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FEASIBILITY ANALYSIS FOR DOWNTOWN
PAID PARKING

**DOWNTOWN
DUNEDIN**
DUNEDIN, FLORIDA

Prepared for:
CITY OF DUNEDIN

JUNE 18, 2015

FINAL REPORT



WALKER
PARKING CONSULTANTS

PROJECT NO. 15-2047.00

FEASIBILITY ANALYSIS FOR
DOWNTOWN PAID PARKING

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EXECUTIVE SUMMARY

Parking in Downtown Dunedin has been and continues to be a growing point of concern. In an effort to address the parking issues, the City retained Walker Parking Consultants (Walker) to review the issues and develop a Downtown Parking Action Plan. Walker was contacted to assist the City and provide a plan for downtown parking. This executive summary provides the key findings and recommendations. The full report provides a detailed review of the analysis and recommendations.

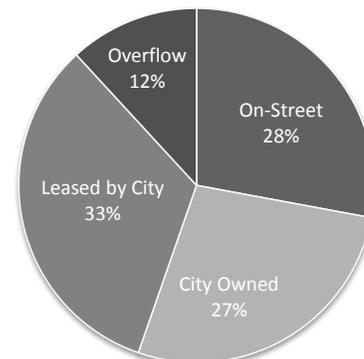
The overriding objectives for the downtown parking program as outlined:

- Encouraging turnover of the most convenient spaces.
- Securing sufficient public parking inventory in Downtown.
- Providing options to residents, visitors, and employees for parking.

PARKING SUPPLY AND DEMAND

Taken as a whole, 931± public spaces were inventoried by Walker. Of these, 821 spaces are available on a regular basis.

Type of Parking	Status	Regular	ADA	Total
On-Street		247	13	260
City Owned	C	240	15	255
Leased by City	L	289	17	306
Subtotal:		776	45	821
Overflow	OF	110	0	110
Total:		886	45	931



- Currently, parking is provided at no charge to the public with some areas having time restrictions posted, although the time limits are inconsistent and not uniform.
- The City leases several surface lots from private land owners at an annual cost of roughly \$81,000.
- More than half (373 spaces) of the public surface parking spaces are considered at risk due to planned and potential redevelopment projects. This does not include the overflow parking, which is also at risk, but only available during large events when parking demand spills over into these areas.
- Observed parking demand indicates overall peak demand during typical conditions is during a weekend evening.
- Several areas experience high demand at levels where parking is either full or nearly full, making it difficult to find a space. An example of parking occupancy is provided in the following heat map.

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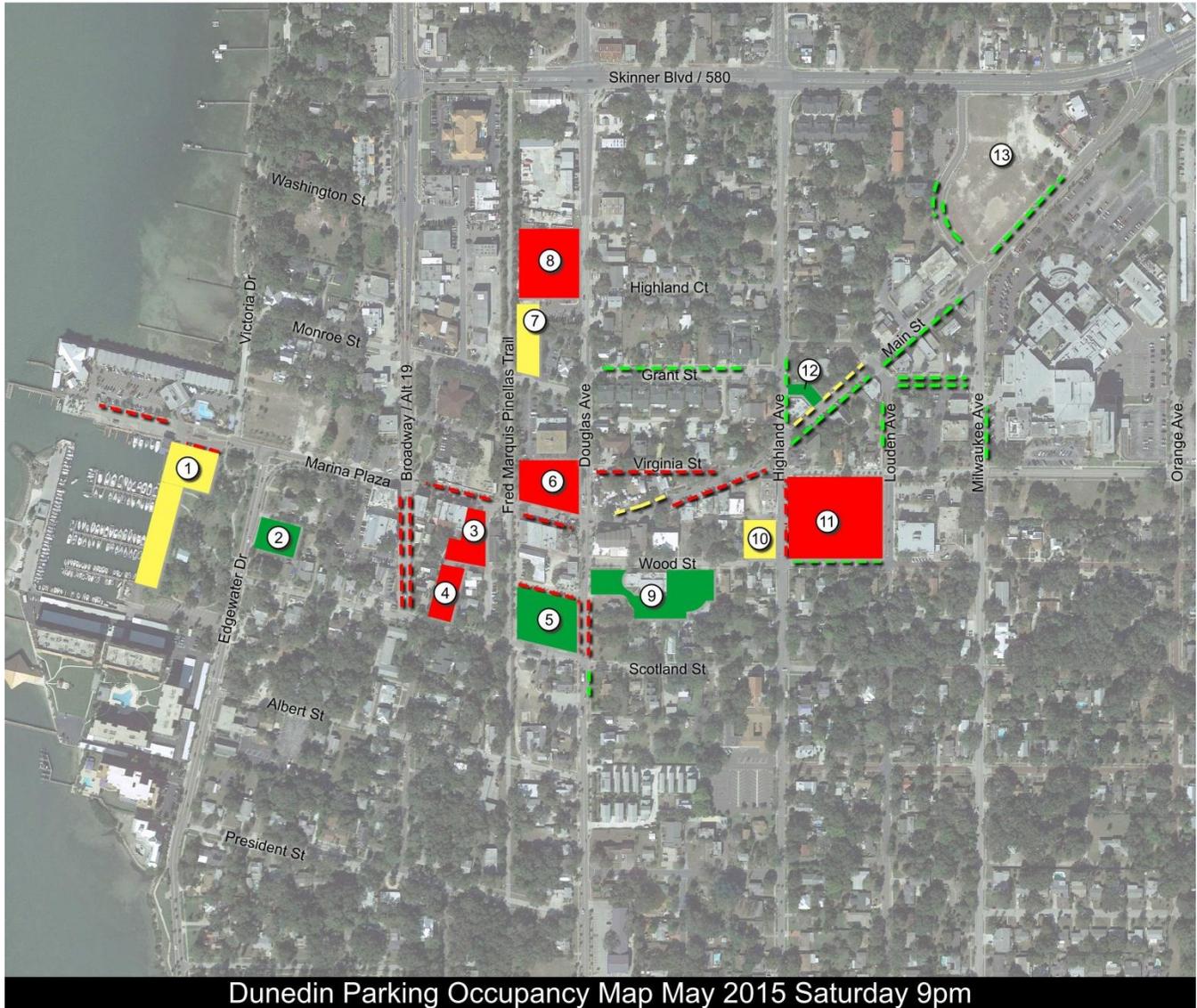
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Example of observed conditions during a weekend evening in May. Similar results were observed during December and June, as well as during the mid-day and weekdays.



On-Street

- ≤ 70%
- 71% - 84%
- ≥ 85%

Off-Street

- ≤ 70%
- 71% - 84%
- ≥ 85%

⓪ Lot Numbers



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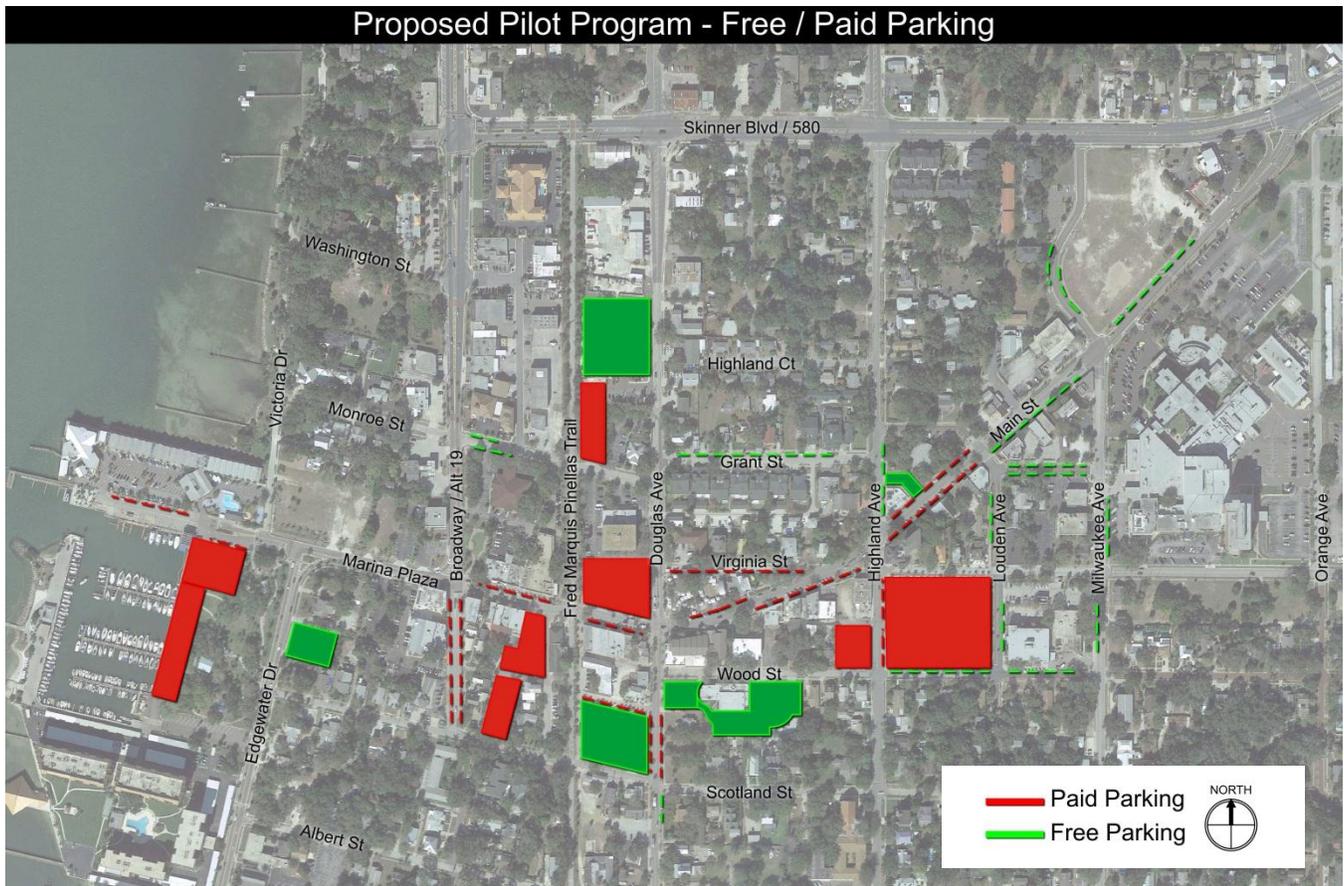
PARKING IS NEEDED

Considering the current non-event demand levels observed, the at risk parking supply, and current parking requirements in Downtown, Walker recommends the City add 350 to 400 new public parking spaces. This additional parking would account for the eventual loss of at-risk parking areas and to meet new parking demand.

IMPLEMENT PARKING MANAGEMENT STRATEGIES

Parking management strategies should be implemented to encourage turnover of the most convenient spaces and to disperse parking demand to less convenient parking in the peripheral areas.

The most effective method to accomplish this and to assist in funding new parking is by implementing a paid parking program consisting of both paid and free parking options. Parking funds generated by paid parking should be used to improve parking within downtown, including funding new parking and improving wayfinding. Options may be added to the system to allow discounts to registered residents of Dunedin and to address surrounding residential neighborhoods. Walker recommends implementing a 12-month pilot program to evaluate the effectiveness of a paid parking approach in downtown Dunedin.



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First and foremost the recommendation for implementing paid parking is to manage a limited resource. Revenues generated by paid parking should be used to fund adding parking to meet the projected parking need to ensure the public parking remains available.

The following provides a range of annual revenue potential for consideration for on-street and off-street areas, as well as citation revenue. The assumptions used in the analysis are listed below each table as needed. This analysis is limited in scope and intended to provide a general overview of potential revenue based on the proposed pilot area. Smart meters that accept credit cards and coins as well as a pay-by-phone app are recommended and assumed in this analysis.

On-Street parking represents the most conveniently located parking in Downtown. As such, it should be priced accordingly. Rates should not be set lower than \$1.00 per hour and will be more effective if priced higher than off-street parking. The analysis accounts for paid parking six days per week less 18 days to account for road closures for events.

ON-STREET REVENUE ANALYSIS	Hourly	Hourly	Hourly
	Rate	Rate	Rate
	\$1.00	\$1.25	\$1.50
Potential Average Daily Revenue per Parking Space	\$6.00	\$7.50	\$9.00
Potential Annual Revenue per Parking Space (unadjusted)	\$1,764	\$2,205	\$2,646
Annual per Space Non-Compliance Adjustment	(\$353)	(\$441)	(\$529)
Annual per Space ADA Placard Free Parking Adjustment	(\$265)	(\$331)	(\$397)
Potential Annual per Space On-Street Revenue	\$1,147	\$1,433	\$1,720
Total Annual On-Street Meter Revenue	\$194,900	\$243,700	\$292,400

Annual per Space Residential Discount Adjustment	(\$459)	(\$573)	(\$688)
Total On-Street Annual Revenue with Residential Parking Discount	\$117,000	\$146,200	\$175,400

Assumptions:

# of On-Street Parking Spaces:	170
Hours of Operation: 9:00 AM - 9:00 PM	12 Hours/Day
Days of Operation: Tuesday - Sunday; less 18 event days	294 Days/Year
Average Occupancy: Average for all days/hours paid	50%
Percent non-compliance:	20%
ADA Placard Free Parking: (State Law)	15%
Resident Discount Program Impact:	40%
Rounding to nearest hundredth	

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Off-Street rates should be set lower than on-street rates, but not less than \$1.00 per hour. To account for closed surface parking lots for events, the total paid days is reduced by six per year.

OFF-STREET REVENUE ANALYSIS	Hourly Rate
	\$1.00
Potential Average Daily Revenue per Space	\$5.40
Potential Annual Revenue per Parking Space (unadjusted)	\$1,652
Annual per Space Non-Compliance Adjustment	(\$496)
Annual per Space ADA Placard Free Parking Adjustment	\$0
Annual Reduced Hours per Space Adjustment (impact to Baptist Lot)	(\$749)
Potential Average Annual per Space Revenue	\$987
Total Off-Street Annual Meter Revenue	\$291,100

Annual per space Residential Parking Discount Adjustment	(\$395)
Total Off-Street Annual Revenue with Residential Parking Discount	\$174,700

Assumptions:

# of Off-Street Parking Spaces:	295
Hours of Operation: 9:00 AM - 9:00 PM	12 Hours/Day
Days of Operation: Tuesday - Sunday; less 6 event days	306 Days/Year
Average Occupancy: Average for all days/hours paid	45%
Percent non-compliance:	30%
ADA Placard Free Parking: (assume all meters/lots ADA compliant)	0%
Resident Discount Program Impact:	40%
Weekly free parking hours per space (Baptist Lot paid after 5 pm)	32 Hours/Week
Rounding to nearest hundredth	

Paid parking only works with enforcement. Two basic fines are provided for consideration. This only includes citations with a fine and not warnings.

CITATION REVENUE ANALYSIS		Basic Fee	Basic Fee
		\$15.00	\$20.00
Daily Citations Issued: (not including warnings)	20	\$300	\$400
Weekly Citations Issued:	120	\$1,800	\$2,400
Annual Revenue:		\$93,600	\$124,800



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IMPLEMENTATION ACTION PLAN:

IMMEDIATE ACTION (3-6 MONTHS)

- Establish ordinances to allow paid parking within specific parking zones in downtown Dunedin.
- Continue process of public meetings to address concerns and explain the program.
- Consider a survey to determine which optional programs are favorable to residents, including permits, validations, and time limits.
- Develop an RFP to implement a paid parking pilot program as outlined in the full report including integrated Pay by Plate meters, parking app, and enforcement system using license plate readers.
- Review options for staffing and management of the paid parking system – either internally or sub-contracted. If sub-contracted, recommend retaining assistance in developing RFP documents and obtaining proposals.
- Strategize and pursue options to increase public parking supply by 350-400 spaces.
- Begin process of establishing a standard parking signage for directional and locational parking wayfinding.

SHORT-TERM (6 – 12 MONTHS)

- Identify locations for the meters and signage with specific focus on the pilot program area.
- Establish an informational site on parking within the city website.
- Obtain and conduct a review of meter proposals and enforcement equipment.
- Display a sample meter for the public to see and try out inside City Hall or other public space.
- If applicable, obtain and review management proposals for system.
- Begin training of ambassadors and deploy with the pilot program.
- Conduct public and media outreach to communicate the parking plan and pending changes.
- Implement pilot program area to test meters and gauge performance, including an on-line survey to understand any specific issues that can be resolved.
- Develop printed parking brochure with map of public parking facilities and city parking app.
- Implement an ambassador approach to parking enforcement.
- Add Neighborhood Parking Permit enabling ordinances.
- Finalize standard parking signage and begin installation.



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MID-TERM (1 – 2 YEARS)

- Evaluate results of paid parking pilot program and adjust as necessary to achieve results.
- Continue public outreach and marketing campaign to educate the public.
- Review financial results of paid parking and use funds to improve downtown.
- Begin adding additional parking within the downtown area as either surface parking or parking structured spaces, including pursuing private development opportunities that could incorporate public parking.

LONG-TERM (OVER 3 YEARS)

- Review parking demand and overall parking management plan.
- Continue to seek private development that includes adding public parking within the Core Area if that has not yet occurred.

PARKING CONDITIONS ANALYSIS



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INTRODUCTION

Downtown Dunedin Florida offers a unique blend of shopping, dining and regular schedule of events to the local area and surrounding communities. The success of the downtown area has increased parking demand over the years as well as interest in redevelopment of downtown. To meet this need and encourage continued redevelopment, the City provides several off-street parking lots and on-street parking within the downtown area. While some public lots are owned by the City, several are leased by the City from private owners. Currently all public parking provided by the City is offered at no charge. Walker was retained to review and update current parking conditions, provide alternatives analysis, and to analyze the feasibility of implementing a paid parking program in downtown.

STUDY AREA AND CURRENT CONDITIONS

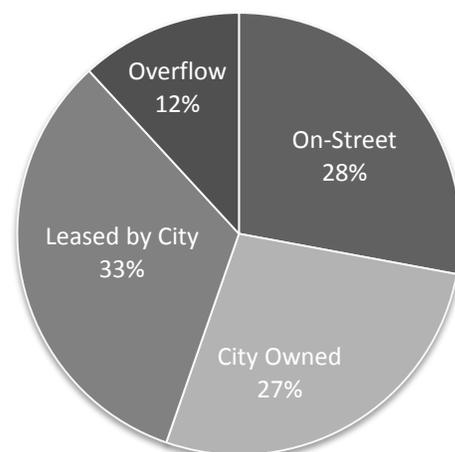
Walker reviewed public parking in the area bounded by the Marina to the west, Skinner Boulevard to the north, Orange Avenue to the east, and Scotland Street to the south. The focus point for public parking and demand is generally along Main Street and within one or two blocks to the north and south. The study area corresponds to the 2009 parking study with updates to the inventory and occupancy observations. A map of the study area identifying the public parking areas is provided in Figure 1 on the following page.

PARKING INVENTORY (SUPPLY)

An initial assessment of parking was conducted of the public parking areas on Friday, December 5th with occupancy of the spaces observed and recorded during the afternoon of Saturday, December 6th. The occupancy counts were completed before the start of the Christmas Boat Parade to avoid obtaining peak event demand. The initial data has been adjusted to remove the 200 Main parking supply (overflow) based on construction beginning on that property. In addition, more extensive parking counts were made on four separate days to confirm existing conditions in May and June.

Taken as a whole, 931± were inventoried by Walker, broken down as follows:

- On-street (Main Street Corridor): 260 spaces – 28%
 - Off-street City Owned: 255 spaces – 27%
 - Off-street Leased by City: 306 spaces – 33%
 - Off-street overflow: 110 spaces – 12%
 - Total Spaces: 931 spaces
-
- City Owned Parking: 515 spaces – 55%
(on-street and off-street lots)



In addition to these spaces, the City has an employee lot consisting of 52 spaces that could potentially be available for public parking after 5:00 p.m. as well as grass parking areas within the Baptist Lot that is used as overflow parking. This parking is not reflected in the total space count.

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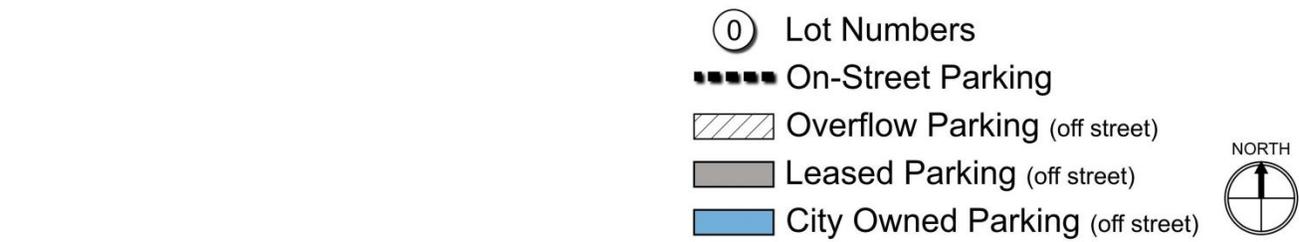
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Figure 1: Study Area Map (Public Parking)



Source: Walker Parking Consultants and Google Earth Pro

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Table 1: On-Street Parking Detail

Street	Area	Side	Reg	ADA	Total Inventory
Main Street	580 to Milwaukee	N	21	2	23
Main Street	Milwaukee to Loudon	S	9	1	10
Main Street	Louden to Highland	N	10	1	11
Main Street	Louden to Highland	S	18	1	19
Main Street	Highland to Douglas	N	7	1	8
Main Street	Highland to Douglas	S	17	1	18
Main Street	Douglas to Alt 19 N	N	13	1	14
Main Street	Douglas to Alt 19 N	S	11	1	12
Main Street	Alt 19 to Marina South	N	9	1	10
Main Street	Alt 19 to Marina South	S	5	0	5
Milwaukee	North of Main	E	7	0	7
Milwaukee	North of Main	W	5	0	5
Milwaukee	South of Main	E	8	0	8
Park	West of Loudon	N	8	0	8
Park	West of Loudon	S	7	0	7
Louden	South of Main	W	7	0	7
Wood	East of Highland	N	7	0	7
Highland	North of Main	E	5	1	6
Highland	South of Main	E	8	0	8
Grant	Highland to Douglas	N	6	1	7
Virginia	East of Douglas	S	16	0	16
Honey	Douglas to Pinellas Trail	S	11	1	12
Douglas	South of Main	E	7	0	7
Douglas	South of Main	W	4	0	4
Douglas	South of Scotland	E	3	0	3
Broadway	South of Main	E	8	0	8
Broadway	South of Main	W	10	0	10
Total On-Street Parking			247	13	260

Source: Walker Parking Consultants

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Table 2: Off-Street Parking Detail

Map ID #	Lot Name	Status	Reg	ADA	Total Inventory
1	Marina Lot	C	65	4	69
2	715 Edgewater	L	27	2	29
3	Museum/Trail Lot	C	36	1	37
4	Scotland/Honey Lot	C	29	2	31
5	Station Square	L	61	3	64
6	Ocean Optics	L	38	2	40
7	Monroe Street Lot	C	24	1	25
8	Keller Lot	L	84	6	90
9	Church Lot	L	69	4	73
10	Wood Street Lot	C	24	2	26
11	Baptist Lot	C	62	5	67
12	Laundry Mart Lot	L	10	0	10
13	Gateway	OF	110	0	110
Total Off-Street Parking:			639	32	671

Status Code:
 C Owned by City
 L Leased by City
 OF Overflow

*paved & marked

Source: Walker Parking Consultants

Table 3: Summary of Parking Inventory Detail

Type of Parking	Status	Regular	ADA	Total
On-Street		247	13	260
City Owned	C	240	15	255
Leased by City	L	289	17	306
Subtotal:		776	45	821
Overflow	OF	110	0	110
Total:		886	45	931

The primary source of public parking is the city, which only owns a little over half of the public parking.

Source: Walker Parking Consultants

The City owns and controls 515 spaces located in both on-street and off-street surface lots. This amounts to just over half (55%) of the total current public parking available during peak demand periods. The remaining public parking consists of parking lots under short-term lease by the City or overflow parking for use only on a temporary basis during high demand special events. Because the overflow parking is not readily available for use by the public, our analysis only includes the regularly available spaces (821 spaces).

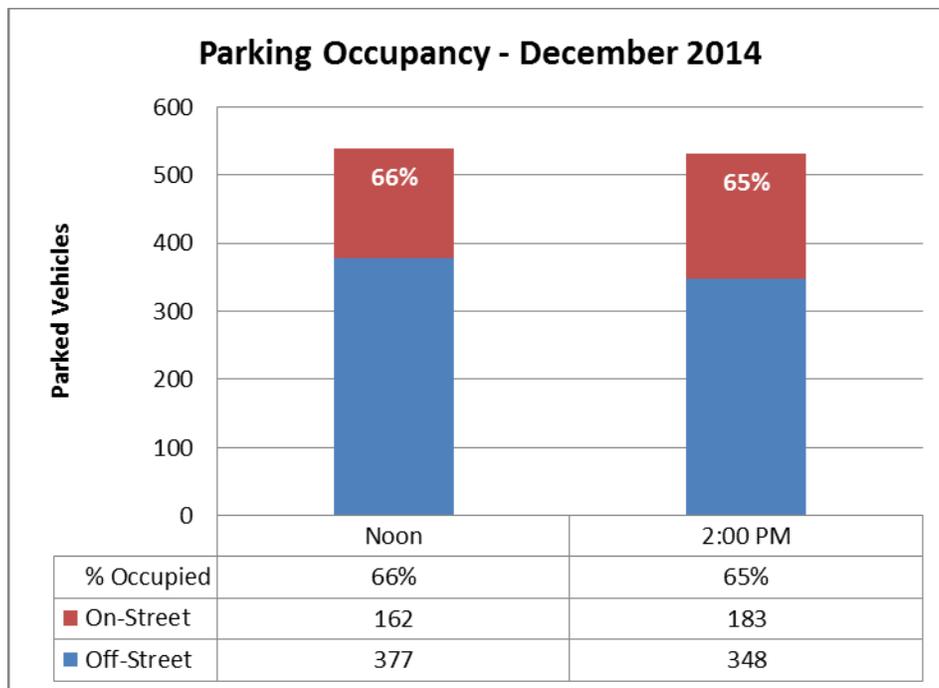
OBSERVED PARKING DEMAND

Walker observed parking conditions and recorded the number of occupied spaces on Saturday, December 6, 2014 in order to quantify current conditions and to further validate the previous parking studies. Events on this date included the Downtown Market and preparations for the lighted boat parade and tree lighting. Weather was sunny and clear with temperatures in the upper 70's. Counts were made for all public parking areas at noon and at 2:00 pm to avoid counting demand for the evening special event. The following table and chart provides a summary of the recorded occupancy by type.

Table 4: Summary of Observed Parking Occupancy – December 2014

Type:	On-Street		Off-Street*		Total Public Parking	
Parking Inventory:	260 spaces		561 spaces		821 spaces	
Time of Count	Parked cars	% Occupied	Parked cars	% Occupied	Parked cars	% Occupied
Noon	162	62%	377	67%	539	66%
2:00 PM	183	70%	348	62%	531	65%

*Excluding Overflow Parking which was not readily available for parking



Source: Walker Parking Consultants

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Overall, parking occupancy remained fairly constant between the two observations, with 66% of the spaces being occupied during the noon observation and 65% of the spaces occupied at 2:00 pm. On-street increased from 62% to 70% while off-street parking decreased from 67% to 62%. Overflow parking areas are excluded, as they were not used or available for parking during the observation period.

While Table 4 suggests that overall the parking system has enough parking to accommodate typical demand during non-event conditions, further analysis indicates the available parking is not convenient. Parking in the core area along Main Street was found to be full and unavailable to the public due to high demand in this area. High occupancy within the core area along Main Street makes finding parking difficult and leads to frustration.

To illustrate the observed parking demand, the following figure is a "heat" map that reflects the observed demand for parking. Areas in red indicate a location that based on our experience and parking industry standards, was experiencing an unacceptably high parking occupancy rate. Areas in yellow were nearing this level of occupancy and green areas had ample available parking.

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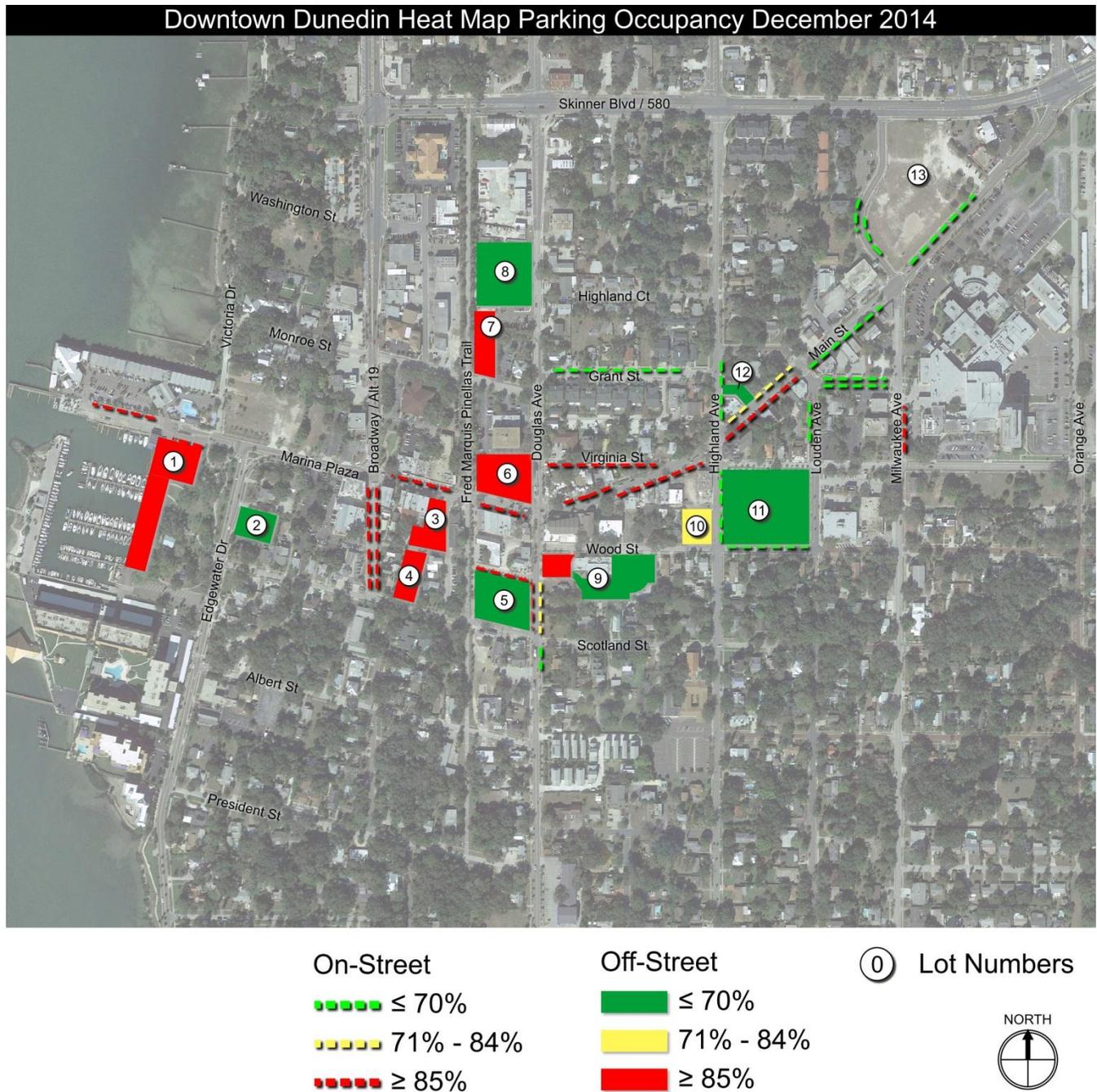
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Figure 2: Heat Map of Parking Occupancy – Saturday at Noon December 2014



Source: Walker Parking Consultants

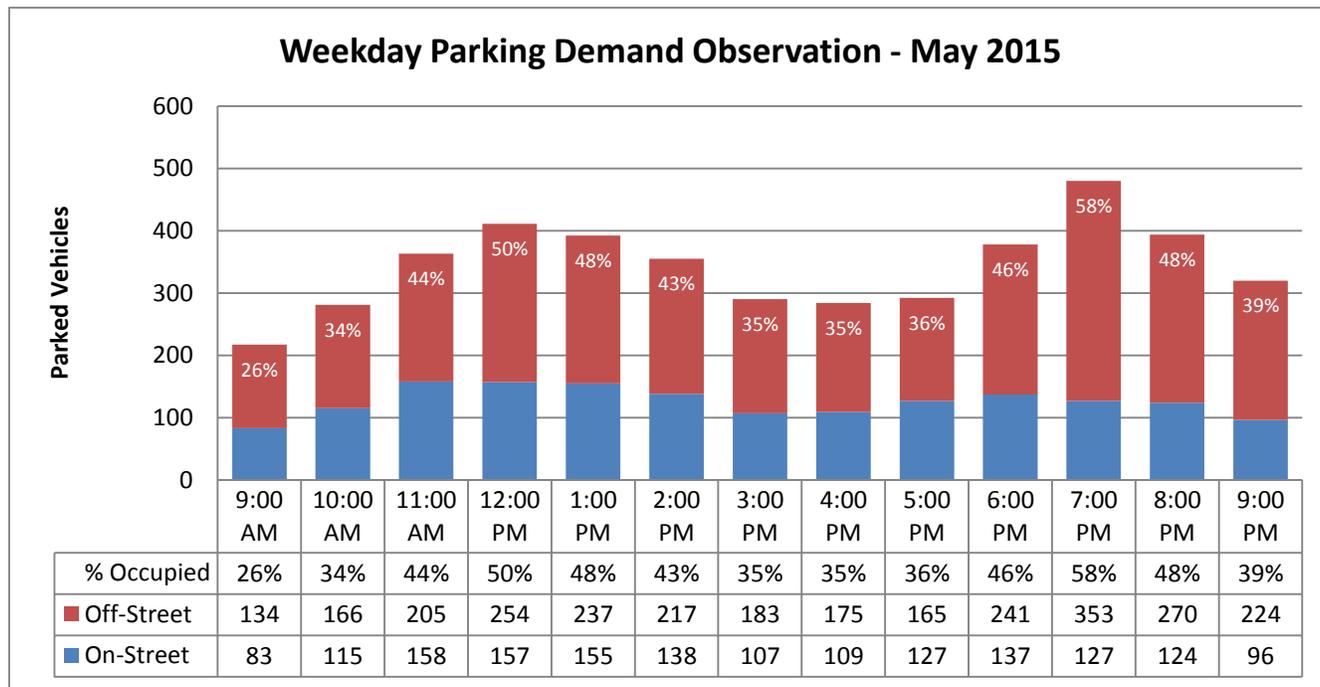
ADDITIONAL OCCUPANCY COUNTS

Additional data collection efforts were made on a weekday and weekend in both May and June as a follow-up to the original parking study effort. The results of these additional occupancy counts are provided herein. For comparative purposes, overflow parking is excluded from the data.

WEEKDAY – THURSDAY, 14 MAY 2015

The overall peak parking demand for the entire study area was recorded at 58% during the 7:00 pm observation. This includes both on-street and off-street parking but excludes overflow parking. Overall on-street parking peaked at 11:00 am with 61% occupancy. This includes all the downtown on-street parking. Several core areas were recorded with occupancy at or above 100% during the peak observations.

Table 5: Occupancy - Thursday 14 May 2015



Source: Walker Parking Consultants

Two heat maps are provided on the following pages to show demand during the day and peak hour in the evening during the weekday observation.

Figure 3: Heat Map of Parking Occupancy – Weekday Mid-Day May 2015



Dunedin Parking Occupancy Map May 2015 Weekday 12pm

On-Street

- ≤ 70%
- 71% - 84%
- ≥ 85%

Off-Street

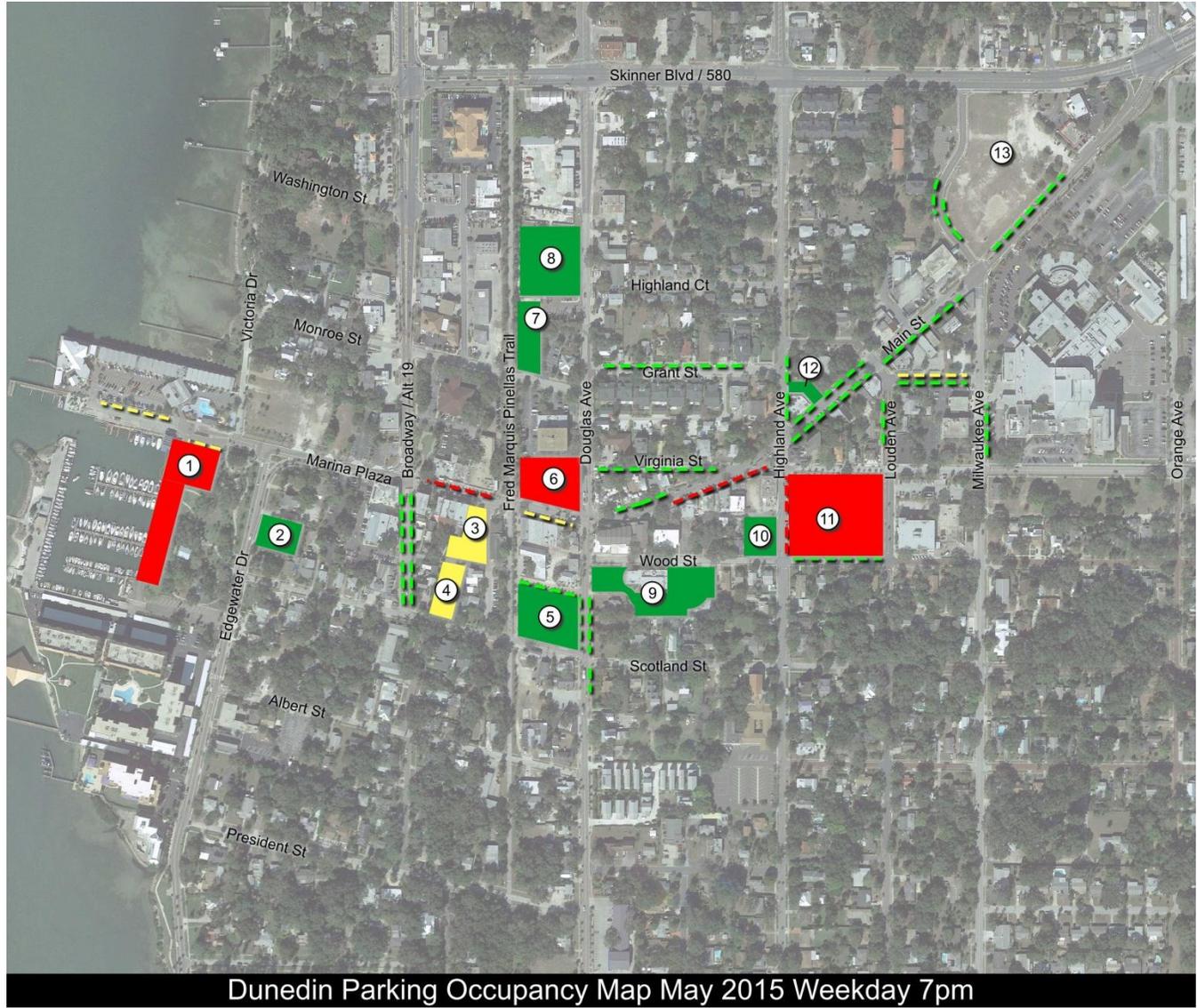
- ≤ 70%
- 71% - 84%
- ≥ 85%

① Lot Numbers



Source: Walker Parking Consultants

Figure 4: Heat Map of Parking Occupancy – Weekday Evening Peak May 2015



Dunedin Parking Occupancy Map May 2015 Weekday 7pm

On-Street

- ≤ 70%
- 71% - 84%
- ≥ 85%

Off-Street

- ≤ 70%
- 71% - 84%
- ≥ 85%

① Lot Numbers

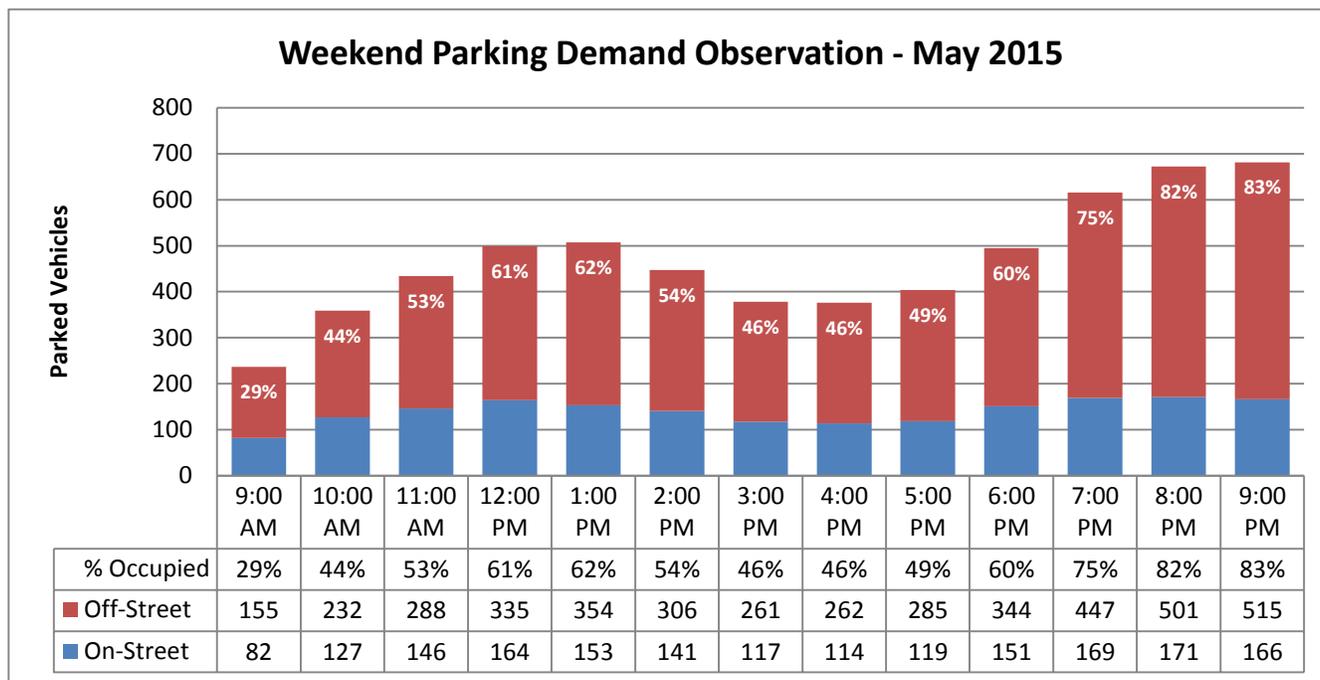


Source: Walker Parking Consultants

WEEKEND – SATURDAY, 16 MAY 2015

Weekend parking demand peaked higher and later, with 83% occupancy recorded for the entire area during the 9:00 pm observation. On-street occupancy peaked at 66% during the 8:00 pm count, while off-street peaked at 92% during the 9:00 pm count. These percentages reflect not counting the overflow parking supply to allow comparable data of parking activity. It is worth noting that during that several vehicles were parked in the grass area of the City owned Baptist Lot during these counts. Within the core area several areas were observed at 100% or higher occupancy.

Table 6: Occupancy - Saturday - 16 May 2015



Source: Walker Parking Consultants

Heat maps are provided on the following pages to show the observed parking demand at Mid-Day and evening peak.

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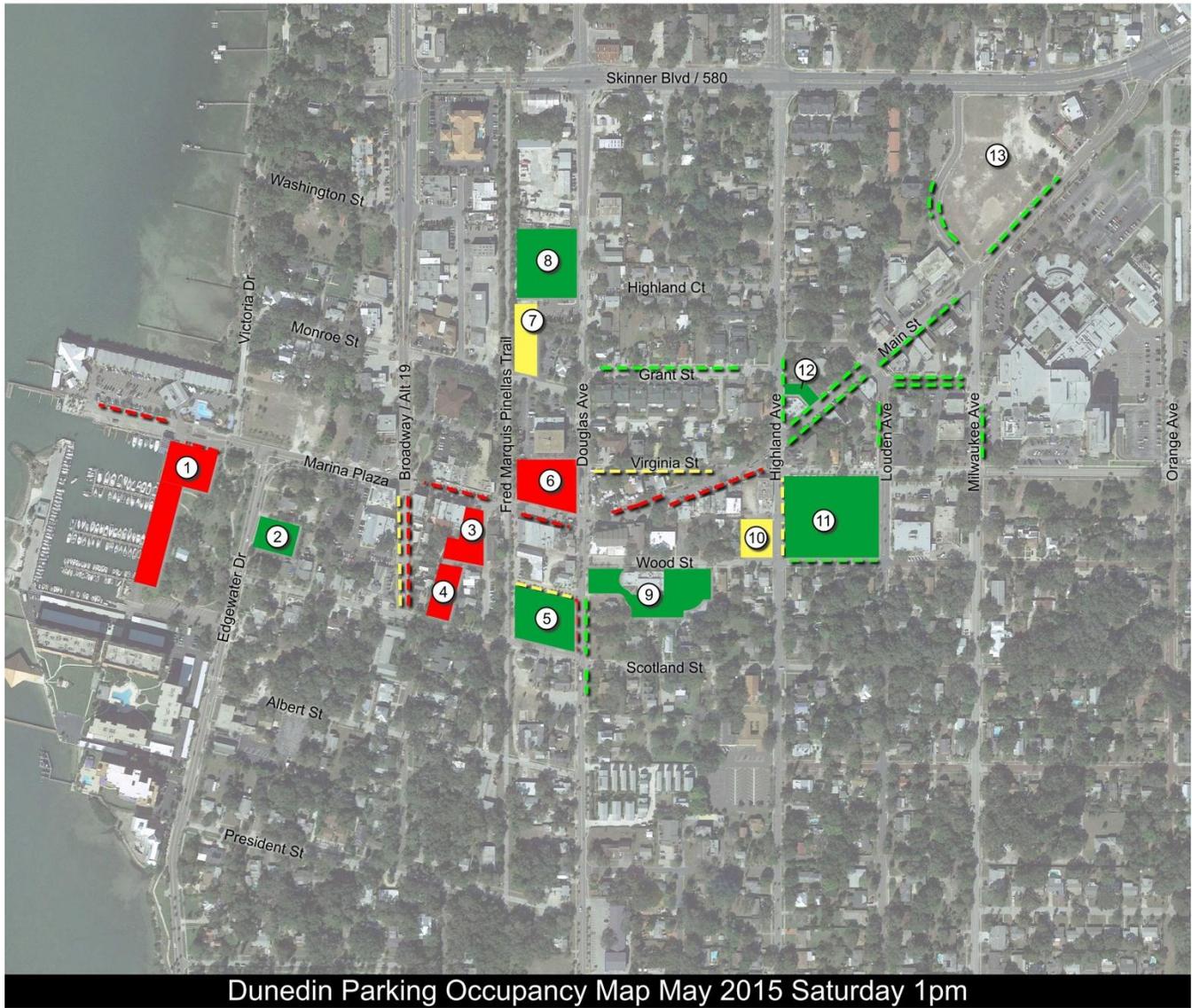
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Figure 5: Heat Map of Parking Occupancy – Saturday Mid-Day May 2015



Dunedin Parking Occupancy Map May 2015 Saturday 1pm

On-Street

- ≤ 70%
- 71% - 84%
- ≥ 85%

Off-Street

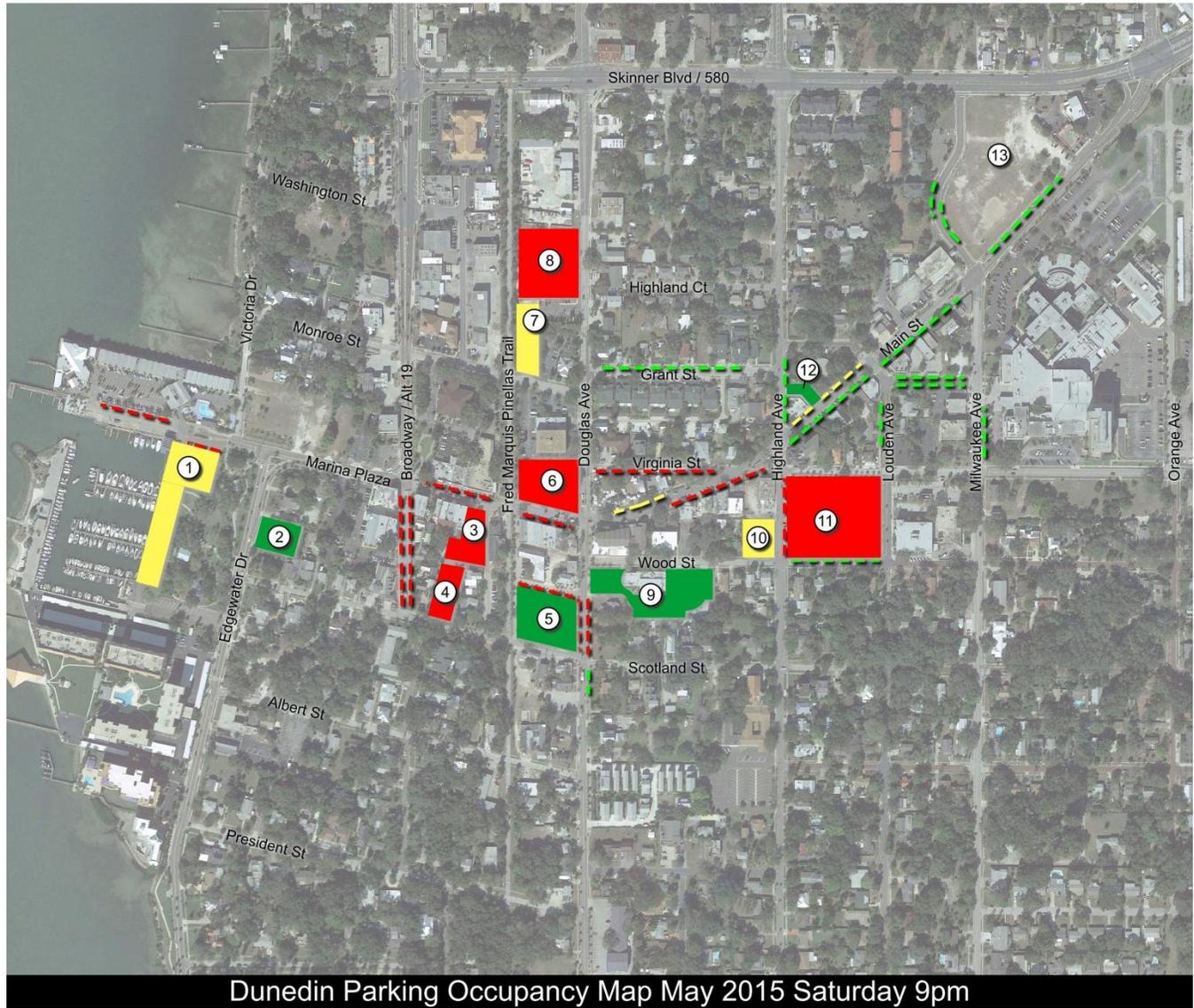
- ≤ 70%
- 71% - 84%
- ≥ 85%

① Lot Numbers



Source: Walker Parking Consultants

Figure 6: Heat Map of Parking Occupancy – Saturday Evening Peak May 2015



Dunedin Parking Occupancy Map May 2015 Saturday 9pm

On-Street

- ≤ 70%
- 71% - 84%
- ≥ 85%

Off-Street

- ≤ 70%
- 71% - 84%
- ≥ 85%

⑩ Lot Numbers

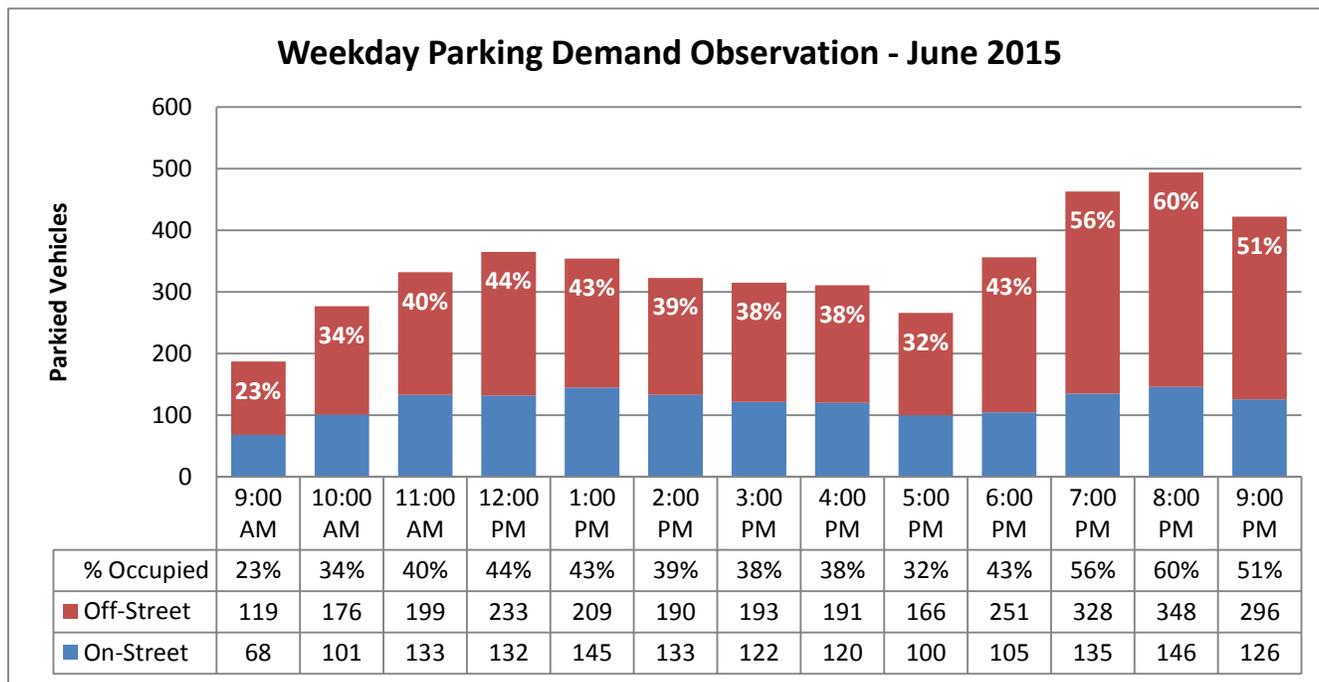


Source: Walker Parking Consultants

WEEKDAY – WEDNESDAY, 3 JUNE 2015

The overall peak parking demand for the entire study area was recorded at 60% during the 8:00 pm observation. This includes both on-street and off-street parking. On-street parking peaked at 56% at both 1:00 pm and 8:00 pm. Several areas in the core of downtown were recorded with occupancy at 100% during the peak observations.

Table 7: Occupancy - Wednesday 3 June 2015

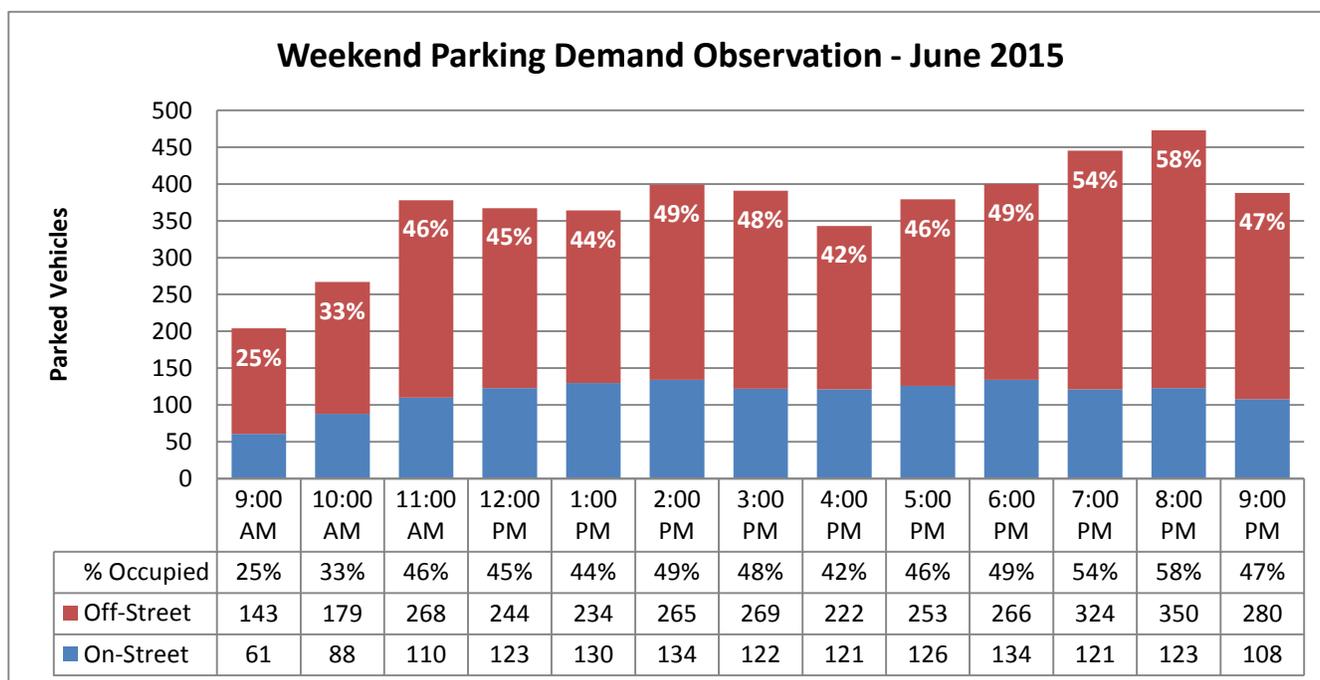


Source: Walker Parking Consultants

WEEKEND – SATURDAY, 7 JUNE 2015

Weekend parking demand peaked slightly lower than the weekday observation, with 58% occupancy recorded for the entire area during the 8:00 pm observation. On-street occupancy peaked at 52% during the 2:00 pm and 6:00 pm counts, while off-street peaked at 62% during the 8:00 pm count. Within the core area several areas were observed at 100% occupancy.

Table 8: Occupancy - Saturday - 7 June 2015



Source: Walker Parking Consultants

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PARKING OCCUPANCY DATA COMPARISON

The initial counts were intended to verify parking conditions were consistent with the previous parking studies and limited in scope. Observations were limited to updating the inventory of parking and completing occupancy counts on a weekend afternoon. Extended counts were excluded due to an evening event that would increase demand beyond a typical parking day.

The follow-up counts are intended to further validate current parking conditions and provide additional key data for developing parking strategies and evaluating future conditions. These counts were conducted in more detail and over an extended period for both a weekday and weekend.

Comparing the same Mid-Day Peak count data indicates higher demand during the December counts. Overall peak observed demand was recorded during the May weekend evening count, which was much higher. The June counts were consistently lower, which can be attributed to the season. The tables below provide a comparison of the data.

Table 9: Comparison of Parking Observations

Mid Day Peak (noon to 2 pm)

Period	Day	Time	On-Street		Off-Street		Total Public Parking	
Dec '14	Weekend	Noon	162	62%	377	67%	539	66%
May '15	Weekend	1:00 PM	153	59%	354	63%	507	62%
May '15	Weekday	Noon	157	60%	254	45%	411	50%
June '15	Weekend	2:00 PM	134	52%	265	47%	399	49%
June '15	Weekday	Noon	132	51%	233	42%	365	44%

Overall Peak Observation

Period	Day	Peak	On-Street		Off-Street		Total Public Parking	
Dec '14	Weekend	Noon	162	62%	377	67%	539	66%
May '15	Weekend	9:00 PM	166	64%	515	92%	681	83%
May '15	Weekday	7:00 PM	127	49%	353	63%	480	58%
June '15	Weekend	8:00 PM	123	47%	350	62%	473	58%
June '15	Weekday	8:00 PM	146	56%	348	62%	494	60%

Source: Walker Parking Consultants

EFFECTIVE PARKING SUPPLY

It is unrealistic to expect parkers to search for and find the last few available parking spaces without experiencing significant frustrations and perceiving that parking is inadequate. A margin of extra spaces in the supply minimizes circulation problems so that drivers can find spaces in a reasonable amount of time. Other factors that reduce the parking supply, such as when vehicles park in more than one space, routine maintenance, fallen debris blocking spaces, or spaces taken out of service temporarily to accommodate an adjacent building owner.

To account for these factors, Walker assesses the adequacy of a parking system by incorporating a “cushion” in to the parking supply. This cushion, or effective supply factor, lowers the calculated number of available parking spaces. A parking system typically operates at peak efficiency when parking occupancy is at 85 to 95 percent of the actual 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 all on-street, and all off-street ADA spaces; and 90% for all regular off-street public spaces. The total *Effective Parking Supply* (“EPS”) is calculated at 726 spaces, as shown in the following table.

Table 10: Effective Parking Supply

Type of Parking	Regular	ADA	Total	Effective Supply	% Cushion
On-Street	247	13	260	223	86%
City Owned	240	15	255	228	89%
Leased by City	289	17	306	275	90%
Subtotal:	776	45	821	726	88%

Source: Walker Parking Consultants

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PARKING ADEQUACY

Parking adequacy is the ability of the parking supply to accommodate the parking demand. The adequacy is determined by comparing the observed peak parking demand to the parking system's effective supply. A parking system is judged to have an adequate parking supply if it has an overall surplus of parking spaces. This analysis considers the overall peak observation as the demand. The overall peak observation was observed during the May 2015 weekend count at 9:00 pm. The following tables show the on-street and off-street adequacy.

Table 11: On-Street Parking Adequacy by Area

Street	Area	Total Inventory	Effective Supply	9 pm Weekend Demand	Adequacy
Main Street	580 to Milwaukee	23	20	6	14
Main Street	Milwaukee to Loudon	10	9	0	9
Main Street	Loudon to Highland	11	9	8	1
Main Street	Loudon to Highland	19	16	13	3
Main Street	Highland to Douglas	8	7	6	1
Main Street	Highland to Douglas	18	15	19	(4)
Main Street	Douglas to Alt 19 N	14	12	14	(2)
Main Street	Douglas to Alt 19 N	12	10	12	(2)
Main Street	Alt 19 to Marina South	10	9	9	0
Main Street	Alt 19 to Marina South	5	4	5	(1)
Milwaukee	North of Main	7	6	0	6
Milwaukee	North of Main	5	4	0	4
Milwaukee	South of Main	8	7	3	4
Park	West of Loudon	8	7	0	7
Park	West of Loudon	7	6	0	6
Loudon	South of Main	7	6	0	6
Wood	East of Highland	7	6	1	5
Highland	North of Main	6	5	4	1
Highland	South of Main	8	7	8	(1)
Grant	Highland to Douglas	7	6	2	4
Virginia	East of Douglas	16	14	15	(1)
Honey	Douglas to Pinellas Trail	12	10	12	(2)
Douglas	South of Main	7	6	6	0
Douglas	South of Main	4	3	4	(1)
Douglas	South of Scotland	3	3	0	3
Broadway	South of Main	8	7	9	(2)
Broadway	South of Main	10	9	10	(1)
Total On-Street Parking		260	223	166	57

Source: Walker Parking Consultants

While the overall on-street parking supply indicates a surplus, several areas are in deficit levels as indicated in (red).

Table 12: Off-Street Parking Adequacy by Lot

Map ID #	Lot Name	Total Inventory	Effective Supply	9 pm Weekend Demand	Adequacy
1	Marina Lot	69	62	55	7
2	715 Edgewater	29	26	15	11
3	Museum/Trail Lot	37	33	39	(6)
4	Scotland/Honey Lot	31	28	28	0
5	Station Square	64	57	28	29
6	Ocean Optics	40	36	50	(14)
7	Monroe Street Lot	25	22	20	2
8	Keller Lot	90	81	99	(18)
9	Church Lot	73	66	31	35
10	Wood Street Lot	26	23	19	4
11	Baptist Lot	67	60	131	(71)
12	Laundry Mart Lot	10	9	0	9
Total Off-Street Parking:		561	503	515	(12)

Source: Walker Parking Consultants

Considering the off-street parking without overflow capacity, the overall adequacy is at a deficit of 12 spaces. During the observations several vehicles were parked in the grass area of the City owned Baptist Lot. If the effective parking supply for these overflow spaces is included for this lot the overall adequacy improves; however, several lots remain at a deficit level. At best, current conditions are judged to be adequate, but only when all the parking is used. This includes several less convenient parking areas, parking in unimproved surface lots, and parking in lots that are at risk to being lost to development in the near future.

LEASED AND AT RISK PARKING AREAS

Several parking lots are currently leased by the City at a reported cost of about \$81,000 annually. These leased lots account for 37% of the overall parking supply and are not guaranteed to be available on a long-term basis, as surface parking is not necessarily the best use of these properties. This does not include the overflow parking areas, which are only available for special event parking if the owner allows paid parking to occur on the property. Changes to the overflow parking supply have occurred since the start of this study with the closing of the 200 Main Lot for construction of a mixed use development. In addition to leased lots being at risk, the City owned Baptist Lot is at risk for redevelopment.

The following table provides a summary of the leased and overflow parking areas that together account for more than half of the public parking in Dunedin.

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Table 13: At-Risk Parking Areas

Map ID #	Lot Name	Total Inventory	Effective Supply	Comments
2	715 Edgewater	29	26	New grass lot
5	Station Square	64	57	Grass/dirt lot
6	Ocean Optics	40	36	For sale - prime location
8	Keller Lot	90	81	Potential development site
9	Church Lot	73	66	Subject to church needs
11	Baptist Lot	67	60	Potential development site
12	Laundry Matt Lot	10	9	Potential development site
Total At Risk Off-Street Parking:		373	335	

*Excluding Overflow Parking - which is already limited to special event parking

Source: City of Dunedin and Walker Parking Consultants

IMPACT OF LOSING AT RISK PARKING

While the current overall parking supply may be judged as adequate but not convenient for a typical non-event period, when at risk parking supply is removed, the total number of parking spaces reaches a deficit level. This calculation is based on using the current effective parking supply, less the number of at risk spaces (assuming that parking is no longer available) to determine the effective parking supply that is considered not at risk. Subtracting the demand based on observations results in a deficit of 290 spaces, as shown in the following table.

Table 14: Parking Adequacy Less At Risk Parking

	Current EPS	-	Less At Risk EPS	=	Not at Risk EPS	-	Demand	=	Surplus/ (Deficit)
Parking Spaces	726	-	335	=	391	-	681	=	(290)

*EPS - Effective Parking Supply

Source: City of Dunedin and Walker Parking Consultants

Assuming a 10 percent Effective Supply Cushion, to provide 290 spaces, 322 spaces are needed. (290 spaces need ÷ 0.90 ESF = 322 spaces)

This does not include any additional demand to the area from new developments.

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FUTURE IMPACTS TO PARKING

Several sites have been identified as potential redevelop locations or have projects under construction or in the works. These projects include:

- Casco Viejo Mixed-Use Project (under construction)
 - 2 residential units
 - 2,260± sf retail
- Victoria Place Mixed-Use Project (under construction)
 - 30 condominium units
 - 8,000 sf retail and office
- Gateway Mixed-Use Project (planned development)
 - 120± residential units
 - 24,000 sf retail
- Douglas Avenue Potential Mixed-Use Project Site
- Baptist Lot Potential Mixed-Use Project Site
- Ocean Optics Lot (currently for sale)
- Station Square Lot Potential Mixed-Use Site

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CONCLUSIONS

Walker's analysis supports the previous parking study's conclusion that the parking supply in downtown Dunedin is at risk and action should be taken now to address this projection. To meet current demand levels during typical conditions before the "at risk" parking supply is lost, we recommend adding a minimum of 322 conveniently located publically available spaces in the Downtown Core area.

This addition does not include any additional parking to meet new demand for future developments. As part of the approval process for mixed-use projects, it may be beneficial to require a shared parking demand study to better understand how the development will impact the area. Further, for planning purposes, it is recommended that instead of working toward adding parking to meet the current typical day parking demand, consider working toward adding 350 to 400 new parking spaces to address future parking needs and carefully review each new proposed project as it relates to added parking demand.

The following sections provide alternatives to address the parking supply and recommended parking management solutions.

ALTERNATIVES ANALYSIS



WALKER
PARKING CONSULTANTS

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ALTERNATIVES ANALYSIS

This section of the report addresses potential alternatives for improving the existing parking supply and management of the parking system.

MAXIMIZING EXISTING RESOURCES

Typically the quickest and least expensive way to increase parking supply is by maximizing the existing space through restriping. Above grade parking structure costs typically range from \$12,000 to \$25,000 per space depending on the site and design specifics (not including land costs) 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.

BAPTIST LOT RE-CONFIGURATION

A majority of the surface parking lots that the city actually owns are small and striped efficiently. The Baptist Lot (#11 on the parking map) between Highland and Louden consists of both paved and grass parking areas. If paved, this lot could conceptually provide 250± spaces for a net gain of about 100 spaces, as shown in the following figure. (275 spaces shown; assuming 25 lost for landscaping and ADA spaces = 250 spaces) Our opinion of costs for developing this site as surface parking is \$3,500 per space or just under \$1.0 million.

Figure 7: Baptist Parking Lot Conceptual Layout



Design Assumptions:

65° angled parking
9'-0" wide spaces
Leveled and paved
275 spaces shown

Assume 25 spaces lost
for landscaping and
ADA parking for a total
of 250± spaces

DOWNTOWN DUNEDIN

FEASIBILITY ANALYSIS FOR DOWNTOWN PAID PARKING



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ON-STREET PARKING

On-Street parking within the area is generally parallel or 90-degree parking. Most areas offer marked on-street parking, although there are some areas that are not clearly marked that could benefit from marking the spaces. This includes the area along Louden Avenue between Main and Virginia Streets and along Virginia Street between Highland and Louden.

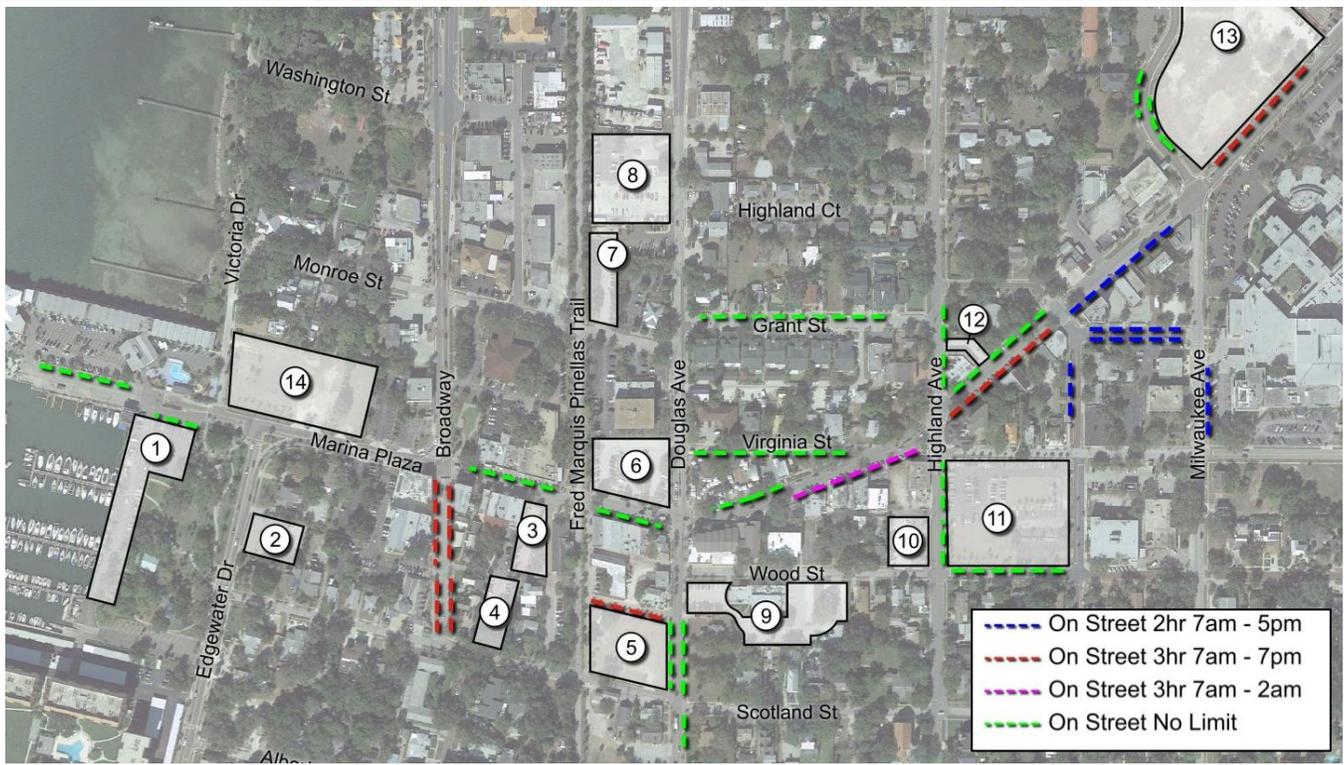
Time-limits for on-street parking are posted along several block faces within downtown. Posted restrictions include:

- No posted limit
- 2 Hour limit 7 a.m. – 5 p.m.
- 3 hour limit 7 a.m. – 7 p.m.
- 3 hour limit 7 a.m. – 2 a.m.



Time restrictions are traditionally used to encourage turnover of on-street spaces and keep employees from parking in those spaces. The current restrictions are not uniformly placed or consistent. The core area of demand is along Main Street, generally centered at Douglas. This key area is noted as not having time limits posted for on-street parking. To show where the restrictions are in place, the following map identifies each area and restriction by color.

Figure 8: On-Street Posted Parking Time Limits



Source: Walker Parking Consultants

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CONSIDERATIONS

Time limits can be effective, but they must reflect a fair time limit, be located in areas where parking turnover is appropriate, and be enforced. **If implemented**, we recommend a time-limit be imposed along Main Street from Broadway to Milwaukee and one block to the north and south. The length of parking should correspond to the typical users with a maximum stay of 3 hours. Even at 3 hours it is likely that some employees will attempt to circumvent the system by moving their vehicle a few times a day to avoid a citation. **A more effective strategy that gives the user a choice is to implement paid parking with meters.** This takes out the citation risk and allows the users to pay for the time they want to park without risk of receiving a citation. If they pay with their phone they can also receive a warning before their time expires and be given the opportunity to add time.

The following sections detail operational considerations if time-limits are chosen to be fully implemented in Dunedin.

ENFORCEMENT OF TIME LIMITS

Based on discussions with city staff the posted time limits are not checked or enforced at this time. To be effective, posted time limits need to be monitored and enforced. Typical enforcement methods include physically chalking tires or electronically tracking vehicle license plate numbers at intervals relevant to the posted time limits. The latest technology for tracking length of stay is with a vehicle mounted License Plate Recognition (LPR) system.

Genetec and Tannery Creek Systems are two examples of firms that offer a vehicle mounted LPR system that includes special vehicle mounted cameras to capture the plate, vehicle location, and wheel stem location as the enforcement vehicle drives past parked vehicles. A computer mounted inside the vehicle records the data, GPS position, and checks the data to determine the length of stay based on the previous data inputs.



Parking enforcement vehicle with cameras highlighted

The cost for one LPR camera equipped vehicle is \$25,000 - \$35,000, plus the cost of the vehicle, thus the total investment could be roughly \$45,000 - \$55,000. In addition to the initial cost, there are on-going fees for cloud based services and on-going support.

Another option is to use handheld electronic devices to manually scan each plate and verify the plate number. In some cases these systems can be augmented by using a smart phone as the tracker. While not as rugged or efficient as the actual handheld device, smart phones are a lower priced option to increase the number of units if needed.

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These systems typically cost about \$5,000 per unit plus an on-going fee for cloud based services and software updates. Leasing this type of system is another option, which greatly reduces the initial investment and is based on the number of units in service.

TIME LIMIT RECOMMENDATIONS

We recommend that if time limits remain as a management tool, at a minimum, they be used uniformly along Main Street and extend one block to the north and south between Broadway and Milwaukee where the highest parking demand occurs and turnover of the spaces is desired. Areas away from Main Street should either have no time limit or a much longer time limit to encourage longer-term parking away from the high demand areas.

Without enforcing the time limits, meters are the only way to encourage turnover. This allows users to determine how long they want to remain parked without the risk of being fined, assuming they pay the meter.

ENFORCEMENT APPROACH AND OPTIONS

Enforcement of parking regulations is required to ensure the success of any parking management plan. The ultimate goal is not to write citations; but rather, to ensure users follow the established policies so the system is fair to all users. Enforcement can be viewed as only punitive, but it can also be used as a tool to educate and provide service to patrons of the downtown area. To accomplish this, Walker recommends that Dunedin adopt the "Ambassador Approach" model for the enforcement of the parking regulations. This approach is considered a best practice in the industry and many of its principles have been adopted by large and small cities successfully.

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. Ambassadors would be required to complete a multi-faceted training in hospitality and customer service, emergency response and first aid, public transportation and City services. They should work directly with transportation and parking departments of the City, local businesses, and professional agencies.

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. Ambassadors should initiate personal contacts with the parking public, have the ability to issue warnings and slightly fewer citations, and interact with visitors and citizens in a positive manner.

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.

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Beyond enforcing parking regulations, the following are examples of appropriate behaviors and duties of Ambassadors:

- To greet visitors and offer customer service;
- To be a friendly face in response to many people's initial interaction with the City;
- To give accurate directions to visitors and direct visitors to destinations;
- To provide information and explain local traffic and parking regulations to seek voluntary compliance;
- To distribute City brochures and maps;
- Identify and relay pertinent information on public area conditions needing action; and
- To deter criminal activity by their presence.

Ambassadors may utilize a less formal uniform than that of the police, with some cities using a branded polo shirt, unique hat, or shorts.

STAFFING OPTIONS

Besides adding city staff to manage and provide enforcement of the final established parking regulations, the city may consider using an outside source for the staff. While this shifts the day to day responsibility of staffing to an outside vendor, it does not relieve the city of its ultimate responsibility to ensure the system is managed as planned and the service to its citizens is fair and well provided.

Several parking management companies offer both on-street and off-street parking management services, including monitoring length of stay, writing citations, collecting meter revenue, and staffing for event parking. Another approach is to outsource staffing to an existing local entity with direct interest in the downtown, such as a downtown association.

Services are typically provided for a management fee plus expenses or flat hourly rate based on position, often with incentives for specified performance criteria. To obtain competitive and comparable proposals, we recommend issuing a request for proposals that includes the goals and vision of the program, a detailed description of the duties, hour of operations and expectations, along with specific pricing details.

PARKING STRUCTURE CONSIDERATIONS

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.

MINIMUM PARKING STRUCTURE DIMENSIONS¹

The larger the site, the more design options and more efficient parking layout. Unfortunately, more often than not, potential sites have limitations or are irregular in shape.

The following discussion is provided as a tool for understanding the minimum dimensions for two common types of parking structure designs, as well as a variation to the level of service (LOS) considering the minimum dimensions. Walker uses a LOS approach to designing as a way to differentiate and evaluate design options similar to the way traffic and roadways are evaluated.

Parking designed at a LOS A will be a better experience for users in terms of turning radius, ramp slopes, vehicle maneuvering and other factors when compared to a LOS D parking design, which while functional, will be more difficult to maneuver. The following table provides the minimum dimensions and general traffic layout for a LOS D (the lowest level of service) and the dimensions if designed at a LOS A (the best level of design).

Table 15: 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

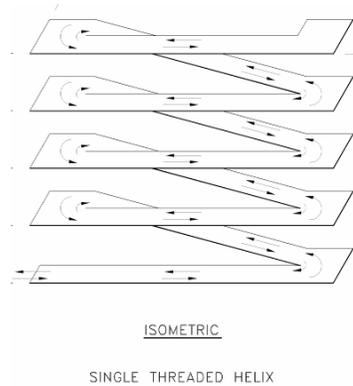
¹ Parking structures could be built on smaller footprints. However, implied in this discussion is the desirability to achieve a relatively efficient parking structure design, as measured by square footage of floor area per space.

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Characteristics of a single-threaded helix include two bays², two-way traffic flow, and 90-degree parking, with the motorist ascending one floor for every 360-degree revolution as illustrated below.

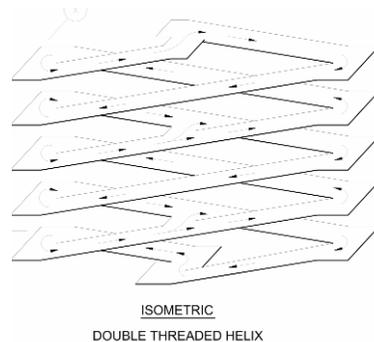
Figure 9: Single Threaded Helix Isometric



Source: Walker Parking Consultants

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. While this design is efficient, it can be confusing to users.

Figure 10: Double Threaded Helix Isometric



Source: Walker Parking Consultants

² 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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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. Larger footprints allow more configuration options that can be more user friendly, such as all flat floors with a speed ramp to circulate each floor.

Understanding the minimum parking structure dimensions is useful when considering sites for adding a parking structure. The overall cost of adding structured parking on a per space basis is typically lower the larger the parking structure. For this reason we recommend building a structure with at least 250 - 300 spaces in order to hold down the overall construction cost per space.

POTENTIAL PARKING STRUCTURE SITES

Walker reviewed the area with city staff to consider four sites for a possible parking structure. Three of these sites are located on existing surface parking lots and one is located over a retention pond. The sites include:

1. Keller Lot Site
2. Broadway and Washington Site
3. Station Square Lot Site
4. Baptist Lot Site

The following pages provide an overview of each option.

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OPTION 1: KELLER LOT SITE

The Keller Lot site has been considered as a site for a mixed use project that may include a shared use parking structure. At the time of this study Walker reviewed the option shown in the figure below. While this project is no longer being considered, the site remains a viable location for a parking structure. This option assumes a shared parking structure for a mixed-use development and the general public.

Assumptions:

- 350 space parking structure
- 225 spaces for public use
- 125 spaces for potential mixed use project
- 25 displaced public spaces in Monroe Street Lot
- 200 space net gain for public parking

The location of this site is favorable, as it falls within 800± feet of Main Street and is centrally located in the downtown area (Main and Douglas). Our assumption is that it would work best as a mixed use development to increase demand in this area as opposed to being a stand-alone parking structure due to its location.

Figure 11: Option 1 Parking Site



Source: City of Dunedin, Graham Design Associates drawing, and Walker Parking Consultants

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OPTION 2: BROADWAY AND WASHINGTON SITE



The Broadway and Washington site is located atop an open air retention pond, owned by the Florida Department of Transportation (FDOT). Conceptually, this site could accommodate a small parking structure with a below grade water retention system built below the structure. Walker estimates a four level structure could accommodate 265± spaces.

Walker assumes a 130' x 190' two-bay parking structure with 90-degree parking.

This site does not displace any existing parking, thus any added parking supply is a net gain.

The location of this site is within 800± feet of Main Street; however, it is located on the far west side of the downtown, which puts it 1,200± feet from core of downtown (Main and Douglas). Pedestrians would be required to cross Alternate Highway 19 to get to the main shopping areas in downtown.

The cost to build a structure on this site will be higher than comparable sites to accommodate the existing retention pond. The ownership of the land (FDOT) would require additional coordination and possible revenue sharing, which is an unknown factor for this sight.

The following figure illustrates an overview of Walkers conceptual layout and assumptions.

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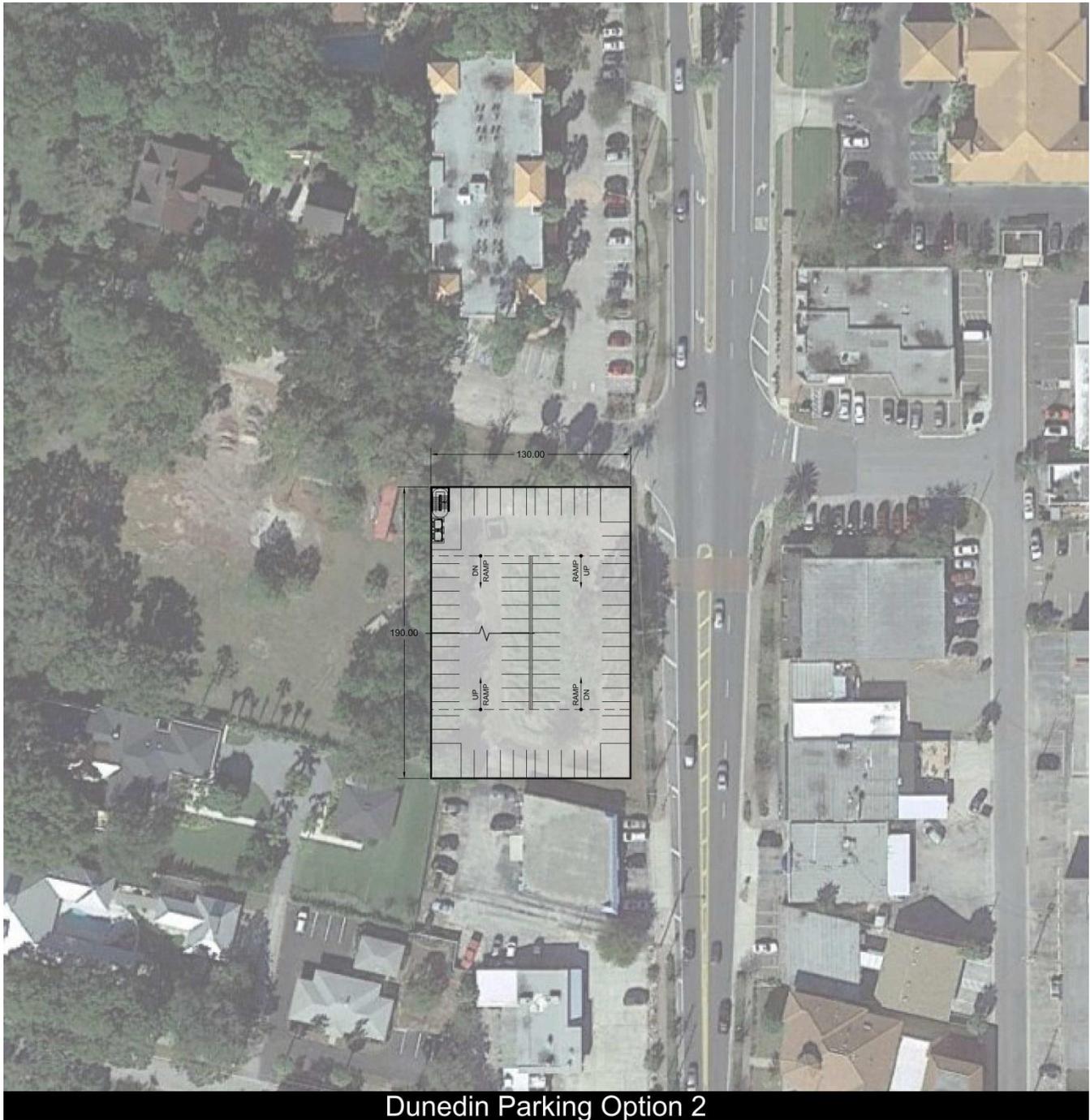
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Figure 12: Option 2 Parking Site



Dunedin Parking Option 2

2-Bay sloped parking	Ground Level	= 50 Spaces
floors at 6% with	Typical Level	= 70 Spaces
90° 9'-0" spaces	Top Level	= 75 Spaces

Source: Walker Parking Consultants

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OPTION 3: STATION SQUARE LOT SITE



The Station Square site is an existing grass lot with paved ADA spaces being leased by the City. In its current configuration the lot contains 64± spaces. Conceptually, this site could accommodate a 130' x 190' two-bay parking structure with 90-degree parking. This layout would leave space for landscaping or small commercial land use on the north and south ends of the property due to the irregular shape of the parcel.

Walker estimates a four level structure could accommodate 265± spaces while displacing the existing 64± spaces for a net gain of 201± spaces.

The location of this site is excellent, as it falls within 400 feet of Main and Douglas on the south side of Main Street.

Costs to build a structure on this site are comparable to other sites with the exception that the city does not own the land.

The following figure illustrates an overview of Walkers conceptual layout and assumptions.

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Figure 13: Option 3 Parking Site



Dunedin Parking Option 3

2-Bay sloped parking	Ground Level	= 50 Spaces
floors at 6% with	Typical Level	= 70 Spaces
90° 9'-0" spaces	Top Level	= 75 Spaces

Source: Walker Parking Consultants

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OPTION 4: BAPTIST LOT SITE



The Baptist Lot site consists of an entire city block with a combination of paved and grass parking areas. This large parcel is owned by the City with access to the lot from Highland Avenue and Loudon Avenue.

In its current configuration the lot contains 67± paved spaces and 83± spaces in the grass for a total of 150± spaces. Conceptually, this site could be paved and uniformly striped as a surface lot with a net gain of roughly 100 spaces as previously shown in Figure 7: Baptist Parking Lot Conceptual Layout. As a parking structure this site could accommodate a 295' x 240' four-bay parking structure featuring flat floors and a speed ramp on one end to move from floor to floor. This layout would leave space for landscaping or a liner building on either the north or south ends of the property.

Walker estimates a two level structure could accommodate 370± spaces while displacing the existing 150± spaces, for a net gain of 220± spaces. A typical level would add 190± spaces. The location of this site falls between 800 and 1,100 feet from Main and Douglas on the south side of Main Street.

Costs to construct a parking structure on this site are favorable, as the city owns the land and the site has several design options and can be built to accommodate more spaces than other comparable sites.

The following figure illustrates an overview of Walkers conceptual layout and assumptions.

Figure 14: Option 4 Parking Site



Dunedin Parking Option 4a

4-Bay flat parking floors with 90° 9'-0" spaces and 8% sloped express ramp	Ground Level = 180 Spaces
	Typical Level = 190 Spaces
	Top Level = 190 Spaces

Source: Walker Parking Consultants

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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 16: 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
Outdoor/Uncovered	400	800	1,200	1,600
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 Dunedin, this generally equates to just over a block for patrons and about two blocks for employees.

The following map illustrates the general distance from each site to Main and Douglas. This provides a general awareness to the scale of the downtown area.

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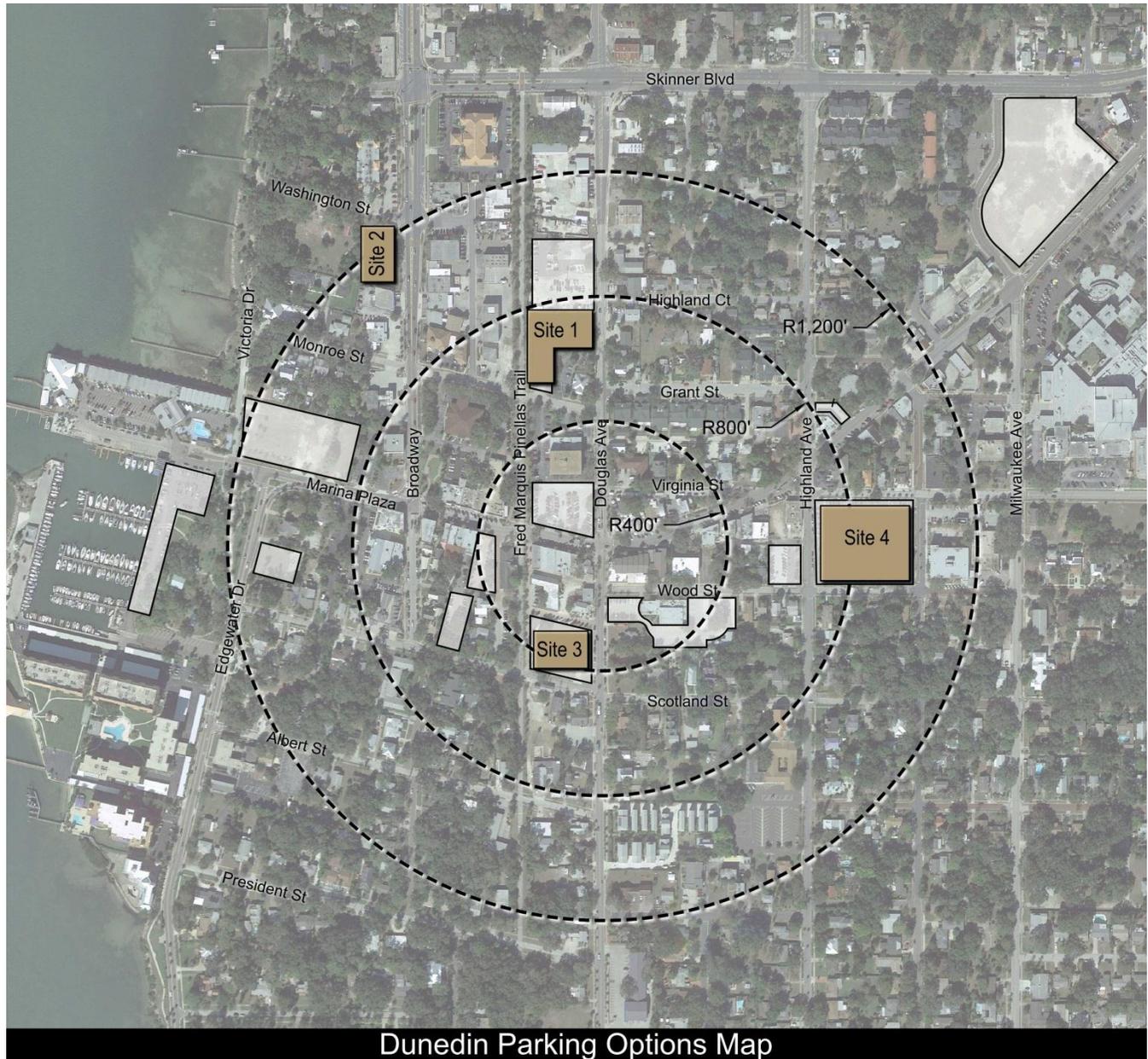
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Figure 15: Walking Distance LOS Map



Dunedin Parking Options Map

- Off-Street Parking
- Parking Site Options
- Walking Radius



Source: Walker Parking Consultants

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PARKING STRUCTURE COST CONSIDERATIONS

Construction costs vary based on several factors beyond the number of spaces. Variations or upgrades to the façade treatment, elevator/stair tower design, site dimensions, pre-cast vs. cast-in-place construction, and whether the spaces are below grade or above grade are some of the more common influences on the overall cost of construction.

Above grade parking structures generally cost \$12,000 to \$25,000 per space or even more. It is widely accepted within the parking industry that below grade parking structures cost 50 percent more per level below grade. Thus, if an above structure is estimated to cost \$12,000 a space, the first level of a below grade structure would cost \$18,000 while the second below grade level would cost \$24,000 a space.

Other costs associated with the construction of a parking garage include:

- Land accusation;
- Demolition of existing structures,
- Any special soil preparation, and
- Soft costs (detailed below).

Our opinion of construction costs for a basic above grade structure in downtown Dunedin is \$14,500 per space. This assumes an above grade structure with some upgraded brick cladding façade treatment and an efficient layout. This cost does not include land, demolition of existing structures, or soft costs (which include financing costs).

Of the options listed, sites 2 (Washington and Broadway) and 4 (Baptist Lot) are owned by the City and will not incur additional land costs. Site 2 will require an additional expense to accommodate a retention pond below the parking structure. Site 4 will require some site preparation including a pond and clearing of the existing asphalt parking lots.

Soft costs vary for each project, but generally represent approximately 15 - 25 percent of total construction cost. 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%

At this early planning stage, we recommend using 25 percent for soft costs. This is added to the construction cost per space and results in a cost per space of \$18,125 (not including the land or special site costs). This cost becomes clearer as the design is solidified and financing is finalized.

OPINION OF COSTS FOR EACH OPTION

Based on the cost assumptions detailed in the previous section, size, displaced parking, and unique characteristics of each site, our opinion of cost for each option was calculated and summarized in the following table. Option 1 cost data is based on the portion of the structure that is paid for by the City and includes the land cost assumptions provided by the City. Displaced spaces for this option only include the spaces owned and controlled by the City, as leased spaces are subject to removal from the parking supply regardless of City action. Option 4b is for transforming the entire Baptist Lot into one large paved parking lot. The cost per added structured parking space is at the lowest level for option 1, the public private partnership with the hotel developer.

Table 17: Opinion of Costs for Adding Parking

	Keller/Hotel Site 1	Retention Pond Site 2	Station Square Lot Site 3	Baptist Lot Site 4a	Baptist Lot Site 4b
Public Spaces	225	265	265	370	250
Displaced Spaces ¹	25	-	-	150	150
Net Gain	200	265	265	220	100
Levels	5	4	4	2	n/a
Construction Cost ²	\$ 3,263,000	\$ 3,843,000	\$ 3,843,000	\$ 5,365,000	\$ 875,000
Soft Costs ³	\$ 816,000	\$ 961,000	\$ 961,000	\$ 1,341,000	\$ 219,000
Unique Site Costs ⁴	\$ -	\$ 1,903,000	-	-	-
Land ⁵	\$ 550,000	-	\$ 2,000,000	-	-
Total Cost:	\$ 4,629,000	\$ 6,707,000	\$ 6,804,000	\$ 6,706,000	\$ 1,094,000
Cost per added space (public space)	\$ 23,145	\$ 25,309	\$ 25,675	\$ 30,482	\$ 10,940

¹ Only counting spaces owned by the City; leased spaces are at risk with or without a parking structure

² Assume \$14,500 per parking structured space and \$3,500 per surface lot space

³ Assume 25% soft costs

⁴ Assume cost to add below grade retention pond equivalent to one additional below grade level

⁵ Land costs are place holder figures based on discussion with City Staff and general in nature

Source: Walker Parking Consultants and Input from City Staff

Our opinion of probable costs for each option is based on the listed assumptions and information obtained from third parties. These costs are preliminary in nature used to project order of magnitude for each site option.

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COMPARISON AND ANALYSIS

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

- *Proximity* is measured as the walking distance between the alternative and the destination.
- *Total Project Cost* is the total cost of the project and considers the overall commitment level required for the project.
- *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 or how it fits in with the overall master plan.
- *Location* is measured as the accessibility of the alternative for a variety of users, such as downtown businesses, the marina, 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.
- *Security* is a measure of how secure the option would be perceived by users when parking and traveling to and from vehicles.
- *Lost Opportunity Costs* considers how developing the site for parking compares to the highest and best use of the property.

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 Dunedin.

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

Table 18: Weighted Matrix Example

	Weight *	Keller Lot Site 1		Retention Pond Site 2		Station Square Site 3		Baptist Lot Site 4a		Baptist Lot Site 4b	
		110 net gain		265 net gain		265 net gain		220 net gain		100 net gain	
		\$23,000/space		\$25,000/space		\$26,000/space		\$30,000/space		\$11,000/space	
Cost/ added space	Score	Weighted	Score	Weighted	Score	Weighted	Score	Weighted	Score	Weighted	
Proximity/Walking Distance	10	2	20	1	10	5	50	4	40	4	40
Total Project Cost	10	2	20	1	10	1	10	1	10	5	50
Cost per Net space Gained	9	5	45	3	27	3	27	1	9	5	45
Aesthetics	5	4	20	4	20	3	15	3	15	4	20
Location	7	3	21	1	7	4	28	2	14	2	14
Environmental Impact	5	3	15	1	5	2	10	2	10	2	10
Versatility	8	4	32	2	16	3	24	3	24	2	16
Displacement	5	3	15	5	25	3	15	1	5	1	5
Security	7	2	14	1	7	2	14	2	14	2	14
Lost Opportunity Costs	5	2	10	4	20	2	10	2	10	1	5
Unweight Score		30		23		28		21		28	
Weighted Score		212		147		203		151		219	
Rank (1=highest)		2		5		3		4		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 sites is a starting point for discussion. In our evaluation, the weighted ranking indicates the surface lot at the Baptist site is the preferred option. Key factors in the ranking are proximity to the downtown core, overall cost, and cost per net space gained. From a total investment perspective, adding surface parking offers the lowest initial cost to add parking capacity.

The underlying goal of this analysis is to assist in understanding the high cost of providing parking and the need to plan for adding parking before it becomes a critical issue.

OPERATING COSTS FOR PARKING STRUCTURES

Beyond the high initial investment to design and construct new parking, there are on-going operating costs to consider. 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; staffed cashiered locations have far greater payroll expenses as compared to automated facilities. Other expenses, such as maintenance, are fairly predictable, although even these are influenced by the location of the facility and type of construction.

Using the median operating cost data for parking structures located in the southern U.S., typical annual operating costs are \$631 per space. The highest costs are associated with labor and security for the facility, which are directly impacted by the number of spaces and type of operation, thus further analysis of these costs are recommended based on Dunedin.

Assuming a 300 space parking facility, minimal staffing using automated revenue control equipment, and no additional security presence, a more reasonable annual cost per space for Dunedin to consider is \$500 per space.

Table 19: Median per Space Operating Expenses

<i>Expense Category</i>	<i>Dunedin -</i>	
	<i>Database</i>	<i>300 spaces</i>
Payroll & Benefits	\$ 313	\$ 289
Security	\$ 135	-
Management Fees	\$ 35	\$ 64
Supplies	\$ 7	\$ 7
Accounting/ Banking	\$ 6	\$ 6
Insurance	\$ 37	\$ 37
Utilities - All	\$ 57	\$ 57
Maintenance	\$ 36	\$ 36
Miscellaneous/Other	\$ 5	\$ 5
Annual Cost Per Space	\$ 631	\$ 501

We assume a higher per space management fee due to the relative small size of a single structure. This could be lower if it is competitively bid and there is interest.

Source: Walker Parking Consultants, Revenue and Expense Database

Note, these expense do not include debt service or capital improvements. We recommend establishing a sinking fund for long-term structural maintenance and repairs and it is usually required when obtaining financing. This fund accumulates over the life of the structure and used as needed. At this level \$75 per space is appropriate for planning.

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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 tables show the monthly revenue needed for a range of cost options, assuming 25 and 30 year financing at 5.0 and 4.5 percent interest.

For illustrative purposes only, the highlighted cells show the monthly revenue needed to breakeven equates to \$148 to \$134 per space assuming project costs of \$18,000 per space and annual operating costs of \$500 per space. The tables can be used for multiple scenario comparisons.

Table 20: Monthly Revenue per Structured Parking Space @ 5.0% for 25 Years

Project Cost Per Space	Annual Operating Cost Per Space				
	\$300	\$400	\$500	\$600	\$700
\$ 13,000	\$102	\$110	\$119	\$127	\$135
\$ 14,000	\$108	\$116	\$124	\$133	\$141
\$ 15,000	\$114	\$122	\$130	\$139	\$147
\$ 16,000	\$120	\$128	\$136	\$145	\$153
\$ 17,000	\$126	\$134	\$142	\$151	\$159
\$ 18,000	\$131	\$140	\$148	\$156	\$165
\$ 19,000	\$137	\$146	\$154	\$162	\$171
\$ 20,000	\$143	\$152	\$160	\$168	\$177
\$ 21,000	\$149	\$158	\$166	\$174	\$183
\$ 22,000	\$155	\$163	\$172	\$180	\$188
\$ 23,000	\$161	\$169	\$178	\$186	\$194
\$ 24,000	\$167	\$175	\$184	\$192	\$200
\$ 25,000	\$173	\$181	\$189	\$198	\$206

Monthly Revenue Per Space Needed

Rate: 5.0% Amortized Period: 25

Source: Walker Parking Consultants

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Table 21: Annual Breakeven Cost per Structured Parking Space 4.5% for 30 Years

Project Cost Per Space	Annual Operating Cost Per Space				
	\$300	\$400	\$500	\$600	\$700
\$ 13,000	\$92	\$100	\$108	\$117	\$125
\$ 14,000	\$97	\$105	\$113	\$122	\$130
\$ 15,000	\$102	\$110	\$118	\$127	\$135
\$ 16,000	\$107	\$115	\$124	\$132	\$140
\$ 17,000	\$112	\$120	\$129	\$137	\$145
\$ 18,000	\$117	\$125	\$134	\$142	\$150
\$ 19,000	\$122	\$131	\$139	\$147	\$156
\$ 20,000	\$127	\$136	\$144	\$152	\$161
\$ 21,000	\$132	\$141	\$149	\$157	\$166
\$ 22,000	\$138	\$146	\$154	\$163	\$171
\$ 23,000	\$143	\$151	\$159	\$168	\$176
\$ 24,000	\$148	\$156	\$164	\$173	\$181
\$ 25,000	\$153	\$161	\$170	\$178	\$186

Monthly Revenue Per Space Needed

Rate: 4.5% Amortized Period: 30

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.

We recommend leveraging the parking system as a whole to address the high cost of providing structured parking. Sources to include are on-street meter revenues, off-street parking lot revenues, and citation revenues. The goal of the system is to manage parking behavior while at the same time generating the funds needed to provide and improve parking. The current system has worked well and has encouraged development and activities; however, the cost to temporary lease private parking is \$75,000 per year.

ON-STREET PAID PARKING CONSIDERATIONS

Paid parking is an effective means of managing parking behavior to encourage turnover and maximize the parking supply. Long-term parkers, mainly employees, benefit by parking in less visible off-street parking lots, thereby leaving visitors access to the most convenient on-street spaces. In addition to the benefits of managing parking behavior, revenue from on-street meters and citations can be used to fund additional parking assets.

RECOMMENDED SOLUTION: MULTI-SPACE METERS

It was expressed to Walker that aesthetic issues, convenience, and costs are an important considerations in the City's decision as to the type of meter to consider. For this reason, our focus is on the use of multi-space meters (MSMs) as the preferred solution to consider.³

MSMs have been implemented by cities specifically to reduce or eliminate the sidewalk clutter of a single space meter at every parking space. In such instances, a city typically installs one or two MSMs per block (depending on the length and layout). Typical on-street payment methods include coin, credit card, and pay-by-cell phone or app (PbC). The meters may be upgraded to accept payment by paper currency as well; however, we typically do not recommend that option for on-street spaces due to the relative low fees for parking, higher cost of implementation, maintenance, and revenue collection.

TYPES OF MULTI-SPACE METERS

PAY AND DISPLAY (not recommended)

In pay and display mode, patrons park the vehicle, walk to the parking meter, pay for the desired amount of time and receive a receipt. Upon receiving the receipt, the patron must return to the vehicle and display it on the dashboard. The receipt indicates the duration, location, machine number and end time for which the vehicle has paid for parking. Enforcement somewhat encumbered, as each vehicle must be visually inspected to determine if the ticket is valid. Special methods of displaying are required for open air vehicles or motorcycles. Clearwater uses this type of system for their beach parking lots.

Walker does not recommend pay and display for the Dunedin, due to the inconvenience to the patron, difficulty in enforcement, higher cost for supplies, and issues with open air vehicles.



Sample Multispace Meter

³ Single space smart meters were considered, but not in line with aesthetics (one device per space) and an overall higher cost solution given the lack of existing meters.

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PAY-BY-SPACE (not recommended)

In pay-by-space mode, each parking space is numbered with either a surface or curb number or a small pole adjacent to each space. The patron enters the space number and pays for the parking period. In this mode, payments can be made at any meter in the system and time can be added before time expires. Tampa Florida uses this type of on-street meter system.

No receipt is needed for enforcement, but there is an option to print a receipt for proof of transaction. Enforcement is done by viewing a web-based report of paid and/or unpaid spaces on a hand-held enforcement device, smart phone, or from any web-enabled computer.



Walker does not recommend pay-by-space for Dunedin due to the need to identify each parking space with a number – either painted on the ground and or by sign (photo).

PAY BY PLATE (recommended)

In pay-by-plate mode, the patron is not required to remember their parking space or return to their vehicle with a receipt. Instead, they enter their vehicle's license plate information, and select the amount of parking time. No receipt is required for enforcement, but there can be a receipt for proof of transaction. This system allows a patron to move their vehicle to another spot within the same meter zone without having to pay for parking again, provided there was time remaining on the original purchase, and they were not in violation of the posted time restrictions. Many applications also allow patrons to add parking time to the meter from another meter or by their cell phone for added convenience. Enforcement is done with a either vehicle mounted (mobile) LPR system or handheld LPR reader as discussed earlier in this report. The City of Miami Beach has migrated the South Beach meters to pay-by-plate and uses hand-held LPR units to monitor for payment at the meters.

Walker recommends pay-by-plate mode for Dunedin, as it would require the fewest on-street multi-space meters and also offers the most efficient enforcement system. In addition, this type of system can be used to track registered residential parking permits holders to allow parking in residential areas as well as allowing a reduced fee at the meter.

RECOMMENDED SYSTEM ENHANCEMENTS

A number of system enhancements are available and recommended with an on-street paid parking system. The key for each of these enhancements is to specify in advance to ensure each component is provided as an integrated system. If the enhancements are procured separately they may not work together and the costs to integrate after the fact will be higher.

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Pay-by-Cell

Pay-by-Cell (PbC) allows the patron to use a cell phone to pay for parking using their credit card. PbC provides the ability to download a parking app as well as calling to speak to a live person. The following steps are required by the patron to use this convenient system:

- The PbC vendor sets up an account for the City;
- Signage advises patrons to call a designated phone number to pay for parking or to use the app;
- Upon parking, the patron calls the pay-by-cell vendor's automated payment line or uses the app;
- First time users register their license plate and provide credit card payment information;
- The patron is prompted to select the desired parking time;
- The PbC vendor charges the patron or the City a convenience fee, typically \$0.35 per transaction; and
- The PbC vendor deposits the parking fees into the City's established bank account, keeping the convenience fees.

PbC systems typically send a text message to the cell phone to advise of time expiration and offer the option to add time if within the City's time limits. Following the end of the parking session, a receipt is sent to the cell phone via text or through the app.

Costs to the City for PbC are minimal depending on the vendor and app selections. Passport Parking provides a solution that allows municipalities to have their own branded payment solution or use a standard ready to go payment app. The costs for a branded app development are considerable (\$30,000 plus monthly fees of \$1,250) and not considered a viable option for Dunedin at this time. Costs for the non-branded app are minimal and the recommended solution.

Validations may also be integrated into the system if the patron pays by credit card. In essence, the merchant or company providing the validation establishes an account with the PbC vendor and purchases validation codes. The patron pays for the parking with their credit card and obtains a validation code from the merchant. The patron enters the code using their cell phone and the parking charge is reduced or removed before it is processed.

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RESIDENTIAL PARKING PERMITS⁴

There two types of residential parking permit programs to consider. One applies to all residents within the city to allow parking within downtown at a discount while the other applies only to selected residential areas directly adjacent to downtown that may be impacted by parking demand from non-residents. Impact to surrounding residential areas can occur when paid parking is located in the adjacent area.

DISCOUNT PARKING OPTIONS FOR RESIDENTS

Pre-paid annual parking sticker (for residents only) to allow parking within the paid parking areas at no charge. An example of this is Cocoa Beach, Florida. Cocoa Beach offers residents an annual permit at \$60 per year. The actual cost to the resident is \$10 with the \$50 balance paid from another city fund to the parking fund. The passes are sold as a sticker, with one sticker per vehicle. The sticker allows free parking at the beach meters and off-street paid parking lots. The sticker is non-transferable. Clearwater Florida offers permits for specific parking lots for a discounted fee. They do not offer permit holders free parking at the meters.

We do not recommend offering blanket free parking with a permit.

Pay by Phone discount to registered residents using app or phone to pay for parking. This would allow a discount for registered residents when paying for parking using the app for the associated plate number. This could include a specific period of free parking per day or a flat discounted amount only available to registered vehicles. This option would need to be developed and reviewed with potential vendors and integrated with the meter vendor.

This is technically possible, but may require vendor development costs.

Parking cash card would allow the use of the card to pay for parking at the meter. These cards could be made available at face value and at a discount for residents. Initial cards could be issued to residents (1 or two per household) with a credit balance of \$20. Cards could be re-charged at 50% of the actual cost to continue to give residents a discount on parking. Aspen Colorado issued \$10 parking cards at no charge when they instituted their parking meters many years ago.

This could be a good solution. There is a cost to add this type of system to the meters, but it is a proven technology.

⁴ We note that residential permits do not help and may hinder the turnover of metered spaces. However, they should be considered, if necessary, to get residents comfortable with the idea of paid parking.

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NEIGHBORING RESIDENTIAL PERMIT AREAS

Neighborhood residential parking permit areas allow parking to be restricted to residents within the specified areas. Registered residents either display a permit or can be tracked by license plate. This allows only those residents with valid credentials to park along the street in the residential permit areas. Non-valid vehicles parking in these areas are subject to citation and or towing. The process of establishing a residential neighborhood permit program varies, but typically consists of the following:

- Residents adjacent to the street must vote unanimously to implement program.
- City validates parking demand and need by conducting occupancy counts.
- Observed demand should be calculated based on residents and non-residents.

A small annual fee (as low as \$10 per year) is charged for each residential permit issued. Some cities offer each resident one permit at no charge and additional permits for a fee. Residents within these areas may purchase visitor parking permits good for specific days when the need arises.

We recommend the procedures for establishing a neighborhood parking permit program be established and communicated to the surrounding homeowners. Because it is an optional program, it would not be implemented until residents request the program and obtain a majority vote in favor of the program.

VALIDATION OPTIONS

Validation at meters should be considered. Because parking is paid in advance, there are limits. Some options include:

- Including a validation by merchant code when paid with a parking app with credit card.
- Offering an initial period of time, such as 10-minutues free parking at the meter for quick stops.
- Registering specific plate numbers for a set period of free parking within specific areas such as vendors and chamber of commerce employees and volunteers.
- Providing a special permit for specific dates and times to be displayed on the dashboard.
- Offering tokens as a way to provide free parking on the next visit.

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EVENT PARKING

Prepaid event parking should be considered for large events with the downtown area. Metered areas can automatically switch to a higher rate during events and non-metered areas can offer parking for a flat fee. During our observations at least one private lot posted flat rate parking for \$5.00. This is an option that should be considered.

GOLF CARTS

Golf carts that park in a paid parking space, even though they are not as large a vehicle, should be required to pay for parking. The City of Dunedin requires golf carts to be registered and display a unique City issued permit sticker. Although this permit sticker is not the same as a license plate, it could be entered into the meter when paying for parking. Enforcement officers would need to visually check the permit number against the paid database.

ENFORCEMENT

As previously discussed in the on-street parking section and necessitated based on the recommended Pay-by-Plate solution, we recommend specifying a system capable of both mobile and handheld LPR enforcement. Ideally, the mobile LPR system would be implemented in the full system; however, due to the initial cost and relatively small area to enforce, a handheld LPR system is recommended as a starting point. The proposed system would be enforced via LPR platform (either handheld or mobile) with fully integrated multi-space meter, pay-by-cell, and permit.

ADA PARKING IN FLORIDA

Per Florida State Statute, 316.1964, drivers of a vehicle displaying a disabled parking permit or license plate are exempt from the payment of parking fees or penalties. This pertains only to those instances when the person is required to pay at the meter and does not necessarily apply to payment collected by a live person. For our analysis, we included only the regular or non-ADA marked spaces as revenue sources.

For full details and specifics, we recommend the City have its attorney review the exact language of the law.

DOWNTOWN DUNEDIN

FEASIBILITY ANALYSIS FOR DOWNTOWN PAID PARKING



JUNE 18, 2015

PROJECT # 15-2047.00

PARKING RATE SURVEY

The following provides fee data for several items related to parking, detailed as follows:

- Hourly metered rates are separated by downtown and beach parking areas.
- Annual residential rates are for parking within specific parking areas not solely for parking within residential areas.
- Violation rate is for a basic expired meter and assume the fee is paid within the specified time limit.

Table 22: Parking Rate Survey

City	Hourly On-Street		Annual	Parking	Permit Notes
	Downtown	Beach	Residential Permit	Violation Rate	
Clearwater, FL	\$0.50	\$1.25	\$75.00	\$20.00	\$40/ 6 mo
Cocoa Beach, FL	n/c	\$2.00	\$60.00	\$30.00	Residents pay \$10/ city pays \$50
Coral Gables, FL	\$1.50	\$3.00	\$20.00	\$18.00	
Hollywood, FL	n/c	\$1.50	\$159.00	\$20.00	
St. Augustine, FL	\$1.50	\$1.50	\$30.00	\$25.00	
Tampa, FL	\$2.00	n/a	n/a	\$25.00	
Lauderdale by the Sea, FL	\$1.50	\$1.50	\$53.00	\$25.00	

Source: Walker Parking Consultants

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PAID PARKING IMPLEMENTATION STRATEGY

Moving from free parking to paid parking as a management tool and to assist with the funding of adding parking supply is recommend. Rather than committing to a single long-term solution, we recommend the City implement a Pilot program to evaluate the system and adjust as needed based on the effectiveness of the program.

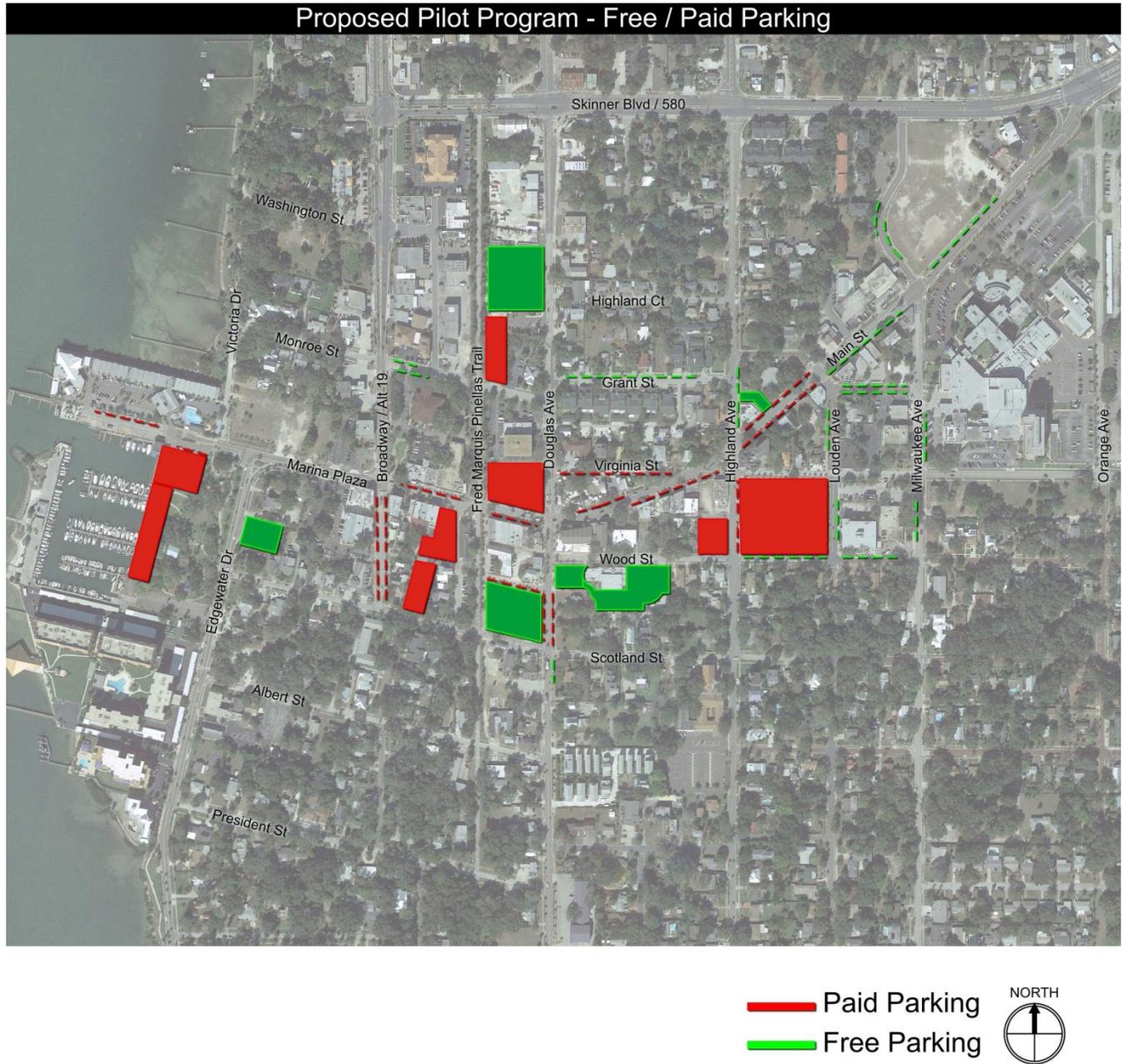
A Pilot program of 6 - 12 months would allow the City to gain feedback from the public, work through any connectivity issues, review messaging displays, and to collect data on the overall effectiveness of the program without a long-term investment. Based on the seasonality, a longer Pilot program would be preferred. The pilot program should be described in detail and included in an RFP process when securing the meters.

During the pilot program parking ambassadors should be used to assist patrons with the process and gain first-hand experience with potential issues. This period also allows the training and testing of the enforcement system, reports, and processes before the entire system is implemented.

Our analysis assumes a Pilot program covering the spaces that experience the highest use. It does not include all of downtown. Free parking options should be promoted as alternatives to those more motivated by cost than convenience.

The following map illustrates the Free and Paid parking areas considered in our analysis of a paid parking Pilot program.

Figure 16: Pilot Program - Free and Paid Parking Map



Source: Walker Parking Consultants

POTENTIAL REVENUE FROM PAID PARKING

First and foremost the recommendation for implementing paid parking is to manage a limited resource. Revenues generated by paid parking should be used to fund adding parking to meet the projected parking need to ensure the public parking remains available.

This analysis is limited in scope and intended to provide a general overview of potential revenue based on the proposed pilot area. Smart meters that accept credit cards and coins as well as a pay-by-phone app are recommended and assumed in this analysis.

On-Street parking represents the most conveniently located parking in Downtown. As such, it should be priced accordingly. Rates should not be set lower than \$1.00 per hour and will be more effective if priced higher than off-street parking. To account for event days when streets are closed to vehicles, the total number of paid days has been reduced by 18.

Table 23: Revenue Potential for On-Street Meter Revenue

ON-STREET REVENUE ANALYSIS	Hourly	Hourly	Hourly
	Rate	Rate	Rate
	\$1.00	\$1.25	\$1.50
Potential Average Daily Revenue per Parking Space	\$6.00	\$7.50	\$9.00
Potential Annual Revenue per Parking Space (unadjusted)	\$1,764	\$2,205	\$2,646
Annual per Space Non-Compliance Adjustment	(\$353)	(\$441)	(\$529)
Annual per Space ADA Placard Free Parking Adjustment	(\$265)	(\$331)	(\$397)
Potential Annual per Space On-Street Revenue	\$1,147	\$1,433	\$1,720
Total Annual On-Street Meter Revenue	\$194,900	\$243,700	\$292,400

Annual per Space Residential Discount Adjustment	(\$459)	(\$573)	(\$688)
Total On-Street Annual Revenue with Residential Parking Discount	\$117,000	\$146,200	\$175,400

Assumptions:

# of On-Street Parking Spaces:	170
Hours of Operation: 9:00 AM - 9:00 PM	12 Hours/Day
Days of Operation: Tuesday - Sunday; less 18 event days	294 Days/Year
Average Occupancy: Average for all days/hours paid	50%
Percent non-compliance:	20%
ADA Placard Free Parking: (State Law)	15%
Resident Discount Program Impact:	40%
Rounding to nearest hundredth	

DOWNTOWN DUNEDIN

FEASIBILITY ANALYSIS FOR DOWNTOWN PAID PARKING



JUNE 18, 2015

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As shown in the Pilot program map, off-Street paid parking includes the following lots:

- Marina Lot
- Museum/Trail Lots
- Ocean Optics Lot
- Monroe Street Lot
- Wood Street Lot
- Baptist Street Lot

Providing a mix of paid and free parking give patron's and employee's parking options and encourage the disbursement of parking demand over a larger area. The City should retain the option to charge event rates for larger events. Occupancy of the free lots will likely increase once paid parking is established, but that is a key goal of dispersing the parking.

Table 24: Revenue Potential for Off-Street Pilot Program

OFF-STREET REVENUE ANALYSIS	Hourly Rate
	\$1.00
Potential Average Daily Revenue per Space	\$5.40
Potential Annual Revenue per Parking Space (unadjusted)	\$1,652
Annual per Space Non-Compliance Adjustment	(\$496)
Annual per Space ADA Placard Free Parking Adjustment	\$0
Annual Reduced Hours per Space Adjustment (impact to Baptist Lot)	(\$749)
Potential Average Annual per Space Revenue	\$987
Total Off-Street Annual Meter Revenue	\$291,100
Annual per space Residential Parking Discount Adjustment	(\$395)
Total Off-Street Annual Revenue with Residential Parking Discount	\$174,700

Assumptions:

# of Off-Street Parking Spaces:	295
Hours of Operation: 9:00 AM - 9:00 PM	12 Hours/Day
Days of Operation: Tuesday - Sunday; less 6 event days	306 Days/Year
Average Occupancy: Average for all days/hours paid	45%
Percent non-compliance:	30%
ADA Placard Free Parking: (assume all meters/lots ADA compliant)	0%
Resident Discount Program Impact:	40%
Weekly free parking hours per space (Baptist Lot paid after 5 pm)	32 Hours/Week
Rounding to nearest hundredth	

Revenue from citations should also be considered. Without enforcement, paid parking will not be effective. Our analysis includes two basic options for a basic non-payment fine. We recommend the citation revenue be sufficient to cover the costs of staffing enforcement.

Paid parking only works with enforcement. Two basic fines are provided for consideration. This only includes citations with a fine and not warnings.

Table 25: Revenue Potential from Citations

CITATION REVENUE ANALYSIS		Basic Fee	Basic Fee
		\$15.00	\$20.00
Daily Citations Issued: (not including warnings)	20	\$300	\$400
Weekly Citations Issued:	120	\$1,800	\$2,400
Annual Revenue:		\$93,600	\$124,800

REVENUE SOURCES SUMMARY

Our analysis indicates the implementation of the Pilot program to generate revenues in the range of \$385,000 to \$708,000 depending on the hourly and citation rates and implementation of a discounted parking for residents.

Note, the cost of providing a discount to residents for parking, will vary based on the actual program. For planning purposes, it is shown as a 40% impact to revenue potential. Several options are detailed in this report and have been discussed. Given the undetermined type or value of a potential residential discount program at this time, it is important to note that the actual impact will vary.

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WAYFINDING SIGNAGE

Existing wayfinding signage related to parking is comprised of a variety of different styles and messages in Downtown Dunedin. In addition to parking wayfinding, other key points of interest are signed, each with its own unique style.

Figure 17: Existing Wayfinding Signage



Source: Walker Parking Consultants

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We recommend implementing a comprehensive signage program to maximize 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 applicable local, State, and Federal regulations, such as the Florida Department of Transportation (FDOT) and Manual of Uniform Traffic Control Devices (MUTCD) regulations.

At present, a consistent parking signage program does not exist for the off-street parking areas or along the primary thoroughfares. The signs that are installed are generic, inconsistent, small, and difficult to see.

It is 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, and include a consistent universal "P" for parking;
- Signs should be placed perpendicular to the traffic for better visibility;
- Wayfinding should go beyond parking and include key points of interest, such as city hall, the library, and marina; and
- Signs should meet all required local, State, and Federal regulations, which specify colors, wording, shape, and font sizes.

Parking wayfinding signage is typically provided at a minimum of two distinct levels within the system; directional and arrival signage.

Directional signage consists of a consistent parking signage program with directional arrows to guide the patron to the parking destination. Arrival signage follows a similar visual representation of the parking identifier, such as colors and a common "P", but is larger and informs the patron that they have arrived at the parking.

In addition to wayfinding for parking, many communities have a coordinating wayfinding system to include other vehicular destinations in a uniform signage plan. This includes providing a single sign with consistent visual qualities including color, font, and locations that provide directions to multiple key locations within the city, including parking.

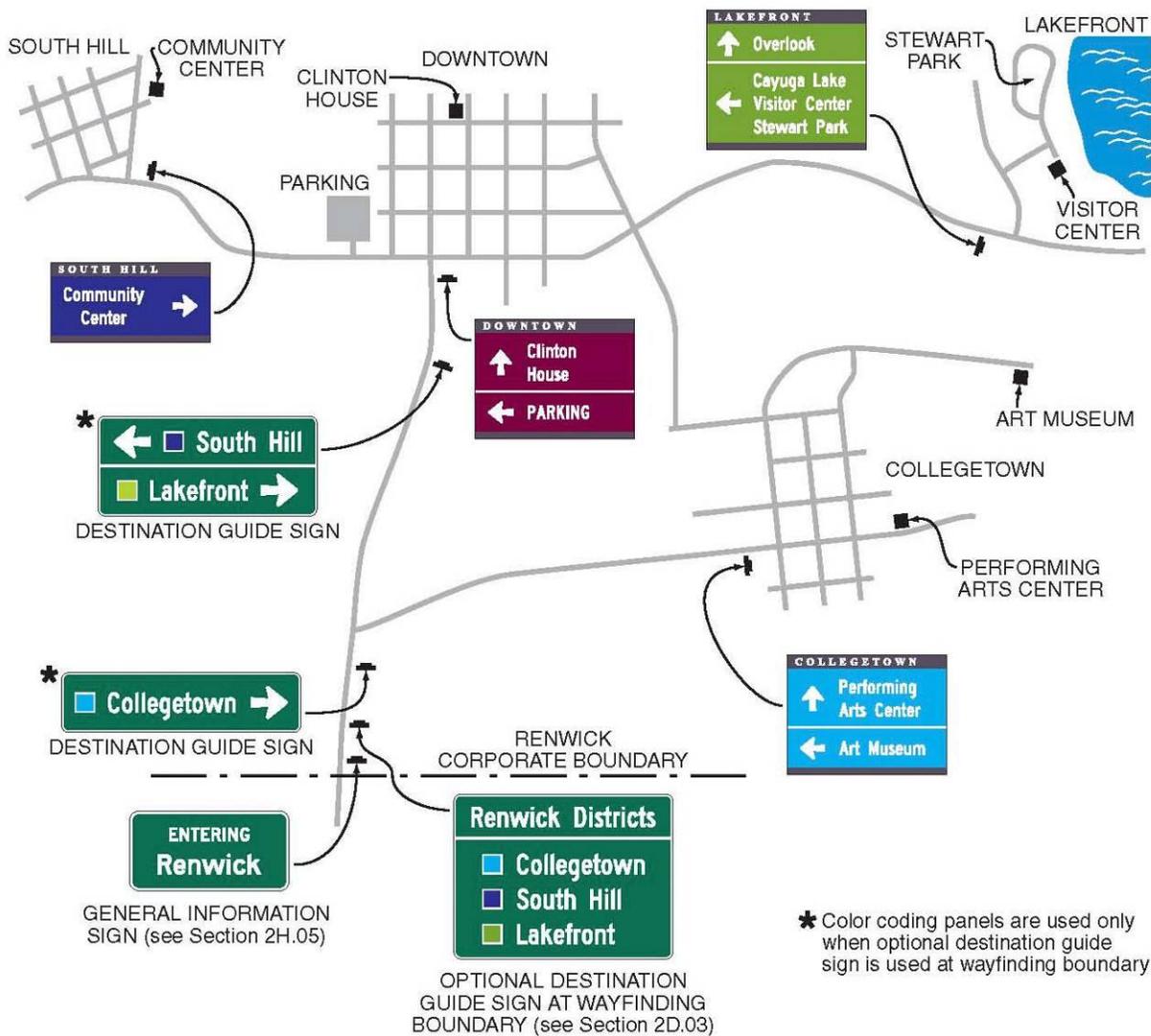
The following figure provides examples of wayfinding signage that meets the recommended strategies.

Figure 18: Example Wayfinding Signage Program

Page 176

2009 Edition

Figure 2D-20. Example of a Color-Coded Community Wayfinding Guide Sign System



Source: MUTCD Manual, December 2009 edition, page 176

PARKING MANAGEMENT ACTION PLAN



WALKER
PARKING CONSULTANTS

JUNE 18, 2015

PROJECT # 15-2047.00

PARKING MANAGEMENT ACTION PLAN

Convenient public parking in Downtown Dunedin can be difficult to find on most days and extremely difficult during the many events. Conditions are projected to degrade as more surface parking lots are redeveloped to more viable land uses than parking. The City has historically provided public parking at no direct cost to the user even through annual leasing costing over \$80,000. The supply/demand analysis indicates the need to add an additional 350 – 400 public spaces to offset the growing parking deficit redevelopment continues and is encouraged through reduced parking requirements.

The Alternative section of this report provides several options for managing parking as well as reviewing the high cost to provide parking. Implementing a paid parking program through a Pilot program is recommended over a 12 month evaluation period to determine it's effectiveness in addressing the parking issues.

The following action points are broken down based on the recommendations with the following suggested timeline:

- Immediate Action (3 – 6 months)
- Short-Term Action (6 – 12 months)
- Mid-Term Action (1-2 years)
- Long-Term Action (over 3 years)

IMMEDIATE ACTION (3-6 MONTHS)

- Establish ordinances to allow paid parking within specific parking zones in downtown Dunedin.
- Continue process of public meetings to address concerns and explain the program.
- Consider a survey to determine which optional programs are favorable to residents, including permits, validations, and time limits.
- Develop an RFP to implement a paid parking pilot program as outlined in the full report including integrated Pay by Plate meters, parking app, and enforcement system using license plate readers.
- Review options for staffing and management of the paid parking system – either internally or sub-contracted. If sub-contracted, recommend retaining assistance in developing RFP documents and obtaining proposals.
- Strategize and pursue options to increase public parking supply by 350-400 spaces.
- Begin process of establishing a standard parking signage for directional and locational parking wayfinding.

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SHORT-TERM (6 – 12 MONTHS)

- Identify locations for the meters and signage with specific focus on the pilot program area.
- Establish an informational site on parking within the city website.
- Obtain and conduct a review of meter proposals and enforcement equipment.
- Display a sample meter for the public to see and try out inside City Hall or other public space.
- If applicable, obtain and review management proposals for system.
- Begin training of ambassadors and deploy with the pilot program.
- Conduct public and media outreach to communicate the parking plan and pending changes.
- Implement pilot program area to test meters and gauge performance, including an on-line survey to understand any specific issues that can be resolved.
- Develop printed parking brochure with map of public parking facilities and city parking app.
- Implement an ambassador approach to parking enforcement.
- Add Neighborhood Parking Permit enabling ordinances.
- Finalize standard parking signage and begin installation.

MID-TERM (1 – 2 YEARS)

- Evaluate results of paid parking pilot program and adjust as necessary to achieve results.
- Continue public outreach and marketing campaign to educate the public.
- Review financial results of paid parking and use funds to improve downtown.
- Begin adding additional parking within the downtown area as either surface parking or parking structured spaces, including pursuing private development opportunities that could incorporate public parking.

LONG-TERM (OVER 3 YEARS)

- Review parking demand and overall parking management plan.
- Continue to seek private development that includes adding public parking within the Core Area if that has not yet occurred.

