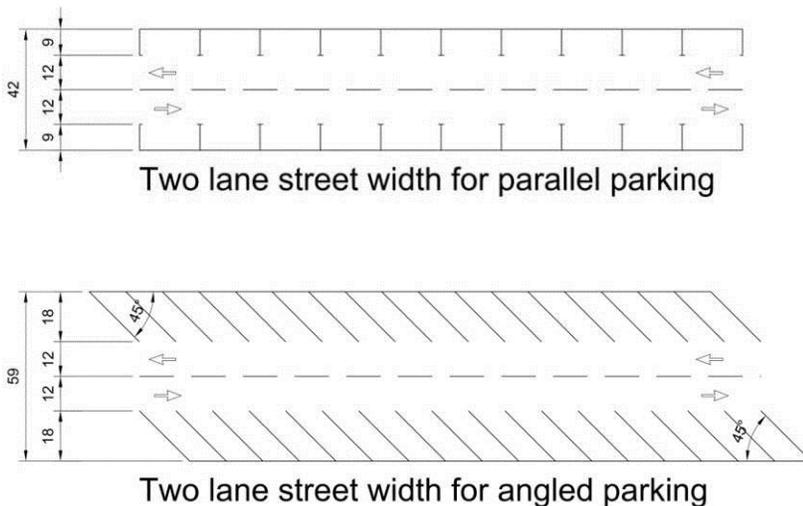
Typically the quickest and least expensive way to increase parking supply is by maximizing the existing spaces through restriping. Above grade parking structure costs typically range from \$12,000 to \$25,000 per space depending on the site and design specifics and surface parking lot construction costs range from \$2,000 to \$3,500 per space. By comparison, simple line restriping costs for an asphalt parking lot range from \$25 to \$35 per space depending on several variables including the number of coats of sealer used. Therefore, restriping a parking facility to increase capacity represents a substantial savings over constructing new spaces.

The City has a limited number of small off-street paved lots. These lots have efficient stripping as currently configured. Beyond restriping existing parking lots, additional parking may be gained if adjacent land is acquired to expand the parking lots or paving existing City owned grass lots for parking.

**ON-STREET PARKING**

On-Street parking within the area is generally parallel or 90-degree parking. There are limited areas that could potentially be altered from parallel to angled on-street parking to add capacity. Roadway width requirements generally requires a minimum of 12 feet per drive lane, 9 feet for a parallel parking spaces and 18 feet for the angled spaces as shown in the following figure.

Figure 8: On-Street Parking Considerations



Source: Walker Parking Consultants

Most streets in the areas with high parking demand are not wide enough to allow this modification. Although Orlando Avenue and Atlantic Avenue have the width, the classification as a State Roads does not allow modifications without the State's approval. One roadway that could be considered is Minuteman Causeway, but it is being considered to become a pedestrian only roadway and the potential gain is minimal.

### MINIMUM PARKING STRUCTURE DIMENSIONS<sup>4</sup>

A very effective way to concentrate a parking supply is through constructing a parking structure. Several variables and options must be considered when selecting the type of structure, including the desired traffic flow (one-way or two-way), additional use within the structure (such as ground-level retail), the Level of Service (LOS), and any overall height restrictions.

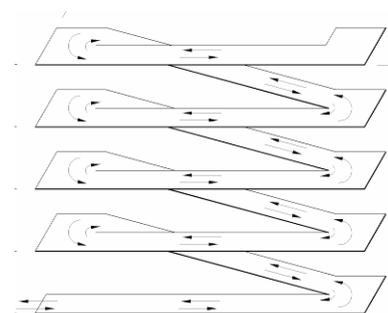
Generally, there are more design options with a larger site. Figure 6 provides a good guideline for the minimum dimensions for two types of structures, as well as a variation on the level of service (LOS) considering the dimensions. Parking designed at a LOS A will be a better experience for users in terms of turning, ramp slopes, and other factors.

Figure 9: Minimum Parking Structure Dimensions

Garage Type	Traffic	Space	LOS D Dimensions	LOS A Dimensions
Single Threaded Helix	Two Way	90°	120' x 135'	120' x 187'
Double Helix	One Way	75°	112' x 188'	112' x 282'

Source: Walker Parking Consultants

Characteristics of a single-threaded helix include two bays<sup>5</sup>, two-way traffic flow, and 90-degree parking, with the motorist ascending one floor for every 360-degree revolution.



ISOMETRIC

SINGLE THREADED HELIX

<sup>4</sup> Parking structures could be built on smaller footprints. However, implied in this discussion is the desirability to achieve a relatively efficient parking structure design, as measured by square footage of floor area per space.

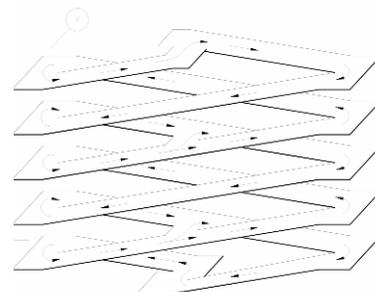
<sup>5</sup> A "parking bay" consists of a drive aisle and usually parking on both sides of that drive aisle. A double-loaded aisle means parking is located on both sides of the drive aisle, whereas a single-loaded aisle means that parking is only provided on one side of the drive aisle.



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By contrast, a double-threaded helix features angled parking and one-way traffic flow, providing a continuous travel path up and then down through the structure. In a double-threaded helix, the motorist climbs two levels for every 360-degree revolution, thus requiring a longer site than a single-threaded helix.



These are examples only and do not represent a specific site or design and the dimensions do not include any required set-backs or green space; therefore, each site would most likely need to be ten or more feet wider and longer.

Understanding the minimum parking structure dimensions may be useful when considering sites for adding a parking structure. We recommend building a structure with a minimum of 250 - 300 spaces, in order to hold down the probable construction cost per space, as smaller structures typically result in fewer spaces per square foot and higher construction costs per space.

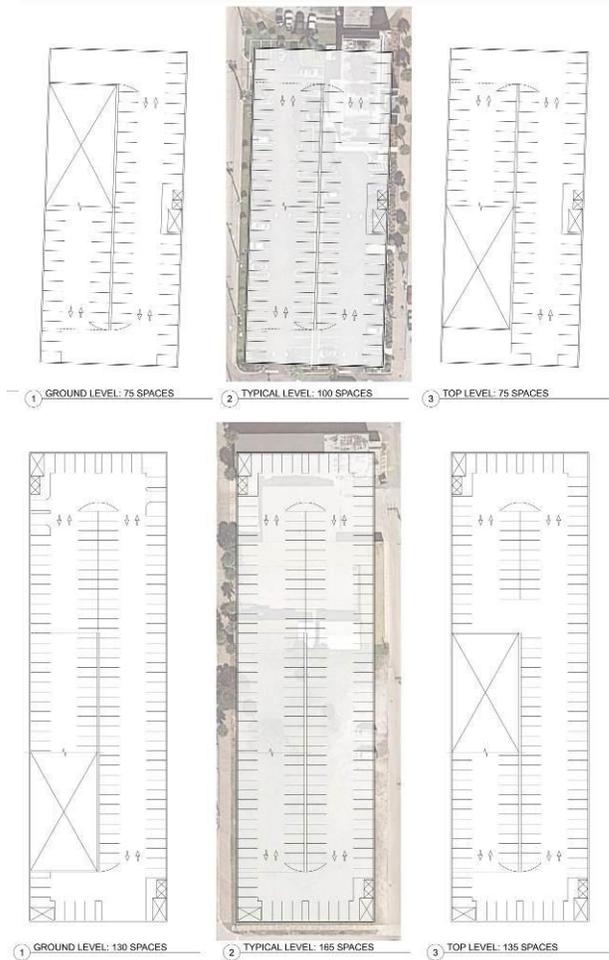
### POTENTIAL PARKING STRUCTURE SITES

The Downtown Vision Plan indicates the focus of redevelopment should be within the Core Area. Development scenarios indicate a preference for including a parking structure within the Core Area to provide sufficient parking and encourage new development. Parking is generally located to allow commercial uses at grade or to be provided to allow liner buildings to effectively hide the parking structure.

With this in mind, the study area was evaluated to determine the optimum locations for a parking structure based on current and future conditions. An odd shaped or too small footprint increases the cost of the structure to the point that it may not be reasonable to consider building on the site. The location should be located within reasonable walking distance from the primary demand generators and allow sharing of the space to maximize the usefulness to the community.

Based on criteria, two sites were identified and evaluated in detail to determine potential sizing and options for development. These sites are identified in the following figure.

Figure 10: Potential Parking Structure Sites



Source: Walker Parking Consultants

Each option illustrates a 2-bay structure with two-way traffic and 90-degree parking in a single threaded helix design. Parking stall width as shown is 9' – 0". As drawn conceptually, each structure is designed for maximum parking efficiency. Potential changes for either structure impacting efficiency include adding retail on the ground level, adding public restrooms, providing dedicated bicycle parking, and adding parking equipment.

Adding retail on the ground level can be done by increasing the slope of the ground floor ramping system and eliminating all or a portion of parking along this ramp. From a height perspective, a typical floor to floor height of 11'-6" to 12'-0" should be assumed for the parking structure. A three level structure (ground plus two elevated) would be roughly 33' – 35' from the top elevator/stair tower to the ground.

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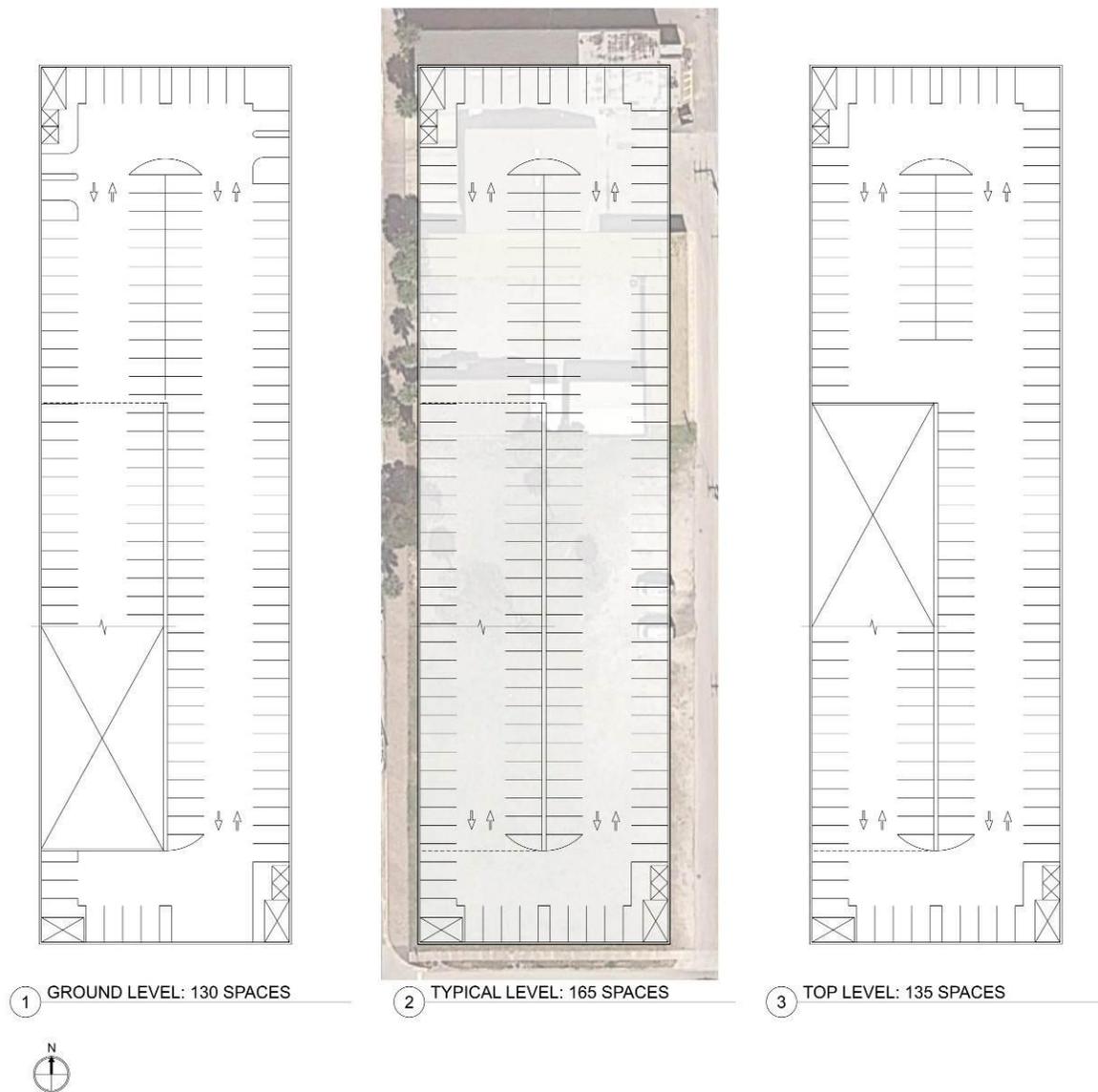
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Table 11: Site 1 Assumptions

Ground Level 130 spaces (no retail)  
Typical Level 165 spaces  
Top Level 135 spaces

Dimensions: 122' x 430'

Three Levels: 430 spaces (less displaced parking)



Source: Walker Parking Consultants



### WALKING DISTANCE

A key consideration in determining whether or not the parking supply is sufficient for a particular area is to review walking distance from the parking area to the primary destination. The “acceptable” walking distance varies depending on the user group, such as a first-time visitor vs. a long-term employee. As a whole, the parking supply may be sufficient, but if the available parking supply is located too far from the destination it will not be accepted by the user, resulting in frustration for the patrons and complaints about the parking.

Factors impacting the acceptable walking distance that a typical person will consider reasonable include:

- Climate
- Perceived security
- Typical user
- Lighting
- Walking environment
- Terrain

To aid in estimating the appropriate walking distance, Walker developed a Level of Service (“LOS”) rating system for evaluating appropriate walking distances based on specific criteria. LOS “A” is considered the best or ideal, LOS “B” is good, LOS “C” is average and LOS “D” is below average but minimally acceptable.

A breakdown of the LOS conditions is provided in the following table. Because a majority of the walking in the area is outdoor and uncovered, that category is highlighted for reference.

**Table 13: Walking Distance Level of Service Conditions**

Level of Service Conditions	A	B	C	D
Climate Controlled	1,000 ft	2,400 ft	3,800 ft	5,200 ft
Outdoor/Covered	500	1,000	1,500	2,000
<b>Outdoor/Uncovered</b>	<b>400</b>	<b>800</b>	<b>1,200</b>	<b>1,600</b>
Through Surface Lot	350	700	1,050	1,400
Inside Parking Facility	300	600	900	1,200

Source: “How Far Should Parkers Have to Walk?”, by Mary S. Smith and Thomas A. Butcher, *Parking* September 1994

Based on the characteristics of the area we recommend striving for LOS A walking distance for patrons and LOS A - B for employees. Considering the typical block size in downtown Cocoa Beach, this generally equates to one block for patrons traveling north-south and two blocks for employees traveling north south.



### COMPARISON AND ANALYSIS

We recommend considering several criteria when picking a site for a parking structure. Typical criteria include the following, but may vary:

- *Proximity* is measured as the walking distance between the alternative and the destination.
- *Cost* is measured as the cost per space gained of each of the alternatives.
- *Aesthetics* is measured against how visible the alternative would be from the surrounding roadways.
- *Location* is measured as the accessibility of the alternative for a variety of users, such as downtown businesses, beach, and government.
- *Environmental Impact* is a measure of the amount of existing green space the alternative would absorb in construction.
- *Versatility* is a measure of how many different current and future user groups could employ the alternative and the number of hours in a typical day that the alternative is used.
- *Displacement* is a standard estimate of how many parking spaces the alternative will displace during construction.
- *Security* is a measure of how secure the option would be perceived by users when parking and traveling to and from vehicles.

Each evaluation criteria can and should be weighted to reflect the most important factors in the decision process. Several voting members or groups can score the site to determine the preferred option.

A number score is assigned from one to five, with one being poor and five judged as the best. A score is assigned for each value, and the rank is multiplied by the weight assigned to each value to determine a score. Once all scores are totaled, the alternatives are ranked from highest to lowest, denoting which site is preferred. Scores and weights were assigned based on Walker's previous experience with other downtown projects. Ultimately, the criteria and scoring should be adjusted to reflect the stakeholders of Cocoa Beach.

As an example and starting point in the evaluation of the two options outlined, the following provides Walker's evaluation of the two sites.

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Table 14: Weighted Matrix Example

	Weight *	Alternative 1		Alternative 2	
		Score	Weighted	Score	Weighted
Proximity/Walking Distance	10	2	20	5	50
Cost per Net space Gained	9	3	27	2	18
Aesthetics	5	2	10	2	10
Location	7	3	21	3	21
Environmental Impact	5	3	15	2	10
Versatility	8	3	24	4	32
Displacement	5	4	20	1	5
Security	7	3	21	3	21
Unweighted Score		23		22	
Weighted Score		158		167	
Rank(1=highest)		2		1	

Scale: 1 = Poor 2 = Fair 3 = Good 4 = Very Good 5 = Excellent

\* Weight: 10= most important; 1=least important

Source: Walker Parking Consultants

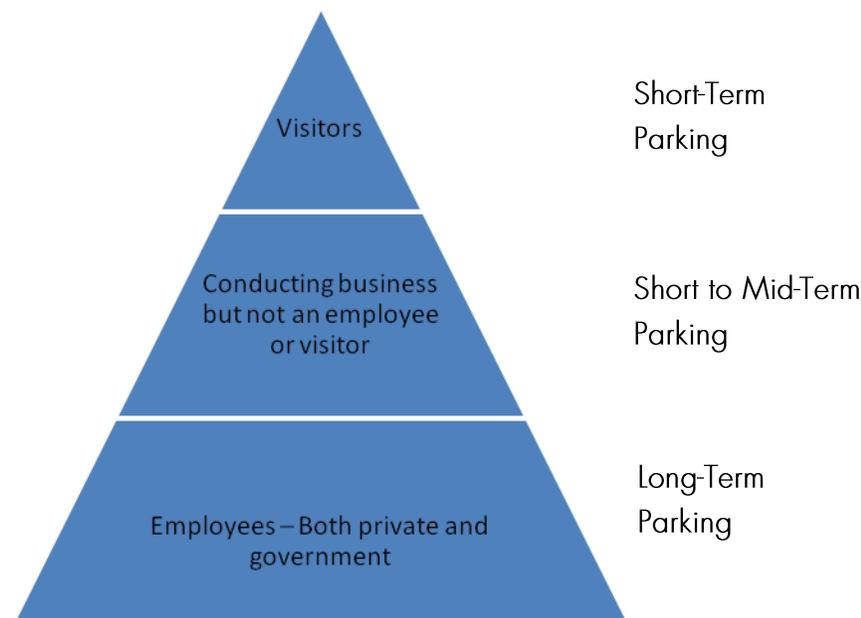
Walker's evaluation of the two sites is a starting point for discussion. Considering the un-weighted score, Site 1 is preferred; using the weighted scoring method, Site 2 is preferred. These sites are similar and score competitively, thus further internal discussion and refinement of how each factor is weighted is recommended.

### REVIEW OF PARKING POLICIES AND PRACTICES

In this section of the report, we provide a review of the current policies and practices. The underlying goal of parking management is to maximize the supply so that all users have a pleasant parking experience. From an overall supply and demand perspective, we know that downtown Cocoa Beach has sufficient supply. A key element to address is providing and enforcing policies that encourage effective use of the parking spaces both now and in the future.

The recommended hierarchy of parking needs is best determined by asking, “Where does each user need to park so that all users are provided with adequate parking?” Our recommendation and most common answer is illustrated in the following parking needs pyramid, which indicates downtown visitors should be afforded the most convenient parking, while regular employees of downtown should park in the least convenient parking areas.

Figure 11: Parking Needs Pyramid



Source: Walker Parking Consultants

Beach parking is generally offered at meters along the side streets for a fee, but quickly turns free or three hour time-limit on-street parking. The City operates one centrally located paid lot through a public/private partnership within the Core Area with convenient access to both downtown and the beach as well as two smaller paid metered lots. The paid lots are used by both beach goers and downtown commercial businesses. The City also operates the unpaid City Hall lot (although not advertised). This free parking is very convenient to downtown and within a short walk to the beach.



The following further highlights each type of parking within the downtown study area along with recommendations.

### ON-STREET PARKING

A majority of the on-street spaces are free, without restriction. Three-hour time limit spaces are predominant in the Core Area and on-street metered parking using single space meters is provided along the east-west streets with access to the beach. House Bill 7175, signed into law July 1, 2014, requires the Florida Transportation Commission to conduct a study of the potential revenue from parking meters located within its right-of-way limits. During this evaluation revenue from existing parking meters is required to be reported and no new meters are permitted to be installed through July 1, 2015.

We recommend the 3-hour limit be reduced to a maximum 2-hour limit and each block face be permitted to include one or two 30-minute spaces based on the types of businesses located in each block.

### OFF-STREET PUBLIC PARKING

City owned off-street parking facilities available for public parking are paved with asphalt or pavers. The paid lots are either by single space meters or multi-space meters using pay by space. The City Hall lot is available at no charge to the public. Private paid parking lots are scattered about the area. Some lots are paved and landscaped while others are unpaved and non-conforming to City code. Parking fees are collected by a lot attendant stationed on the lot.

We recommend the non-conforming lots be addressed as previously stated.

### OFF-STREET PRIVATE PARKING

The predominant form of parking considered private or reserved for a particular user, such as an employee or customer of a particular business. In most cases these lots are paved and signed, but some lots are and non-conforming with the required paving and landscaping standards.

We recommend non-conforming lots be addressed as previously stated.

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### PARKING FEES

The following provides some specific examples of the parking fees and observed operational conditions in Downtown Cocoa Beach.

#### ANNUAL PARKING PERMIT

Both residents and non-residents may purchase an annual parking permit to allow unlimited parking at any parking meter. A sticker is issued that must be permanently fixed to the designated vehicle. The costs for the annual permit are as follows:

Residents and property owners: \$10.00 paid by resident and \$50.00 paid by the City  
 Non-Residents: \$60.00

During our observations several vehicles were noted with the permit. Permit rates should be reviewed annually and adjusted accordingly. Based on the current meter rates of \$1.50 to \$2.00 per hour, annual permit rates are low. Limits on the number of permits per household or property owner should be considered.

A survey of similar coastal cities indicates the annual permit fee (where available) is below the average for Cocoa Beach residents and non-residents alike.

Table 15: Annual Permit Rate Comparison

Beach Community	Annual Resident Beach Parking Permits	non-resident/ semi-resident permits
Cocoa Beach	\$10.00	\$60.00
Jupiter Beach	n/a	
Juno Beach	n/a	
Delray Beach	\$95.40	
Hollywood	\$159.00	\$318.00
Lake Worth	\$40.00	\$60.00
Boca Raton	\$55.00	
Deerfield Beach	\$100.00	
Sarasota	n/a	
Vero Beach	n/a	
Lauderdale-by-the-Sea	\$53.00	
Average	\$73.20	\$146.00
Median	\$55.00	\$60.00

Source: Walker Parking Consultants

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We recommend the annual permit pass rates be increased by a minimum of \$5.00 to \$10.00 per year for both residents and non-residents. A review of the rates should be made annually with adjustments to the rates made based on parking demand.

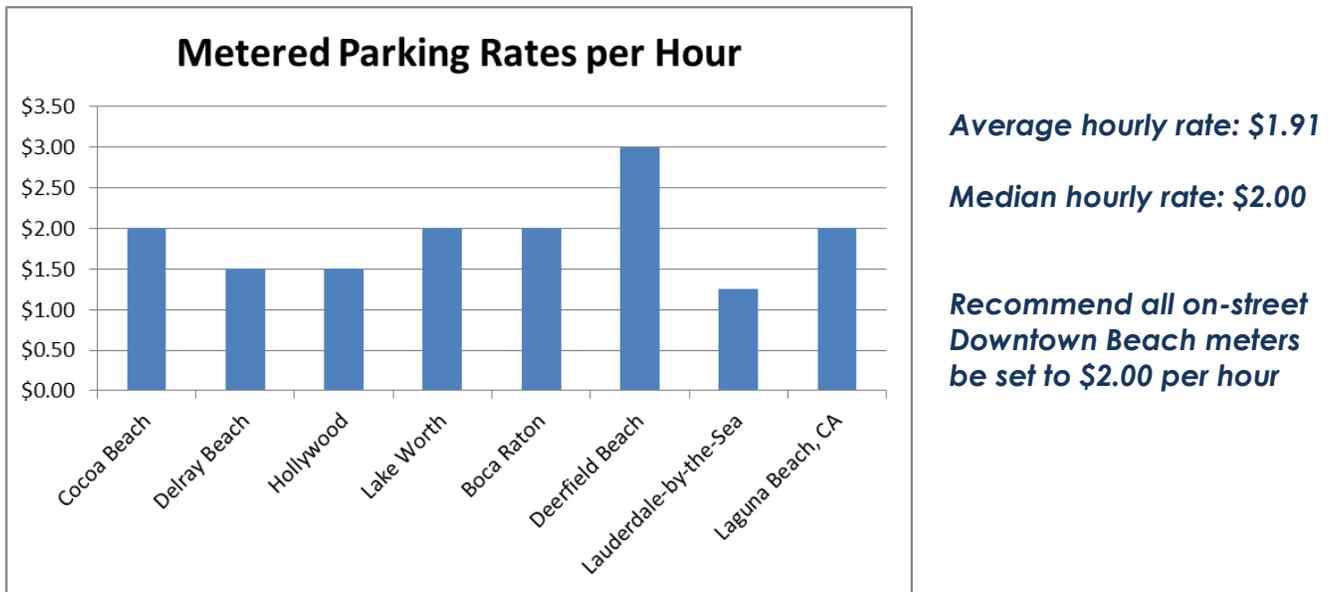
### ON-STREET METERS

Resolution 2011-09 establishes the hourly meter rates at \$1.50 and \$2.00 per hour for meters on First Street South to Fifteenth Street South. The meters accept payment by coin or pay-by-cell phone. Signage indicates meters are enforced 24 hours per day with a six hour time limit. The current meter rates generally fall within the survey range at the \$2.00 an hour fee.

Time limits are typically set to encourage turnover of the space and keep long-term parkers away. The posted time limit of six hours does not encourage turnover of the spaces. We recommend setting the rate to encourage turnover and to eliminating the six hour time limit with payment. To ensure permit holders do not abuse the system, permit holders may need to have time limit restrictions set to ensure their vehicles are not stored in these spaces.

The following table provides the hourly metered parking rate for our survey.

Figure 12: Metered Parking Rate Survey



Source: Walker Parking Consultants

We recommend that all on-street beach area meters within the Downtown Area be set to \$2.00 per hour and the six hour time limit be eliminated with requirements for permit holders to not leave a vehicle in the metered spaces overnight.



### MAIN METER LOT

The Main Meter lot is controlled through a pay-by-space multi-space meter. The rates vary based on the day of the week and time of day. The rate is generally \$1.00 per hour except Saturday, Sunday and Holidays, from 8:00 a.m. to 5:00 p.m. when the rate increases to \$2.50 per hour or \$10.00 for the day. The meters are posted as enforced 24-hours per day.



This lot is reported as a free parking location to vehicles displaying the City parking permit. This includes some employees of the surrounding businesses, which are provided the permit as part of their employment. This is one of few City paid lots and is a prime location for parking. As an alternate, permit holders, especially employees, should be encouraged to park in the City Hall lot during evenings.

We recommend adopting a pricing strategy that encourages users to park in the off-street parking lots for longer duration stays. The more convenient on-street spaces should be used for short-term stays. Rates at this lot generally meet this criterion. Hours requiring payment should be based on demand and need within the area with consideration given to eliminate or reduce the fee in the evening. North Beach, in the City of Miami Beach, requires payment at the lot and meters from 8:00 a.m. to 6:00 p.m. seven days a week. The hours requiring payment are based on higher demand during the day. Other Florida coastal cities do list charging 24/7, such as Lauderdale-by-the-Sea and Hollywood. Our recommendation is to consider reducing or eliminating the fees in the evening.

### CITY HALL LOT PARKING

Resolution 2011-07 state the City Hall parking lot is paid parking on Saturday, Sunday, and City Holidays, at the rate of \$10.00 per day. In addition, rates for special purposes may be set by the City Manager with notice to City Commission. During our observations and discussions with the City this lot is free and does not require a permit to park during these times. We recommend this lot be designated as a City Permit lot in the evenings, weekends, and holidays and include a flat fee during events for non-permit holders. The resolution will require updating accordingly.



**PARKING VIOLATIONS**

Parking violations for parking offenses are provided below. Payment may be made in person at City Hall or on-line. If not paid within 10 days of issuance an additional fine is imposed which increases again if not paid within 20 days.

**Table 16: Cocoa Beach Parking Violation Fees**

	Violation	Within 10 days	After 10 days	After 20 days
(1)	Meter Parking	\$ 30.00	\$ 40.00	\$ 60.00
(2)	Parking Overtime	30.00	40.00	60.00
(3)	Parking Over Line	30.00	40.00	60.00
(4)	Parked Facing Wrong Direction	30.00	40.00	60.00
(5)	Parked in "No Parking Zone"	30.00	40.00	60.00
(6)	Parked in Fire Lane	125.00	125.00	150.00
(7)	Parked Irregular	30.00	40.00	60.00
(8)	Parked Double or Obstructing Traffic	60.00	70.00	80.00
(9)	Parked on Sidewalk	60.00	70.00	80.00
(10)	Parked in Handicapped Space	250.00	250.00	Court
(11)	Parked Within 15 Feet of Fire Hydrant	125.00	125.00	150.00
(12)	Other	100.00	125.00	150.00
(13)	Removal of Impoundment Device	30.00	40.00	60.00

Source: City of Cocoa Beach website

The established parking fines are considered within reasonable industry standards. The increased penalty for paying late encourages quick payment and a good standard to follow.

Article I, Section 26-1A, allows the use of an impound device for vehicles with five or more outstanding unpaid tickets and the vehicle impounded after 24-hours. We understand this has been done in the past, but is not normally done. We recommend violators with 5 or more unpaid citations be booted or towed without the return of the vehicle until the unpaid citations and vehicle impound fees are paid in full.



*HISTORICAL PAYMENT OF CITATIONS*

A review of the historical ticketing within Cocoa Beach indicates an increasing percentage of tickets are written; however, the percentage of void tickets has increased over the past five years, with 2014 data through June indicating 24 percent of the tickets have been voided. Open tickets over the past five years account for 16 percent of the total tickets.

Table 17: Historical Parking Violations

<b>Year</b>	<b>Total</b>	<b>Open</b>	<b>%</b>	<b>Void</b>	<b>%</b>	<b>Paid</b>	<b>%</b>
2010	5,501	847	15%	695	13%	3,959	72%
2011	5,780	897	16%	672	12%	4,211	73%
2012	7,580	1,144	15%	1,190	16%	5,246	69%
2013	8,103	1,163	14%	1,704	21%	5,236	65%
2014*	3,544	760	21%	852	24%	1,932	55%
Totals:	30,508	4,811	16%	5,113	17%	20,584	67%

\*thru June 2014

Source: City of Cocoa Beach Monthly Collection Summary report and Walker Parking Consultants

Unpaid parking violations are turned over to an outside collection agency to assist with collections. Although the high number of visitors to the area makes these difficult to collect, we recommend continuing to use a collection agency to assist with collecting the citations.

The percentage of voided tickets has increased over the past five years and is above the national average of roughly 7% based on a 2007 benchmarking survey by the International Parking Institute. The Police Department provided a review of the voided tickets through 2014, which indicates that just over half of the tickets were voided as a result of the vehicle owner returning to the vehicle before the citation was completed. The next largest reasons for voiding were broken meter (9%) and proof of parking permit (8%).

Voiding a ticket if the person walks up before it is issued is a policy issue but certainly provides a friendly approach to enforcement. Not counting these parking violations in the total voided reduces the total just over 10% which is a big reduction.

We recommend the number of voided tickets continue to be monitored and consideration to adding a warning ticket as an option to give to first time violators. This is discussed more in the "Ambassador" section of this report. A goal of no more than 10% voided tickets on an annual basis would be a good starting point. Not included in this total should be the citations that are stopped due to the owner coming before the citation is issued. That statistic is good and should be tracked, but not necessarily counted against the total voided citations.



### AMBASSADOR APPROACH TO ENFORCEMENT

The perception of on-street parking enforcement is often a negative experience and not viewed upon as a positive encounter for the violator. As previously noted, citations not yet fully written are voided if the patron returns to the car while the citation is being written. This is a customer friendly approach to enforcement. Other cities have taken this approach and labeled it the "Ambassador Approach" model. This is a growing trend in parking enforcement and is used successfully in cities such as Myrtle Beach, SC, Hollywood, FL, and Pasadena, CA.

The mission of the Ambassador Program is to provide hospitality, tourism and public safety services to local citizens, businesses and visitors, in addition to enforcing parking regulations. The Ambassadors would be required to complete a multi-faceted training in hospitality and customer service, emergency response and first aid, and City services. The primary goals of an Ambassador program are to promote the area, resolve concerns, deter criminal activity, and help make the downtown area a better, safer and friendlier place to live, visit, shop and conduct business.

The vision of the program is to help promote a progressive, dynamic downtown experience. The Ambassadors may accomplish these goals while providing parking management by monitoring public safety, extending a helping hand in emergency situations, and calling on area merchants on a regular basis. Beyond enforcing parking regulations, the following are examples of typical activities of Ambassadors:

- Be a friendly face in response to many people's initial interaction with the City;
- Police obvious litter as they walk their routes;
- Give accurate directions to visitors and direct visitors to destinations;
- Provide information and explain local traffic and parking regulations;
- Distribute City brochures and maps;
- Have the ability to write warning citations to first time violators;
- Report public items needing attention, such as full trash receptacles or broken light fixtures; and
- Deter criminal activity by their presence.

Ambassadors are typically provided with a unique uniform such as a brightly colored shirt that is clearly marked as a City Ambassador.



### PARKING TECHNOLOGY

We understand the City is in the process of evaluating other types of meters that accept credit cards. This testing will be done using pilot areas to test various options. The existing parking meters are single space meters that accept payment by coin and many accept payment by credit card using the Mobile Now Pay by Cell service. Increasing parking rates beyond \$2.00 an hour is limited using traditional coin only meters, as the capacities of the meter limit the number of coins that can be stored in the meter and users are more likely to find it less friendly due to the large number of coins needed to pay for parking.

Issues with large numbers of single space meters include time to maintain, collect, and service on an on-going basis. We recommend all meters in the downtown area allow payment by credit card via cell phone.



### SMART METERS

Smart meters provide added payment and management capabilities to the meter system. The main difference is the meters include a communication link to a web-based management system to allow live monitoring of the meters and the ability to accept credit cards. The web-based system allows administrators to monitor revenue, maintenance status, and in most cases change the rate remotely. The data can be used to assist in monitoring historical occupancy (based on paid spaces) and verify cash collections based on the reporting.

As parking rates increase, payment with coins becomes impractical or too inconvenient. Payment for parking with a credit card has become the norm and proven to increase meter revenue as more people choose to “pay the maximum” rather than risk receiving a citation. After Boston installed Pay and Display meters, revenue per space there increased by 34 percent. During a pilot project in San Diego, the installation of Pay and Display meters increased revenue by 24 percent.

Cocoa Beach currently allows patrons to pay with a credit card using Mobile Now. We recommend extending this option to all meters in Downtown with app integration to further improve customer service. Upgrading to smart meters adds additional capabilities and higher service to patrons. Smart meters come in a variety of configurations, including multi-space and single space meters.



### MULTI-SPACE METERS

A growing trend for municipalities is to move away from the use of traditional parking meters, and replace them with multi-space meters. As the name implies, multi-space meters cover multiple spaces for on-street metered parking.

Multi-space meters vary based on how the user pays for parking and how it is enforced. Applications include pay and display; pay-by-space; and pay by plate. Pay and display meters issue the patron a receipt to be placed inside the vehicle; the receipt shows how long the vehicle can park. The pay-by-space meter allows the user to pay for a particular parking space. Pay by plate requires the user to enter the vehicle license plate.



Most multi-space pay-stations are solar powered, equipped with wireless software to allow for real-time monitoring and integration between several pay-stations, and can accept coins, dollars, credit cards, and smart cards.

### COMMON ADVANTAGES AND DISADVANTAGES

Common Advantages:

- Each machine covers multiple parking spaces;
- Increased revenue (reported as between 10-40%) without increasing parking rates;
- Can easily accommodate a variable rate structure thereby improving turnaround by encouraging short stays and reducing the number of all-day parkers;
- Revenue can be collected and change replenished on an as-needed basis for each machine;
- Fewer machines to collect revenue and repair as compared to a single space meter installation;
- Improves aesthetics of city streets because there are far fewer pay stations compared to single space meters;
- Integrated software that allows for real-time monitoring, communication of data between pay-stations and a central command station which allows for enhanced enforcement, collection, auditing and maintenance while greatly reducing operating costs;
- Improves aesthetics of city streets because there are far fewer pay-stations as compared to single space meters; and
- Online credit card authorization allows the operator to accept payment only from valid credit cards, drastically reducing fraud that results from the use of bad or expired credit cards.



### Common Disadvantages:

- Higher initial cost to purchase each pay station;
- On-going monthly costs for on-line access, receipt paper, and processing of credit card payments;
- Initial investment needed to promote, educate, and implement new method of payment collection;
- Some users find the pay stations difficult or confusing to use; and
- Cities that have not properly educated and informed the public about the transition to multi-space meters have experienced a high rate of failure in terms of patrons accepting the systems.

### COMPARISON OF PAYMENT METHODS

The specifics of each system are further explained in the following section.

#### PAY AND DISPLAY

Pay and display meters issue a paper receipt with each payment. The receipt states the date, time, and length of paid parking. The patron is required to return to the vehicle to place the receipt on the dashboard for the enforcement officer to check. Parking can be purchased at multiple machines for the multiple parking spaces. In addition, once the parking receipt is purchased, the patron can re-park without the need to purchase a new parking receipt, provided there is still time on the receipt.



Pay-and-Display Ticket

#### Pay and Display Benefits:

- Unused time leaves with the vehicle, unlike traditional single space meters;
- Patrons can use valid receipt to re-park and use parking time at multiple locations;
- Can accept credit cards, bills, coins, and smart cards;
- Multiple machines can be used by patrons to make payment, thus an out of service meter does not necessarily result in lost revenue, and
- Does not require individually marked spaces; therefore a standard city block can generally accommodate at least one extra car.

#### Pay and Display Disadvantages:

- Patron must walk back to vehicle after paying for parking;
- Enforcement officer must visually find and inspect paper receipt;
- Potential for litter from old receipts, and
- Issues with motorcycles, multiple receipts, and "messy" vehicles.

### PAY-BY-SPACE

Pay-by-space meters require marking each space with a unique number. The patron parks in the space and pays the meter according to the specific space that is used. Typical accepted forms of payment include cash, coin, credit cards, and smart cards. The machine tracks the payments and keeps a running balance.

#### Pay-by-Space Benefits:

- Patron walks to the meter and is finished with the transaction, there is no need to return to the vehicle;
- Unused time stays at the meter, but can be hidden from the general public;
- In some cases additional time can be added at another machine, and
- Enforcement is quicker and easier as the officer prints out who paid from the machine or receives the information electronically without looking for a ticket on each vehicle.

#### Pay-by-Space Disadvantages:

- Added expense of maintaining the marked spaces over time;
- Defined number of parking spaces, thus no benefit of added parking of smaller vehicles;
- Marking system may include poles at every space, which may be viewed as clutter on the sidewalk, and
- Additional signage needed to mark and educate patrons.

### PAY BY PLATE

Pay by plate is the newest method for tracking payment at multi-space meters. Patrons using this type of meter enter their license plate number and pays for the parking time. This system allows enforcement using license plate recognition ("LPR") cameras to greatly speed the checking process. Cameras can be vehicle mounted or handheld. In addition to checking for payments, the license plate recognition cameras can check for frequent violators, stolen vehicles or permitted vehicles. The Miami Beach parking department recently upgraded their multi-space meters to pay by plate technology and utilizes both vehicle mounted and handheld cameras to check for payment.

#### Pay by Plate Benefits:

- Patron walks to the meter and is finished with the transaction, there is no need to return to the vehicle;
- Unused time stays with the vehicle plate number;
- In some cases additional time can be added at another machine, and
- Enforcement is quicker and easier using mobile LPR cameras and software.

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### Pay by Plate Disadvantages:

- Added expense of LPR cameras;
- Additional training of enforcement and required technology;
- Slight increase in cost for full key-pad on meter, and
- Patrons may not know their license plate and find it frustrating on initial use.

### OPINION OF COSTS

Multi-space meter costs vary depending on the options added to the unit. We recommend accepting coin, credit card, and pay by cell with an integrated enforcement solution. Our opinion cost for a meter with these features is \$6,500 - \$8,500 per meter, plus stock items and monthly service fees. We do not recommend accepting paper currency as this adds to the price and can cause significant maintenance issues. A typical unit can handle 8 to 10 spaces per block face. In addition to equipment costs, installation and monthly fees run about \$50-\$60 per unit to maintain real-time connectivity, and access to the cloud based management software. Typical battery life using solar recharging is 36 months with a cost of about \$100 per meter.

### SINGLE SPACE SMART METERS

Single space smart meters typically an upgrade to existing single space meters, with the exiting pole and base left intact. The new meter heads include the capability to accept credit cards along with coins, wireless communication, and a small solar cell to charge the battery. The wireless software allows real-time monitoring and tracking. The first and largest single space smart meter vendor on the market is IPS. The City is currently undergoing a pilot test of the IPS meters along Meade Avenue near the Cocoa Beach Pier.

### COMMON ADVANTAGES AND DISADVANTAGES

#### Common Advantages:

- Typically lower upfront costs to retrofit existing meters;
- Quick and easy installation on retrofits of existing meters;
- Users are typically familiar with single space meters;
- Can easily accommodate a variable rate structure thereby improving turnaround by encouraging short stays and reducing the number of all-day parkers;
- Revenue can be collected and change replenished on an as-needed basis for each machine;
- Customers do not need to return to the vehicle after paying;
- No directional or instructional signage required;
- Integrated software that allows for real-time monitoring, communication of data between meters and a central command station which allows for enhanced enforcement, collection, auditing and maintenance while greatly reducing operating costs; and
- LED lights provide for visual enforcement.

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### Common Disadvantages:

- Manufacturer typically charges additional credit card transaction fees in addition to an on-going monthly fee per meter;
- On-going monthly costs for on-line access, and processing of credit card payments;
- Sensors are required to zero out time left on meter;
- Bill acceptance is not an option; and
- Receipts are not issued.

### OPINION OF COSTS

Single Space meter costs for a retrofit generally run about \$500 per meter plus a small installation fee. Reoccurring costs include a per use credit card fee of about \$0.13 plus a monthly fee for connectivity to the web-based management system of about \$6.00 per month per meter. Battery life is reported to be three years, with a cost of about \$30 per meter.

### ENFORCEMENT

A key component to any meter program is enforcement. Smart meters, be it multi-space or single space meters, offer a higher level of integration with the enforcement devices. We recommend that enforcement officers use an electronic ticket writer system specifically integrated with the smart meter and pay-by-phone vendor. The benefits of integration include direct communication between the three systems to allow one unit to track payment and violations. The electronic ticketing system should include a camera to allow photos of the violation to be stored and associated with the violation.



A number of companies offer integrated hardware and software solutions for handheld enforcement citation writing and smart meters. These systems have been shown to improve the productivity of the enforcement officer, reduce errors leading to dismissed violations, and to allow increased monitoring of the spaces through electronic chalking of vehicles.

Most of systems available today provide the enforcement officer with information on a “live” basis in the field using cellular connectivity. This allows the citation to be visible for payment in near real-time. Some handheld units include License Plate Recognition software to automatically capture the plate number with a camera. These systems allow the officer to double check what was electronically read and edit if needed as well as capture an image of the actual plate.

Integrated hand-held electronic enforcement systems offer the following advantages:

- Information is automatically downloaded directly to the system avoiding data entry errors and transcription errors from sometimes-illegible handwritten citations;
- Includes options such as scofflaw programs with a permit database, to identify permitted vehicles;
- Use of license plate recognition (LPR) to automatically enter the plate number as opposed to manually entering the number;
- Systems allow tracking the number of violations by plate to determine if it is a first time or habitual offender;
- May allow one unit to automatically show if a vehicle has paid the meter or by phone as opposed to requiring checking two devices; and
- Incorporate a camera to capture the violation to provide evidence of the violation for use in appeals.



[Integrated License Plate Recognition camera](#)

Units are typically configured with integrated printers or separate blue tooth printers. The detached printers are heavier and are typically carried with straps or on a belt but have better print quality. Detached printers are more expensive, but are recommended for very high volume enforcement situations. Typical enforcement is serviced easily by integrated printers. Some systems require preprinted ticket forms, while other systems print the entire citation on blanks. Blank tickets range from \$1,000 to \$2,000 for 10,000 blank tickets, plus printing costs. Many systems actually print the entire ticket from blank stock as issued.

System costs vary from outright purchase to monthly fee for services. Typical handheld units with printer are \$4,000 to \$5,000 plus a monthly service fee for software and access updates. Another option is to contract with a single company that provides both the equipment and citation collection assistance. Cities benefit from the latest equipment as well as increased collections while the private vendor benefits by collecting a small fee from each collection.

### [WARNING TICKET OPTION](#)

Some towns and cities that do not want to risk offending the occasional visitor, is to provide a warning ticket. This allows the first violation to automatically be issued as a warning to educate the violator of the parking policies and avoid offending the first time visitor. This system also requires the use of electronic handheld ticket writers to store and track vehicle license plate information. The period for warning tickets should be set at a minimum of 12 months to avoid encouraging more frequent parking violations. Under this program, anyone parking in the downtown area would be eligible for the warning ticket for their first violation. While ideally the employees should not be eligible for the warning, it is a cost of providing the warning for first-time offenders.

*GRADUATED FINE SCHEDULE*

Where frequent violators are a problem, some communities include a graduated fine schedule to provide an added motivation to obey the posted parking limits. This is an excellent method to deter repeat offenders and for improving the collection of unpaid parking fines. Naperville, Illinois uses the graduated fine schedule that is outlined in the following table. Fines increase based on a 12-month period and after the tenth violation in a 12-month period, the vehicle is towed and driver's license of the owner is suspended.

Table 18: Example of Graduated Fine Schedule

Violation	Amount
1	\$15.00
2	\$15.00
3	\$15.00
4	\$30.00
5	\$30.00
6	\$30.00
7	\$30.00
8	\$30.00
9	\$30.00
10	\$60.00
11	Tow vehicle and suspend driver's license.

Source: Walker Parking Consultants

Implementing a graduated fine schedule requires the use of electronic handheld ticket writers that are capable of maintaining a database of vehicle license plates and notifying the enforcement officer of previous violations so that the correct fee can be applied to each citation issued.



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### WAYFINDING / SIGNAGE

We recommend continuing the implementation of the comprehensive signage program for Downtown Cocoa Beach as outlined by Land Design South. Parking often represents the first impression to an area. Making it easy to locate from the street with consist signage is key to maximizing visitor awareness of public parking locations. The signage improvements should be prepared in conjunction with any enhancements to the parking resources, in addition to any streetscape improvements in the study area. As is true with any good communications medium, signs should be brief, precise, and appropriate, such as "Public Parking" or "Free Public Parking." Signs must also meet MUTCD regulations.<sup>6</sup>



At present, no consistent parking signage seems to exist for the off-street parking areas or along the primary thoroughfares. The signs that are installed are very generic, small, and difficult to see. Some business owners have private parking signs posted on their lots designating who can park and while these signs are helpful, they do not encourage the use the lots after hours. The message seems to be that parking is reserved at all times and the public is not allowed to park on the lots.

Each parking area has its own set of wayfinding/signage requirements. These requirements present specific questions concerning the needs and concerns of the users to be answered during the design of the signs, including:

- What are the points at which information is needed?
- What information is needed?
- How should this information be presented?
- Will there be a high percentage of first time visitors, or is the parking supply used by the same people every day?
- Are there special sign requirements for accessible parking?

It is also important that the following general rules for signage design and placement should be followed when planning the streetscape improvements:

- All signage should have a general organizing principle consistently evident in the system;
- Directional signage for both pedestrians and vehicles must be continuous (i.e., repeated at each point of choice) until the destination is reached;
- Signs should be placed in consistent and therefore predictable locations;
- Good signage is easy to understand and communicates the parking is open to the public, often including the universal "P" for parking;
- Signs should be placed perpendicular to the traffic for better visibility; and
- Signs should meet MUTCD regulations, which specify colors, wording, shape, and font sizes.

<sup>6</sup> Manual on Uniform Traffic Control Devices for Streets and Highways

### PROVIDE ADEQUATE PARKING TIME LIMIT SIGNAGE

Along some on-street areas the current 3-hour time limit is posted, but only on one end of the block-face. This may lead to some patrons not noticing the time-limit or clarity as to how far along the block face the posted time limit applies. Specific examples noting limited time limit signage in the area include:

- Minuteman Causeway, North Side of street, between Brevard and Atlantic
- 1<sup>st</sup> Avenue North, North and South sides of street between Brevard and Atlantic

### DIRECTIONAL SIGNAGE

Signage should be provided with "Public Parking" as the message and an arrow directing traffic to off-street public parking. This may include a parking logo or specific background color associated with parking in downtown Cocoa Beach. Some cities incorporate banners to direct motorists to their off-street metered parking lots. The banners can include a parking logo and arrows to direct visitors.

### DESTINATION SIGNAGE

Each public parking lot should be signed indicating the parking is open to the public. Signage should be highly visible and oriented to the driver at each public parking lot. A consistent logo should be used to promote parking and be incorporated into the signage.

### SUMMARY OF SIGNAGE RECOMMENDATIONS

Signage should be provided to promote off-street parking in downtown Cocoa Beach in accordance with the Land Design South Plan. Consistent signage is key to educating the public and guiding them to the parking areas. This includes keeping a consistent color and theme to the signs throughout Cocoa Beach.

### TEMPORARY PARKING LOTS

Several lots were noted as providing paid parking using unimproved surface areas over the 4<sup>th</sup> of July weekend. These lots do not conform to the design standards listed in the City Code. During non-event periods at least two lots were noted as providing paid parking. Per the Land Development Code, Appendix B, surface lots will be paved with asphalt, bituminous or concrete material and maintained in a smooth, well-graded condition.





The use of turf block or other equal material that allows percolation of storm water may be used in lieu of asphalt or concrete if approved by the city engineer. The only exception is for churches, which may be surfaced with grass or lawn material. In addition to the paving requirement, parking lots are required to meet landscape requirements.

Allowing paid parking on unimproved lots creates a poor perception of downtown and is generally not the best use of the land. We recommend the existing standards be enforced. Any surface lots used for paid parking on a regular basis should meet the standards.

Paid parking is a business and this standard should apply to churches as well as non-churches. The intent of allowing churches to provide parking on grass or lawn material is most likely for patrons of the church and not the general public seeking parking while visiting the area. This should be clearly defined in the code and enforced. We recommend any lot used for paid parking on a regular basis be required to meet the paving and landscape requirements.



This standard should equally apply to City parking lots as well, which includes the large grass area identified as a potential area for a parking structure. One solution to enforcing this requirement is to allow for a temporary non-conformance standard with a specific date set for the improvement to take effect. This allows the property owner time to plan for the improvement or use the property for another purpose other than parking.

### ON-STREET VERSUS OFF-STREET PARKING RATES

A key pricing strategy is to adjust the parking rates to encourage off-street parking and increase turnover of on-street spaces. When on-street spaces are full the impression is that parking is a problem or not available. Typically, on-street parking is the more desired form of parking because of the convenience it provides patrons by being located in front of or next to their destination. Off-street parking, on the other hand, may be slightly further away, which can make it a less convenient option to patrons. Only the on-street spaces located directly adjacent to the beach are metered in Downtown Cocoa Beach.

The current restrictions for adding meters along A1A expire in about a year. We recommend monitoring the outcome of the study of paid parking along state roads. If meters are allowed, they may be beneficial in supporting this philosophy of pricing premium on-street parking higher than off-street parking, especially along Atlantic Avenue in the downtown area.



### PROMOTE PARKING

We recommend actively communicating and marketing the available downtown public parking spaces. Communication should include a brochure with a downtown map with public parking areas highlighted and options detailed, parking information on the City app and a website link on the City's web page that contains up-to-date downtown parking information, and consistent signage and banners directing customers to public parking areas.

The city's parking webpage should be linked to downtown merchant and downtown association websites to encourage visitors to learn about parking before coming downtown. Downtown businesses and government offices should have parking brochures with maps available for the general public. If warning parking citations are issued, this parking brochure could be used to educate visitors on the parking options.

### REQUIRED PARKING BY CODE

The required off-street parking was reviewed and compared to other Florida coastal cities. Several of the codes reviewed are difficult to follow and require calculations based on the number of employees, specific business uses, or other matrix that is difficult or impossible to measure until an actual business begins operations. In addition, many of the demand calculations are based on "x" spaces per "x" square feet. We recommend demand ratios be converted to align with the Urban Land Institutes "x" spaces per 1,000 square feet. This makes the math easier to complete and compare. A brief comparison of selected cities is proved in the following table.

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Table 19: Comparison of Required Parking

City	Single Family	Multi-family	Retail	Restaurant
Cocoa Beach	2 per unit	2 per unit	1 space per 400 sf GFA; min of 2 spaces	1 space for each 3 seats or 1 per 150 sf GFA; whichever is greater, PLUS 1 per 2 employees on the largest shift.
Juno Beach	2 spaces per dwelling unit	2 spaces per dwelling unit for initial 30 units; 1.75 spaces for ea. From 31 thru 74; 1.50 spaces for units 75 & more	1 space per 200 sf GFA	1 space per 200 sf GFA
Deerfield Beach	Two parking spaces for each unit.	1.5 spaces per each efficiency and one bedroom dwelling unit; two spaces per each two bedroom dwelling unit; and one-half space for each additional bedroom after	General business, commercial—One parking space per 300 square feet of nonstorage floor area.	One space for each 50 square feet of customer service area plus one space for each 400 square feet.
Sarasota	2 per unit	1 bedroom: 1.5 sp/unit, plus 1 per 5 units. >1 bedroom, 2 per unit, plus 1 sp per 5 units.	1 per 250 sf GLA plus 1 per 1,000 sf outdoor sales or display	Up to 100 seats: 1 per 250 sf FA; Over 100 seats: 1 per 50 sf area for eating, drinking or waiting

Source: Walker Parking Consultants Research

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The following is a detailed list of recommended parking demand ratios from the National Parking Association (“NPA”).

**Table 20: Recommended Base Parking Ratios by the NPA**

Use	Parking Ratio	Source
<b>Residences and Accommodations</b>		
Single Family Dwellings	<2,000 sq ft: 1/dwelling unit; 2,000 to 3,000 sq ft: 2/dwelling unit; over 3,000 sq ft: 3/dwelling unit	4
<b>Multi-Family Dwellings</b>		
Rental	1.0/dwelling unit for efficiency units; 1.5/dwelling unit for the first bedroom in units with one or more bedroom, plus 0.25 space for each additional bedroom*	2,4
Owned	1.0/dwelling unit for efficiency units; 1.75/dwelling unit for the first bedroom in units with one or more bedroom, plus 0.25 space for each additional bedroom*	2,4
Rental in University District	1.0/dwelling unit for efficiency and 1 bedroom units; plus 0.5 space for each additional bedroom	4
* A Den must be counted as a bedroom if it has a closet. Note that the base ratios include 0.15 space per unit for visitors.		
Accessory Dwelling	Add 1/accessory dwelling unit	4
Sleeping Rooms	1/unit or room plus 2 for owners/managers	4
Commercial Lodgings	1.25/sleeping room or unit plus 10/1,000 sq ft GFA restaurant lounge plus the following for meeting/banquet space; less than 20 sq ft/sleeping room, none; 20 sq ft/sleeping room; 30/1,000 sq ft GFA; 20 to 50 sq ft/sleeping room; scaled between 20 and 50 sq ft/sleeping room; over 50 sq ft/sleeping room; 20/1,000 sq ft GFA	2,4
Elderly Housing	0.5/dwelling unit	
Congregate Care/Assisted Living	0.35/dwelling unit	1
Group, Convalescent and Nursing Home	0.5/bed	1
<b>Retail Sales and Services</b>		
General and Convenience Retail **	2.75/1,000 sq ft GFA	1
Grocery Stores **	6.75/1,000 sq ft GFA	1
Heavy/Hard Goods Retail **	2.5/1,000 sq ft GFA, including outdoor sales areas	1,4
Discount Superstores **	5.5/1,000 sq ft GFA, including outdoor sales areas	1
Specialty Superstores **	4.5/1,000 sq ft GFA, including outdoor sales areas	1
Shopping Center, not more than 10% GLA in non-Retail Sales and Services uses as defined herein	4.0/1,000 sq ft GLA up to 400,000 sq ft GLA; scaled	3
Shopping Center, more than 10% GLA in non-Retail Sales and Services Uses as defined herein	To be established based on a shared parking study prepared specifically for the subject project	2
** Not in shopping center		

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Use	Parking Ratio	Source
<b>Food and Beverage</b>		
Fine/Casual Dining (with Bar)	20/1,000 sq ft GFA	2
Family Restaurant (without Bar)	15/1,000 sq ft GFA	2
Fast Food	15/1,000 sq ft GFA	2
Night Clubs	19/1,000 sq ft GFA	2
<b>Office and Business Services</b>		
General Business Offices	3.8/1,000 sq ft GFA up to 25,000 sq ft; scaled between 25,000 to 100,000 sq ft; 3.4 for 100,000 sq ft; scaled between 100,000 and 500,000 sq ft; 2.8/1,000 sq ft GFA over 500,000 sq ft	2
Consumer Services Offices	4.6/1,000 sq ft GFA	2
Data Processing/ Telemarketing/Operations Offices	6/1,000 sq ft GFA	2
Medical Offices (not part of hospital campus)	4.5/1,000 sq ft GFA	2
Medical Offices (on hospital campus)	4/1,000 sq ft GFA	4
Governmental	To be established based on a study of parking needs prepared specifically for the subject property	
<b>Industrial/Storage/Wholesale</b>		
Industrial/Manufacturing	1.85/1,000 sq ft GFA plus required parking spaces for office, sales, or similar use where those uses exceed 10% GFA	1
Storage/Wholesale	0.67/1,000 sq ft GFA	1
Mini-Warehouse	1.75/100 units	1
<b>Educational and Institutional</b>		
Elementary, Middle Schools	Higher of 0.2/seat in auditorium or gym and 0.25/student	1,4
Secondary Schools	Higher of 0.3/seat in auditorium or gym and 0.3/student	4
College and University	To be established based on a study of parking needs prepared specifically for the subject institution	4
Day Care Center	0.3/person licensed capacity enrollment	1
Hospital/Medical Center	To be established based on a study of parking needs prepared specifically for the subject institution	4
<b>Arts, Recreation and Entertainment</b>		
Convention Centers, Meeting/Banquet Facilities, not within a hotel or in a hotel but exceeding 100 sq ft/sleeping room	Up to 25,000 sq ft, 30/1,000 sq ft GFA; scaled between 25,000 and 50,000 sq ft; 50,000 sq ft, 20/1,000 sq ft GFA; 10/1,000 sq ft GFA; scaled between 100,000 and 250,000 sq ft, 250,000 or more sq ft GFA; 6/1,000 sq ft	
Health Club	7.0/1,000 sq ft GFA	2
Cinemas	Single screen: 0.5/seats; 2 to 5 screens: 0.33/seat; 5 to 10 screens: 0.3/seat; over 10 screens: 0.27/seat	2,4
Theatres (live performance), Churches and Religious Centers	0.4/seat	2
Arenas	0.33/seat	2
Football Stadium	0.31/seat	2
Baseball Stadium	0.35/seat	2
All other Public Assembly	0.3 per seat 0.25/permitted capacity where not seated	4

**Sources:**

- 1) *Parking Generation, Third Edition, ITE*
- 2) *Shared Parking, Second Edition, ULI*
- 3) *Parking Requirements for Shopping Centers, Third Edition*
- 4) *Collective Experience of PCC*

### SHARED PARKING PROVISION

Shared parking recognizes that different land uses routinely experience peak parking accumulations at different times of the day, week or season, and not all spaces will be used at the same time. The Urban Land Institute (ULI) Shared Parking publication methodology is recommended as the standard for developing shared parking studies for mixed use developments, as well as activity districts such as downtown. Although it is not widely considered a high priority in smart growth and sustainability circles, in fact shared parking significantly reduces paved area more than nearly any other strategy, and for nearly any development, anywhere in the city.

Article III – Off-Street Parking and Loading, Section E: *Reduction for mixed use or joint use of parking spaces* allows a reduction for two or more land uses providing off-street parking, with the stipulation that the number of spaces be no less than the larger of two land uses plus 40% of the other required land uses. Land uses must be on the same parcel or 150 feet.

Listing the reduction as described is feasible for two land uses, but in many cases there may be more than two land uses. We recommend a specific shared parking provision be included that states a shared parking study is required along with a site plan and parking management plan for the development. The study and documents must demonstrate how the parking shares using the ULI Shared Parking methodology and detail how the parking will be managed. Further, the analysis must be performed by an experienced professional engineer, architect or planner experienced in parking studies.

### REQUIRING RESERVED EMPLOYEE PARKING

Article III – Off-Street Parking and Loading, Section F: *Employee Parking* requires all off-street employee spaces required based on the code to be signed and reserved for employee parking. As a general rule of thumb, we do not recommend reserving parking, as these spaces cannot be shared, thus increasing the number of spaces required. This could be listed as an option, but not a requirement.

### FEE-IN-LIEU PROVISION

Beyond requiring a developer to physically add parking, some municipalities allow developers to pay a fee in lieu of providing the required parking. The city may approve that an applicant make a one-time payment equivalent to the estimated cost of providing a portion of the required parking spaces to serve the proposed use. Approval of the payment in lieu should be at the option of the Planning Department level based on an assessment that the city can reasonably construct the required parking at an appropriate site within a reasonable period of time before or after the occupancy of the use associated with the payment in lieu of parking.



Any off-street parking satisfied in this manner would run with the land and any subsequent change of use which requires more parking would require subsequent action to satisfy the additional parking requirement. No refund of such payments would be made when there is a change to a use requiring less parking. Prior to issuance of a building permit and/or business license, the applicant would deposit the in lieu payment in one lump sum payment, payable as directed by the city treasurer.

The amount of the payment should be fixed by resolution adopted from time to time by the city council. Funds derived from such payments should be deposited by the city into a special fund, to be used to develop additional parking resources. Funds shall be used and expended exclusively for the purpose of planning, designing, acquiring and developing (but not maintaining and/or repairing) parking facilities designated by the City Planning Department. The parking facilities account may also be used for alternatives to the provision of parking facilities in the district, including transportation demand management measures.

Fee in lieu programs are most common on the East and West coasts where land is at a premium. Fees vary widely based on the projected cost of providing the parking in the local area and projected income derived from the spaces. The current fee in Miami Beach is \$35,000 per space.

### PARKING ORGANIZATION

The downtown parking program is divided by function as follows, with general oversight by the City Manager:

- Maintenance provided by the Public Works Department;
- Permits, meter violations and revenue accounting by the Finance Department;
- Enforcement by the Police Department.

A downtown parking focus group consisting of downtown stakeholders was established to consider parking issues and solutions within downtown working with the City Manager. The current parking organization has the key components covered, but may lack an over riding objective. The City Manager in conjunction with the parking focus group can aid in this process. We recommend all three departments meet regularly to discuss parking and meeting the stated objectives. These meetings should initially be conducted at least quarterly and monthly during the busy season to address key issues and findings.



### PARKING MANAGEMENT BEST PRACTICES

The best practices most applicable to downtown Cocoa Beach include the following items:

- Typically, on-street and off-street public parking are shared between established downtown businesses that may have limited parking capacity on-site; downtown parking is (by default) a shared use system
- Walker supports the use of flexible code standards for core downtown areas instead of minimum parking requirements. These tend to limit the opportunities for infill development and redevelopment within a downtown
- The goal of regulating street parking is to maximize turnover with the most convenient spaces for customers and visitors; parking regulations are not meant to be punitive for downtown businesses
- Off-street parking can be either publicly or privately developed; however, structured parking is expensive and almost never pays for itself
- Parking is a limited resource in terms of land and opportunity cost value; it is in the best interest of the community to manage parking in order to maximize its efficiency
- Parking system practices should be fair and equitable
- Market-based solutions are recommended when possible
- Parking rates and policies (if adopted) should be established based on 85/15 rule; meaning a 15% vacancy rate is the target for on-street and public parking lots
- Parking revenues collected in downtown should be reinvested back into the downtown to either improve parking or provide amenities, such as beautification of pedestrian areas

### FINANCIAL ANALYSIS

This financial analysis is preliminary in nature and provides a revenue projection by applying the projected demand to a proposed parking rate structure that is based on our market analysis. We then project operating expenses and calculate the projected net operating income. The model was developed specifically for this project and considers the following:

- Data Supplied by Cocoa Beach;
- Data Collected by Walker;
- Assumptions made by Walker.

### PEER CITY SURVEY OF PARKING RATES

A discussion of peer cities was made during the initial project kick-off meeting. Walker conducted a survey of these cities to document parking rates. The parking rates provided in the following table represent off-street parking rates with a focus of parking in close proximity to the beach. Where multiple rates are provided the rate listed is an average rate per hour.

Figure 13: Parking Rate Survey - Off-Street Parking

City	Area	Hourly Rate Range	
		Low	High
Cocoa Beach	Downtown	\$ 1.00	\$ 2.50
Fort Lauderdale	Beach area	\$ 1.00	\$ 1.75
West Palm Beach	Clematis Street	\$ 1.00	\$ 1.00
Hollywood, FL	Beach	\$ 1.50	\$ 2.00
Delray Beach	Beach and pier	\$ 1.50	\$ 3.00
Deerfield Beach	Beach front parking	\$ 2.00	\$ 4.00
Lauderdale-by-the-Sea	Beach/Downtown	\$ 1.00	\$ 1.00
Boca Raton	Beach area	\$ 2.00	\$ 2.00
	Low	\$ 1.00	\$ 1.00
	High	\$ 2.00	\$ 4.00
	Average	\$ 1.38	\$ 2.16
	Median	\$ 1.25	\$ 2.00

Source: Walker Parking Consultants

**OPINION OF CONSTRUCTION COSTS**

Construction costs vary based on several factors, such as the site size, number of spaces, façade treatment, and whether the spaces are below grade or above grade. Above grade parking structures generally cost \$12,000 to \$20,000 per space. Garages with upgraded façade treatments, such as upgraded brick cladding, speed ramps without parking to allow commercial space, adding public restrooms, or upgraded elevator towers influence the overall cost per space. Assuming an upgraded façade treatment with retail space, we assume a base construction cost of \$14,500 per space.

This cost does not include land, demolition of existing structures, or soft costs. Land and demolition costs will vary based on the site. For this analysis, we assume no land costs and minimal demolition costs. Soft costs vary for each project, but generally represent approximately 15 - 25 percent of total construction costs. An estimate of the typical soft costs follows below:

Architectural/Engineering Fees	5 - 8%
Client Administration	1%
Financing	3 - 5%
Survey & Geotechnical Report	1%
Testing (Soil, Concrete, etc.)	1%
Construction Contingency	4 - 9%

Assuming 20 percent soft costs, the total cost per space and no land or demolition costs, this equates to \$17,400 per space, as shown in the following table.

**Table 21: Parking Structure Opinion of Cost**

Above Grade Spaces	Cost per Space	Soft Costs (20%)	Cost per Space <sup>1</sup>
1	\$ 14,500	\$ 2,900	\$ 17,400

<sup>1</sup> Excluding land and demolition costs.

Source: Walker Parking Consultants

**OPERATING COSTS**

Typical on-going operating costs for a parking structure include staffing, maintenance, utilities, and security. Walker maintains a database of operating revenue and expense statements for over 200 separate parking facilities to project these expenses. Certain operating expenses are directly related to the type of operation of the facility. An example of this is revenue collection; cashiered locations have far greater payroll expenses as compared to “free” parking or contract only parking. Other expenses, such as maintenance, are fairly predictable, although even these are influenced by the location of the facility and type of construction.

The following table presents a summary of median operating cost data for parking structures based on fully staffed and no-staff. A staffed parking structure with security patrols is roughly \$584 per space while an unattended facility with no security patrols is roughly \$210 per space. The highest costs are associated with labor and security for the facility, thus more and more parking facilities are operated through automated revenue control equipment. Options for paid parking assumes gated with ticket which allows payment at exit and more validation options, but may also be through meters and enforcement.

**Table 22: Median per Space Operating Expenses**

Expense Category	Staffed	No Staffing/ Security
Payroll & Benefits	\$ 267	\$ -
Security	\$ 107	\$ -
Management Fees	\$ 40	\$ 40
Supplies	\$ 20	\$ 20
Liability Insurance & Claims	\$ 43	\$ 43
Utilities	\$ 60	\$ 60
Accounting/ Banking	\$ 12	\$ 12
Maintenance	\$ 30	\$ 30
Miscellaneous/Other	\$ 5	\$ 5
<b>Annual Cost Per Space</b>	<b>\$ 584</b>	<b>\$ 210</b>

Source: Walker Parking Consultants, Revenue and Expense Database

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### BREAK-EVEN POINT

By applying the projected construction and operating cost per space, we can calculate the monthly revenue needed for the structure to be self-sufficient. The following table shows the monthly revenue needed for a range of cost options, assuming 25 year financing at 5 percent interest.

**Table 23: Annual Breakeven Cost per Structured Parking Space**

Project Cost Per Space	Annual Operating Cost Per Space					
	\$300	\$400	\$500	\$600	\$700	\$800
\$ 12,500	\$99	\$107	\$116	\$124	\$132	\$141
\$ 13,500	\$105	\$113	\$121	\$130	\$138	\$146
\$ 14,500	\$111	\$119	\$127	\$136	\$144	\$152
\$ 15,500	\$117	\$125	\$133	\$142	\$150	\$158
\$ 16,500	\$123	\$131	\$139	\$148	\$156	\$164
\$ 17,500	\$128	\$137	\$145	\$153	\$162	\$170
\$ 18,500	\$134	\$143	\$151	\$159	\$168	\$176
\$ 19,500	\$140	\$149	\$157	\$165	\$174	\$182
\$ 20,500	\$146	\$155	\$163	\$171	\$180	\$188
\$ 21,500	\$152	\$160	\$169	\$177	\$185	\$194
\$ 22,500	\$158	\$166	\$175	\$183	\$191	\$200
\$ 23,500	\$164	\$172	\$181	\$189	\$197	\$206
\$ 24,500	\$170	\$178	\$187	\$195	\$203	\$212
\$ 25,500	\$176	\$184	\$192	\$201	\$209	\$217
\$ 26,500	\$182	\$190	\$198	\$207	\$215	\$223
\$ 27,500	\$188	\$196	\$204	\$213	\$221	\$229
\$ 28,500	\$194	\$202	\$210	\$219	\$227	\$235

Monthly Revenue Per Space Needed

*A parking structure costing \$17,500 per space to build, with annual operating costs of \$500 per space, financed at 5% interest for 25 years, requires a monthly revenue stream of about \$145.00 to break even. This does not include land or demolition costs.*

Rate: 5.00%      Amortized Period: 25 Years

Source: Walker Parking Consultants

Considering the high monthly income needed per space to breakeven, it is unlikely that a stand-alone parking structure can be built without some additional contribution from the City based on current market conditions. This is not an uncommon problem and many cities address this issue by consolidating parking revenue sources, such as meter and citation revenue, to pay for these types of parking improvements.

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### 5-YEAR PRO FORMA

The following provides a conceptual five year pro forma, assuming a 300 space parking structure located in the Core Area.

**Table 24: Conceptual Pro Forma Statement**

Detail	Year	1	2	3	4	5
<b>Operating Revenues</b>						
Transient		\$232,553	\$294,325	\$327,936	\$363,364	\$363,364
Less Vacancy/Collection Loss	1.0%	(\$2,300)	(\$2,900)	(\$3,300)	(\$3,600)	(\$3,600)
<b>Total Net Revenue</b>		<b>\$230,253</b>	<b>\$291,425</b>	<b>\$324,636</b>	<b>\$359,764</b>	<b>\$359,764</b>
	<b>Revenue Per Space</b>	<b>\$768</b>	<b>\$971</b>	<b>\$1,082</b>	<b>\$1,199</b>	<b>\$1,199</b>
<b>Operating Expenses</b>						
	2.0% Inflation					
Management Fee	\$40 /Space	\$12,000	\$12,200	\$12,400	\$12,600	\$12,900
Wages	5,143 Hours	\$72,600	\$74,100	\$75,600	\$77,100	\$78,600
Employee Benefits	40% Wages	\$29,100	\$29,700	\$30,300	\$30,900	\$31,500
Accounting/Banking	\$12 /Space	\$3,600	\$3,700	\$3,800	\$3,900	\$4,000
Materials & Supplies	\$20 /Space	\$6,000	\$6,100	\$6,200	\$6,300	\$6,400
Utilities	\$60 /Space	\$18,000	\$18,400	\$18,800	\$19,200	\$19,600
Insurance and Claims	18% /Wages	\$13,100	\$13,300	\$13,600	\$13,900	\$14,100
Maintenance	\$30 /Space	\$9,000	\$9,200	\$9,400	\$9,600	\$9,800
Miscellaneous/Other	\$5 /Space	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
<b>Total Operating Expenses</b>		<b>\$164,900</b>	<b>\$168,200</b>	<b>\$171,600</b>	<b>\$175,000</b>	<b>\$178,400</b>
	<b>Expense Per Space</b>	<b>\$550</b>	<b>\$561</b>	<b>\$572</b>	<b>\$583</b>	<b>\$595</b>
<b>Net Operating Income</b>		<b>\$65,353</b>	<b>\$123,225</b>	<b>\$153,036</b>	<b>\$184,764</b>	<b>\$181,364</b>
Maintenance Reserve Fund	\$50 /Space	(\$15,000)	(\$15,000)	(\$15,000)	(\$15,000)	(\$15,000)
<b>NOI after Reserve Fund / Before Debit Service</b>		<b>\$50,353</b>	<b>\$108,225</b>	<b>\$138,036</b>	<b>\$169,764</b>	<b>\$166,364</b>

Source: Walker Parking Consultants

### Assumptions:

- Average Ticket Rate: \$5.00
- Pay-on-Foot operation
- Seasonality modeled from Yen Yen Lot activity report
- Maintenance Reserve Fund held in reserve for on-going maintenance
- Part-time manager, roving staff, and maintenance persons to monitor garage
- Potential monthly parking revenues not included
- Annual absorption rate over first three years of 80/90/95
- Five percent rate change in year three

### CONCLUSIONS AND RECOMMENDATIONS

The Downtown Cocoa Beach Community Redevelopment Plan outlines the Downtown Core as one of the key properties for redevelopment within the downtown area. Parking will play a key role in this process. In this report, we provide parking management concepts and ideas to benefit the parking system both now and in the future. The overriding objectives for the downtown parking program:

- Improve public perception of parking.
- Ensure the most convenient spaces are available to visitors.
- Improve both visitor and employee parking options within the Core Area.

To accomplish these objectives, we recommend the implementation of short-term (1 year), mid-term (1 – 3 years), and long-term (over 3 years) parking management strategies.

#### *Short-Term (1 year)*

- Continue the implementation of the uniform signage package for the all City owned public parking lots in downtown in accordance with the Land Design South recommendation.
- Give notice to violators of unpaved and non-conforming parking lots providing paid parking.
- Update the code to include any paid parking lot regardless of ownership.
- Complete the on-going evaluation of smart meters to determine the best solution for Cocoa Beach. Include in the analysis an understanding and demonstration of an integrated citation system, to allow checking of meter payment on one device for payment by phone, outstanding citations, and potentially a graduated fine system.
- Begin the replacement of existing single space meters with the selected solution to accept payment by credit card and improve monitoring of meters, prioritizing the replacement based on the historical use and demand of existing meters.
- Change meter rate for the Downtown area so all meters are \$2.00 per hour.
- Test the feasibility of portable restrooms and showers to assist separating Beach visitors and Downtown visitors.
- Continue to monitor voided tickets with the goal of getting them down to 10 percent.
- Pave and landscape existing City grass lot adjacent to the old fire station to meet code for use as a public lot, primarily for employees.
- Reduce 3-hour time limit in Downtown Core to a maximum of 2-hour parking, with up to two spaces per block face set for 30-minute parking if supported by adjacent businesses.
- Reduce hours of enforcement for metered and time-limit parking to encourage evening parking with the goal to benefit downtown restaurants and businesses.



### *Mid-Term (1 – 3 years)*

- Upgrade or replace electronic ticket writers based on an integrated system with the new meters if not already completed.
- Develop parking brochure with map of public parking facilities and add webpage of public parking options to city website and city app.
- Implement an ambassador approach to parking enforcement.
- Add graduated parking fine schedule, including a warning ticket to educate visitors and a higher fee to discourage frequent violators.
- Complete the replacement of existing single space meters with smart meters where the demand makes the replacement a feasible solution.
- Invite proposals for private development or partnership to add a parking structure with commercial space in the Core Area.
- Re-evaluate parking rates, fines, time limits, and voided citations.
- Update land development code to including adjusting how requirements are calculated, specifying shared parking reduction request, and allowing fee-in lieu of providing parking.
- Request proposals and consider procurement of a License Plate Recognition enforcement system to be used in parking enforcement to monitor time limit parking and permit parking.

### *Long-Term (over 3 years)*

- Review parking demand and overall parking management plan.
- Evaluate effectiveness of parking management plan.
- Continue to seek private development that includes a public parking structure in the Core Area if that has not yet occurred.

