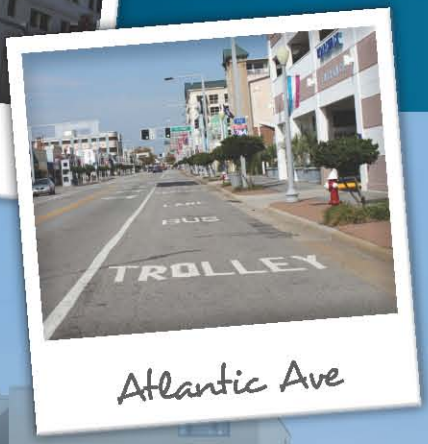
City of Virginia Beach

Resort Area Parking Strategy

Parking



Atlantic Ave

April 2013

Kimley-Horn and Associates, Inc.

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Acknowledgements

The ***City of Virginia Beach Resort Area Parking Strategy*** was a collaborative effort that used the combined input of City staff, local stakeholders, elected officials, and the citizens of Virginia Beach to develop strategies and recommendations for the future of parking in the Resort Area. There were many participants in the planning process, and the following individuals played a key role in the development of this study.

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Special thanks go to the citizens of Virginia Beach whose input was invaluable in developing the backbone of this study. Many residents and local business owners participated in community meetings, surveys, and provided input via the City's website. A complete list of participants is provided in the **Appendix**.

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Preface

It is important to understand the Resort Area Parking Strategy is truly a strategy, not the actual parking plan to be implemented by City. This document provides the City with a long term framework of how to provide a successful parking program for the Resort Area that will meet the needs of the parking users and the City, including residents, business owners, visitors, developers, and policy makers. This strategy allows the City become more proactive, rather than reactive, to parking issues, as growth and revitalization of the Resort Area will result in many more parking challenges. Using the framework of this Resort Area Parking Strategy, the City will need to prioritize their goals, develop the parking plan, and implement the plan.

The Parking Strategy will provide the guidance to develop subsequent parking plans, most likely by district as each district has its own unique character and needs. These plans will develop and evolve over time with recommendations that may be implemented from the immediate to the long-term time frame. There is no overnight solution to the parking challenges the Resort Area faces; however, there are some immediate recommendations identified in this document that the City could implement as soon as the Summer 2013 season. Some of these strategies will require City policy and/or City code changes which requires a deliberate City Council approval process. It's not feasible for the City to achieve all of the identified goals and priorities immediately or in the near-term; however, the City should strive to achieve several of these goals each year working towards their ultimate plan which is guided by this document. Through prioritization process the City can implement actions over time in a logical, phased manner that will allow them to build the foundation of a methodical and successful parking program.

It is important to emphasize again that the current parking program in the Resort Area today has typically been based on reactionary decisions. While the City has managed its parking issues and opportunities as they arise, there hasn't been an emphasis on examining the future vision proactively. This document is intended to serve as that overall guiding document to help City staff develop appropriate parking management plans and effectively manage its parking program for the future.

Executive Summary

Over the past few years, the City of Virginia Beach has undertaken a significant planning process as it relates to the future development of the Oceanfront Resort Area. One of the key outcomes of these planning processes identified the need for a strategy to manage and plan parking as the Resort Area continues to thrive and develop. The City identified specific goals for the Resort Area resulting in the need for a Resort Area Parking Strategy.

In 2012, City Council adopted a new type of zoning for the Oceanfront Resort area of Virginia Beach pending the completion of a parking strategy. The approach to regulating development is known as Form-Based Code, which focuses less on the specific land use and more on the public realm and form. One of the benefits of a Form-Based Code is that it allows more flexible options for parking such as shared parking and off-site parking accommodations that support centralized public parking districts. This, in turn, can reduce congestion, increase mobility, and enhance Resort Area visitor experience.

In addition to the pending adoption of Form-Based Code, City Council identified specific goals that would be accomplished with a comprehensive parking strategy for the Resort Area. These goals include protecting established neighborhoods; supporting business and employee parking; encouraging year-round business activity; and identifying new funding sources to support parking facility development, maintenance, and management to ensure no impact to existing City revenue sources. These goals were part of the City Council Resolution adopted in July 2012. Following the action of City Council for approval of the Form-Based Code, the City of Virginia Beach retained Kimley-Horn and Associates, Inc. (Kimley-Horn) to develop the Resort Area Parking Strategy.

It is important to understand the Resort Area Parking Strategy is truly a strategy, not the actual parking plan to be implemented by City. This document provides the City with framework of how to provide a successful parking program for the Resort Area that will meet the needs of the parking users and the City, including residents, business owners, visitors, developers, and policy makers. Using the framework of this Resort Area Parking Strategy, the City will need to prioritize their goals, develop the parking plan, and implement the plan. The Parking Strategy and subsequent plans that will be developed will evolve over time with recommendations being implemented from the immediate to the long-term. The Resort Area faces a number of parking challenges; these challenges are not unique to Virginia Beach but are rather similar to many beachfront communities. While there is no overnight solution to the parking challenges the Resort Area faces, there are some immediate recommendations identified in this document that the City could implement as soon as the Summer 2013 season.

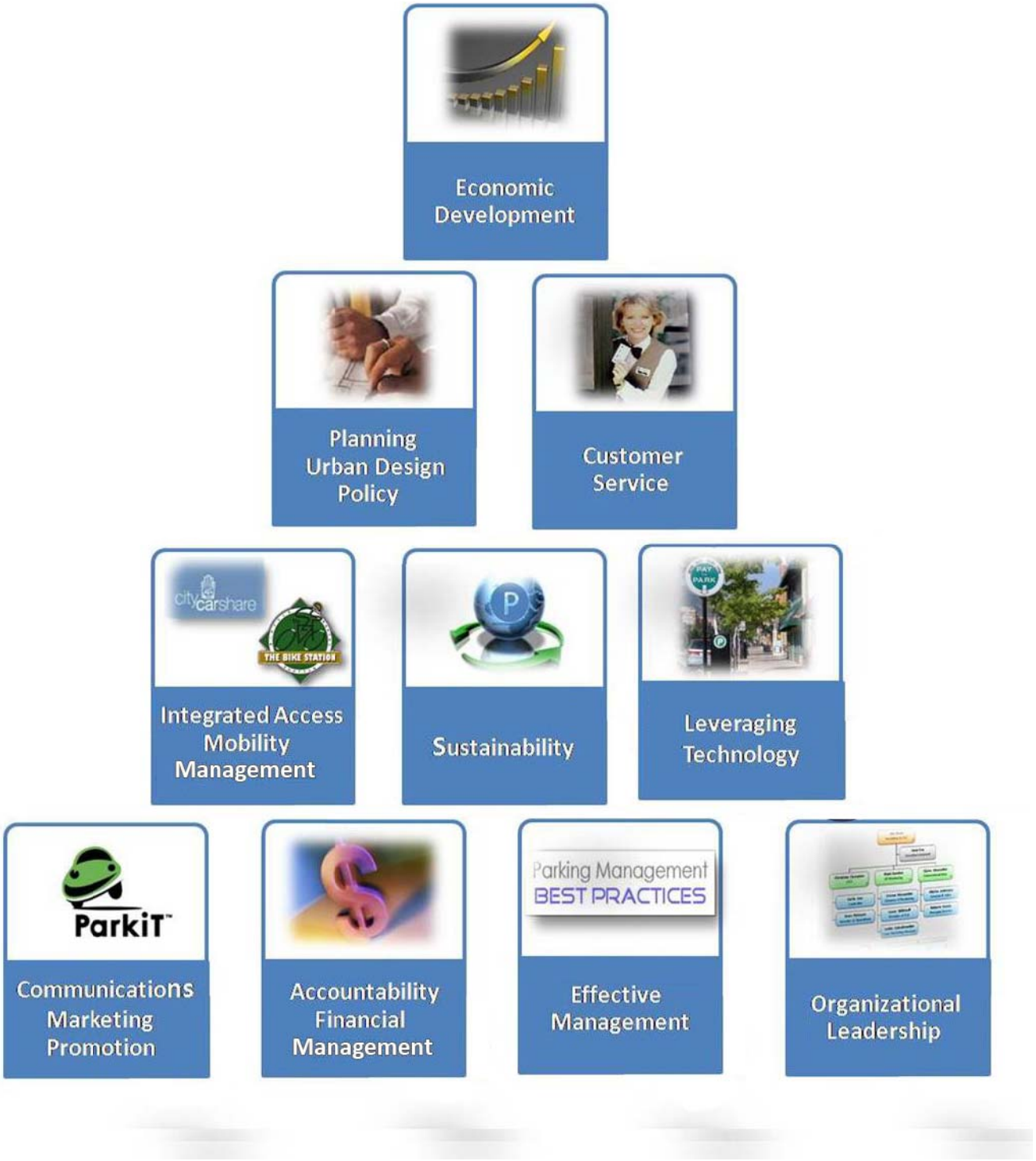
The typical development of a parking strategy plan includes the development of a separate parking strategic plan, which provides high-level, community-wide parking vision statements and mission statements, and a parking management plan, which includes all of the elements to facilitate implementation of the overall parking strategy.

For the City of Virginia Beach, the full implementation of a parking strategy requires the following plans to be developed as part of the overall Resort Area Parking Strategy:

1. **Resort Area Parking Strategic Plan –** This plan is overarching and applies to the entire Resort Area, establishes the vision for the Resort Area, and presents the Mission Statement and the Guiding Principles.
2. **Resort Area Parking Management Plan –** This plan provides the elements for implementing the Strategic Plan throughout the seven districts of the Resort Area. The Resort Area Parking Management Plan includes elements that are common to and will apply for all seven districts.
3. **District Parking Management Plans –** District plans are unique to each district within the Resort Area. Each district should have a detailed parking study prepared that evaluates current use of parking inventories, projects future parking needs based on existing use patterns, identifies parking management elements, and determines a parking management structure. Although the district plans are unique to each district, each plan will identify elements consistent to those in the Resort Area Parking Management Plan.
4. **Resort Area Parking Facilities Development Plan** – This plan identifies how new parking facilities will be planned, constructed, financed, managed, operated, and maintained. This plan will apply to the entire Resort Area. This plan may incorporate a hybrid system that allows one entity to own, construct, issue bonds or other financing tools, lease, and establish and revise regulations, while another entity administers and manages the parking program.

As the Resort Area has grown, parking has become a larger challenge as land is developed and available space has become a premium. Changes made in the past have not necessarily been considered holistically, and while one challenge may have been resolved, another challenge was created. While the City has managed its parking issues and opportunities as they arise, until now there hasn't been an emphasis on examining the future vision proactively. This will only be exacerbated in the future without a comprehensive parking strategy that considers the current state of parking, future parking demands, and the needs of the community and residents. It will be critical that the City make improvements going forward within the Guiding Principles of the Parking Strategic Plan. The Guiding Principles are illustrated in **Figure ES-1**.

Figure ES-1 – Guiding Principles



Using the Guiding Principles, the Resort Area Parking Management and District Parking Management Plans can be developed to appropriately resolve the challenges. These primary elements are designed to have a "transformative impact" on the Resort Area environment through enhanced partnerships with the City, local residents, the community at large, business owners, developers, and economic development agencies. This Resort Area Parking Strategy was developed with the intention of promoting change through a comprehensive and progressive shift in the approach to parking, policy development, technology investment, and management restructuring.

This document provides specific details for deploying the recommended parking strategy for the City of Virginia Beach's Resort Area. This was a collaborative effort amongst the public, stakeholders, parking committee, and city staff. In developing the strategy, the existing conditions were examined and documented to create the baseline which included current parking inventory and occupancy during the peak season, the current Residential Permit Parking Program, as well as observations of current parking operations and conversations with stakeholders. While there are seven parking districts identified in the Resort Area, the baseline data from the Central Beach District was used because it was agreed to be most representative of the multitude of features/characteristics that reflect the greater Resort Area. This document also includes the results of the future parking demands for the Central Beach District, again as the Central Beach District is most representative of the seven districts. Using this baseline information, a specific parking strategy was developed for the Resort Area. It is important to note that this project was not intended to create parking plans, but rather develop the foundational elements to be used to develop how the City should approach their parking program for the future. Through the process, various immediate recommendations emerged that could be deployed by the city as early as the Summer 2013 season. As specific district plans are developed, further recommendations will be developed ranging from short- to long-term.

The Resort Area Parking Management Plan recommendations with relative implementation timeframes and general cost scale are illustrated in **Table ES-1** on **Pages ES-4** through **ES-8**. The Central Beach District Parking Management Plan recommendations with relative implementation timeframes and general cost scale are illustrated in **Table ES-2** on **Pages ES-9** and **ES-10**.

Table ES-1 – Resort Area Parking Management Plan Recommendations

Economic Development Strategy Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Promote Public-Private Partnerships				X	$
Reinvest Parking Revenues				X	$
Consider Residential Neighborhood Impacts				X	$

Planning/Urban Design Policy Strategy Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Enhance Parking Planning and Special Projects Capability				X	$
Explore Short-Term, Low-Cost Inventory Solutions	X			X	$$
Formalize Parking Design Guidelines	X				$
Annual Supply/Demand Update				X	$
Reassess Residential Permit Parking Program on a District Basis	X			X	$$
Reassess Policies and Regulations for Employee Permit Issuance in the Residential Permit Parking Program	X			X	$$
Integration of Other Transportation Modes				X	$
Parking Zoning Code Review	X				$$
Parking Signage/Wayfinding Program		X			$$
Support a "Park Once" Philosophy	X			X	$
Support Walkability/Ride-Ability Enhancements				X	$$
Consider Development of "Parking Program Criteria Documents"	X			X	$
Train Staff on the Basics of Parking Facility Design and Development	X			X	$
Ensure Staff Stays Current and Familiar with New Parking Technology	X			X	$
Adapt the Mindset that Public and Private Commercial Lots are in Competition				X	$
Customer Service Strategy Recommendations	**Short-Term**	**Mid-Term**	**Long-Term**	**Ongoing**	**Cost**
Customer Service Training	X			X	$
Customer Satisfaction Surveys	X			X	$
Secret Parker Program	X			X	$
Establish a Parking Hotline	X			X	$
Integrated Access/Mobility Management Recommendation	**Short-Term**	**Mid-Term**	**Long-Term**	**Ongoing**	**Cost**
Support and Promote "Integrated Access Management"	X			X	$
Explore Both "Supply-Side" and "Demand-Side" Parking Management Strategies	X			X	$

Sustainability Strategy Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Develop Strategies to Reduce Single-Occupant Vehicle Use				X	$
Evaluate and Promote "Green Design"				X	$
Implement Environmentally-Friendly Parking Facility Maintenance Strategies				X	$
Promote Incentives to Encourage More Environmentally-Friendly Transportation Alternatives				X	$
Leveraging Technology Recommendations	**Short-Term**	**Mid-Term**	**Long-Term**	**Ongoing**	**Cost**
Continuously Assess Parking Technology	X			X	$
Create a Technology Master Plan	X			X	$$
Assess Potential Off-Street Technology Enhancements				X	$
Communications/Marketing/Promotion Strategy Recommendations	**Short-Term**	**Mid-Term**	**Long-Term**	**Ongoing**	**Cost**
Develop a Coordinated Marketing Plan	X			X	$
Develop a Resort Area Parking/Access Website	X			X	$$
Develop a Branded Parking Signage Program	X			X	$$
Develop and Install an Upgraded Resort Area Wayfinding/Signage System		X		X	$$$
Develop a "Branding Campaign" for the New Parking/Access Program				X	$
Develop and Issue Parking E-Bulletins				X	$
Develop a Parking Public Relations Program				X	$
Develop Methods for Regular Personal Contact with Customers				X	$
Develop a Parking System Information Database				X	$
Develop a New Employee Parking and Access Brochure				X	$
Develop Marketing Tie-Ins for Special Events				X	$
Develop an Annual Specific Program Marketing Budget				X	$
Develop a Package of Parking Program Electronic Marketing Collateral				X	$
Actively Develop and Promote Customer Input				X	$

Financial Management and Accounting Strategy Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Develop Internal Systems for Regular Parking Revenue Audits				X	$
Create a Flow-Chart Summarizing Parking Revenues and Costs				X	$
Develop a Parking Rate Evaluation and Adjustment Strategy	X			X	$
Develop a Plan to Adjust Rates to Market Value	X			X	$
Prepare Parking Market Surveys for Parking Rates	X			X	$
Establish/Assess a Parking Facility Maintenance Reserve				X	$$$
Update Parking Facility Maintenance Reserve with Each New Facility Constructed				X	$$
Conduct a Market Economic Analysis	X			X	$$
Review and Increase the Parking Program's Bonding Capacity				X	$
Management/Organization/Leadership Strategy Recommendations	**Short-Term**	**Mid-Term**	**Long-Term**	**Ongoing**	**Cost**
Refine and Elevate the Parking Management Organizational Structure	X			X	$
Understand the Principles Behind Vertical Program Integration	X			X	$
Implement Vertical Program Integration	X			X	$
Grow the Parking Management Staff				X	$$
Obtain City Council Support to Approve the Strategy as Policy to Ensure Support and Funding	X				$
Maintain Regular Parking Plan Implementation Progress Reports				X	$
Develop a Stakeholder "Report Card"				X	$
Develop and Broadcast an "Annual Report" to Keep the Public Abreast of what was Accomplished During the Year and Goals for the Upcoming Year				X	$
Change the Perception of Parking and Access Management in the Resort Area				X	$

Effective Management Strategy Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Define Specific Management Program Goals	X			X	$
Develop an Ongoing Parking Rate Evaluation and Adjustment Strategy	X			X	$
Manage On-Street Spaces to Achieve 15% Availability	X			X	$$
Enhance Special Event Parking/Transportation Coordination (Internal)	X			X	$
Partner with Private Owners and Operators of Private Lots	X			X	$
Create a Parking/Access Program Annual Report				X	$
Support Continuous Professional Staff Development				X	$
Conduct Operations Peer Reviews Engaging Parking Professionals from Other Cities				X	$$
Review and Enhance Energy Saving Options for Parking Facilities				X	$$
Conduct Periodic Security Inspections of all Public Parking Facilities					
Develop New Parking Facilities with CPTED Strategies				X	$$
Ensure that Parking Facility Security Systems Function Properly				X	$
Evaluate Parking Facility Lighting and Establish Lighting Standards				X	$
Assess Parking Access and Revenue Control System Security Procedures				X	$
Assess Parking Access and Revenue Control System Back-Up Procedures				X	$
Assess Credit Card (PCI) Security in all Parking Equipment Systems on an Annual Basis				X	$$
Implement Themed Level Identification Signage within Garages		X			$$
Enhance Special Events Parking Planning and Coordination (External)				X	$
Maintain a Consistent, Comprehensive Facility Maintenance Program				X	$
Develop a Parking Management Resource Library				X	$
Develop Internal Operations Manuals				X	$
Conduct Regular Facility Inspections and Develop a Program for Effective Follow-up				X	$
Develop Special Programs to Mitigate the Negative Impacts of Parking Enforcement	X			X	$
Implement Annual Surfing Permits	X			X	$

Table ES-2 – Central Beach District Parking Management Plan Recommendations

Reassess the Residential Permit Parking Program	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Conduct Engineering Studies to Establish Appropriate RPPP Regulations per District	X			X	$$
Do Not Enforce 24-hour RPPP				X	-
Allow Time to Develop and Execute the Appropriate Parking Management Plan Consistent with Strategies in this Study			X		-
Should 24-Hour RPPP be Implemented, Consider the Following:					-
-Establish a Sunset Clause	X				$
-Allow Employee Parking in 24-Hour Enforcement Areas	X				-
-Establish Permit Costs for Residents who Elect into 24-Hour RPPP to Offset Added City Costs	X				$
Create and Install Clear, Identifiable, On-Street Parking Signs	X				$
Increase Parking Citation Penalties	X				$
Assess and Adjust Penalties on a Periodic Basis				X	$
Reassess the Policies and Regulations for Employee Permit Issuance in RPPP Districts	**Short-Term**	**Mid-Term**	**Long-Term**	**Ongoing**	**Cost**
Cap the Number of Employee Permits Issued	X				$
Annually Reduce the Number of Permits Issued		X			$
Assign Specific Areas for On-Street Employee Parking	X				$
Identify Proximity Zones for Employee Parking	X				$
Increase the Cost of Employee Permit Fees	X				$
Require an Employee Parking Plan for New Businesses	X			X	$
Do Not Shift Employee Parking from the Neighborhoods and Impact Parking Revenue until Additional Inventory or Realistic Employee Parking Alternatives are Identified	X			X	$$
Stripe On-Street Parking within RPPP Hot Spots	**Short-Term**	**Mid-Term**	**Long-Term**	**Ongoing**	**Cost**
Delineate and Number On-Street Parking Spaces	X			X	$
Delineate Areas Where Parking is Prohibited	X			X	$

Parking Inventory Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Collaborate with Private Parking Lot Owners and Operators	X			X	-
Create Additional Off-Street Parking Inventory for the Short-Term Parking Needs	X			X	$$
Identify Potential Off-Season, On-Street Parking Adjustments		X			$
Utilize Convention Center Parking by Improving the 19th Street Corridor				X	$
-Identify Strategies to Unlock Parking at the Convention Center	X				$
-Improve Walkability/Ride-ability to/from the Resort Area		X		X	$$
-Actively Promote "Bicycle Park-and-Ride" Concept	X				$
-Extend the "VB Wave" Shuttle Service	X				$
Other Recommendations	**Short-Term**	**Mid-Term**	**Long-Term**	**Ongoing**	**Cost**
Develop a Parking Technology Master Plan	X				$$
Improve Wayfinding through Static Street and Monument Signs Once the Parking Brand Has Been Identified	X				$$
Install Dynamic Wayfinding and Dynamic Monument Signs Consistent with the Technology Master Plan		X			$$$
Conduct a Parking Rate Market Analysis	X			X	$$
-Reassess On-Street Parking Rates	X			X	$$
-Reassess Off-Street Parking Rates	X			X	$$
-Eliminate and/or Adjust the Virginia Beach Resident $2 Parking Fee	X				$
-Reassess Parking Citation Schedules	X			X	$
Implement New Parking Rates		X		X	$
Future Development Recommendations	**Short-Term**	**Mid-Term**	**Long-Term**	**Ongoing**	**Cost**
Reassess Form-Based Code Minimum Parking Requirements		X		X	$$
Maintain and Update Parking Demand Model				X	$

Chapter 1 – Introduction and Background

Within the City of Virginia Beach, parking is managed by the Strategic Growth Area (SGA) Department/Resort Management Department (RMD). With the pending changes in zoning code for the City's Resort Area, it has been determined an appropriate time to revisit parking in the Resort Area and improve its efficiency, both in policy and program. Parking in the Resort Area differs from traditional urban downtown parking because it does not have a true single downtown core which is surrounded by convenient parking. Rather, the Resort Area is geographically spread and narrowly bound along the beachfront. Parking is desired in close proximity to the ocean and other attractions; however, the parking inventory is limited. Parking is also challenged by seasonal demands and off-season underutilization. The City's parking inventory can be generally described as limited spaces that no one owns but everyone wants to use. Users perceive parking as a *free* public resource, but parking is not free. There is a high cost for parking and in the City's current management configuration, parking is paid in part by the parking users but primarily by the residents through taxes.

The City of Virginia Beach does not currently have a parking master plan. A typical master plan for a parking program assesses existing on-street and off-street parking inventories to determine deficiencies, identifies future development, projects parking requirements, and determines parking needs for a typical 15-year forecasted time period. In addition, such a master plan determines public and private parking inventory, identifies long-term strategic parking potential, reviews established methods for managing parking, and develops shared parking strategies and shared cost strategies for future parking inventories. Such a plan, thus, creates the appropriate management strategy for the overall affected community.

Following the action of City Council in July 2012, for approval of the plan for Form-Based Code, the City of Virginia Beach retained Kimley-Horn and Associates, Inc. (Kimley-Horn) to develop the Resort Area Parking Strategy. Kimley-Horn was tasked with developing the overall Parking Strategy which includes the framework for developing an area-wide Parking Strategic Plan, an area-wide Parking Management Plan, and a district Parking Management Plan.

It is important to understand the Resort Area Parking Strategy is truly a strategy; not the parking plan to be implemented by City. This document provides the City with framework of how to provide a successful parking system for the Resort Area that will meet the needs of the parking users and the City which includes residents, business owners, visitors, developers, and policy makers. It will be up to the City (staff, residents, local stakeholder, and approval by City Council) to prioritize their goals, develop the parking plan, and implement their plan. Additionally, the parking plan that City staff will develop based on this strategy will have to be implemented over time. There is not an overnight solution to the parking challenges the Resort Area faces. However, these challenges are not unique to Virginia Beach and are similar to the challenges that other beachfront communities face across the country.

STUDY APPROACH

The City Council Resolution included a broad range of goals in addition to identifying the parking needs to support form-based code. Therefore, a broad study approach was required to gather the appropriate data and information to develop the Resort Area Parking Strategy. The study approach included the following:

- Identify a study area district that represents common parking trends for the Resort Area and collect weekday and weekend peak condition parking data
- Review previous planning efforts for the Resort Area
- Obtain public input from residents, business owners, and other key stakeholders
- Review current parking policies and management procedures
- Engage with visitors and other parking users within the Resort Area to obtain input on opinions of current parking conditions for development of the Parking Strategy
- Obtain information on known short-term planned developments and forecast other potential long-term developments within the study area
- Calculate anticipated parking demand for existing, short-term, and long-term development conditions

This study approach provides the basis for development of a Parking Strategy and Parking Management Plan for the overall Resort Area, and Parking Management Plan recommendations for the study area district. Finally, the results of this cumulative effort allow for the development of future parking facilities recommendations.

STUDY AREA

The Resort Area encompasses a large geographic area in terms of analyzing parking use. Within the Resort Area, the City previously identified seven distinct districts, each comprised of different characteristics. Given the short time frame in which to complete this study, collecting and analyzing the data for all seven districts was prohibitive. Therefore, the Central Beach District was chosen to provide a representative sample of the key parking characteristics needed for analysis.

The Central Beach District was selected for a variety of factors including the complexity of the district, its near-term development potential, its large parking inventory which provides diversity in parking space use and potential shortfalls of parking, its proximity to surrounding neighborhoods, and its high concentration of existing businesses.

The Central Beach District, as identified by Sasaki and Associates in the Resort Area Strategic Action Plan (RASAP), included an area generally bound by 22nd Street to the north, 17th Street to the south, the Boardwalk to the east, and Mediterranean Avenue to the west. The Central Beach District is illustrated in **Figure 1-1**.

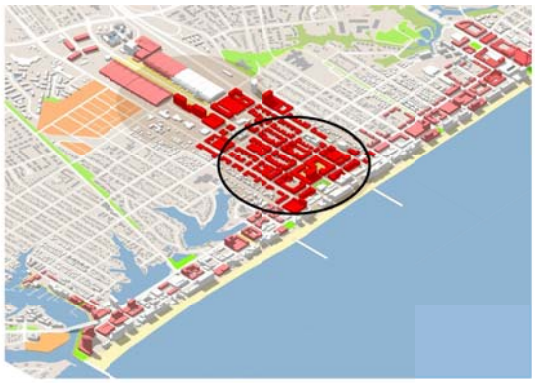


Figure 1-1 – Central Beach District

In developing the Resort Area Parking Strategy, it was important to gather parking data not only within the Central Beach District, but also in the areas adjacent to the Central Beach District. The study area included data collection limits included the areas bounded by 25th Street to the north, 16th Street to the south, the Boardwalk to the east, and Cypress Avenue to the west.

Previous Planning Efforts

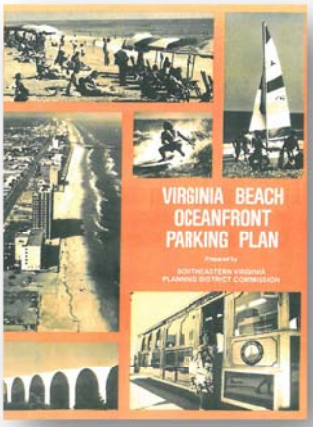
Numerous planning efforts dating back to the mid-1970s have led to the decisions and developments that encompass the Resort Area. The framework for current conditions within the Resort Area really began to take shape beginning in 2006 after the adoption of the Oceanfront Resort Area Design Guidelines. This document set the foundation for the change to form-based code for developments and redevelopments. Since then, numerous planning efforts have helped to further this vision. This study aims to continue these efforts by providing another piece of the puzzle in the development of the area. Parking is an integral part of any community's growth and development, and the provision of adequate parking is instrumental in driving economic growth.

The following plans and studies were instrumental in laying the foundation for this study.

Virginia Beach Oceanfront Transportation Study

The ***Virginia Beach Oceanfront Transportation Study*** was developed in December 1979. The study evaluated on-street parking issues, identified parking control strategies aimed to improve parking deficiencies, and proposed a plan of action designed to improve vehicular circulation. The study recommended adding signage for parking on the local streets prior to reaching Atlantic Avenue to reduce the congestion problem near the oceanfront area. In addition, implementing traffic signal improvement, parking strategies, and pedestrian crossings aid in improving overall traffic and pedestrian circulation in the oceanfront resort area.

Virginia Beach Oceanfront Parking Plan



The ***Virginia Beach Oceanfront Parking Plan*** was prepared in April 1981. The goal of the plan was to develop a program that would ensure an efficient and effective parking system. In order to achieve this goal, a parking plan was developed to inform the visitors of available parking areas and routes to these areas, maximize off-street parking, and provide a mechanism for meeting future parking requirements.

One of the recommendations for the parking plan was to implement a Resident Permit Parking program to address the conflict for parking spaces on residential streets. This solution was developed to accommodate on-street visitor parking in residential area during the day and residential parking during the night.

Virginia Beach Resort Area Parking Program

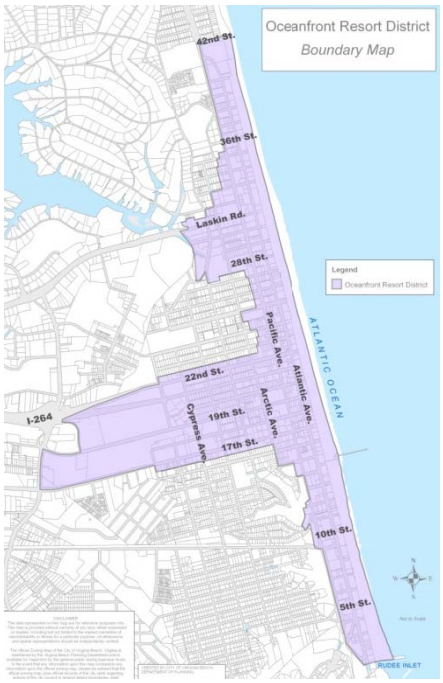
The ***Virginia Beach Resort Area Parking Program*** was prepared in August 1988. The study analyzed the Oceanfront peak parking demand based on a 10-year projection. Based on the projected parking needs, a plan was prepared to provide project funding requirements and organization and management of the recommended parking program.

The recommendations developed from the study included improving the perception of parking availability by making parking more visible, convenient and available. A list of alternative actions was developed in an effort to address parking issues in the Resort Area. These actions focused on redistributing parking demand to remote area, mandating the provisions of more parking by the private sector, and increasing the convenience of parking.

Oceanfront Resort District Form-Based Code

The ***Oceanfront Resort District Form-Based Code*** (ORDFBC), approved in July 2012, outlined the new zoning code approach for the Oceanfront Resort Area. The process of creating the ORDFBC began in August 2009 and took place over a three-year period. The development was a collaborative effort between Urban Design Associates (the consultant), City staff members, the Oceanfront Resort Area Advisory Committee, and local residents and stakeholders.

The need for the ORDFBC stemmed from the Resort Area Strategic Plan (RASAP), adopted in December 2008, provided a vision for the Oceanfront Resort Area. The RASAP process identified the City's existing zoning codes as a significant barrier to support the vision identified for



Excerpt from Oceanfront Resort District Form-Based Code

this area. The ORDFBC provided a solution to break the barrier through the reprogramming of zoning within the Resort Area.

The current streetscape in the Resort Area.

The desired vision for the Resort Area as proposed in Form-Based Code.

The parking requirements outlined in the ORDFBC have simplified the parking requirements in the Resort Area. The parking requirements are separated by use and ratios are provided to determine the required number of parking spaces. It is important to note that the ORDFBC has no maximum parking requirements, only minimum parking requirements. All required parking may be located off-site with the exception of handicapped parking spaces and any applicant may request shared parking to meet the minimum parking requirements. Additionally, on-street parking and unstriped parking may be included in the calculation of parking requirements.

Resort Area Strategic Action Plan

In December 2005, the Virginia Beach City Council adopted the Oceanfront Resort Area Design Guidelines. The document provided site and building design guidance, similar to form-based code, for new development and redevelopment projects within the City's Resort Area. These guidelines included how to develop parking facilities which called for parking structures to be incorporated into the design and aesthetic structure of the Resort Area. In particular, parking facilities would now function to serve a multitude of uses and users within the structure. Following approval of the Oceanfront Resort Area Design Guidelines, the City of Virginia Beach enlisted the services of Sasaki and Associates to produce the RASAP providing a graphic vision of the Oceanfront Resort Area and to develop implementation plans for achieving that vision.

The RASAP identified the development vision and master plan by creating resort districts with distinct identities; improving connectivity among the districts; developing transition concepts between the resort area and adjacent neighborhoods; enhancing the image of the Resort Area; and formatting strategies to attract and increase residency, attract high-quality hotels, increase and concentrate retail, and develop office clusters to achieve a year-round destination for residents and guests. As part of the vision, parking was planned to be centralized and structured within districts, shared parking was to be encouraged to help alleviate congestion, surface parking was to be reduced, and traffic was to be managed through strategic parking practices and plans. The RASAP also identified parking locations in the Resort Area and potential parking locations both in the Resort Area and in areas to be served by those locations within a quarter-mile radius around each parking location.

Figure 1-2 – Oceanfront Master Plan prepared by Sasaki

To further delineate the areas within the RASAP, City staff identified seven parking districts in the Resort Area and the Convention Area which are shown in **Figure 1-3**. Each parking district was identified by considering the parking challenges unique to each district.

Resort Parking Districts

1.) North Beach District
2.) Laskin Gateway District
3.) Old Beach District
4.) Central Beach District
5.) Lakes District
6.) Rudee District
7.) Marina District

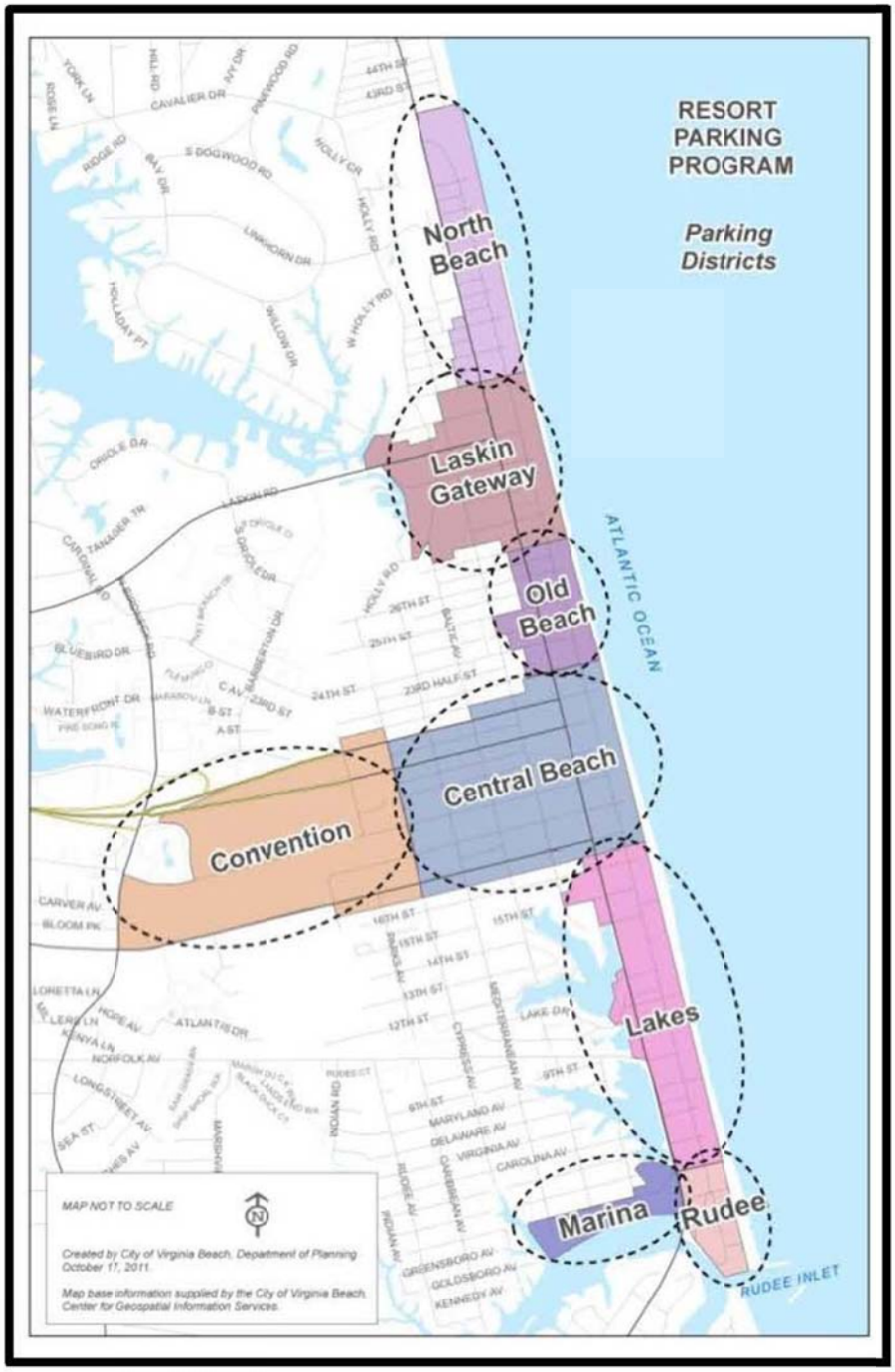


Figure 1-3 – Resort Parking Districts

The SGA office solicited input from the Resort Area Commission (RAC) and its Transportation, Parking and Pedestrian Committee (TPPC) and Virginia Beach Vision, as well as other groups, to develop a list of parking strategy goals as follows:

- Provide Off-Site Parking – Unlock development potential of properties
- Support Mixed-Use Development – Support attractive, quality mixed-use and multiple-use developments
- Fair Access to Facilities – Provide equitable access to facilities and opportunities
- Encourage Year-Round Activity – Promote year-round business and residential activity
- Enhance Transportation – Support multi-modal transportation alternatives
- Reduce Parking Impact to Residential Neighborhoods – Minimize parking impact in neighborhoods
- Reduce Traffic Congestion – Minimize vehicle cruising time and carbon emissions
- Minimize Atlantic Avenue Parking – Decrease parking or the visibility of parking between Atlantic Avenue and the Boardwalk
- No Financial Burden on the General Fund – Avoid negative impacts to the general fund or existing tax revenue sources
- Determine Parking's Fiscal Impact – Analyze new development tax revenues as a potential funding source for parking supply
- Costs – Ensure parking revenues pay actual cost of development, maintenance, and management.

Draft Resort Parking Strategy

In 2011, the SGA/RMD began preparing a Draft Resort Parking Strategy which analyzed existing parking inventory and use, projected future parking needs based on existing use patterns, and identified parking strategies and a parking organizational management structure. Within the existing use analysis, the draft strategy also examined the Residential Permit Parking Program (RPPP) and the employee parking permit program. The draft strategy identified some of the challenges with both programs and gathered concepts for potential solutions but no final recommendations were analyzed or made.

The Draft Resort Parking Strategy also examined future parking needs. This formed the basis for the preliminary analysis and possible structure for the application of the Form-Based Code, as well as how Form-Based Code would be applied as new developments and redevelopment projects are proposed. As the oceanfront area redevelops and becomes more urbanized, single-use surface parking lots will be replaced with more intensified productive land uses. Parking facilities will accommodate more than one business use resulting in what is often referred to as mixed-use parking facilities. Parking spaces will be used by multiple users and the intensified urban environment will encourage less dependency to drive to each destination creating multiple trips in a day.

These mixed-use parking facilities provide opportunities for use of "park once" philosophies—where visitors are encouraged to park only once, using alternate transportation methods such as transit, trolley, biking, and walking to reach multiple destinations. The overall and long-term effects of Form-Based Code

will be that the area will shift from suburban parking requirements—separate parking lots at each destination—to urban parking requirements—parking designed to be convenient to many locations or businesses. Form-Based Code will allow shared parking plans to be implemented, shifting trip choice from dependency on automobile trips to greater selection of multimodal transportation systems, ultimately resulting in less traffic congestion.

The draft strategy indicated that while the current management structure functions effectively, future citywide development will increase the complexity for establishing additional parking supply. These complex issues include long-term private sector development knowledge, land acquisition constraints, and parking rate establishment delays.

The SGA's Draft Resort Parking Strategy was intended to be a starting point for developing a coherent, comprehensive, and fiscally-responsible parking strategy. The report provides a list of Immediate Staff Actions while the longer term analyses of fiscal impacts were undertaken. This allowed the consideration of the Form-Based Code discussion to move forward while business and community concerns about immediate issues are addressed. The draft report was presented to the Council as they continued discussion about the proposed Form-Based Code. The list of Immediate Staff Actions included:

1. **Establish a Parking Facility Annual Lease Program** – This allows the City to develop a policy and gain authorization allowing one- to five-year City and/or private facility parking leases which meet land use/zoning requirements.
2. **Address RPPP and Employee Parking Issues and Concerns** – This allows the City to address concerns raised by residents regarding impacts to their residential neighborhood streets and the concerns raised by businesses regarding impact to employee parking in the in the RPPP District.
3. **Create a Public Parking Bicycle Program** – This allows the City to develop recommendations for bicycle parking in city lots and facilities, and on streets.
4. **Research Parking Technological Management Programs** – This allows the City to research and consider technology for static and dynamic wayfinding, metering, and facility occupancy counting equipment with dynamic space display signs, thus improving parking occupancy and traffic congestion, vehicle queuing, and air quality.
5. **Initiate Consultant Services –** This allows the City to address parking phases, consider rate structures, and forecast future demand and fiscal impact.

City Council Resolution

The City Council considered the Form-Based Code and approved it contingent upon the creation of a Resort Area Parking Strategy that provides a comprehensive parking strategy for the Resort Area necessary for the success and optimization of Form-Based Code development. In developing the parking strategy, the specific goals identified in the Draft Resort Parking Strategy prepared by City staff were to be considered as well, including protecting established neighborhoods, supporting businesses and employee parking, encouraging year-round business activity, identifying new funding sources to support parking facility development, and developing maintenance and management strategies to ensure no impact to existing revenue sources, among others. This City Council Resolution was adopted in July 2012 and is provided in the **Appendix**.

Chapter 2 - Public Outreach and Community Input

To fully understand the parking concerns and operational consideration for the private development and established residential areas, it was important to make the planning process open to both the local stakeholders and the community at large.

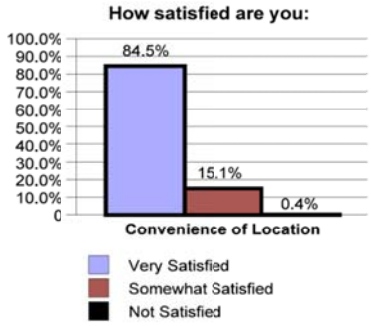
The hope was to create a parking strategy that gathered, processed, and applied a diversity of opinions from City staff, local business owners, developers, and residents. The project team achieved this goal by conducting one-on-one meeting interviews with a small group of community leaders, residents, business owners, and developers. This group represented a cross section of interests throughout the study area. Below is a brief synopsis and key points taken from the community leader interviews.

- Unique challenges imposed upon neighborhoods can be mitigated in part by a 24-hour resident only parking program
- Numerous studies have identified the goal of growing the resort but protecting the neighborhoods; progress has only been made towards growing the resort
- Current Residential Permit Parking Program (RPPP) signage is confusing to visitors
- Removal of public parking in the neighborhoods will calm the traffic and increase safety
- Residents depend on the on-street parking for access to their homes, especially those without on-site parking
- Supports 24-hour resident-only parking program if a percentage of residents are in agreement
- Parking is splintered in the resort area
- Current RPPP presents safety issues to employees parking on the dark residential streets
- Key issue is where to park the employees if removed from the neighborhoods
- Satellite lots for employee parking are not a cost-effective and timely, long-term option
- Establish public-private partnerships to increase available parking
- Supports the current RPPP for business owners but understands the residential challenges
- Providing business parking (price and proximity) is paramount to operations and success
- Most successful businesses at the Oceanfront have on-site parking
- Private lot owners are interested in automation and upgraded technologies

- Parking should not be free since it is a resort
- RPPP business program doesn't function as intended and is misused
- The Resort Area should be viewed as an urban model for public and private parking rates
- Identify how to maximize public-private opportunities while managing the parking
- A 24-hour RPPP will just shift and expand the problem to other residential areas
- Adequate parking enforcement remains an issue, particularly in the offseason with year-round business operations
- Strategy needs to be long range
- Recommendations should be bold
- Parking impacts land values but also provides incentives
- City should encourage side street development but its counteractive to provide parking access on the east/west streets
- Parking should not be the destination for the Oceanfront Resort Area
- Establish a relationship for sharing and standardizing public-private lots
- Recommends developing a parking strategy and the funding strategies can be figured out
- Parking should be a separate entity than economic development
- Private sector should participate in the development of inventories
- Supports form-based code if the City steps in
- Supports the participation of the private sector to help the parking plan
- Supports that private sector can build the parking and turn them over and/or establish long-term lease agreements with the City for public use
- Supports dedicating parking in the garages for hotels/RPPP/businesses

PUBLIC INTERCEPT SURVEY

In addition to the stakeholder meetings, an intercept survey was conducted to solicit input from the general public regarding parking use in the Resort Area of Virginia Beach. The primary goals of the research was determine attitudes towards the convenience of parking, willingness to walk farther from parking to destinations, and pricing incentives associated with the parking.

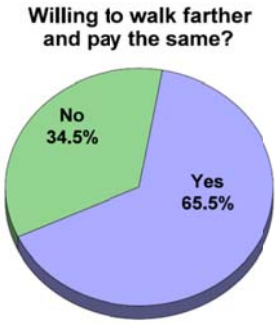


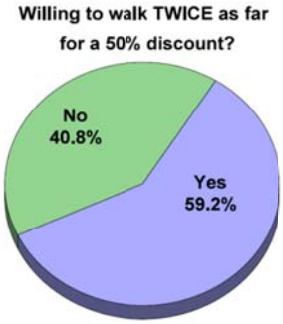
The survey was conducted by Continental Research Associates, Inc., a Hampton Roads marketing research firm located in Norfolk, VA. The survey was administered to customers in two forms; a majority of customers were intercepted at the parking lots and a small sample of local residents was contacted by telephone.

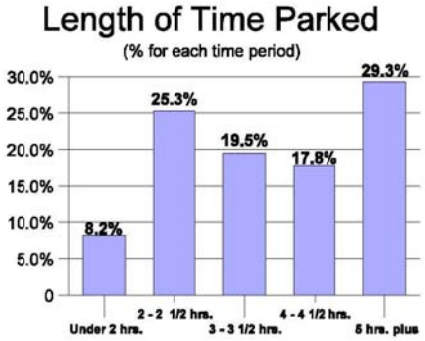
Generally, customers who were intercepted in the resort area were very happy with the convenience of the location of the parking lots/garages. However, customers were reminded that parking is somewhat limited in the resort area. The questionnaire items included the following:

- A rating of the convenience of parking lot/garage
- Length of time the vehicle will be parked
- Distance to destination
- Walking or trolley
- Total blocks willing to walk (for same parking fee)
- Willingness to park twice as far for half the cost
- Hampton Roads resident
- Staying overnight
- Party size
- Number of children in party
- Home zip code
- State/Province of residence
- Age group
- Gender
- Parking lot/garage used
- Month of visit
- Day of week
- Time frame of visit

The survey was conducted over a seven-week period. The study included a random sample of 543 parking customers. The results are believed to be representative of the general public since scientific selection techniques were used to choose survey participants. A summary of the survey results are located in the **Appendix**.





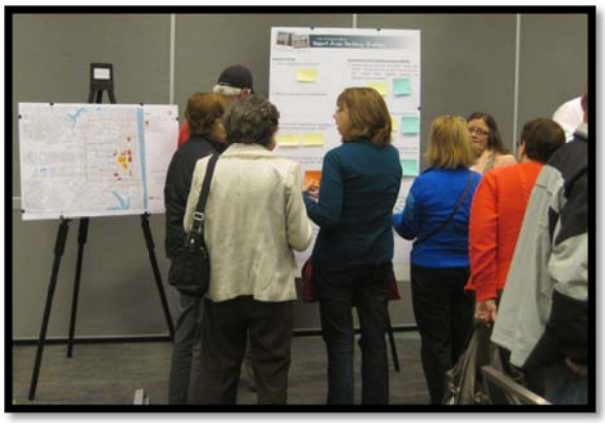


PUBLIC INFORMATION MEETINGS

In effort to further engage the community, one public information meeting was conducted at the project's onset to allow the community an opportunity to weigh in on the issues for the study area. The meeting was intended as an information session and focused on providing information on the purpose of the study, describing the study area, describing the study process, and identifying the project schedule. A 30-minute slide show presentation was delivered to the 57 audience members before breaking out into 3 workstations that were led by Kimley-Horn and City staff with the intent of gathering information and opinions of the problems to help focus the study. At each work station, a static board graphically identified the study area and a static questionnaire board included 10 specific questions in which the project team wanted to gather specific citizen input. Citizen input was gathered on Post-It notes that were posted on the static board under each specific question. For those who didn't wish to participate in the work stations or who wished to provide additional input, the same questions were printed on a questionnaire that was collected at the end of the meeting and were also accepted via mail and email. To date, the City has received 59 questionnaire responses. The 10 questions with some common responses to each question are as follows:

<u>Existing Parking</u>

1. Where is parking most needed?
    - In residential neighborhoods
    - Near the oceanfront in the core area (5th Street through 27th Street)
2. Where is parking most underutilized?
    - City lots and garages
    - The Convention Center
3. How convenient is parking for <u>residents</u> in the Resort Area (Poor, Fair, Good)? Why?
    - Poor to fair due to competing with business passes and tourists
    - Good. Can be challenging during peak season but no worse than any urban city
4. How convenient is parking for <u>visitors</u> in the Resort Area (Poor, Fair, Good)? Why?
    - Poor. Garages are full and private lots charge too much

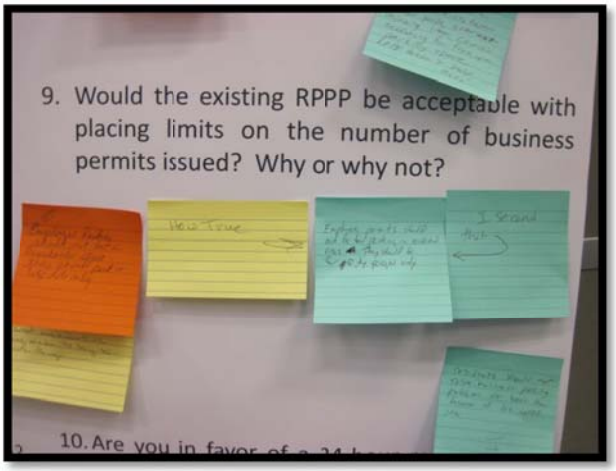


- Good. Except on special events or holiday weekends
- Good for hotel guests that provide on-site parking. Poor for a one-day visitor

Future Parking

5. What is the ideal parking solution for this area?
    - 24-hour RPPP
    - More public lots and garages
    - Satellite parking with shuttle services
6. What multi-modal transportation alternatives could support parking within the Resort Area?
    - Shuttle services for employees
    - Light rail transit

Residential Permit Parking Program (RPPP)



7. Where are the parking "hot spots" within the RPPP? Please provide answers by block (i.e. 25th Street from Cypress Avenue to Mediterranean Avenue)
    - 15th Street and 16th Street
    - 22nd Street through 26th Street
8. What is your perception of the current RPPP?
    - Improperly controlled and enforced
    - It works but could be improved
    - Issuance of business permits into residential neighborhoods is flawed
9. Would the existing RPPP be acceptable with placing limits on the number of business permits issued? Why or why not?
    - Yes. Employees abuse the passes for recreation
    - Yes. Further development per Form-Based Code will exasperate the current issues
    - No. Permits should only be issued to residents
10. Are you in favor of a 24-hour resident-only, on-street parking restriction within the current RPPP <u>and</u> how would it impact your day-to-day activities?
    - No. No flexibility
    - Yes. It would ensure parking within a reasonable distance to homes
    - Yes. As long as it is properly enforced

A second public information meeting was held to present the draft recommendations from the study. As discussed in the next session, the City Council appointed Resort Area Parking Committee was formed to also provide recommendations separate from this study. The Resort Area Parking Committee's draft recommendations were also presented.

In addition to draft recommendations, the information meeting provided an overview of Kimley-Horn's efforts, the Resort Area Parking Committee's efforts, and a summary of the overall parking strategy. Similar to the first public information meeting, breakout stations were used to gather the public's feedback on the presented information to help the City prioritize the key items of the parking strategy to address moving forward. Three breakout stations focused on the recommendations from this study specific to the Central Beach District Parking Management Plan which included RPPP Recommendations, Parking Inventory Recommendations, and Future Parking Recommendations. A fourth breakout station presented the Resort Area Parking Committee's recommendations.

Generally, the feedback received was mixed for the support of a 24-hour RPPP similar to the first public information meeting. Citizens also expressed concern with the perception of lower parking requirements associated with Form-Based Code. Citizens were mostly in concurrence that clearer signage and wayfinding are needed as well as delineation of parking prohibitions. Finally, the citizens expressed their desire for immediate action for the upcoming peak season.

Summaries of consolidated citizen responses and attendance rosters from both pubilc information meetings are provided in the **Appendix**.

Resort Area Parking Committee

In September 2012, after this study had commenced, City Council appointed a committee comprised of residents, business owners, and City staff to evaluate existing parking conditions, identify and discuss perceived problems, and provide a set of parking recommendations to City staff that address those problems as well as those objectives set forth in the Council Resolution for the Resort Area. The committee has met and will continue to meet to discuss and provide resolution recommendations to City staff for parking related activities within the Resort Area. During the study process, Kimley-Horn made two presentations to the committee to (1) identify the scope of the consultant's study currently underway and present existing conditions findings, and (2) present the draft recommendations.

Chapter 3 – Existing Conditions

Before Form-Based Code policies and recommendations for parking within the Resort Area may be developed, it is important to understand how the existing parking system operates. As mentioned, this study focuses on the Central Beach District Sub-Area. The successes and shortcomings in this system as well as changes to the zoning ordinances for future development can provide the foundation for determining the direction for the Oceanfront Resort Area.

Existing Parking System

The existing public parking system in the Central Beach Sub-Area has more than 2,800 available parking spaces located in a combination of City-owned parking lots, privately owned parking lots that are used for public parking, and on-street parking. Within the sub-area, there are currently a total of 2,806 publicly available parking spaces within the study area—1,611 surface lot spaces and 1,195 curb spaces. A detailed breakdown and inventory summary of all publicly available off-street and on-street curb parking locations is provided in the **Appendix**. The City owns two parking garages that serve the Resort Area, 9th Street Parking Garage and 31st Street Parking Garage; however, these garages are located outside of the study area. **Figure 3-1** shows the existing study area while **Figure 3-2** illustrates the existing parking inventory and locations for the Central Beach District Sub-Area.

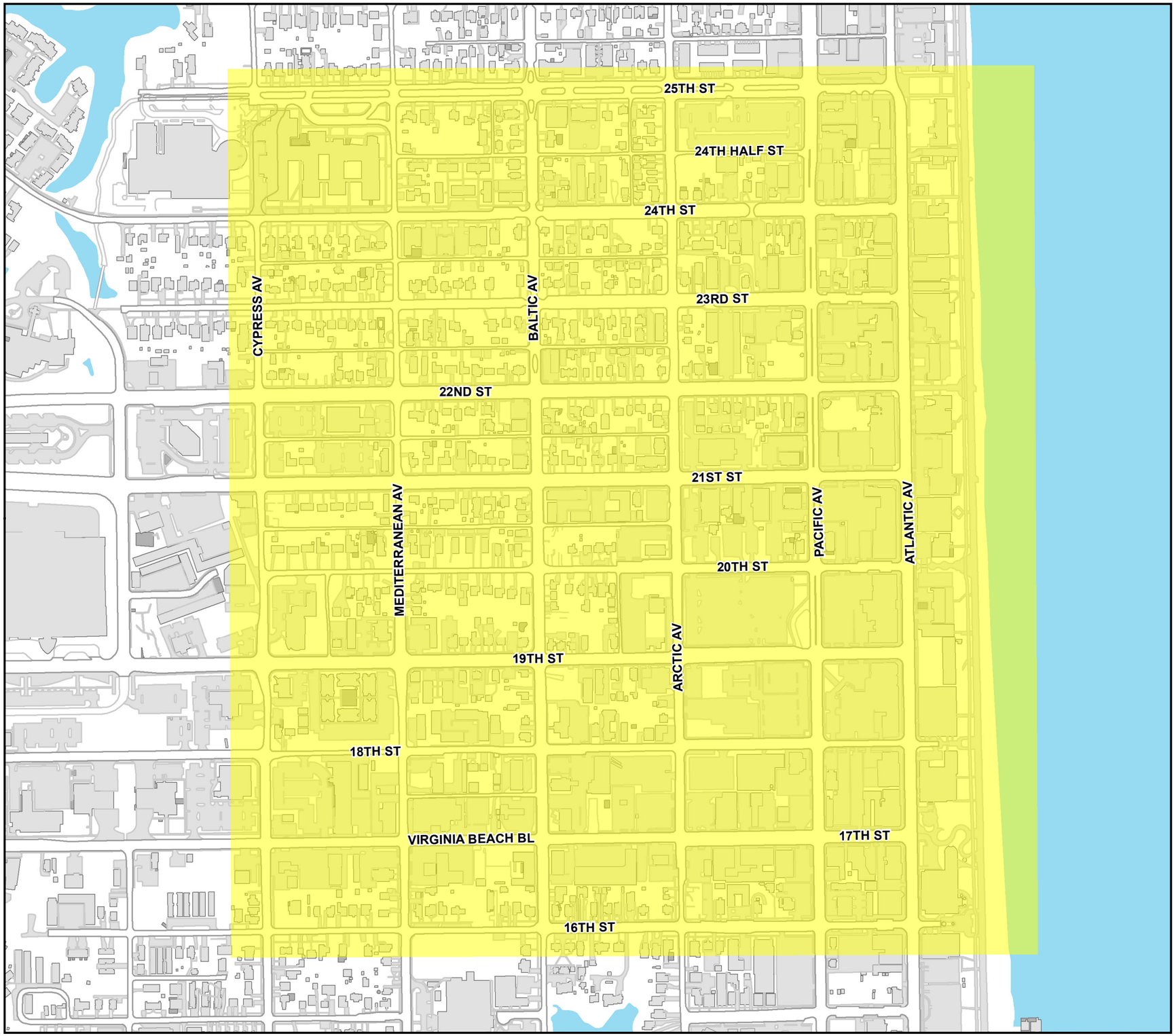
The existing parking supply in the Central Beach District Sub-Area consists of a mixture of on-street and off-street parking facilities. The on-street facilities are mostly comprised of Residential Permit Parking Program (RPPP), but also include a limited number of metered, handicapped, motorcycle, and loading zone designated spaces. Generally, the RPPP regulations require a permit for parking between 8:00 PM and 6:00 AM daily with 24-hour parking restrictions on holiday weekends during the summer peak season. Otherwise, on-street parking within the RPPP is free and open to the public. The RPPP is discussed in further detail later in this report. Metered parking is enforced from April 1st to October 31st at a rate of $1.50 per hour. Meter equipment includes traditional single space parking meters, as well as multi-space meters located along the 200 block of Atlantic Avenue.

Off-street parking spaces within the sub-area are either municipal surface lots or privately owned surface lots. As mentioned, there is a total of 1,611 off-street spaces within the study area. Of the total off-street parking available within the sub-area, 49 percent is contained within the municipal surface lots with the balance of spaces provided by private owners in surface lots. The surface lots are spread north and south throughout the sub-area but are all located east of Baltic Avenue. Based on their proximity, these lots primarily serve the resort area and beach patrons. It is also noted that approximately 75 percent of the available off-street parking within this sub-area, both municipal and private, is located within several blocks bound by 18th Street, 21st Street, Arctic Avenue, and Atlantic Avenue.

Parking is available in the municipal lots from 8:00 AM to 2:30 AM daily. From April 1st to October 31st, the parking rates increase hourly with a daily maximum of $7 on Monday through Thursday and $10 on Friday, Saturday, Sunday, and holidays. After 5:00 PM, the parking rate is $2 for Virginia Beach residents. Overnight parking in municipal lots is not permitted and towing is enforced. From November 1st to March 31st, municipal parking lots are free and/or closed. Private lots within the sub-area charge a flat rate for parking. During data collection and field observations, it was observed that rates varied per lot and were subject to change without notice.

There are noticeably less public parking spaces available west of Arctic Avenue, particularly in surface lots. The available parking spaces west of Arctic Avenue are on-street parking and regulated by the RPPP. This area primarily serves the residential community and provides limited availability for non-RPPP parkers.

The following sections describe the major existing on-street and off-street parking facilities in the sub-area.



N
W
E
S

Legend

Central Beach District Study Area

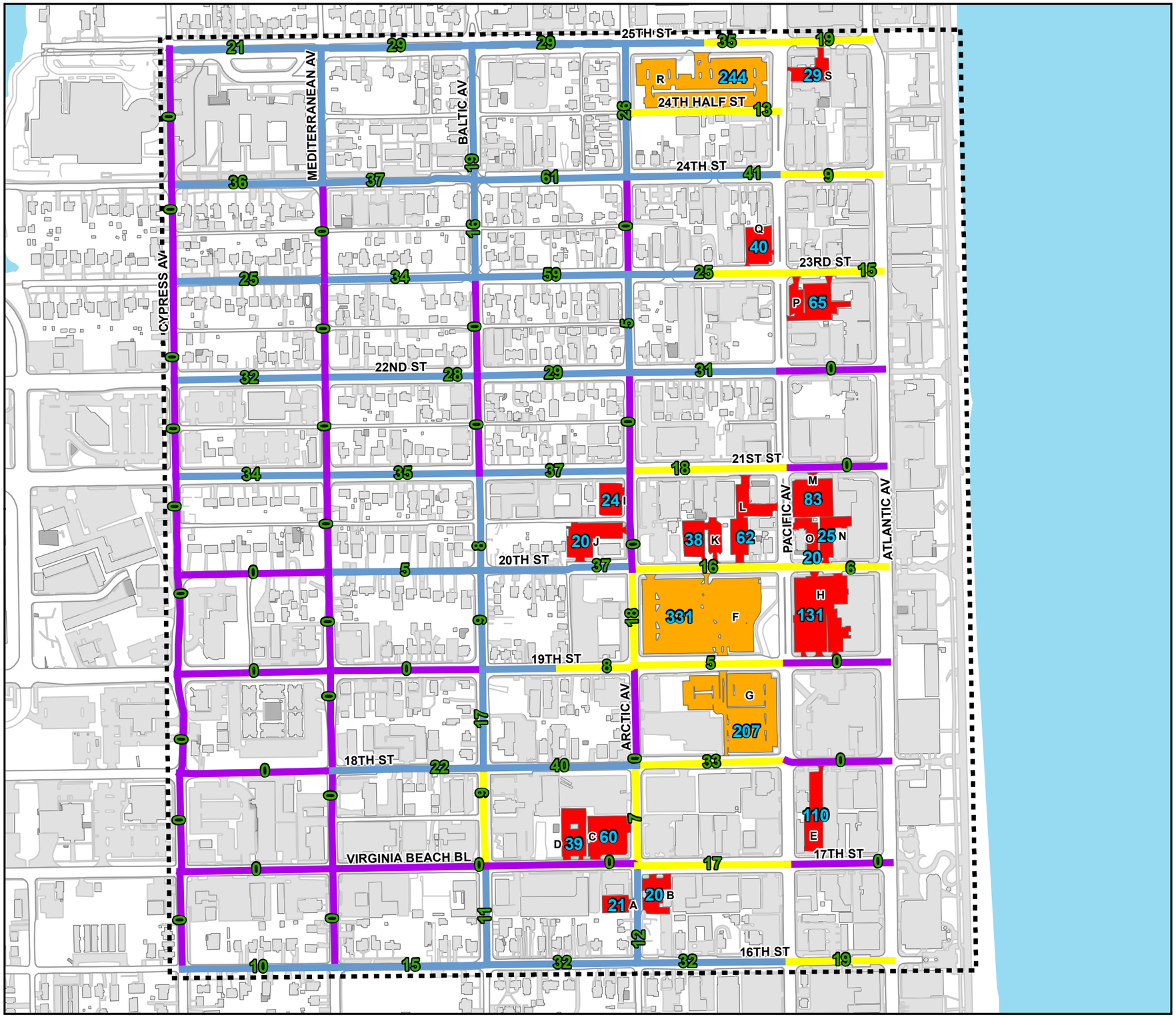
0 250 500 1,000 Feet

Central Beach District Study Area

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-1

Kimley-Horn and Associates, Inc.



Legend

- XX Number of Spaces in Lot
- XX Number of Spaces on Street
- Posted No Parking
- Metered Parking
- Residential Parking
- Commercial Lot
- Municipal Lot
- Central Beach District Subarea Boundary

0 250 500 1,000 Feet

Central Beach District
Parking Inventory for Public Use

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-2

Kimley-Horn and Associates, Inc.

19th Street Municipal Parking Lots

The 19th Street Municipal Parking Lots are divided into the North and South Lots. The facilities are located north of 18th Street, south of 20th Street, east of Arctic Avenue, and west of Pacific Avenue. The North Lot contains 331 parking spaces, and the South Lot contains 207 parking spaces for a total of 538 parking spaces. Occupancy counts for the North and South Lots were collected at 10 AM, 1 PM, 4 PM, 7 PM, and 10 PM on Thursday, August 23, 2012, and Saturday, August 25, 2012. The results of the occupancy counts are displayed in **Table 3-1**. It is noted on Thursday, the South Lot was closed and all the demand was accommodated within the North Lot.

The current rates collected at the 19th Street Municipal Parking Lot:

- **Open 8:00 AM to 2:30 AM Daily**
- **November 1 to March 31**
  - **Free for VB residents**
- **April 1 to October 31**
  - **Monday – Thursday: $7**
  - **Friday – Sunday; Holidays: $10**
  - **$2 after 5:00 PM for Residents**

Table 3-1 – 19th Street Municipal Lots Parking Occupancy

Parking Lot	Day of Week	10 AM	1 PM	4 PM	7 PM	10 PM
North Lot	Thursday	1%	13%	17%	22%	34%
	Saturday	5%	27%	45%	75%	90%
South Lot	Thursday	0%	0%	0%	0%	0%
	Saturday	1%	5%	61%	99%	80%

The evening occupancy is higher at this location given its proximity to local nightlife and the resort area. It is noted, during the off season, the South Lot is typically closed.

The 19th Street Municipal Lots serve as primary access for resort patrons based on its two-block proximity to the Oceanfront and close access to 21st Street and 22nd Street, which provide direct access to Interstate 264. During the peak season, the 19th Street Municipal Parking Lots are one of the Resort Area's most used surface parking lots.

25th Street Municipal Parking Lot

The 25th Street Municipal Parking Lot is located north of 24½th Street, south of 25th Street, east of Arctic Avenue, and west of Pacific Avenue with the only entrance located along 25th Street. The lot contains 244 parking spaces. Occupancy counts were collected at 10 AM, 1 PM, 4 PM, 7 PM, and 10 PM on Thursday, August 23, 2012, and Saturday, August 25, 2012. The results of the occupancy counts are displayed in **Table 3-2**. It is noted on Saturday, the lot charged a $10 special event flat rate for the East Coast Surfing Championships.

The current rates collected at the 25th Street Municipal Parking Lot:

- **Open 8:00 AM to 12:30 AM Daily**
- **April 1 to October 31**
  - **Up to 1 Hour: $2.00**
  - **Up to 2 Hours: $4.00**
  - **Up to 3 Hours: $6.00**
  - **Over 3 Hours: $10.00**
  - **Monthly Parking: $40.00**
  - **$2.00 after 5 PM for Residents**

Table 3-2 – 25th Street Municipal Lots Parking Occupancy

Day of Week	10 AM	1 PM	4 PM	7 PM	10 PM
Thursday	6%	23%	20%	29%	30%
Saturday	10%	36%	64%	95%	68%

The evening occupancy is higher at this location given its proximity to local nightlife and the resort area. The 25th Street Municipal Lots serves as primary access for resort patrons based on its two-block proximity to the Oceanfront and close access to 21st Street and 22nd Street, which provide direct access to Interstate 264. During the peak season, the 25th Street Municipal Parking Lot is one of the Resort Area's most used surface parking lots, as illustrated based on the 7 PM occupancy.

Privately Owned Parking Lots

Privately owned parking lots that are used for off-street public parking comprise approximately 57% of the available off-street parking within the sub-area. Although these privately owned surface lots make up a majority of off-street parking within the sub-area, they are contained within 13 locations and the average size of the lots is approximately 51 parking spaces. The largest privately owned surface lot contains 131 parking spaces. As a result, available parking per lot may be limited at times, particularly during peak season time periods.

During observation time periods, payment was typically collected as a flat fee and paid on entry; parking rates varied per lot based on availability and proximity; the observed rates ranged from $5 to $20 per parking space; and rates were subject to change without notice. Lot attendants were present to collect fares via cash and/or credit card in limited locations. Parking technology, such as push button tickets and/or gates, were not observed at any location.

RESIDENTIAL PERMIT PARKING PROGRAM

The Residential Permit Parking Program (RPPP) is enforced for most of the resort area residential streets between 30th Street and Rudee Loop and west to the 800 block. Eligible street blocks within any residential area, or part thereof, must be located within one-half mile of a city meter-regulated parking area and authorized by the City Manager or his designee. A map illustrating the RPPP within the entire Resort Area is shown in **Figure 3-4**.

The RPPP was implemented in the early 1990s. It has been in place since to help regulate overnight parking in the neighborhoods for parkers accessing the resort area. RPPP restrictions are enforced between 8:00 PM and 6:00 AM daily. Holiday parking restrictions include a 24-hour restriction for July 4th and Labor Day weekends. Holiday RPPP regulations are in effect from July 2nd at 6:00 PM to July 6th at 8:00 AM for July 4th and from Friday at 8:00 PM to Tuesday at 6:00 AM for Labor Day weekend. During non-regulation hours, on-street parking within the RPPP is free and open to the public. To legally park in RPPP areas during regulations hours, a residential decal or guest permit must displayed in/on the vehicle.

Residential Permit Parking Program Fees

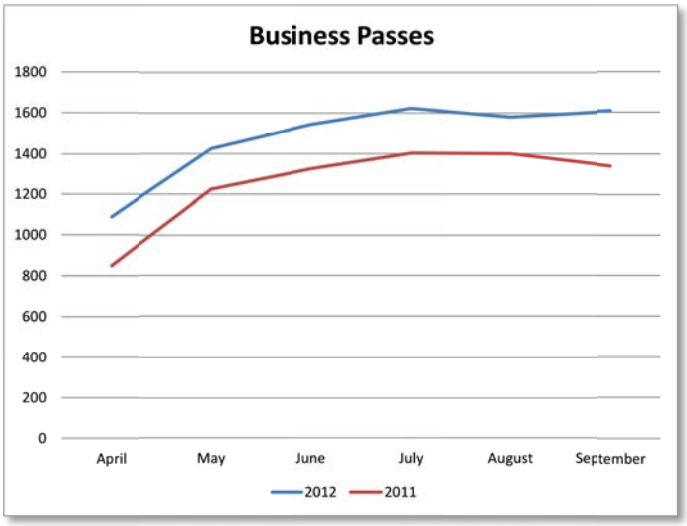
Residents can obtain up to two free decals and purchase two additional decals for $5 each, two annual guest permits for $2 each, and up to ten 72-hour temporary guest permits per week at no charge, which are considered on a case-by-case basis.

In addition to providing overnight on-street parking for the residential neighborhoods, employees who work within the Resort Area can obtain business parking permits to park within the RPPP areas. The annual employee fee for parking in the RPPP area is $25 per person. Business permits are color coded per month and business location information is included on the permit to deter improper use. Currently, the number of permits issued to employees is not capped. **Table 3-3** summarizes the number of total permits issued to businesses from April 2011 to March 2012. **Figure 3-3** illustrates the businesses passes sold in 2011 and 2012. **Figure 3-4** illustrates the businesses currently purchasing employee permits within the Resort Area.

Table 3-3 – Business Permits Issued April 2011 to March 2012

Month	Permits Issued	Month	Permits Issued
April 2011	846	October 2011	1,222
May 2011	1,222	November 2011	628
June 2011	1,332	December 2011	274
July 2011	1,399	January 2012	219
August 2011	1,411	February 2012	219
September 2011	1,397	March 2012	319

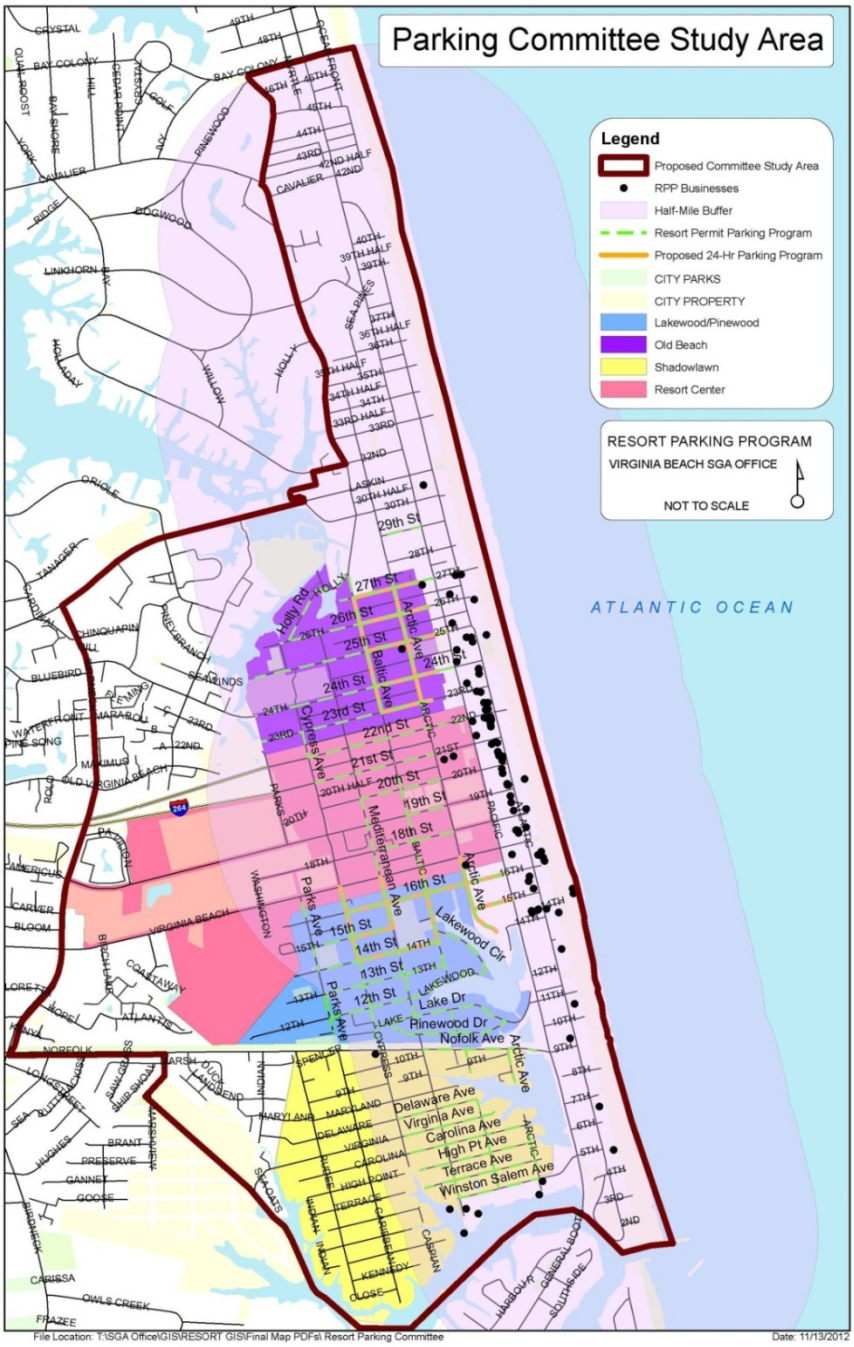
Figure 3-3 – Business Passes Sold



Residential Permit Parking Program Violations

Per city code, penalties for violations of the residential parking restrictions are currently a ticketed fine of $35 payable to the City Treasurer. Additionally, any vehicle parked in violation may also be towed as directed by the Virginia Beach Police Department.

Figure 3-4 – Businesses Purchasing RPPP



Residential Permit Parking Program Data Collection

The City of Virginia Beach collected data from Memorial Day weekend to Labor Day weekend within the RPPP area to document the user groups of the on-street parking at 10 PM and 2 AM on various days of the week to include residents, guests, temporary permits, businesses, and violations. From the data collected, it was determined that the areas with the most violations included 16th Street, 23rd Street, and 24th Street. The data below represents an average of the total, weekday, and weekend of the collected RPPP nightly data for the RPPP "hot spots."

Table 3-4 – 16th Street Nightly Vehicle Survey

16th Street - 300 Block (Pacific to Arctic)										
Month	DOW	Resident	Guest	Temp	Business	Violation	Total	Spaces	% Business	% Occupied
April	Total	8	1	0	12	1	22	32	54%	69%
	Weekday	7	2	0	13	1	22	32	61%	67%
	Weekend	9	1	0	12	1	22	32	52%	69%
May	Total	4	1	0	17	0	22	32	71%	70%
	Weekday	4	1	0	14	0	20	32	65%	62%
	Weekend	4	2	0	18	0	24	32	73%	74%
June	Total	4	2	0	15	1	22	32	68%	69%
	Weekday	4	2	0	18	1	24	32	74%	74%
	Weekend	4	2	0	14	1	21	32	67%	66%
July	Total	4	2	0	17	0	23	32	69%	71%
	Weekday	5	1	0	14	0	21	32	57%	66%
	Weekend	3	2	0	18	0	23	32	75%	73%
August	Total	3	1	0	17	1	22	32	73%	69%
	Weekday	4	2	0	16	0	22	32	71%	68%
	Weekend	3	1	0	17	1	22	32	73%	69%
September	Total	3	2	0	13	0	19	32	68%	58%
	Weekday	4	2	0	11	0	16	32	65%	50%
	Weekend	3	2	0	14	0	20	32	69%	62%
16th Street - 400 Block (Arctic to Baltic)										
Month	DOW	Resident	Guest	Temp	Business	Violation	Total	Spaces	% Business	% Occupied
April	Total	5	1	0	1	0	7	32	13%	23%
	Weekday	4	1	0	0	0	6	32	8%	17%
	Weekend	5	1	0	1	0	8	32	15%	25%
May	Total	5	2	0	3	0	10	32	25%	32%
	Weekday	4	2	0	1	0	8	32	10%	24%
	Weekend	5	2	0	4	0	11	32	32%	35%
June	Total	4	2	0	5	0	11	32	38%	35%
	Weekday	4	2	0	2	0	8	32	24%	23%
	Weekend	4	2	0	6	0	12	32	42%	38%
July	Total	4	2	1	5	1	11	32	36%	35%
	Weekday	3	1	0	3	1	7	32	25%	23%
	Weekend	4	2	1	6	0	13	32	42%	41%
August	Total	4	2	0	3	0	8	32	26%	26%
	Weekday	4	2	0	3	0	9	32	28%	27%
	Weekend	3	2	0	3	0	8	32	26%	25%
September	Total	7	1	0	2	0	9	32	18%	29%
	Weekday	7	1	0	2	0	10	32	14%	31%
	Weekend	6	1	0	2	0	9	32	19%	29%

Table 3-5 – 23rd Street Nightly Vehicle Survey

23rd Street - 300 Block (Pacific to Arctic)										
Month	DOW	Resident	Guest	Temp	Business	Violation	Total	Spaces	% Business	% Occupied
April	Total	1	1	0	2	0	4	14	42%	32%
	Weekday	1	1	0	3	0	5	14	48%	34%
	Weekend	2	1	0	2	0	4	14	40%	31%
May	Total	0	1	0	4	0	5	14	70%	35%
	Weekday	0	0	0	5	0	6	14	69%	44%
	Weekend	0	1	0	4	0	5	14	71%	33%
June	Total	0	0	0	5	0	6	14	84%	44%
	Weekday	0	0	0	7	0	7	14	96%	53%
	Weekend	0	1	0	5	0	6	14	81%	41%
July	Total	0	1	0	5	0	6	14	73%	41%
	Weekday	1	0	0	3	0	4	14	48%	29%
	Weekend	0	1	0	5	0	6	14	82%	45%
August	Total	0	1	0	4	1	6	14	69%	43%
	Weekday	1	2	0	5	0	7	14	52%	50%
	Weekend	0	1	0	4	1	6	14	75%	40%
September	Total	1	1	0	3	0	6	14	53%	39%
	Weekday	2	1	0	4	1	7	14	51%	46%
	Weekend	1	1	0	3	0	5	14	54%	36%
23rd Street - 400 Block (Arctic to Baltic)										
Month	DOW	Resident	Guest	Temp	Business	Violation	Total	Spaces	% Business	% Occupied
April	Total	26	7	0	2	2	37	59	6%	62%
	Weekday	24	8	0	1	1	34	59	4%	58%
	Weekend	26	7	0	2	2	38	59	6%	64%
May	Total	11	6	0	5	0	22	59	46%	38%
	Weekday	9	4	0	6	1	20	59	56%	35%
	Weekend	11	5	0	5	0	22	59	46%	37%
June	Total	22	7	1	7	0	35	59	17%	59%
	Weekday	22	7	1	7	1	37	59	19%	63%
	Weekend	22	7	1	6	0	34	59	16%	58%
July	Total	23	11	1	5	0	40	59	13%	67%
	Weekday	24	10	1	3	1	39	59	8%	65%
	Weekend	22	11	1	6	0	41	59	15%	69%
August	Total	21	9	1	6	0	37	59	16%	63%
	Weekday	20	7	1	6	0	34	59	15%	58%
	Weekend	21	9	1	6	1	38	59	16%	65%
September	Total	17	8	1	4	0	30	59	18%	51%
	Weekday	15	7	1	4	0	27	59	32%	45%
	Weekend	18	8	2	4	0	31	59	13%	53%

Table 3-6 – 24th Street Nightly Vehicle Survey

24th Street - 300 Block (Pacific to Arctic)										
Month	DOW	Resident	Guest	Temp	Business	Violation	Total	Spaces	% Business	% Occupied
April	Total	15	2	0	5	1	23	41	18%	56%
	Weekday	13	3	0	4	1	20	41	16%	49%
	Weekend	16	2	0	5	1	24	41	19%	59%
May	Total	14	2	1	10	0	26	41	35%	64%
	Weekday	15	2	1	9	0	27	41	30%	65%
	Weekend	13	2	0	10	0	26	41	38%	64%
June	Total	12	4	1	15	0	32	41	44%	78%
	Weekday	12	4	2	17	0	36	41	47%	88%
	Weekend	12	4	1	14	0	31	41	43%	75%
July	Total	10	6	1	12	1	29	41	38%	71%
	Weekday	10	5	1	10	0	26	41	32%	63%
	Weekend	10	6	1	13	1	30	41	41%	74%
August	Total	11	3	1	14	1	28	41	45%	69%
	Weekday	11	3	1	16	1	31	41	48%	75%
	Weekend	11	3	1	13	0	27	41	44%	67%
September	Total	12	3	0	13	0	28	41	44%	67%
	Weekday	13	3	1	11	0	28	41	41%	67%
	Weekend	11	3	0	13	0	28	41	45%	67%
24th Street - 400 Block (Arctic to Baltic)										
Month	DOW	Resident	Guest	Temp	Business	Violation	Total	Spaces	% Business	% Occupied
April	Total	12	3	0	1	0	16	61	4%	27%
	Weekday	11	4	0	1	0	15	61	5%	25%
	Weekend	12	3	0	1	1	17	61	4%	27%
May	Total	11	5	0	3	0	20	61	13%	32%
	Weekday	13	6	0	1	0	20	61	5%	32%
	Weekend	11	5	0	4	0	20	61	17%	33%
June	Total	11	5	1	6	0	23	61	24%	38%
	Weekday	11	6	0	5	0	22	61	22%	37%
	Weekend	11	4	1	6	0	23	61	25%	38%
July	Total	12	6	1	4	0	24	61	18%	39%
	Weekday	13	7	0	3	0	23	61	13%	38%
	Weekend	12	6	1	5	0	24	61	20%	39%
August	Total	10	5	1	3	0	19	61	15%	31%
	Weekday	10	4	1	2	0	18	61	12%	29%
	Weekend	9	5	1	3	0	20	61	16%	32%
September	Total	11	5	0	2	0	18	61	11%	30%
	Weekday	11	6	0	2	0	20	61	9%	32%
	Weekend	11	4	0	2	0	18	61	12%	29%

STUDY AREA DATA COLLECTION AND ASSEMBLY

When analyzing existing parking conditions, it is important to understand the nature of the actual parking demands in the sub-area. Parking occupancy and turnover data were collected on Thursday, August 23 and Saturday, August 25, 2012. Parking occupancy counts can help determine the peak usage periods, trends for usage, and hot spots that are utilized more than others. Parking turnover counts help determine the actual effectiveness and usage of the short-term parking supply. The following sections describe the data collection efforts for this project.

Parking Inventory and Supply

Figure 3-2 illustrates the location of publicly available off-street facilities, curb parking, and RPPP within the study area. Off-street parking facilities are defined as municipal and privately owned surface parking lots and parking garages (or decks) available for general public parking. Kimley-Horn contracted with the Data Collection Group to provide a detailed inventory of existing off-street facilities. The existing parking system is discussed in detail beginning on page 3-1.

Occupancy

Parking occupancy counts were conducted throughout the study area on August 23 to August 25, 2012. Occupied spaces were counted on Thursday and Saturday at 10 AM, 1 PM, 4 PM, 7 PM, and 10 PM. For the purposes of the data collection, a space was considered occupied if a vehicle was physically present. Therefore, reserved spaces were not considered occupied without a vehicle present, even though they were reserved and not available for public parking.

Turnover and Duration

Turnover and duration was determined by means of a sample license plate survey. License plate samples were collected along 23rd Street from Atlantic Avenue to Cypress Avenue, 25th Street from Pacific Avenue to Arctic Avenue, the Virginia Beach United Methodist Church Parking Lot located on 19th Street, and the 19th Street North Municipal Parking Lot were surveyed hourly between 10 AM and 5 PM on Thursday, August 23 and Saturday, August 25, 2012.

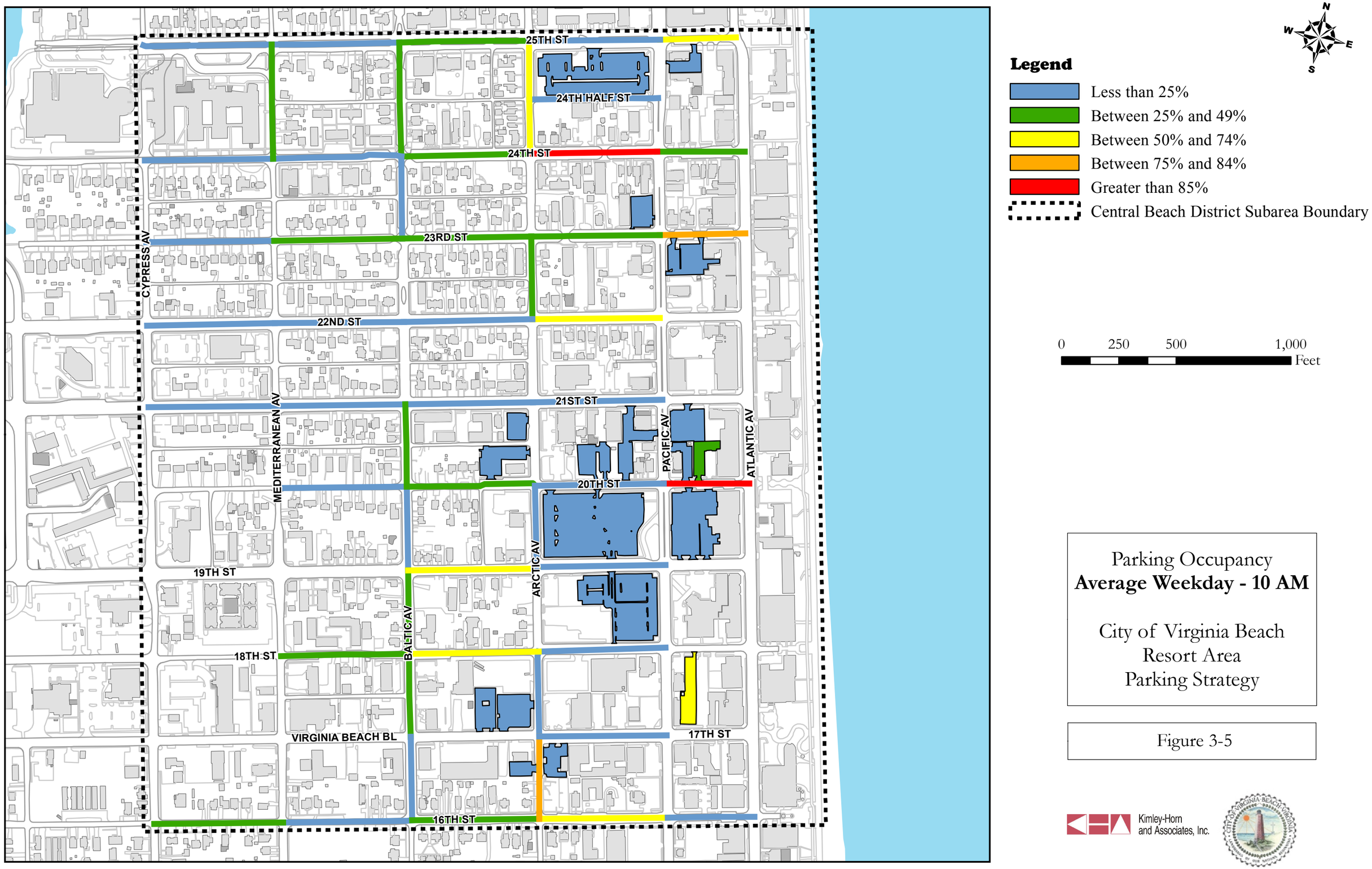
Existing Parking Use

For the purposes of the data collection, a space was considered occupied if a vehicle was physically present **Figures 3-5** through **3-14** depict the approximate percent occupancy of each off-street parking facility and each block of curb parking. The percent occupancy is also summarized for the entire study area by facility type in **Table 3-7**. The detailed percent occupancy is also tabulated by facility type in the **Appendix**. Any facility that is at least 90% occupied is considered "full" by industry standards to account for circulation, turnover, and access.

Table 3-7 – On-Street and Off-Street Parking Occupancy Summary

Time of Day	On-Street Weekday	Off-Street Weekday	On-Street Weekend	Off-Street Weekend
10:00 AM	32%	8%	38%	12%
1:00 PM	37%	20%	48%	38%
4:00 PM	37%	21%	58%	61%
7:00 PM	40%	20%	61%	78%
10:00 PM	42%	23%	60%	77%

Table 3-7 and the figures show that, on average, parking facilities are less than 80% occupied at all times under typical weekday and Saturday conditions. However, particular lots may experience occupancy rates greater than 80%. Overall, off-street study area parking occupancy peaks at 23% at 10 PM and 78% at 7 PM on Thursday and Saturday, respectively. During these peaks, on-street parking is also at its peak of 42% on Thursday and 77% on Saturday. This can be expected given the attraction of the resort area restaurants and evening entertainment. The peak of the on-street parking at this time can be attributed to residents being home and employees within the RPPP to support the peak evening activities.

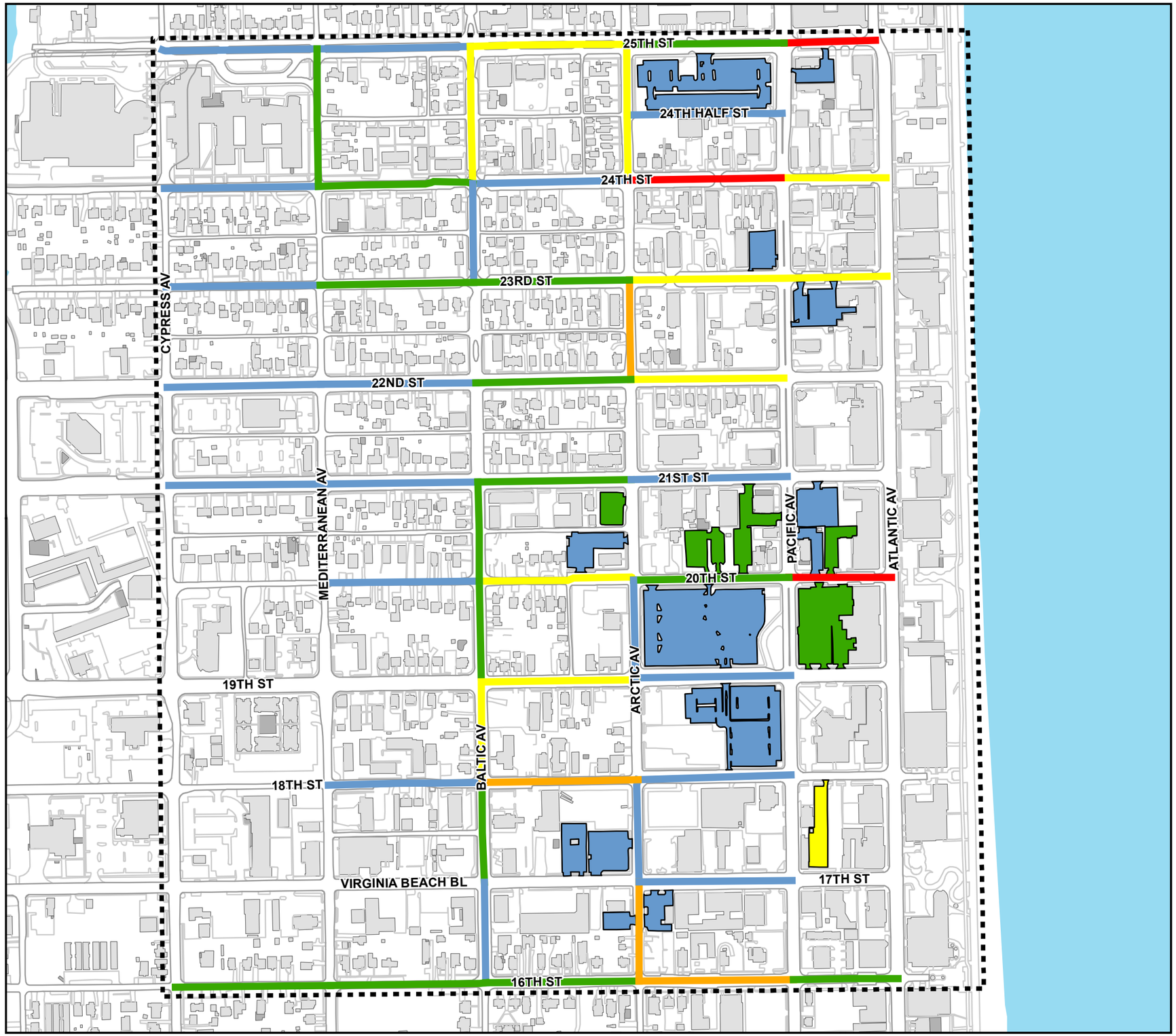


Parking Occupancy
Average Weekday - 10 AM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-5

Kimley-Horn and Associates, Inc.



Legend

- Less than 25%
- Between 25% and 49%
- Between 50% and 74%
- Between 75% and 84%
- Greater than 85%
- Central Beach District Subarea Boundary

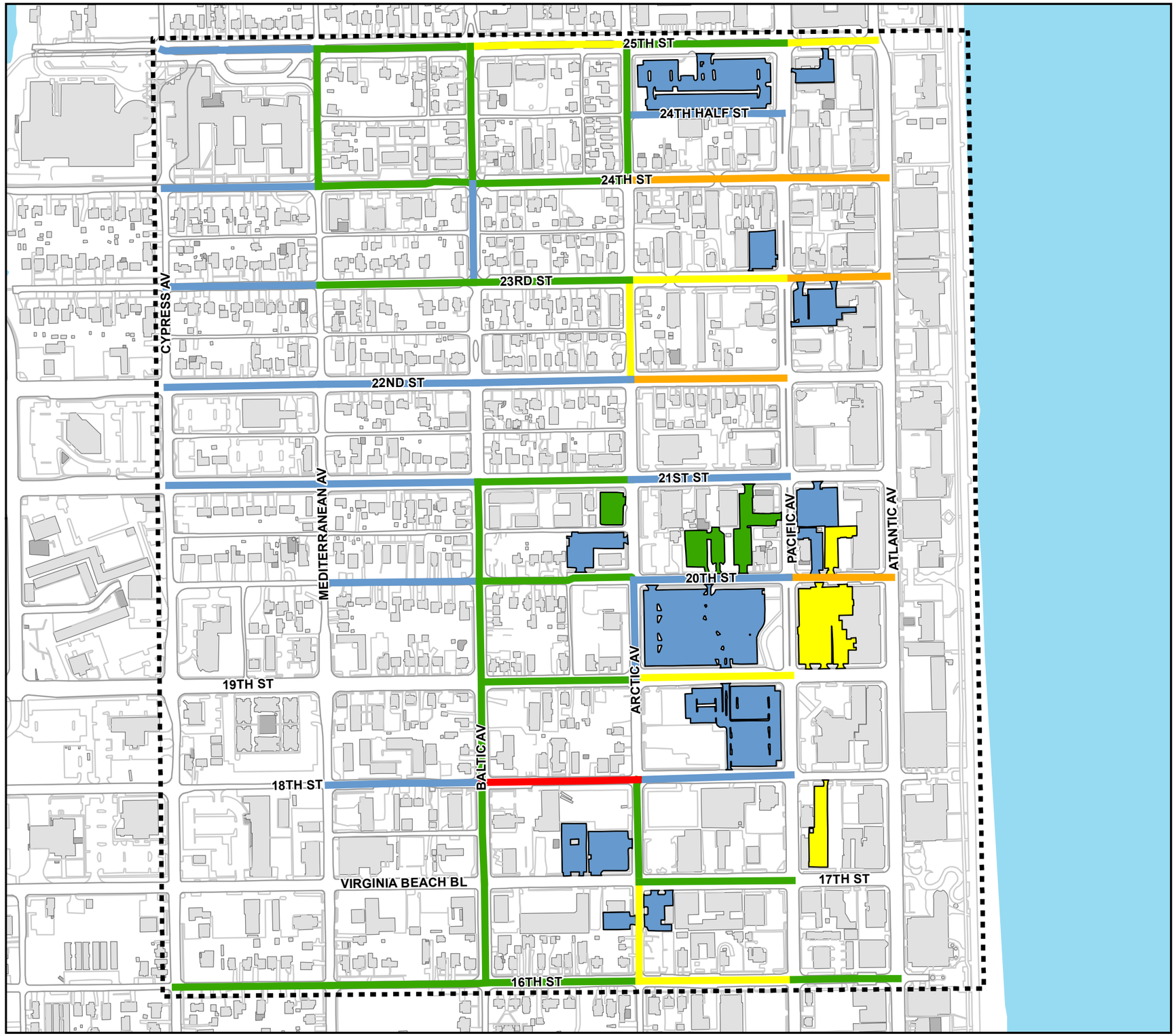
0 250 500 1,000 Feet

Parking Occupancy
Average Weekday - 1 PM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-6

Kimley-Horn and Associates, Inc.



Legend

- Less than 25%
- Between 25% and 49%
- Between 50% and 74%
- Between 75% and 84%
- Greater than 85%
- Central Beach District Subarea Boundary

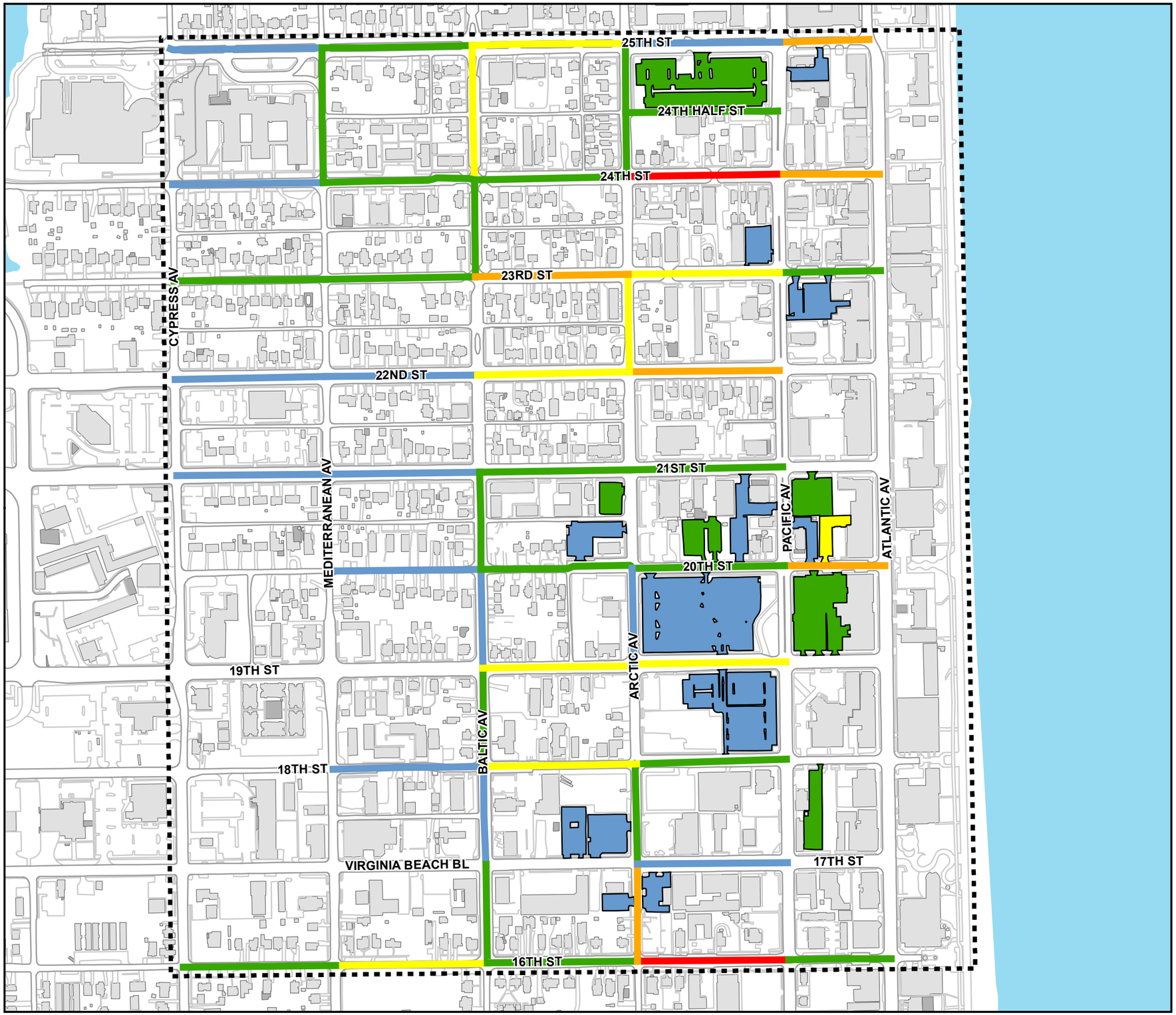
0 245 490 980 Feet

Parking Occupancy
Average Weekday - 4 PM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-7

Kimley-Horn and Associates, Inc.



Legend

- Less than 25%
- Between 25% and 49%
- Between 50% and 74%
- Between 75% and 84%
- Greater than 85%
- Central Beach District Subarea Boundary

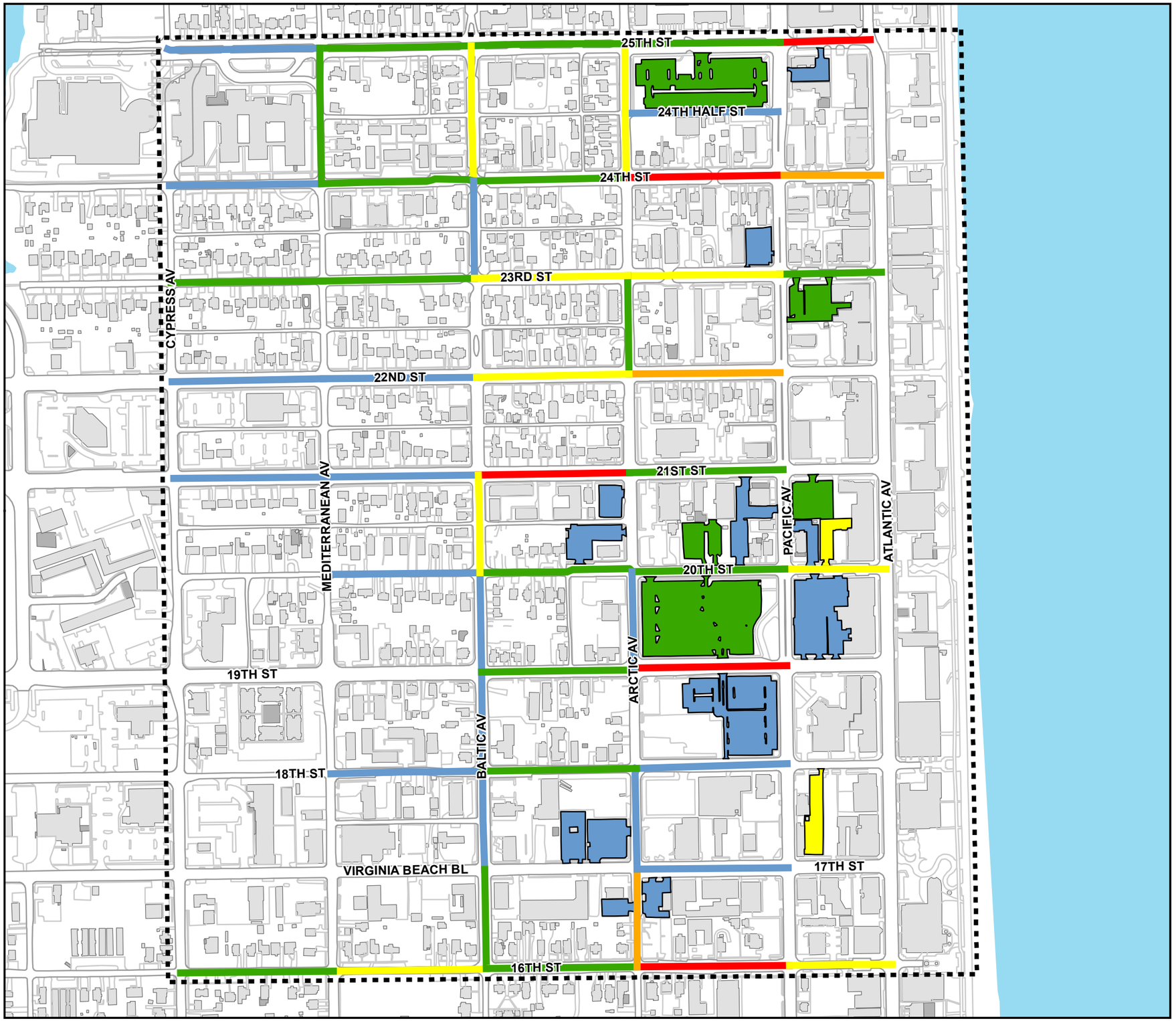
0 250 500 1,000 Feet

Parking Occupancy
Average Weekday - 7 PM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-8

Kimley-Horn and Associates, Inc.



Legend

- Less than 25%
- Between 25% and 49%
- Between 50% and 74%
- Between 75% and 84%
- Greater than 85%
- Central Beach District Subarea Boundary

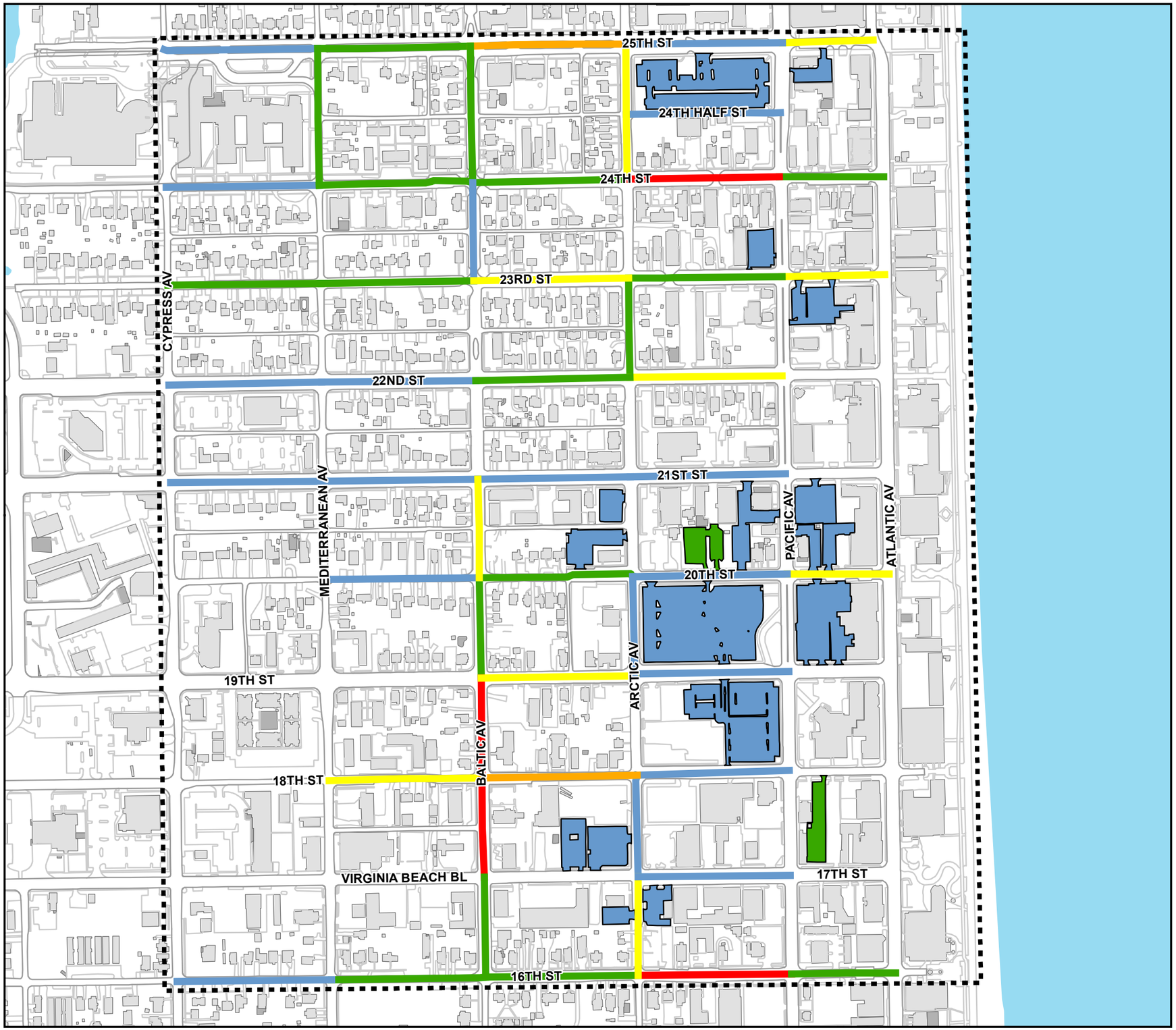
0 245 490 980 Feet

Parking Occupancy
Average Weekday - 10 PM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-9

Kimley-Horn and Associates, Inc.



Legend

- Less than 25%
- Between 25% and 49%
- Between 50% and 74%
- Between 75% and 84%
- Greater than 85%
- Central Beach District Subarea Boundary

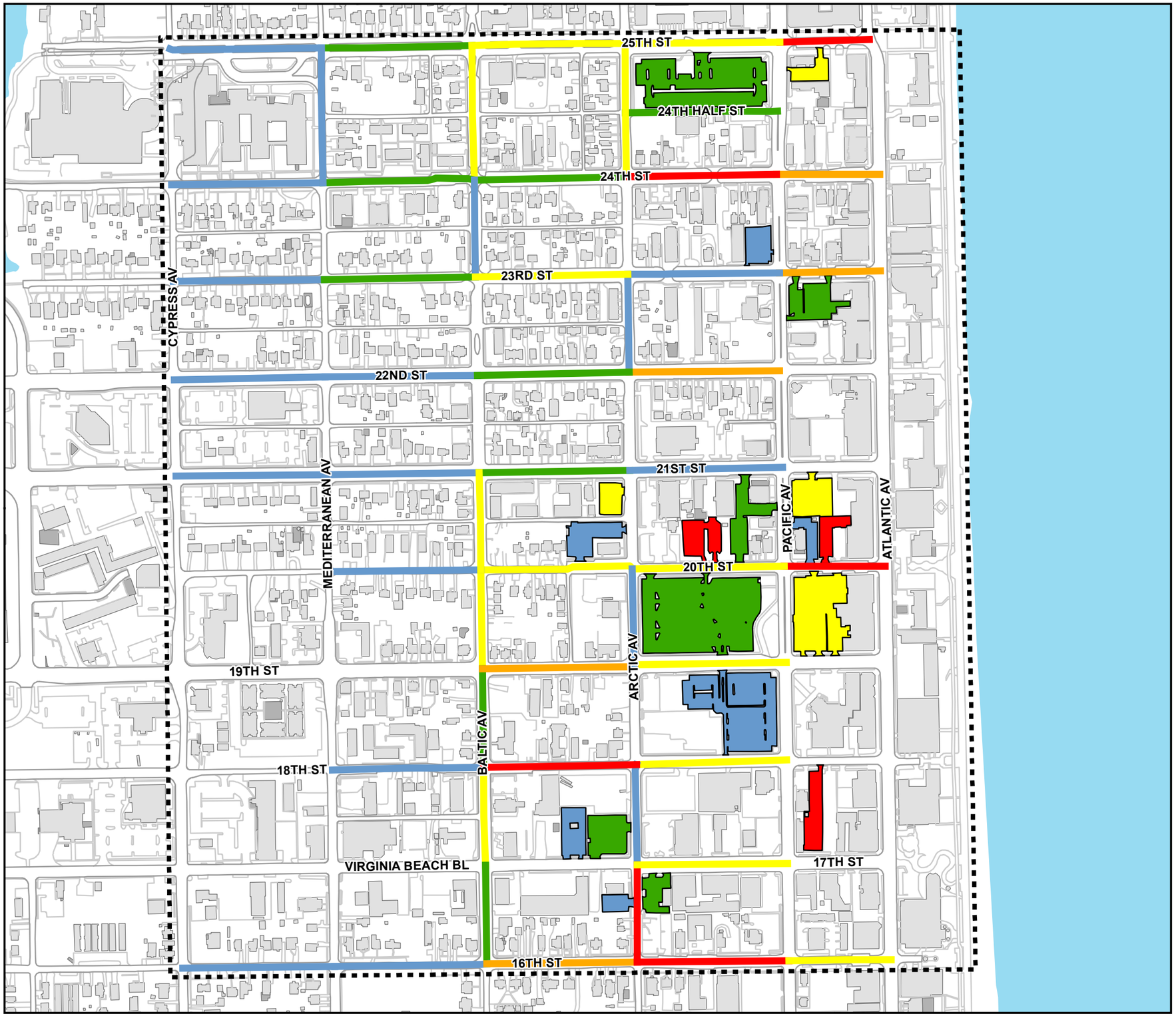
0 250 500 1,000 Feet

Parking Occupancy
Average Weekend - 10 AM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-10

Kimley-Horn and Associates, Inc.



Legend

- Less than 25%
- Between 25% and 49%
- Between 50% and 74%
- Between 75% and 84%
- Greater than 85%
- Central Beach District Subarea Boundary

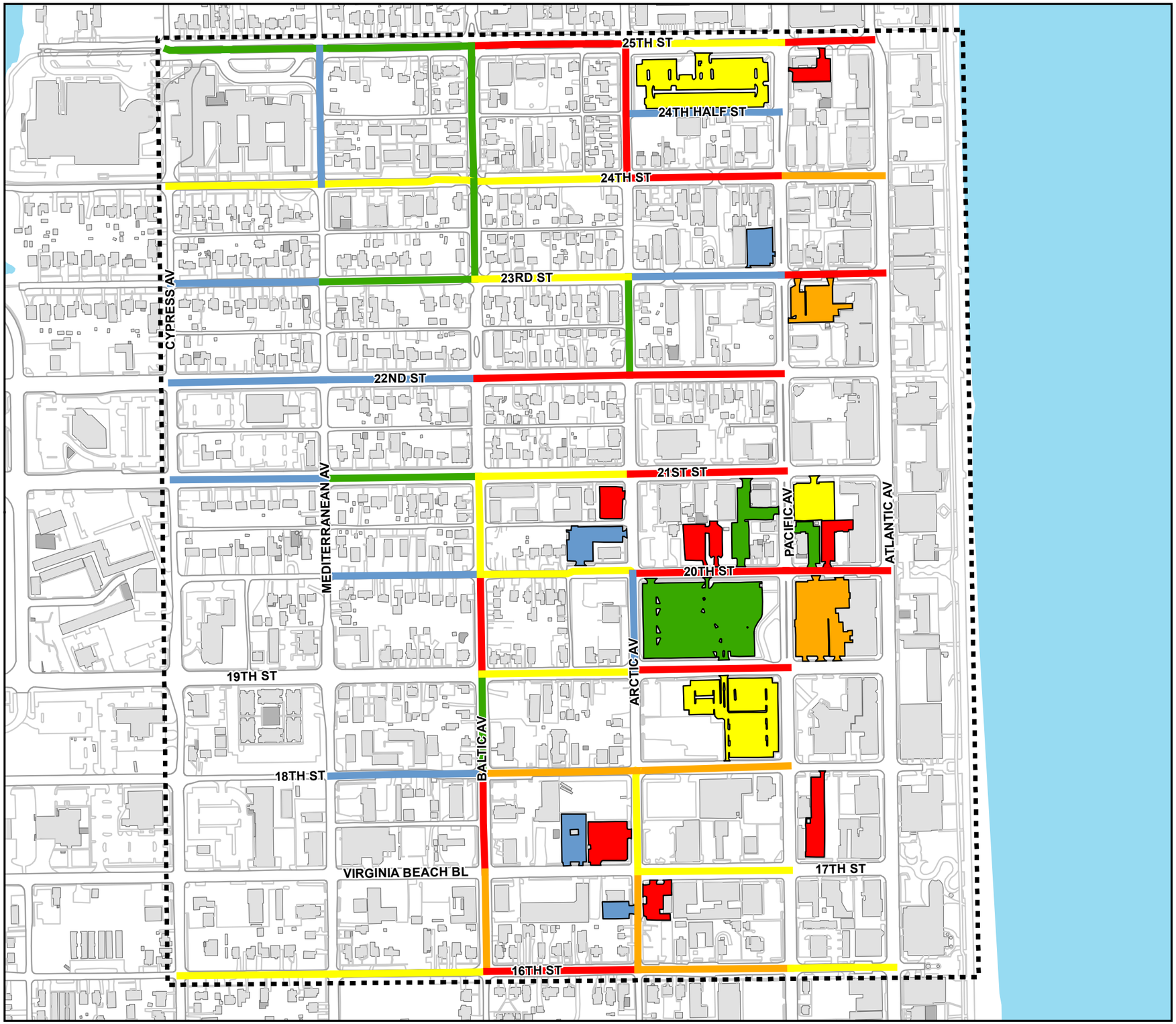
0 250 500 1,000 Feet

Parking Occupancy
Average Weekend - 1 PM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-11

Kimley-Horn and Associates, Inc.



Legend

- Less than 25%
- Between 25% and 49%
- Between 50% and 74%
- Between 75% and 84%
- Greater than 85%
- Central Beach District Subarea Boundary

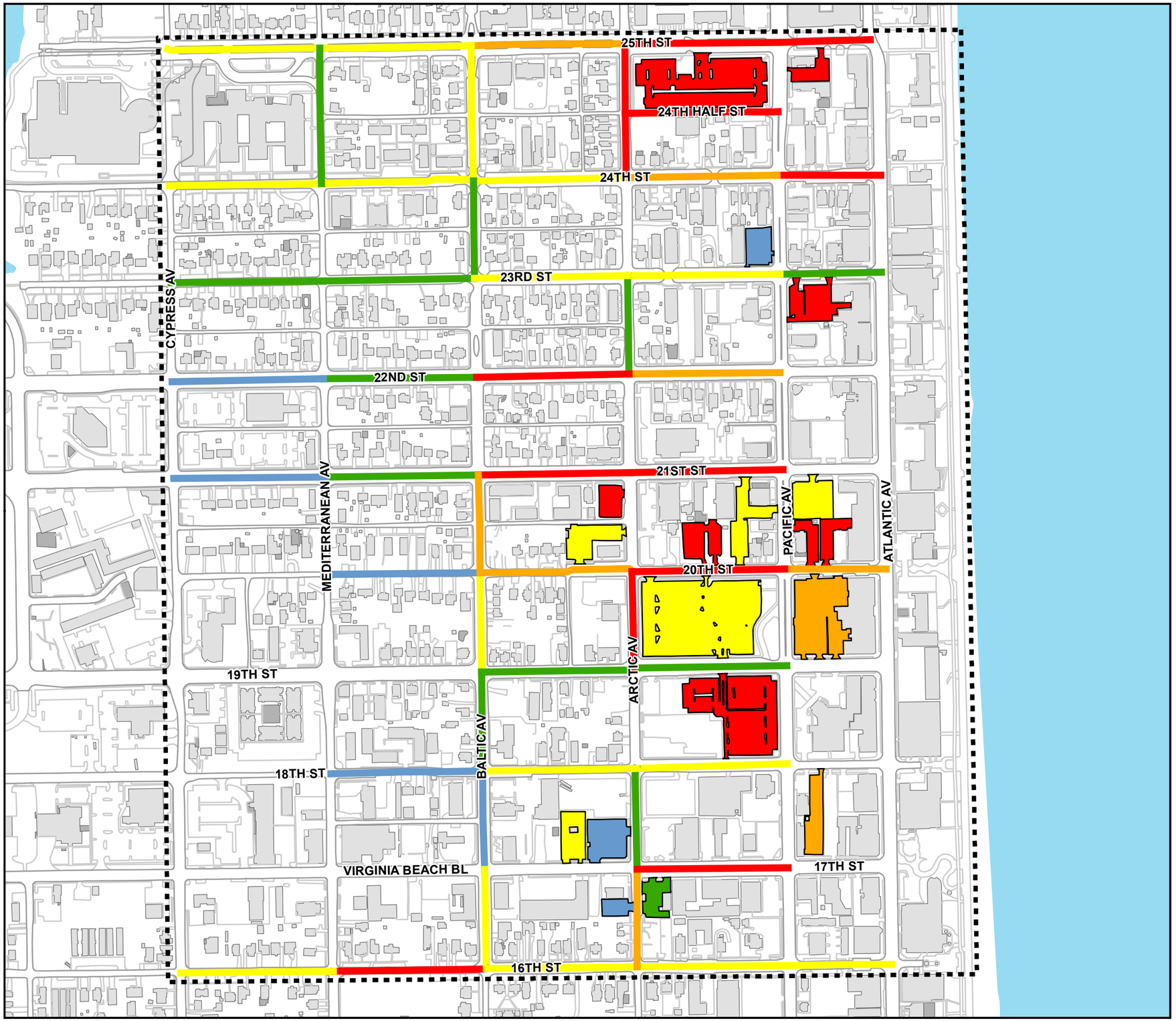
0 250 500 1,000 Feet

Parking Occupancy
Average Weekend - 4 PM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-12

Kimley-Horn and Associates, Inc.



Legend

- Less than 25%
- Between 25% and 49%
- Between 50% and 74%
- Between 75% and 84%
- Greater than 85%
- Central Beach District Subarea Boundary

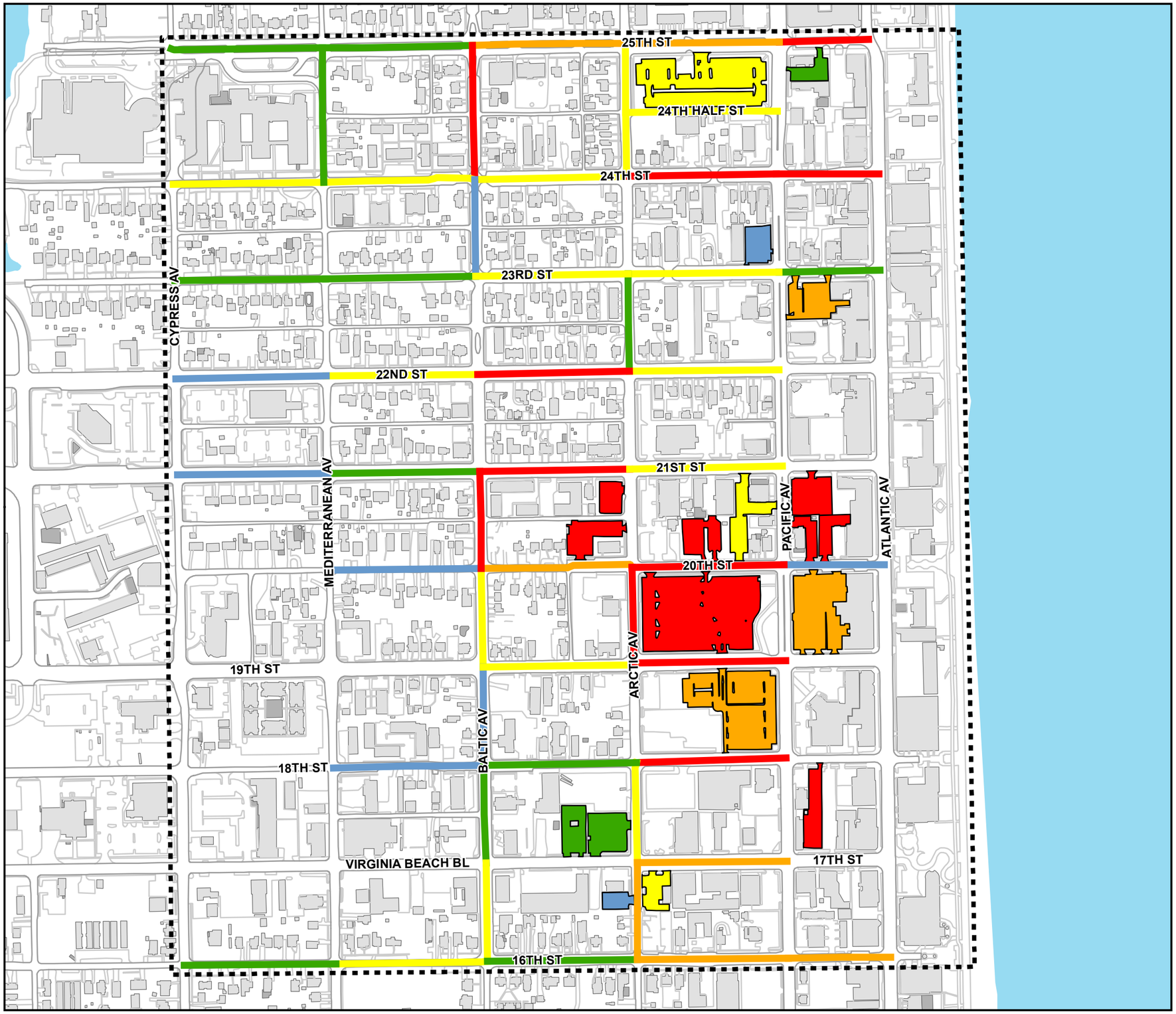
0 250 500 1,000 Feet

Parking Occupancy
Average Weekend - 7 PM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-13

Kimley-Horn and Associates, Inc.



Legend

- Less than 25%
- Between 25% and 49%
- Between 50% and 74%
- Between 75% and 84%
- Greater than 85%
- Central Beach District Subarea Boundary

0 250 500 1,000 Feet

Parking Occupancy
Average Weekend - 10 PM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-14

Kimley-Horn and Associates, Inc.

Turnover and Duration

Turnover and duration were calculated for five sample parking areas based on the license plate survey conducted in the field. License plate samples were collected along 23rd Street from Atlantic Avenue to Cypress Avenue, 25th Street from Pacific Avenue to Arctic Avenue, the Virginia Beach United Methodist Church Parking Lot located on 19th Street, and the 19th Street North Municipal Parking Lot were surveyed hourly between 10 AM and 5 PM on Thursday, August 23 and Saturday, August 25, 2012

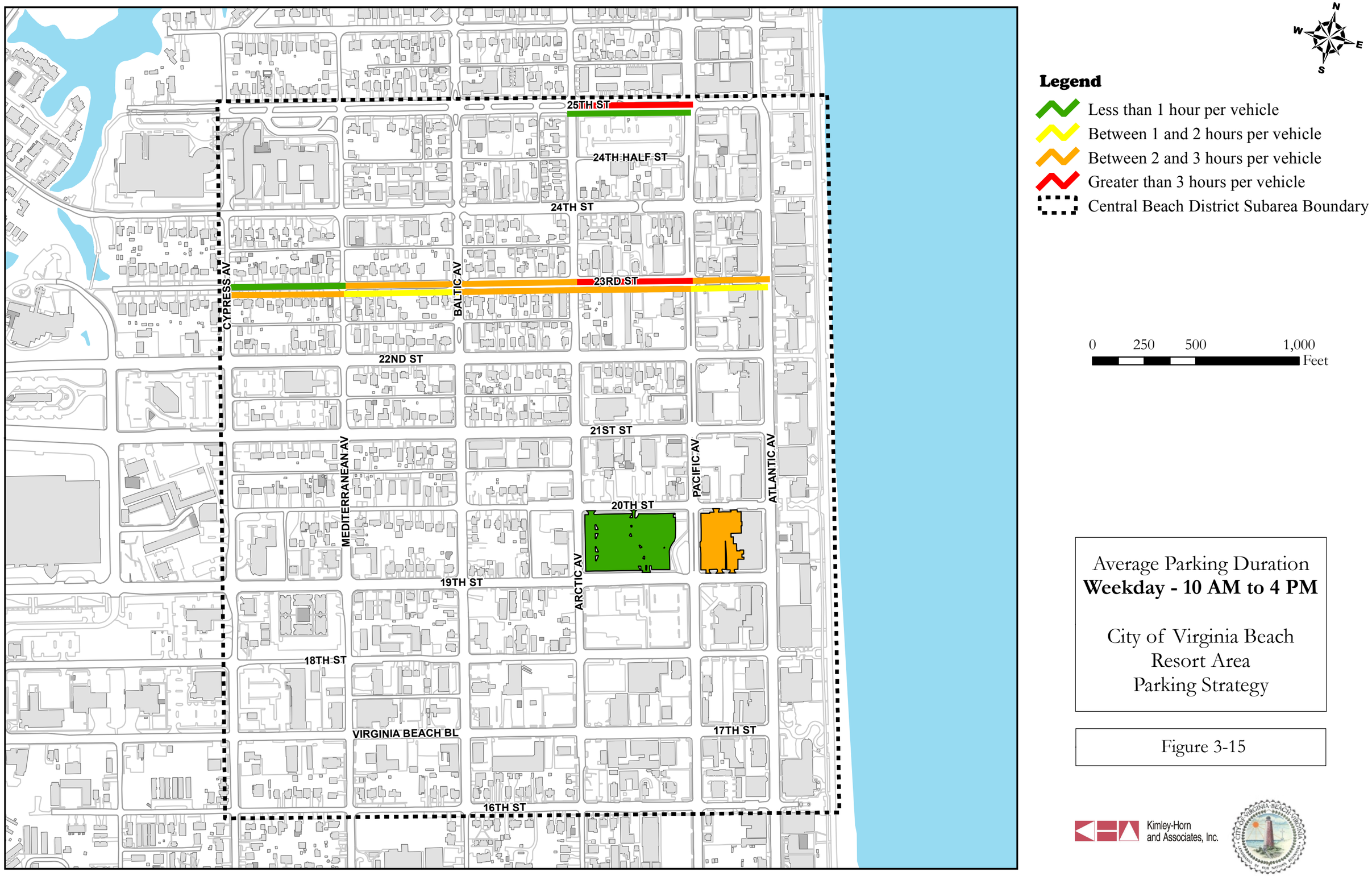
All non-reserved parking spaces were surveyed in each location. **Figures 3-15** through **3-18** illustrate the average turnover rate and duration for each location, and **Table 3-8** summarizes the results in tabular form.

Table 3-8 – Existing Parking Turnover and Duration

Parking Location	Average Turnover Rate (vehicles per space)		Average Duration (hours per vehicle)	
	Weekday	Weekend	Weekday	Weekend
25th St - Pacific to Arctic WB	1.1	1.3	3.1	3.7
25th St - Pacific to Arctic EB	0.5	1.9	0.5	2.1
23rd Street - Atlantic to Pacific WB	3.1	2.7	2.4	2.9
23rd Street - Atlantic to Pacific EB	3.9	3.3	1.8	2.2
23rd Street - Pacific to Arctic WB	1.5	0.3	3.2	1.3
23rd Street - Pacific to Arctic EB	1.2	0.6	2.3	1.4
23rd Street - Arctic to Baltic WB	0.8	1.0	2.9	3.2
23rd Street - Arctic to Baltic EB	0.8	0.9	2.7	2.9
23rd Street - Baltic to Mediterranean WB	0.8	0.4	2.1	1.1
23rd Street - Baltic to Mediterranean EB	0.4	0.6	1.4	2.4
23rd Street - Mediterranean to Cypress WB	0.4	0.2	0.5	0.3
23rd Street - Mediterranean to Cypress EB	0.4	0.5	2.5	2.3
Virginia Beach United Methodist Parking Lot	1.0	1.4	2.4	3.6
19th Street City Lot - North	0.3	0.7	0.6	1.6

Average turnover rate is defined as the number of different vehicles occupying a space during a given period, calculated to be the total number of vehicles observed in the surveyed spaces per location divided by the number of spaces in that location. Average duration is the average length of time that a vehicle remains parked in the same space, calculated to be the total number of hours parked by all vehicles surveyed in each location divided by the total number of vehicles observed in surveyed spaces in each location.

According to the license plate survey, the blocks from Atlantic Avenue to Pacific Avenue, which are meter controlled, experience the highest turnover rate, as expected, but also experience a longer duration than the lots surveyed. As shown in the data, parkers are maximizing the amount of time allotted by the meters and using the meters for long-term parking.

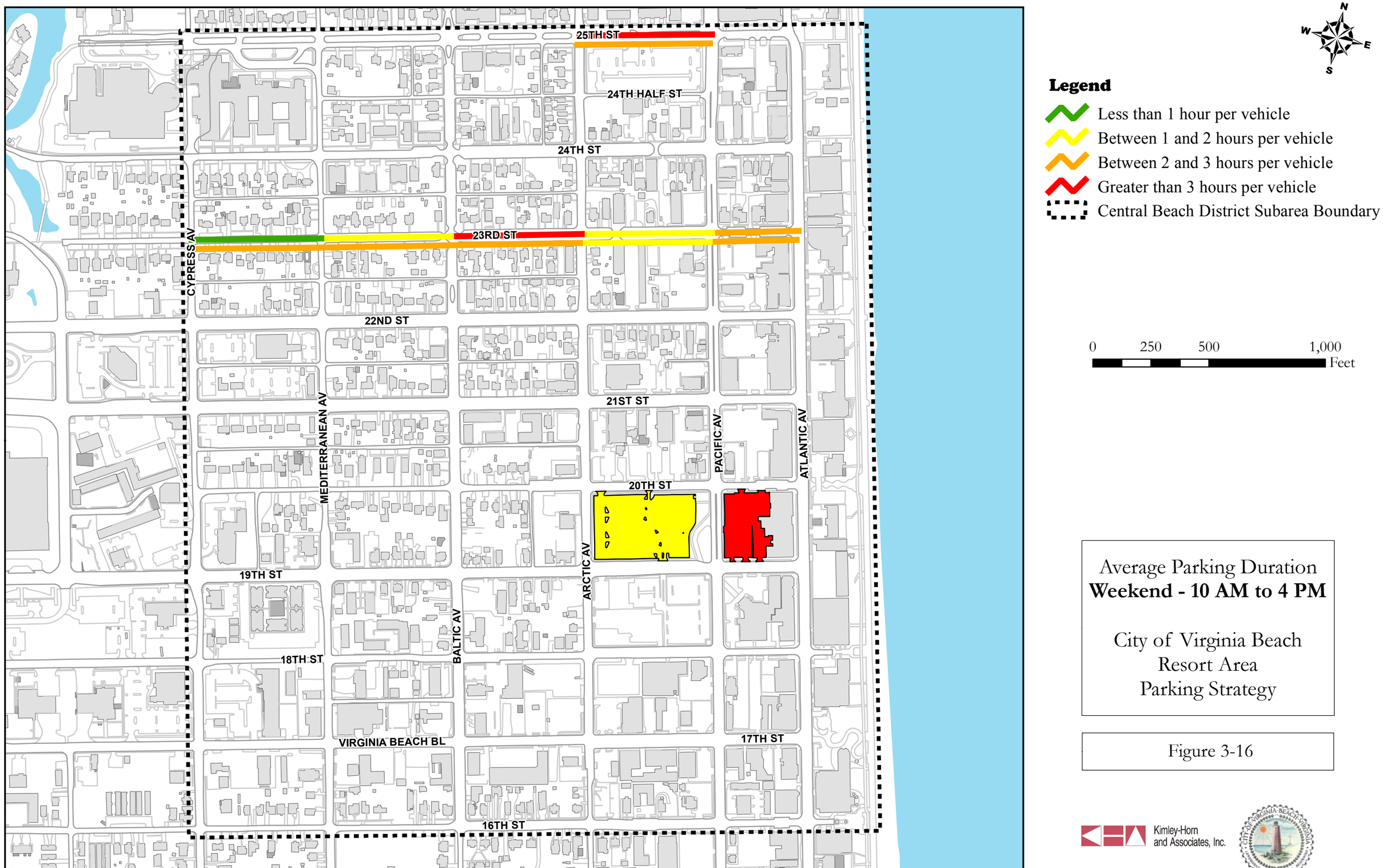


Average Parking Duration
Weekday - 10 AM to 4 PM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-15

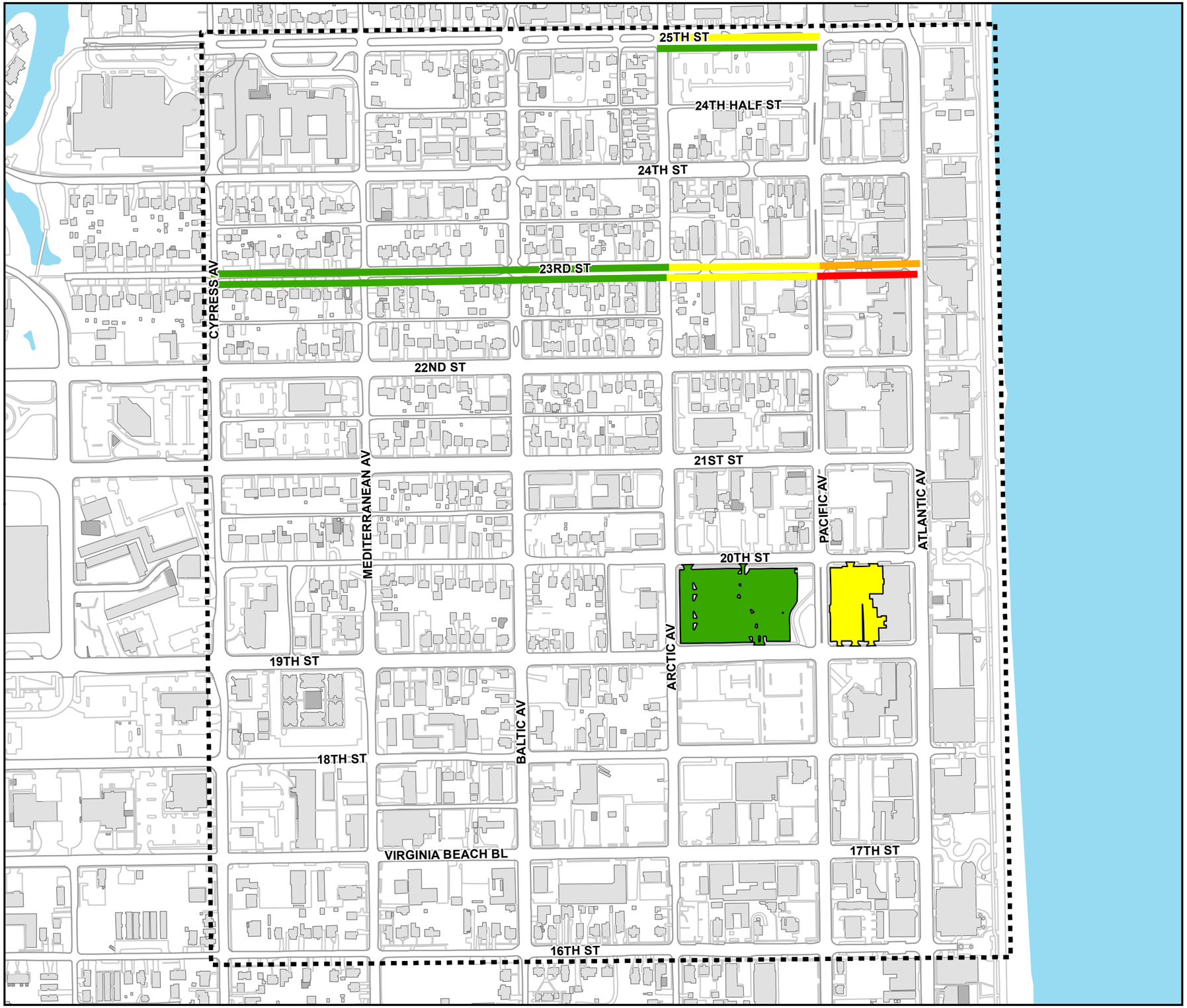
Kimley-Horn and Associates, Inc.



Average Parking Duration
Weekend - 10 AM to 4 PM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-16



Legend

- Less than 1 vehicle per space
- Between 1 and 2.5 vehicles per space
- Between 2.5 and 3.5 vehicles per space
- Greater than 3.5 vehicles per space
- Central Beach District Subarea Boundary

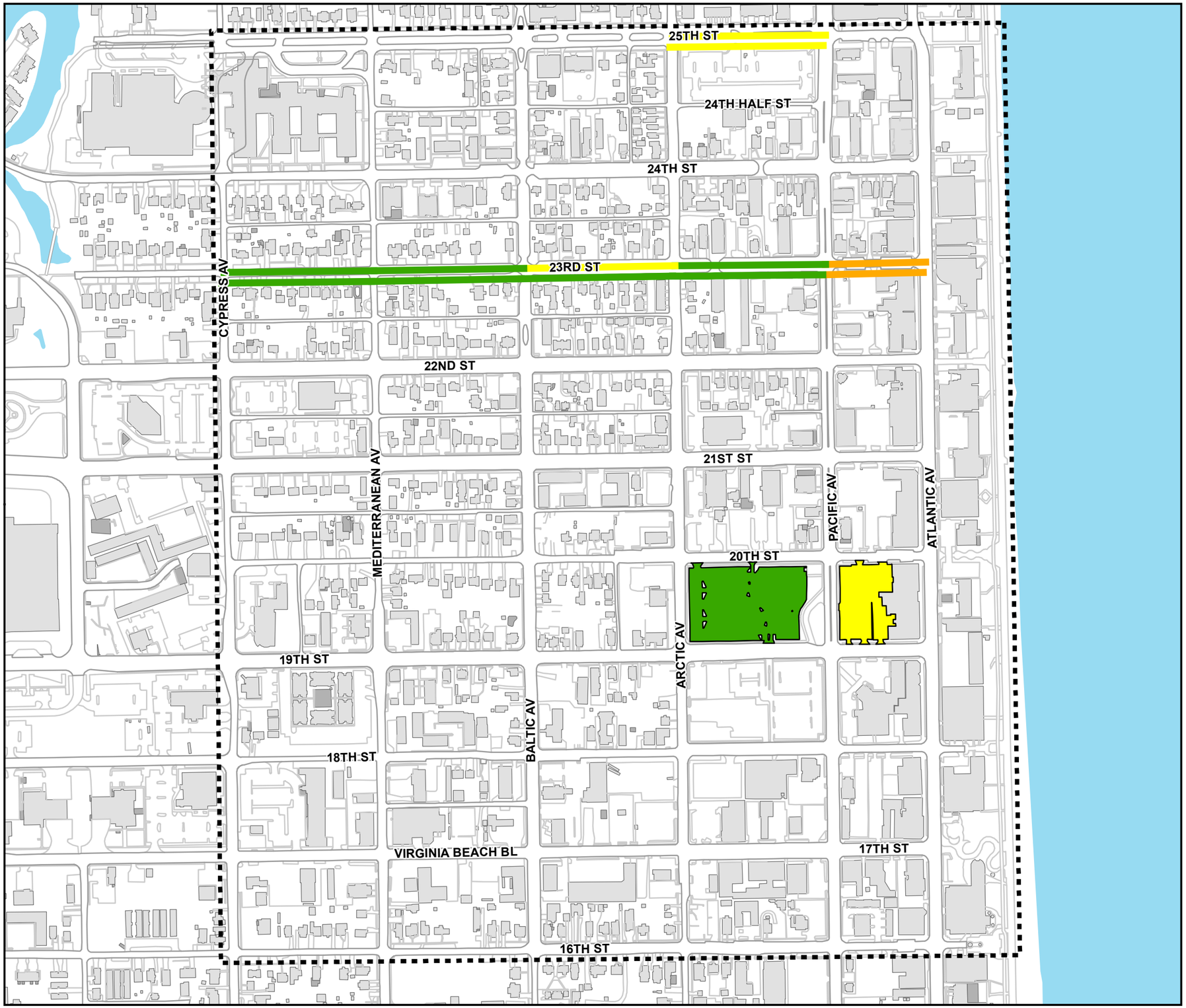
0 245 490 980 Feet

Average Parking Turnover
Weekday - 10 AM to 4 PM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-17

Kimley-Horn and Associates, Inc.



Legend

- Less than 1 vehicle per space
- Between 1 and 2.5 vehicles per space
- Between 2.5 and 3.5 vehicles per space
- Greater than 3.5 vehicles per space
- Central Beach District Subarea Boundary

0 245 490 980 Feet

Average Parking Turnover
Weekend - 10 AM to 4 PM

City of Virginia Beach
Resort Area
Parking Strategy

Figure 3-18

Kimley-Horn and Associates, Inc.

EXISTING PARKING OBSERVATIONS

Parking Access Observations

In addition to review of parking inventories, data collection, and review of parking policies and regulations for the area, a general review of parking access was performed. These observations included a review of access to parking facilities, signage, branding, parking rates, appearance of facilities. These observations were made to perform a full review of the Central Beach District during the peak. The true problem with the parking system is not an issue of availability or demand on a typical weekday or weekend. Rather, the parking problem is one of accessibility, caused by the following factors:

- Lack of adequate or consistent wayfinding for visitors to find available parking
- Lack of a consistent identification system for finding/locating public parking availability
- Variations in parking rates, especially between rates in public facilities and private parking facilities

These challenges create a perception of a parking deficiency or lack of parking availability where demand for parking, caused by a large presence of high volume destinations, or trip generators, exceeds the actual "available" supply. There may be parking availability near the desired destination—it just may not be visible or easily recognizable as being available for public users.

Wayfinding

There is available parking, both on-street and off-street, in the study area analyzed as part of the Resort Area. As illustrated in the occupancy counts, off-street parking within the sub-area is less than 80% occupied during the peak parking times. However, that does not mean particular lots within the sub-area are not full, but there is available parking overall.

With the available parking, people still have issues finding the "public" parking supply. The area is characterized with not having an easily recognizable directional system of signage or wayfinding for parking patrons to find available parking. Such systems guide drivers from the regional freeways and highways to the destination locations.

Arriving at the Resort Area from major roadways is easily accessible, but once into the Resort Area, locating available and accessible public parking is far more difficult and challenging. This is due to the fact that a branded, parking signage plan is not available. With the mix of various parking lot owners, both public and private, the Central Beach District includes a mix of various types of signage. In addition to the mix of signage there is not a consistent message which is communicated. This puts the parking user in a confusing situation of determining whether parking is available and can lead them to choose on-street parking in neighborhoods rather than the commercial parking areas.

Public Parking Consistency

The lack of consistency with the public parking supply is very similar to the wayfinding issue. While there are more than 1,600 spaces that are available to the public in some fashion, approximately half of these are provided and controlled by the City with the remainder provided by private operators with no clear and consistent signage to indicate which facilities are providing parking for public users. During observations, some lots were simply controlled by an attendant in a chair with an umbrella while others simply said "Public Parking, Pay Inside." This lack of consistency can be uninviting to parkers, causing them to continue to search the area for other parking.

Parking Rates

Parking rates varied significantly throughout the study area among public parking facilities and private facilities. Additionally, parking rates were not consistent and ranged significantly between private owners and changed from day to day and from hour to hour. When comparing them collectively, the overarching theme is that parking rates vary widely within the Central Beach District study area.

This is true when comparing City lot to City lot and City lot to privately owned lot. For example, the 19th Street Lots charge a flat daily rate of $7 on the weekday and $10 on the weekend, while parking in the 25th Street Lot is available at an hourly rate but does not exceed the maximum daily rate of $10. In the privately owned lots, rates were observed to be typically flat rate and ranged from $10 to $25. These rates were also subject to change without notice; conversations with City staff and the community noted that these rates are sometimes adjusted upwardly once City lots reach capacity. This is especially true during holiday and special event weekends.

Not only do the parking rates vary, but there are inconsistencies in the rate structures that encourage long-term parking at the City meters, which are intended for short-term, high turnover parking. According to the turnover and duration counts, the blocks from Atlantic to Pacific, which are meter controlled, experience the highest turnover rate, as expected, but also experience a longer duration than the lots surveyed. As shown in the data, parkers are maximizing the amount of time allotted by the meters and using the meters for long-term parking. This indicates an imbalance in the parking rate system between the on-street metered spaces and the long term parking lots. Based on the current parking rates, it costs $6 to park in a municipal lot for up to three hours but only $4.50 to park at a meter for up to three hours.

Parking rates largely influence where a person decides park their vehicle. These significant inconsistencies in parking rates compound the accessibility issue because price is often a factor when considering where to park. Drivers tend to keep driving around in an attempt to find the most accessible and best value parking.

Residential Permit Parking Observations

Based on review of current policy, conversations with City staff and residents, and by conducting limited field observations, the perceived problems within the RPPP are not consistent for the entire Resort Area. Based on observations, the use and complexities of the RPPP are different for the Shadow Lawn neighborhood than for the Old Beach neighborhood. The Shadow Lawn neighborhood is geographically separated from the Resort Area by a lake and its Resort Area activity is primarily limited to those businesses along the marina, while the Old Beach community is centrally located and in close proximity to the heart of the Resort Area. Therefore, attempting to solve a problem based on isolated occurrences can be quite challenging; a balance must be struck to avoid imposing new regulations on areas that do not require change or imposing new regulations that could have a negative outcome on areas that function acceptably. Overarching changes can be implemented, but to effectively manage the current RPPP an engineering analysis should be performed for each district or residential area to determine the appropriate strategies.

Occupancy Observations

Based on counts collected within the Central Beach District, on-street parking within the RPPP experiences its greatest occupancy east of Baltic Avenue which indicates that proximity becomes the deterrent over cost. It is noted that during peak weekend conditions, the only on-street parking that is greater than 85 percent occupied is 25th Street, 24 ½ Street, 21st Street, 20th Street, and the metered parking along 17th Street. The 25th Street Lot, 19th Street Lot, and six other privately operated lots, which comprise the majority of the inventory within the Central Beach District, are greater than 85 percent occupied.

During the non-peak times when data was collected (i.e., 10 AM, 1 PM, and 4 PM), the on-street parking spaces generally experienced a higher occupancy percentage than the off-street facilities. It is noted the on-street occupancy percentages are presented per block and therefore, less inventory is available. However, based on the available inventory at some of the off-street facilities, it indicates that people generally choose to park in the free, on-street parking as opposed to paying to park in the off-street facilities.

Employee Permit Observations

When analyzing the nightly vehicle survey data collected by the City for 16th Street, 23rd Street, and 24th Street, the 300 block of 16th Street (Pacific Avenue to Arctic Avenue) experiences the highest percentage of employee parkers; however, the block is only approximately 75 percent occupied. Similarly, the 300 block of 24th Street (Pacific Avenue to Arctic Avenue) experiences the highest occupancy at approximately 88 percent, but employee parkers contribute to less than 50 percent of the occupancy. Based on 10 PM peak weekend occupancy counts, there is limited off-street parking supply available within close proximity to those streets.

Although approximately 1,400 business permits are issued in the Resort Area during the peak season months, it is evident that they are not all being used concurrently, nor are they placing a burden on the on-street inventory. Therefore, eliminating business passes from the RPPP without providing additional off-street inventory could create additional parking deficiencies during the peak season. During the non-peak season, there is sufficient inventory within off-street lots and garages to accommodate employee parking.

Finally, in review of the current fees associated with obtaining employee permits to park within the RPPP designated areas, the fees are significantly low. A $25 fee per permit likely does not cover the City's cost to issue and process the permits. These fees should be assessed concurrently with overall parking rates for the Resort Area.

Enforcement Observations

Through field observations, parking enforcement officers were observed to effectively monitor restricted parking areas and parking meters; however, parking citation fees are currently too low to serve as a deterrent for those who choose violate. The citation fees, in some cases, were approximately equal to the cost of flat rate parking in commercial parking lots. As a result, during peak times and especially on holidays and special events, parking users risk parking in the neighborhoods rather than searching for parking.

Chapter 4 - Parking Demand Model

While occupancy and turnover data can reveal parking trends based on a snapshot in time, a parking demand analysis will help to predict the actual parking conditions in the study area. The parking demand analysis is based on the existing land use intensities and the parking generation rates unique to each development and land use within the study area. The results of the parking demand analysis can be used to determine if the parking supply is adequate to serve the existing parking needs, and to determine the necessary size of the future parking supply to accommodate future growth in the Resort Area. For this study, the parking demand model was created for the Central Beach District only.

The parking demand analysis is based on principles of parking accumulation and generation outlined in the Urban Land Institute's (ULI) *Shared Parking*, Second Edition and the Institute of Transportation Engineer's *Parking Generation*, Fourth Edition. The ULI guide presents methodology to determine parking demand based on shared-use principles, which assume that parking designated for one land use is available to share with an adjacent land use. This principle is based on two assumptions:

- There are variations in parking accumulation at the individual land uses
- There are relationships among the land uses that result in visiting multiple destinations in one trip

> ***Shared parking is the use of a parking space by two or more individual land uses without conflict or encroachment.***
>
> **-Urban Land Institute, *Shared Parking*, Second Edition**

The parking demand analysis performed for this study assumes that shared parking is present between the land uses in the Central Beach District. Given the dense nature and multiple land uses in the study area, the assumptions above are most likely true for this analysis. The following sections describe the parking demand analysis, including the development of a parking demand model unique to the Central Beach District.

Parking Demand Model

The Central Beach District Parking Demand Model was developed in conjunction with this project to evaluate existing and future parking demand. The model was used to identify locations anticipated parking demands associated with future development as a result of changes to form based code. The model is an interactive tool that the City can use in the future to analyze how changes in land use or development intensity affect parking demands.

The overall output of the tool is the parking demand localized to each parking analysis zone, as well as the overall parking demand for the entire study area, based on shared parking relationships across zonal boundaries. The model also accounts for multimodal transportation relationships and shared parking methodologies as outlined by ULI. The major components that drive the parking demand model are land use, parking supply, and parking generation rates unique to each land use type. The following sections describe each of the components of the model and the values used in the parking demand analysis for this study.

Analysis Zones

The sub-area was divided into six analysis zones (A – F) to more efficiently administer the parking demand model. These zones measure "localized" conditions for meeting parking demand with nearby parking supply, including available on-street parking. Zonal boundaries extend to the centerline of all public streets and on-street parking inventoried within these corridors is assigned to the appropriate analysis zone. **Figure 4-1** below illustrates the six delineated parking analysis zones.

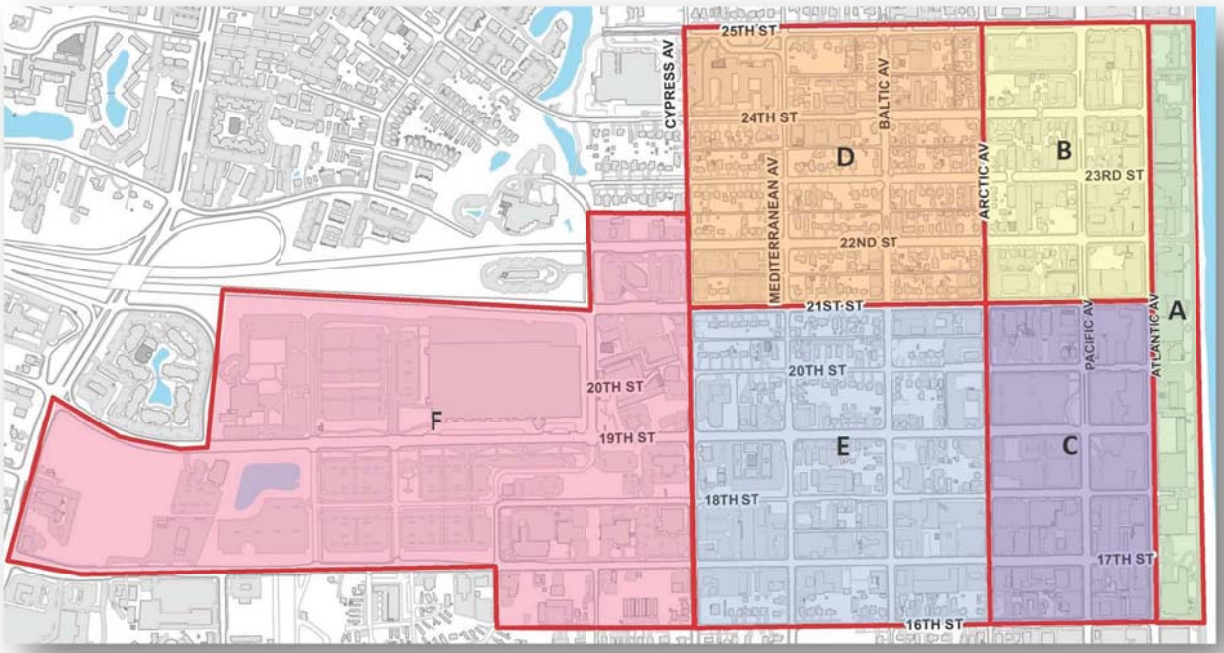


Figure 4-1 – Parking Demand Model Analysis Zones

Current Parking Conditions

Using the detailed occupancy data collected in the field for all public parking spaces, existing parking conditions could be input into the model and validated. Based on the results of the occupancy counts, 7 PM on the weekday (Thursday) and weekend (Saturday) were used as the peak parking demand. Existing land use information was gathered using a combination of available GIS information and aerial imagery and the resulting land uses are illustrated in **Table 4-1**.

Table 4-1 – Existing Land Use Summary

Zone	Residential Units	Hotel Units	Office (S.F.)	Commercial Retail (S.F.)	Restaurants (S.F.)	Church (S.F.)	Civic/Museum (S.F.)	Convention (S.F.)
A	0	1,344	0	7,500	43,480	0	8,000	0
B	113	199	6,560	77,890	61,569	0	0	0
C	36	157	0	130,884	57,604	28,487	2,040	0
D	402	8	78,738	18,496	0	0	0	0
E	364	81	23,310	171,205	23,790	6,828	0	0
F	52	489	125,675	41,275	9,000	0	71,950	525,125
Total	967	2,278	234,283	447,250	195,443	35,315	81,990	525,125

Off-street, private parking was estimated based on the City's off-street parking requirements and single family homes, apartments, and hotels were assumed to have one parking space per dwelling unit/room which provides a conservative estimate. The blocks east of Pacific Avenue were assumed to have no private parking because there currently is not a parking requirement, although some do have parking. It was assumed that 100% of private parking spaces were occupied to reflect a self-parked condition. A zonal breakdown of public and private parking is show in **Table 4-2**.

Table 4-2 – Existing Public and Private Parking

Zone	Existing On-Street Parking	Existing Public Surface Parking	Existing Private Parking	Existing Parking Total
A	0	0	1,344	1,344
B	213	378	338	929
C	156	1,027	302	1,485
D	532	0	588	1,120
E	294	164	1,195	1,653
F	0	2,136	1,126	3,262
Total	1,195	3,705	4,893	9,793

Based on this information, the following combined (public and private) occupancy rates were noted for the four of the six analysis zones, measured at 7 PM on an average peak weekday and weekend:

- Zone B – Weekday - 56%; Weekend - 85%
- Zone C – Weekday - 40%; Weekend - 83%
- Zone D – Weekday - 82%; Weekend - 79%
- Zone E – Weekday - 79%; Weekend - 86%

Generally, 85% to 90% occupancy represents the 'practical capacity' of parking supply, allowing for turnover, circulation, and passenger service. In our study area, Zone B and Zone E on the weekend were observed to exceed the 'practical capacity' threshold for parking occupancy. It is noted that Zone E is primarily privately parked; however, Zone B is a contributor to the public parking supply. Only considering public parking in this zone, it was 76% occupied at the time of the counts.

As such, the sub-area generally does not experience a parking shortfall during the average weekly workday and average weekend; however, localized areas of heavy demand may suffer from a parking proximity problem in that some patrons may be required to walk longer distances to reach their final destination during peak conditions. Additionally, holiday weekends and special events create an additional parking burden that cannot be accommodated with the current parking inventory. According to City staff, approximately 20 of these events occur each year.

Analysis zones A and F were excluded from occupancy data collection because these zones do not currently reflect "resort" parking characteristics. Zone A contains mostly private parking for hotel patrons and Zone F has a significant surplus of unused public parking at the Convention Center that would skew the parking model. These zones are included in the model strictly for future analysis scenarios.

Model Organization

The model is organized into two basic components: input data and output data. Input data for existing conditions includes land use mix and development intensities, preferred travel mode for accessing the Resort Area, number of available parking spaces, and peak period parking occupancies. The same input data is collected for future year conditions with the exception of peak period parking occupancies. Future year parking inventory is adjusted for anticipated projects on a 3-year and 15-year development horizon that either increase or decrease the parking supply assumed for future year calculations. The input data sheet also provides an opportunity to incorporate shared-use parking principles for calculating future year conditions which is a critical component of form based code. For future development, only known projects in the 3-year development horizon were assumed to have new parking constructed. Although Form-Based Code has minimum parking requirements for development, not including the minimum required parking as part of the inventory illustrates the true parking need based on actual peak demand. This will assist the

City in making informed decisions on how to negotiate and structure parking deals as part of new developments.

Output data for the model estimates the net number of new parking spaces required to meet future year demands beyond those provided under existing conditions. The net number of new spaces should be added to existing parking supply when determining the total number of parking spaces that would need to be accommodated within the Resort Sub-Area.

Data Organization

Data for the parking demand model is organized by existing and future year conditions. The data is further organized into one of six parking analysis zones (A – F) and then by general land use category. The following land use categories are incorporated into this parking demand model:

- Residential
- Commercial Retail
- Restaurant
- Office
- Church
- Museum/Other Civic
- Hotel

Reporting parking demands by analysis zone provides those developing the Resort Area Parking Strategy with information to begin locating parking supply in close proximity to parking demand projected for future year conditions.

Parking Demand Calculations

Anticipated parking demand was calculated for each analysis zone based on land use mix, development intensities, assumed travel mode split, and parking generation rates published in the Institute of Transportation Engineers' *Parking Generation Manual*, Fourth Edition. Generation rates published in the ITE manual were factored appropriately prior to performing the demand calculations based on current parking occupancy observed in the Resort Area and to account for the percentage of visitors assumed to access the analysis zone via transit, bicycle, or walking. **Table 4-3** summarizes the parking generation rates used for each land use within the model.

Table 4-3 – Parking Generation Rates for Demand Model

Land Use	Variable	ITE Rate		Calibrated Rate		Adjustment Explanation
		Weekday	Weekend	Weekday	Weekend	
Residential	per unit	**1.8**	**1.8**	**1.3**	**1.8**	7:00 PM peak hour
Commercial Retail	per 1,000 GFA	**2.55**	**2.87**	**1.96**	**1.46**	7:00 PM peak hour
Restaurant	per 1,000 GFA	**10.6**	**13.5**	**6.68**	**9.99**	7:00 PM peak hour
Office	per 1,000 GFA	**2.84**	**2.84**	**0.71**	**0**	25% of Avg. Rate
Church	per 1,000 GFA	**1.17**	**1.17**	**1.17**	**1.17**	--
Museum/Other Civic	per 1,000 GFA	**0.98**	**1.32**	**0.98**	**1.32**	--
Hotel	per room	**0.89**	**1.2**	**1**	**1**	Max. Allowable per FBC

*Note the commercial and restaurant rates as published in ITE are based on a stand-alone development. However, in an urban setting where the users are making one trip to visit multiple establishments, the actual rate would be understandably less.

Shared-Use Parking

The model also calculated parking demand for each analysis zone based on the principles of shared-use parking. The notion of shared-use parking assumes that one parking space may be available for two or more land uses without conflict or encroachment, especially in more mixed-use development areas, such as a resort area, where land uses typically generate different demand peaking conditions. The result is often demand for parking spaces that is generally less than the demand generated by separate freestanding developments of similar size and character. The shared parking methodologies outlined in the ULI *Shared Parking,* Second Edition were utilized to evaluate the potential shared parking relationships between the various land uses downtown. As stated previously, shared parking is the use of a parking space by two or more individual land uses without conflict or encroachment. Shared parking analysis is driven by time-of-day demand factors provided by ULI. These

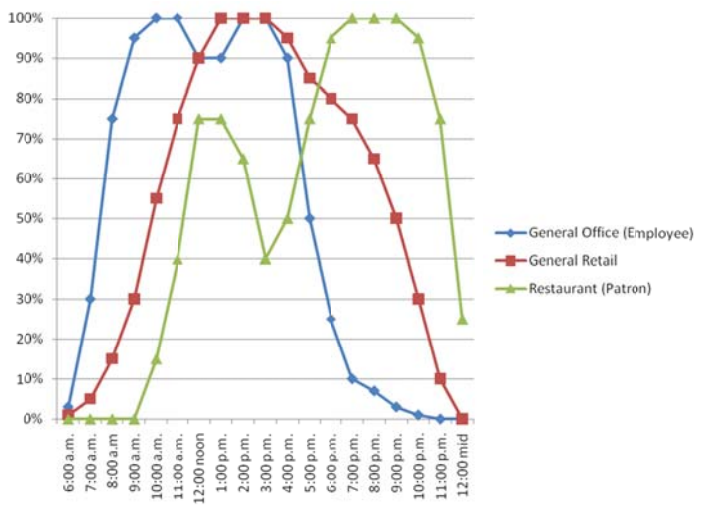


Figure 4-2 – Shared Parking Relationships

factors reduce the overall parking demand for a given time period to reflect actual parking accumulation patterns. The representative hourly accumulation by peak hour for office, retail, restaurant, and hotel land uses are based on information published in this report. For purposes of the parking model, no shared parking was assumed for residential land uses. **Figure 4-2** provides an example of time-of-day parking distributions for several land uses found and anticipated in the Central Beach District.

Using shared-use methodologies will provide a much lower overall parking demand than using single-use methodology, which assumes that each land use has its own set of reserved parking spaces to accommodate its demand. This comparison is illustrated for long term development later in the report in **Table 4-14**.

Proximity Parking Relationships

The parking demands calculated using the shared-use methodology are localized to each individual parking analysis zone. Using this assumption, a user that is parking in Zone A will continue to circulate that zone until a parking space becomes available. This assumption is not accurate and can produce a false deficiency in a parking analysis zone. The parking demand model accounts for this by creating shared use relationships in each zone called proximity parking relationships. These relationships are based on assumed user walking tolerance between zones. For example, the same user who is looking for a spot in Zone A will more than likely park in Zones B or C and walk to the preferred destination.

The proximity parking relationships for this analysis were developed based on a quarter-mile walking tolerance, which is based on the results from the intercept survey of the maximum walking distance willing to walk. **Table 4-4** provides the proximity parking relationships used in this analysis. The columns represent the amount that is donated by a particular zone to another zone, while the rows represent the amount of parking received by a zone from a zone with available parking. For example, Zone B would donate approximately 50 percent of its available parking supply to Zone A if necessary. These relationships are based on the aforementioned walking tolerance and the proximity of the zonal boundaries.

The result of the proximity parking analysis is a balancing of the overall deficit across the study area. The proximity parking analysis does not increase/reduce the overall surplus/deficit experienced in the Resort Area; it simply provides additional parking for those zones that are deficient. Some zones with small deficiencies will show a final surplus/deficit of zero, while some zones with surpluses will see a reduction in surplus to help meet the demands of other zones.

Table 4-4 – Zonal Proximity Parking Relationships

Receiving Zone	Donating Zone					
	A	B	C	D	E	F
A	-	45%	45%	10%	10%	0%
B	0%	-	24%	45%	10%	0%
C	0%	25%	-	10%	45%	0%
D	0%	23%	7%	-	30%	0%
E	0%	7%	23%	31%	-	0%
F	0%	%	0%	4%	5%	-

Multimodal Trip Reduction

The demand generated by the Resort Area of Virginia Beach will not always be accommodated by vehicular trips. The Resort Area provides a multitude of attractions available by alternate means of transportation, which reduces the overall demand for vehicle parking spaces. Visitors to the Oceanfront, both local and from out of town, often park in one location (e.g., hotel parking garage) and then enjoy the amenities of the Resort Area via bicycle and/or walking. The City also offers a trolley services along Atlantic Avenue. The parking demand model takes these alternative methods of transportation into account when analyzing the peak parking demand. Through peak season observations, the number of bicycle and walking activity is high; however, a conservative estimate was assumed to more accurately reflect current parking conditions. No reductions were made for trolley ridership based on the results of the intercept surveys. **Table 4-5** provides the rates used in this analysis.

Table 4-5 – Multimodal Trip Reduction

Type of Alternative Transportation Mode	Rate Used
Trolley	0%
Bicycling	2%
Walking	3%

Parking Demand Model Calibration

The Resort Area is differs from a traditional downtown core in that the highest generating land uses and entertainment areas are located to the far east of the area opposed to centrally downtown. This presents somewhat of a challenge because it focuses the parking to the west as opposed to spreading it evenly around the downtown core. Therefore, those areas identified as Zones A through C primarily serve the beachfront activity and entertainment attractiveness. Typically, beach patrons search for parking closest to the oceanfront and trickle back as parking becomes occupied and unavailable. Furthermore, they tend to park in a central location should they desire to visit more than one destination. As a result, the model

output compared to actual behavior is challenging to model accurately. In essence, Zones A through C function as one larger zone, all of which contribute to the parking supply and parking demands for the oceanfront. Zones D through F function somewhat independently of one another as expected in a typical neighborhood setting. Therefore, the calibration process considered the function of the zones as described, as well as the other parking factors described above. **Table 4-6** illustrates the observed occupancy rates through data collection compared to the model output occupancy rate once calibrated.

Table 4-6 – Parking Demand Model Calibration

Scenario	Observed Occupancy Rate	Model Occupancy Rate	Percent Yield
Weekday	65%	66%	1.5%
Weekend	85%	80%	6.1%

EXISTING PARKING DEMAND MODEL CONDITIONS

The parking demand model indicates that there is an overall surplus of parking for in the Central Beach District under existing conditions as summarized in **Table 4-7**. As shown in Table X, there is a total surplus of approximately 1,425 parking spaces during the weekday peak period and a surplus of approximately 600 parking spaces during the weekend peak period for Zones A through E. Zone F provides approximately 2,500 parking spaces of unused inventory during non-events. During weekday peak conditions, Zone B experiences the lowest surplus of 46 spaces and Zone C experiences the greatest surplus of 657 spaces. These overall surpluses are used to accommodate the shortage of parking in Zone A (Atlantic Avenue). Additionally, the surplus of parking illustrated in Zones D and E is mostly on-street parking and their proximity is not as conducive to serve Zones A through C. Similarly, on the weekend, Zone B experiences an approximate 190-space deficit and Zone C experiences the greatest surplus of 511 parking spaces. The parking deficit in Zone B uses some of the available proximity parking in Zone C which indicates a deficit still occurs in Zone A. The results of the model are conservative in that the reported demand is higher than what was observed in the field during the occupancy counts. In addition, the calculation of parking surplus and parking needs takes into account that a zone is operationally "full" at 90% occupancy.

It is noted that the analysis period and parking generation rates are calibrated for the land uses at 7 PM on the peak weekday and weekend. Currently, RPPP restrictions begin at 8 PM which would eliminate approximately 1,000 parking spaces available for public inventory, and approximately 4,550 spaces are private and not available for public use.

Table 4-7 – Parking Demand Model Output – Existing Conditions

Projected Weekday Parking Demand

Zone	Peak Parking Demand	Parking Supply	Parking Supply Surplus	Available Proximity Parking	Adjusted Parking Supply	Net Parking Surplus/Deficit
A	1,646	1,344	-302	424	1,768	122
B	882	929	46	436	1,318	436
C	827	1,485	657	330	1,157	330
D	648	1,120	472	237	885	237
E	1,052	1,653	601	300	1,352	300
F	733	3,262	2,529	49	3,311	2,578
Totals (A-E)	**5,055**	**6,530**	**1,476**	**1,727**	**6,480**	**1,425**

Projected Weekend Parking Demand

Zone	Peak Parking Demand	Parking Supply	Parking Supply Surplus	Available Proximity Parking	Adjusted Parking Supply	Net Parking Surplus/Deficit
A	1,816	1,344	-472	308	1,652	-164
B	1,115	929	-187	321	1,250	134
C	974	1,485	511	234	1,208	234
D	791	1,120	329	170	961	170
E	1,207	1,653	446	220	1,427	220
F	757	3,262	2,505	35	3,297	2,540
Totals (A-E)	**5,903**	**6,530**	**627**	**1,253**	**6,497**	**594**

The complete results of the existing conditions analysis, including inputs, can be found in the **Appendix** of this report.

FUTURE PARKING DEMAND MODEL CONDITIONS

Based on discussions with City of Virginia Beach Economic Development staff, Strategic Growth Area staff, Department of Planning staff, and local stakeholders during the project work session (see **Chapter 2**), there is great opportunity for future growth and economic stimulus in the Resort Area and as it relates to the development flexibility of the Form-Based Code. Through those discussions, several specific projects were identified that will be accounted for and modeled as such. For this study, a short-term (3-year) and long-term (15-year) future analysis was performed. The short-term analysis will consider only those specific developments identified by city staff and stakeholders, while the long-term analysis will consider those specific developments and speculative redevelopment within the sub-area.

Minimum Parking Requirements

Per FBC requirements, the minimum parking space requirements are illustrated in **Table 4-8**. As illustrated in **Table 4-8**, the current parking requirements for the Resort Area are consistent for residential and lodging uses; however, minimum parking requirements vary for office, commercial, mixed use, and restaurant uses based on location. For those developments east of Pacific Avenue, there are no minimum parking requirements for said land uses.

Table 4-8 – Minimum Parking Space Requirements per FBC

Land Use	West of Pacific Avenue	East of Pacific Avenue
Residential (Single-Family or Duplex)	2/unit	2/unit
Residential (Multi-Family)	*2/unit for first 50 units and 1.75/unit for all units in excess of 50	*2/unit for first 50 units and 1.75/unit for all units in excess of 50
Lodging	1/unit	1/unit
Office	1/270 ft^2	No requirement
Commercial Retail	1/250 ft^2	No requirement
Office/Retail/Mixed Use	3.5/1000 ft^2; 1.7/dwelling unit	No requirement
Restaurant	1/100 ft^2	No requirement

*If no residential parking permits are issued, parking requirement is reduced to 1.3 spaces per dwelling unit.

Short-Term Development Analysis

For purposes of analysis, those projects identified during discussions with City staff and stakeholders will be considered for the short-term parking analysis. Several of these projects are still in planning and have not been approved for development; therefore, a three-year build-out is likely conservative. Additionally, as not all of these projects have been publicly announced or advertised, only general descriptions and locations within the parking zone are described.

Zone A

- No proposed development or redevelopment

Zone B

- Mixed-use development with 143 apartments, an 8,000-square-foot commercial retail/entertainment venue, and a 619-space parking garage

Zone C

- Mixed-use development with 72 apartments, approximately 15,750 square feet of commercial retail/restaurants, and a 559-space parking garage
- Mixed-use development with approximately 390,000 square feet of total space that includes a 2,500-seat theater, an ice rink, a fast food court, retail space, restaurants, a bowling alley, an arcade, other entertainment options, and a total of 1,060 parking spaces in two garages

Zone D

- No proposed development or redevelopment

Zone E

- Commercial retail development with approximately 52,500 square feet of ground-level retail/restaurants and an 800-space parking garage

Zone F

- A 351-room hotel

These changes reflect the most recent major conceptual plans for development in the Central Beach District. These projections are intended simply as an approximate projection for parking needs in the study area. It is anticipated that most of these uses will change before final build-out is recognized. **Table 4-9** illustrates the changes in public and private inventory as a result of the above projects.

Table 4-9 – Existing Public and Private Parking (Short Term Development)

Zone	Existing On-Street	Existing Surface	Existing Private	Existing Parking Total	Future On-Street	Future Surface/ Garage	Future Private	Future Parking Total	Change (Total Spaces)
A	0	0	1,344	1,344	0	0	1,344	1,344	0
B	213	378	338	929	213	753	338	1,304	375
C	156	1,027	302	1,485	156	1,998	302	2,456	971
D	532	0	588	1,120	532	0	588	1,120	0
E	294	164	1,195	1,653	294	964	1,154	2,412	759
F	0	2,136	1,126	3,262	0	2,136	936	3,072	-190
Total	1,195	3,705	4,893	9,793	1,195	5,436	4,550	11,708	1,915

Table 4-10 provides the projected parking demands for short-term development based on the data above for the weekday and weekend peak conditions. As shown, there is a total anticipated surplus of approximately 2,200 parking spaces during the weekday peak period and approximately 1,300 parking spaces during the weekend peak period for Zones A through E. Zone F provides approximately 2,000 parking spaces of unused inventory during non-events at the Convention Center. Based on short-term development, parking inventory within the Central Beach District is anticipated to increase resulting in the additional surplus in parking. As shown in existing conditions, there are zonal parking deficiencies that can be accommodated through proximity parking; however, the proposed parking will create a surplus of parking in each zone without considering available inventory from adjacent zones except for Zone B on the weekend where a minor deficiency of approximately 100 spaces is still anticipated. The parking deficit in Zone A will continue to be accommodated in Zones B and C.

The complete results of the short-term development analysis, including inputs, can be found in the **Appendix** of this report.

Table 4-10 – Parking Demand Model Output – Short Term Development Conditions

Projected Weekday Parking Demand

Zone	Peak Parking Demand	Parking Supply	Parking Supply Surplus	Available Proximity Parking	Adjusted Parking Supply	Net Parking Surplus/Deficit
A	1,646	1,344	-302	558	1,902	256
B	1,088	1,304	216	499	1,587	499
C	1,817	2,456	639	673	2,490	673
D	648	1,120	472	476	1,124	476
E	1,142	2,412	1,270	308	1,450	308
F	1,054	3,072	2,018	83	3,155	2,101
Totals Zones A-E	**6,340**	**8,636**	**2,296**	**2,514**	**8,553**	**2,212**

Projected Weekend Parking Demand

Zone	Peak Parking Demand	Parking Supply	Parking Supply Surplus	Available Proximity Parking	Adjusted Parking Supply	Net Parking Surplus/Deficit
A	1,816	1,344	-472	354	1,698	-118
B	1,393	1,304	-89	377	1,681	288
C	1,997	2,456	460	544	2,541	544
D	791	1,120	329	373	1,164	373
E	1,276	2,412	1,136	208	1,484	208
F	1,102	3,072	1,970	70	3,142	2,040
Totals Zones A-E	**7,272**	**8,636**	**1,364**	**1,856**	**8,567**	**1,295**

Long-Term Development Analysis

In addition to those projects identified for the short-term development, a 15-year development horizon provides the opportunity for significant redevelopment within the Resort Area, likely stemming from the major projects identified above. There has been significant development and redevelopment in the Resort Area during the past 15 years; therefore, this analysis considers a somewhat aggressive (conservative) approach to new development going forward. It is noted that these development scenarios are purely speculative and for future parking modeling purposes only. It will be the City's responsibility to monitor development and how it relates to the need for additional parking.

The City of Virginia Beach Department of Planning provided an analysis entitled *Calculation and Comparison of Maximum Number of Residential Units (May 2012 revision)* that demonstrated the maximum residential development potential Form-Based Code will allow to ensure the code revisions are compliant with the 2008 Memorandum of Understanding between Naval Air Station Oceana and the City of Virginia Beach. Using this document and analysis framework as a guide, Kimley-Horn applied additional mixed-use planning assumptions to incorporate a mix of residential, commercial retail, restaurants, and general office land uses. Furthermore, the building heights and densities were reduced because it is unlikely that all of the developments will maximize the allowable building heights.

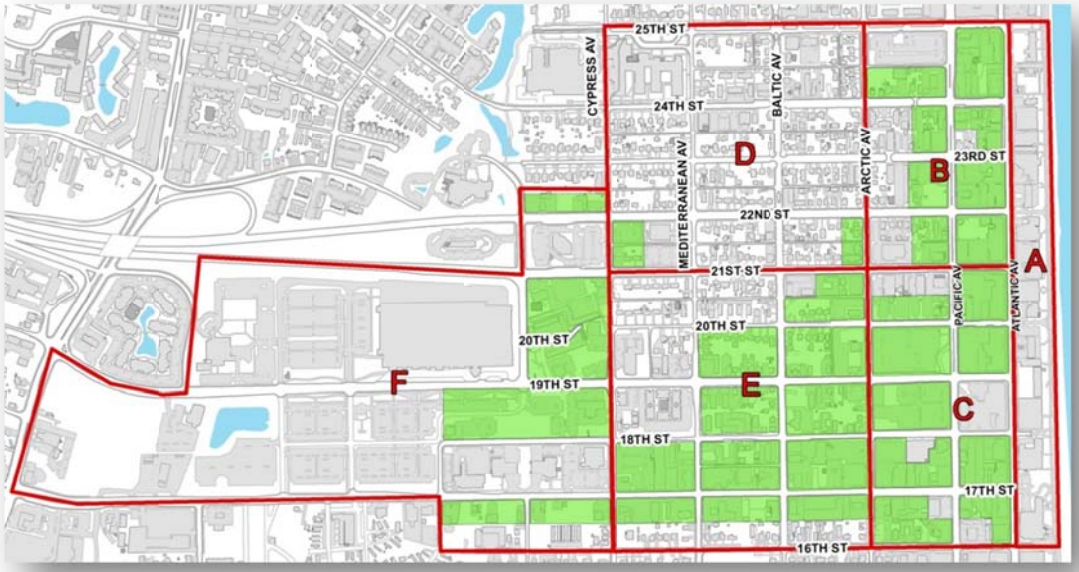


Figure 4-3 – Assumed Potential Redevelopment Locations

As mentioned above, new development under FBC still has minimum parking requirements. Where FBC differs from traditional zoning is that shared-use parking is utilized, which reduces the need for a large inventory created by parking single uses. That's not to say traditional on-site surface parking lots and/or private parking structures will not be constructed, but FBC encourages shared proximity parking which allows development to be maximized because parking is not necessarily provided on site. Due to the uncertainty of how development may occur, only the proposed parking identified in the Short-Term Development

Scenario will be considered in the 15-year development scenario. As a result, the available inventory decreases by approximately 2,100 parking spaces because most surface parking lot locations were assumed to redevelop. The resulting land use mix and densities are shown in **Table 4-11**, their assumed locations are illustrated on **Figure 4-3**, and the resulting changes in parking supply are shown in **Table 4-12**.

Table 4-11 – Long-Term Future Development

Zone	Residential Units	Hotel Units	Office (S.F.)	Retail (S.F.)	Restaurants (S.F.)	Proposed Parking*
A	0	0	0	0	0	0
B	696	132	0	129,737	40,582	619
C	571	0	49,000	419,487	139,831	1,619
D	138	0	0	56,438	18,813	0
E	529	0	147,000	359,625	109,375	800
F	382	351	98,000	189,000	63,000	0
Total	2,316	483	294,000	1,154,286	371,600	3,038

*All proposed parking is associated with projects identified in the short term development scenario.

Table 4-12 – Long-Term Changes in Parking

Zone	Existing On-Street	Existing Surface	Existing Private	Existing Parking Total	Future On-Street	Future Surface/ Garage	Future Private	Future Parking Total	Change (Total Spaces)
A	0	0	1,344	1,344	0	0	1,344	1,344	0
B	213	378	338	929	213	619	130	962	33
C	156	1,027	302	1,485	156	1,619	22	1,797	312
D	532	0	588	1,120	532	0	490	1,022	-98
E	294	164	1,195	1,653	294	800	435	1,529	-124
F	0	2,136	1,126	3,262	0	2,136	824	2,960	-302
Total	1,195	3,705	4,893	9,793	1,195	5,174	3,245	9,614	-179

By excluding the minimum parking requirements per FBC from the parking supply, the parking demand model output illustrates the parking need based on peak parking demand. If the assumed development and required parking were modeled, the output would illustrate a significant surplus of unused parking. As development occurs, it will be important to consider the shared use of parking associated with FBC and not develop parking solely on the minimum parking requirements. Furthermore, reduction to the current minimum parking requirements is likely warranted.

Table 4-13 illustrates the projected parking needs based on the development assumptions above for the peak weekday and weekend conditions. As shown in **Table 4-13**, there is an overall deficit in Zones A through E of approximately 2,850 and 4,700 parking spaces for the peak weekday and weekend, respectively. As expected based on the reduction in current inventory and increase in land use without replacing parking, Zones B through E experience the greatest deficiencies ranging from approximately 1,250 to 1,650 parking spaces on the weekend. **Figure 4-4** illustrates the zonal parking demands illustrated in **Table 4-13**.

Comparatively, if development of this scale were to provide parking per FBC minimum parking requirements, it would result in approximately 11,150 parking spaces creating a parking inventory surplus of approximately 8,300 and 6,450 spaces for the peak weekday and weekend parking conditions, respectively. This emphasizes the importance of constructing parking such that shared use agreements can be made and partnering to provide parking so it is not over-constructed within the Central Beach District and within the Resort Area.

Table 4-13 – Parking Demand Model Output – Long Term Development Conditions

Projected Weekday Parking Demand

Zone	Peak Parking Demand	Parking Supply	Parking Supply Surplus	Available Proximity Parking	Adjusted Parking Supply	Net Parking Surplus/Deficit
A	1,646	1,344	-302	1	1,345	-301
B	1,733	962	-771	3	965	-768
C	2,468	1,797	-671	1	1,798	-670
D	1,015	1,022	7	0	1,015	0
E	2,624	1,529	-1,095	2	1,531	-1,093
F	2,058	2,960	902	0	2,960	902
Totals (Zones A-E)	**9,485**	**6,654**	**-2,831**	**7**	**6,654**	**-2,831**

Projected Weekend Parking Demand

Zone	Peak Parking Demand	Parking Supply	Parking Supply Surplus	Available Proximity Parking	Adjusted Parking Supply	Net Parking Surplus/Deficit
A	1,816	1,344	-472	0	1,344	-472
B	2,225	962	-1,263	0	962	-1,263
C	2,893	1,797	-1,096	0	1,797	-1,096
D	1,256	1,022	-234	0	1,022	-234
E	3,168	1,529	-1,639	0	1,529	-1,639
F	2,383	2,960	577	0	2,960	577
Totals (Zones A-E)	**11,359**	**6,654**	**-4,705**	**0**	**6,654**	**-4,705**

4

Zone F	3-Year		15-Year	
	Weekday	Weekend	Weekday	Weekend
Future Year Demand	1,054	1,102	2,058	2,383
Zonal Parking Supply	3,072	3,072	2,960	2,960
Proximity Parking Available	83	70	0	0
Total Parking Spaces	3,155	3,142	2,960	2,960
Net Surplus/Deficit	2,101	2,040	902	577

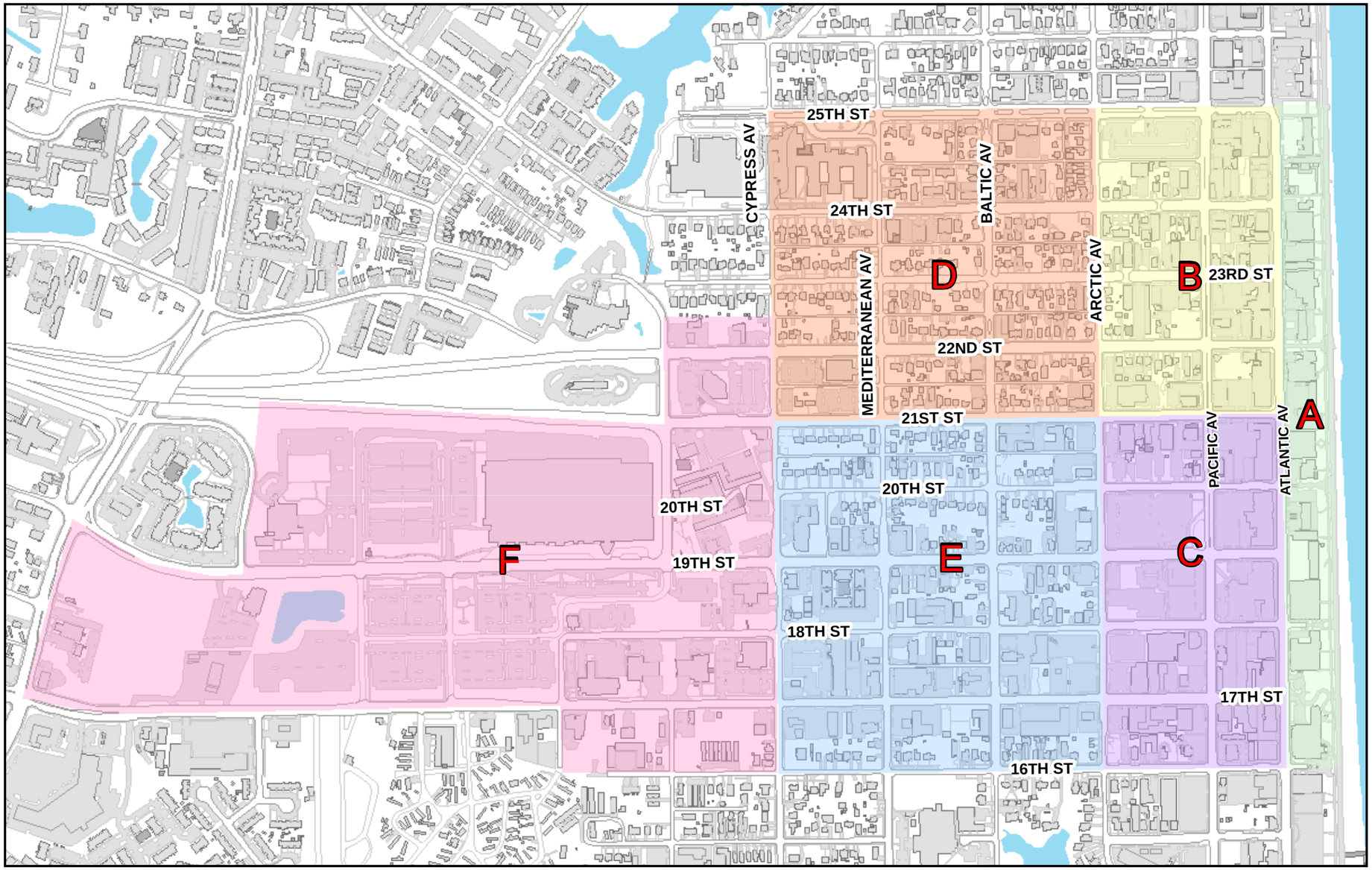
Zone D	3-Year		15-Year	
	Weekday	Weekend	Weekday	Weekend
Future Year Demand	648	791	1,015	1,256
Zonal Parking Supply	1,120	1,120	1,022	1,022
Proximity Parking Available	476	373	2	0
Total Parking Spaces	1,124	1,164	1,015	1,022
Net Surplus/Deficit	476	373	0	-234

Zone E	3-Year		15-Year	
	Weekday	Weekend	Weekday	Weekend
Future Year Demand	1,142	1,276	2,624	3,168
Zonal Parking Supply	2,412	2,412	1,529	1,529
Proximity Parking Available	308	208	2	0
Total Parking Spaces	1,450	1,484	1,531	1,529
Net Surplus/Deficit	308	208	-1,093	-1,639

Zone B	3-Year		15-Year	
	Weekday	Weekend	Weekday	Weekend
Future Year Demand	1,088	1,393	1,733	2,225
Zonal Parking Supply	1,304	1,304	962	962
Proximity Parking Available	499	377	3	0
Total Parking Spaces	1,587	1,681	965	962
Net Surplus/Deficit	499	288	-768	-1,263

Zone C	3-Year		15-Year	
	Weekday	Weekend	Weekday	Weekend
Future Year Demand	1,817	1,997	2,468	2,893
Zonal Parking Supply	2,456	2,456	1,797	1,797
Proximity Parking Available	673	544	1	0
Total Parking Spaces	2,490	2,451	1,798	1,797
Net Surplus/Deficit	673	544	-670	-1,096

Zone A	3-Year		15-Year	
	Weekday	Weekend	Weekday	Weekend
Future Year Demand	1646	1816	1646	1816
Zonal Parking Supply	1344	1344	1344	1344
Proximity Parking Available	558	354	1	0
Total Parking Spaces	1902	1698	1345	1344
Net Surplus/Deficit	256	-118	-301	-472



Total Zones A - E	3-Year		15-Year	
	Weekday	Weekend	Weekday	Weekend
Future Year Demand	6,341	7,273	9,485	11,358
Zonal Parking Supply	8,636	8,636	6,654	6,654
Proximity Parking Available	2,514	1,856	7	0
Total Parking Spaces	8,553	8,478	6,654	6,654
Net Surplus/Deficit	2,212	1,295	-2,831	-4,704

0 250 500 1,000 Feet

Central Beach District
Future Development
Zonal Parking Demands

City of Virginia Beach
Resort Area
Parking Strategy

Figure 4-4

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Shared-Use Parking vs. Single-Use Parking

Using shared-use methodologies will provide a much lower overall parking demand than using single-use methodology, which assumes that each land use has its own set of reserved parking spaces to accommodate its demand. **Table 4-14** provides a comparison of results based on single-use and shared-use methodologies for peak weekday and weekend conditions. The difference in methodologies represents approximately 520 to 580 parking spaces, which is the equivalent of one additional parking garage.

Table 4-14 – Long Term Development Conditions – Single-Use vs. Shared-Use Parking Demand (Net Parking Surplus/Deficit)

Zone	Weekday			Weekend		
	Single Use Methodology	Shared Use Methodology	Difference	Single Use Methodology	Shared Use Methodology	Difference
A	-387	-301	86	-537	-472	65
B	-866	-768	98	-1,358	-1,263	95
C	-794	-670	124	-1,204	-1,096	108
D	-35	0	35	-274	-234	40
E	-1,330	-1,093	237	-1,854	-1,639	215
Total	-3,412	-2,832	580	-5,226	-4,704	522

Chapter 5 - Recommendations

Defining Characteristics of a Parking Plan

Parking plans assist communities around the country in elevating the levels of success and performance for cities' downtowns or other development districts. These parking programs are guided by a new strategic approach to parking management.

The most successful and progressive parking programs in the country today are those where parking is managed by organizations that have, as their primary mission, downtown/venue development, downtown/venue management, or urban revitalization. Because of this broader community development perspective, these agencies manage parking not as an end unto itself, but as one mechanism to achieve their large strategic goals. Thus, they make different decisions relative to parking policies compared to traditional parking programs that are often guided by revenue, enforcement, or regulatory objectives.

This parking plan has been developed to provide a key component of the City of Virginia Beach Resort Area Parking Strategy.

The defining characteristics of a well-designed parking plan and program include the following:

- The development of a "vertically integrated" parking management organization.
- A focus on providing high levels of customer service and creating new standards for parking operations resulting in safe, comfortable parking areas that allow for customer ease of use.
- A comprehensive and integrated approach to both parking and transportation issues that are beneficial to both the business and residential communities.
- An alignment and integration of parking philosophy and programs with larger community strategic goals.
- Leveraging new technological advances to better use parking inventories, thus helping the communities and neighborhoods by improving circulation and reducing vehicle congestion and queuing.
- Creating a defined parking investment strategy as an element of the larger economic development strategy.
- Partnering with private sector parking owners and developers to create mutually supportive parking strategies to serve the overall community needs
- Promoting the new generation of parking facility designs and integrated mixed-use facilities.
- Actively promoting new sustainable design and management principles.

The development of a well-defined, comprehensive parking program has several important effects. Parking can be better planned and integrated as a critical component of the Resort Area infrastructure. Similarly, it can be more effectively leveraged as an economic development strategy, as a customer service agency, and as an important element within the large multifaceted community access system.

Finally, with a well-defined plan, many of the goals and challenges with the existing Resort Area will be resolved. The Resort Area can more effectively and successfully become a year-round destination, and the impacts to residential neighborhoods will be minimized without the need to further impose onerous restrictions for parking regulations and enforcement. In many communities where comprehensive parking programs have been implemented, vibrant, economically-successful areas are sustained without residential permit parking programs even being required.

Reform the Approach to Parking

Virginia Beach's Resort Area has parking challenges historically typical to many beachfront cities. The imbalance between the seasonal peak of resort hotel guests, day-only beach visitors, and high employee levels and the off-season's more limited activity challenges the sustainability of businesses, infrastructure, and the surrounding community. This drives away investment and development opportunities to outlying suburban areas.

The Resort Area Parking Strategy is transformative in that it addresses parking as a vital component of the Resort Area experience. Beyond merely warehousing vehicles for a temporary period of time, parking should be viewed as the interface between the vehicular and pedestrian experiences. When viewed from this perspective, the entire destination experience begins and ends with parking for those who drive. Visitors' first and last impression of their resort experience is the parking. This strategy aims to reshape parking in the Resort Area to ensure an understandable, inviting, and enjoyable experience.

Identify and Prioritize "Synergistic Opportunities"

Parking has thousands of direct and indirect customer "touches" per day. Making as many of these "touches" as possible a positive rather than a negative experience can have a dramatic impact. The strategies to achieve this experience change often and can solve multiple problems in a single stroke. These are referred to as "synergistic opportunities."

Take, for example, a shift from single-space parking meters to multi-space meters with a pay-by-cell phone option. This one application has helped other cities which have implemented similar systems accomplish the following goals:

- Enhanced Customer Experience
    - Multiple payment options (customers don't need change for the meter)

- The option to have a receipt
- Customers can receive a text notifying them that their meter is about to expire and giving them the option to add more time via cell phone from wherever they are, without having to trek back to the meter
- If all the meters are networked, a patron can add time from any meter if needed, not just the one by their vehicle

- Improved Urban Streetscape
  - Reduced streetscape clutter (one meter per block vs. eight or more meters)
  - Reduced signage
- Improved Operating Efficiency
  - Enforcement personnel can just go to one machine or receive text messages about over-time stays
  - Multi-space machines hold more coins, equating to fewer visits to empty machines
  - Wireless notification of when a meter is approaching "full" allows for "just in time" collections, improving efficiency
  - Fewer machines to maintain or that can become inoperable
- Enhanced Revenue
  - In most applications, multi-space meters can generate approximately 15% - 30% in increased revenues on the same number of spaces, primarily due to the acceptance of credit cards
- Sustainability
  - Solar powered meters
  - Reduced vehicle miles traveled from "parking cruising"

In Summary…

Placing more focus and investment in parking will provide significant community dividends if done well. Parking affects Resort Area visitors, employees, residents, and businesses in very direct and tangible ways. Improvements to parking programs are noticeable and important. It is important that the public sector not ignore parking and relegate it as purely a private sector issue, nor see itself as competing with private sector parking owners. Each entity must support each other with a commitment to developing a shared goal of success and serving the community which they support. The City of Virginia Beach needs not only to be involved, but also must set a high community standard when it comes to managing this important community asset.

City of Virginia Beach

Resort Area Parking Strategy

Parking Strategic Plan

Kimley-Horn and Associates, Inc.

Parking Strategic Plan

A **Parking Strategic Plan** defines the organization's process for defining its strategy or direction to provide the path for allocating resources to pursue the strategy. The key components of a strategic plan include the organization's vision, mission, values, and strategies.

The *Parking Vision Statement* outlines what the organization wants its parking program to be, or how it wants the community in which it operates to view its parking program. It has a long-term view and concentrates on the future; it serves as a source of inspiration.

The *Mission Statement* defines the fundamental purpose of the parking program by describing why it exists and what it does to achieve its vision for the parking program.

The *Guiding Principles* provides a list of principles that provides the value for the parking program and drives the organization's culture and priorities for development of the parking program. It provides the framework in which decisions are made.

Many communities mistake the vision statement for the mission statement; sometimes one is simply used as a longer-term version of the other. However, they are distinct—the vision is a descriptive picture of a desired future plan, while the mission is the statement of a rationale, applicable now as well as in the future. The mission is therefore the means of successfully achieving the vision.

For an organization's parking vision and mission to be effective, they must be assimilated into the organization's culture. They should be assessed internally and externally. The internal assessment should focus on how members inside the organization interpret their mission statement. The external assessment must include the businesses and community stakeholders to gain the value of their different perspectives.

Parking Guiding Principles direct the organization throughout the development and life of the parking program regardless of change in goals, strategies, or elected officials, city staff, or management.

By implementing this Parking Strategic Plan, the City will be one step closer to achieving its goals of emerging as a year-round, destination resort location that thrives with economic energy for the City, its businesses, its residents, and its guests.

Parking Strategic Plan Overview

The City's Parking Strategic Plan begins with restating and updating its Vision, Mission, and Objectives Statements. These statements clearly present a move away from "parking as usual". The major organizational element of the Parking Strategic Plan is a series of well-defined Guiding Principles, which help define strategic goals that guide decision-making. Each Guiding Principle has specific implementation action plan items that are the heart of the strategic plan. Organizing the action items by the Guiding Principles categories helps ensure that the plan is staying true to the larger strategic objectives and overall Parking Strategic Plan goals.

Vision Statement:

The City will develop proactive and effective public parking policies and provide management oversight of City-owned public parking assets. The City will manage parking to be responsive to Resort Area stakeholders and strategically leverage parking as a tool for neighborhood revitalization and economic development. The City will develop and operate a parking program that supports the overall growth and economic development of the Resort Area community. The parking program should enhance the Resort Area experience and provide support to the Resort Area residential and business communities.

Mission Statement:

The mission of the City is to develop and maintain a comprehensive and "Best in Class" parking program. The City will be an active partner in promoting community development and creating sustainable parking and transportation options. The City Parking program has an ultimate goal to support and enhance the vitality of the Resort Area.

The City will provide exemplary customer service for the Resort Area community. The parking program will provide a central resource for the planning, development, and management of public parking. Key goals will be to simplify and improve the parking experience for Resort Area patrons. This will be accomplished through the creation of a vertically-integrated parking management system that will provide enhanced planning and investments in new parking technology and strategic parking asset development. The program will work toward a goal of being a self-supporting enterprise fund.

Strategic Plan Objectives

To implement Parking Strategic Plan recommendations based on community developed Guiding Principles for the Resort Area that supports the development of vibrant, healthy, and accessible resort districts. The plan recognizes the existence of unique districts within the Resort Area and the need for distinct parking management plans for each district.

Key Strategic Plan Objectives

- Meet the parking and access needs of commercial, retail, entertainment, hotel, and residential uses and will be integrated into the larger Resort Area Parking Strategy, economic development plans, neighborhood redevelopment plans, and transportation planning initiatives.
- Provide excellent and continuously improving facilities and services.
- Improve coordination and collaboration with private sector parking owners and management and introduce new public facilities and services where needed.
- Develop facilities, services, and operational standards that contribute to an improved, more vibrant Resort Area.
- Participate in economic development activities that will help advance a stronger Resort Area while protecting the established neighborhoods.

Operating Principles

- Do business in a matter that contributes to the public good.
- Focus on providing parking infrastructure and assets along with community development support where the private sector is not willing to participate.
- Identify and create partnership opportunities to stimulate private sector engagement.
- Play a leadership role in terms of service, delivery, sustainability, community safety, and accessibility. New parking facilities will pursue appropriate sustainable certification, will promote enhanced Resort Area safety and security through the implementation of crime prevention through environmental design, and will promote the highest level of accessibility by adopting universal design principles relative to parking facility design.
- The City will continue to set the community standards for parking programs, facility, and operations with a goal to raise the standards throughout the Resort Area.
- Pursue innovative management strategies and develop enhanced interagency collaboration for the benefit of the entire parking program.

Broad Operating Goals

- Be Engaged – Participate where needed in other strategies to enhance the overall outcome.
- Be a Community Educator – Educate the community on the key roles parking and transportation play in the creation of a thriving Resort Area.
- Be Innovative and Creative – Develop new solutions.
- Be Efficient and Productive – Leverage technology to enhance operating efficiency and grow revenues.
- Be Goal Oriented – Achieve specific annual program and budget goals.
- Create a New Focus on Economic Development – Concentrate on objectives that will contribute to community economic development and Resort Area building.
- Remain Customer Service Oriented – Make parking interactions a positive component of the Resort Area experience as much as possible.

Guiding Principles

Overview

The goal in crafting these Parking Strategic Plan Guiding Principles was to develop a comprehensive approach to parking planning and management for the Resort Area. This approach will provide an integrated, action-oriented, and accountable system of parking and access management strategies that support, facilitate, and contribute to a sustainable and vibrant Resort Area. The Guiding Principles are designed to be strategic in nature, responsive to the community, and aligned with the larger community's strategic and economic development goals.

These Guiding Principles will encourage the use of parking and other transportation resources to support and facilitate priority economic development goals, serve prioritized user groups, and address the unique challenges found in the seven Resort Area districts. They will also serve as a foundation for near- and long-term decision-making related to parking management and development in the Resort Area.

Typical characteristics of Guiding Principles for parking strategic plans often provide goals which center around these general precepts:

- Investing in strong program leadership
- Creating community partnerships
- Focusing on improving customer service and creating new standards for parking facility operations
- Developing a comprehensive approach to integrating parking and transportation planning into "an integrated access management system"
- Aligning and integrating parking philosophy and programs with larger community strategic goals
- Leveraging new technological advances
- Creating a defined parking investment strategy
- Promoting the new generation of parking facility designs and integrated mixed-use facilities to improve the urban form going forward
- Developing and applying sustainable design and management principles

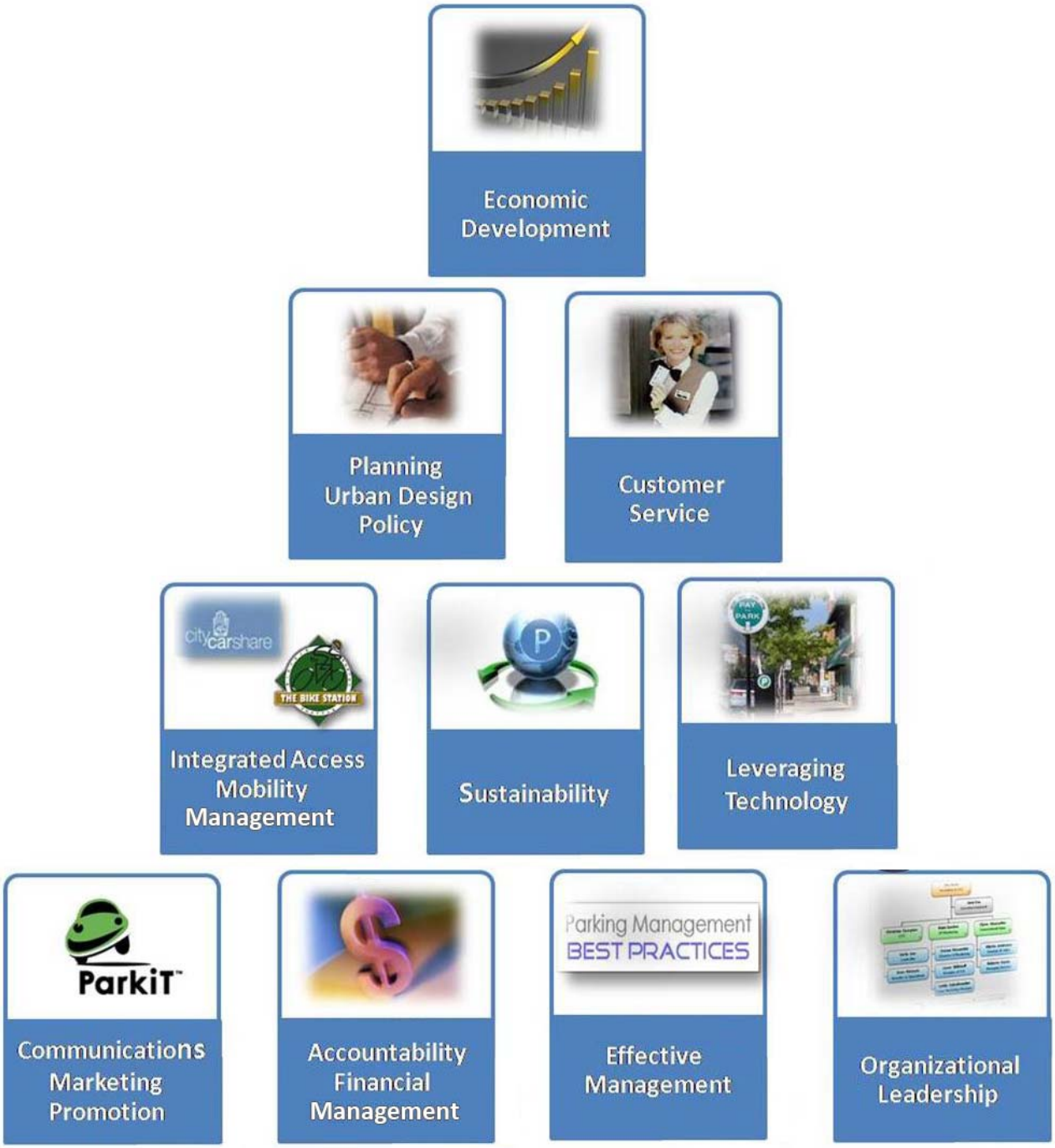
While largely centered on these aforementioned precepts, it is important to understand that the residential community is also woven within the Guiding Principles. Providing a parking program with strategies and management based these Guiding Principles will help address the current challenges facing the residential neighborhoods.

The 10 Guiding Principles for parking and access are based on the premise that ongoing Resort Area development will require an integrated and comprehensive package of parking and related transportation/access strategies geared to support economic development and regional marketing strategies for the Resort Area.

Parking Strategic Plan Guiding Principles

1. Economic Development
2. Planning/Urban Design Policy
3. Customer Service
4. Integrated Access/Mobility Management
5. Sustainability
6. Leveraging Technology
7. Communications/Marketing/Promotion
8. Accountability & Financial Management
9. Effective Management
10. Organizational Leadership

Parking Strategic Plan Framework



1. Guiding Principle for ECONOMIC DEVELOPMENT

The City will be guided by the City Council-adopted policy directives that are the result of collaborative processes between City staff, the City of Virginia Beach Economic Development Department, Resort Area agencies, and involved Resort Area stakeholders.

The City will assume a leadership role in developing public policies that support parking and access management as a key element of the Resort Area economic development strategy.

The City will use its resources to promote mixed-use and shared-use parking strategies as well as alternative modes for commuter access through the creation of incentives, partnerships, and programs to attract private investment. This will include reviewing and updating existing City parking requirements as appropriate.

It is envisioned the City will work in partnership with the City of Virginia Beach Economic Development office and other entities actively engaged in community and economic development work in the Resort Area. The addition of the City's new parking management focus in economic development projects will encourage the leveraging of strategic parking development as a significant tool to promote targeted and prioritized development projects in in the Resort Area. The development of new parking supply also will be a tool to ultimately reduce the number of surface lots by making these sites more attractive as development opportunities.

2. Guiding Principle for PLANNING/URBAN DESIGN POLICY DEVELOPMENT

The vision of an enhanced planning and policy development function will be pursued on multiple levels.

Effective parking planning will mean an improved understanding of parking supply/demand, the application of advanced planning policies, and the development of parking infrastructure that will enhance and better support the community strategic goals and urban design. Furthermore, effective parking planning will help alleviate the parking impacts within the residential neighborhoods by providing sufficient off-street inventory to support resort activity.

Parking management strategies and programs should support and complement other access modes as a means to better facilitate the accessibility and user friendliness of the Resort Area as a preferred resort destination for the greater East Coast region. Resources shall be effectively

planned and managed to promote and support multiple access modes into and around the Resort Area. Primary access modes include automobile, transit, trolley, bike, and pedestrian users.

Well-defined parking facility design criteria, parking-related streetscape enhancements, and effective integration of signage and wayfinding elements are all areas that this Guiding Principle will promote. Parking facility ingress and egress points for planned parking facilities will be sensitive to protecting and reducing directional traffic on Atlantic Avenue and Pacific Avenue where appropriate.

3. Guiding Principle for CUSTOMER SERVICE

Parking will support the Resort Area as a desirable destination for businesses, shopping, dining, and recreation by making parking a positive element of the overall Resort Area experience.

The parking system will strive to develop and operate parking facilities that are clean, convenient, safe, and secure for both the general public and local businesses' staff.

Parking program staff will be in uniform, present a friendly and professional appearance, and receive ongoing customer service and Resort Area ambassador training. The use of parking technology will be balanced by an increased focus on customer services and easy to understand program policies.

Customer service programs should also embrace a joint effort with private parking facility owners and operators in developing and promoting all of the Resort Area's parking supply. Not only will such programs increase customers and visitors in the Resort Area for everyone, but they also will maximize the use of all parking inventories and shift parkers from the residential areas back into public and private parking lots.

Responsiveness to community needs, openness to fresh ideas and active participation with local business partners while jointly participating in seasonal and peak parking planning strategies is a "win-win" for everyone and will be among the ongoing goals of the City.

4. Guiding Principle for INTEGRATED ACCESS/MOBILITY MANAGEMENT

The Resort Area Parking and Access Strategic Plan will promote a "park once" strategy that emphasizes linkages to other forms of transportation.

Progressive urban design guidelines will create and enhance positive pedestrian experiences, particularly surrounding parking facilities.

The Resort Area core should provide a parking system linked directly to the transportation system that supports its role as the central point from which customers and visitors are connected to all the districts of the Resort Area.

Access linkages should be holistic in nature. Parking should be linked to the transportation network to maximize its use while also making it convenient for its customers. Parking facilities should also be linked to other transportation facilities such as pedestrian routes, bicycle facilities, transit, and trolley systems. Access linkages within the core and between districts should be clearly identified through signage, wayfinding, and other communications (printed materials, websites, social media, resort advertising, etc.) to increase customer understanding of how to navigate the Resort Area while parking once for their entire visit.

5. Guiding Principle for SUSTAINABILITY

Initiatives to promote more sustainable and efficient operations will be actively pursued.

"Green" parking strategies that can result in more efficient use of parking facilities and provide other benefits (including reduced congestion, improved transportation choices, more efficient land use, and improved streetscape aesthetics) will be explored and supported.

The City will embrace and incorporate "Green" parking strategies in its parking structure design guidelines and incentivize developers and property owners to encourage the incorporation of "Green" parking strategies in the design of new facilities.

The City will embrace "Green" strategies in its parking operations and management plans.

The City will review, consider, and endorse the "Green" Parking Council Plan when it is released in late 2013.

Sustainability will be an integral part of the day-to-day operations of the Resort Area's parking strategy and management plan.

6. Guiding Principle for LEVERAGING TECHNOLOGY

The parking management program will be an early adopter of technology solutions to enhance customer parking information and service options.

A key goal is to make parking more of an amenity to visiting the Resort Area and less of an impediment.

Technology will be leveraged to streamline and simplify access to the Resort Area and will be a key parking management strategy. Another key technology-related goal is to enhance the efficiency and effectiveness of parking management staff and programs.

Parking Guidance Systems with static and dynamic signs would greatly reduce the vehicle congestion and queuing of vehicles and provides communication systems for drivers to make valid choices about finding available parking inventories. Such systems can provide communications and directional information for both public and private parking facilities.

Monument signs at entrances to parking facilities indicating available parking inventories and internal floor-by-floor signs indicating available parking space inventories assist drivers to make choices about which facilities to park in and to elect to drive directly to parking levels with available parking. These systems reduce internal vehicle queuing and vehicle emissions.

It should be noted that the City is already evaluating new on-street parking technology upgrades. However, the pace of change in parking technologies is so great that a continued focus on reviewing and staying current with technology use will greatly improve parking, access, and circulation issues for the Resort Area; reduce vehicle emissions and queuing; improve air quality; and reduce residential neighborhood traffic and parking impacts.

7. Guiding Principle for COMMUNICATIONS/MARKETING/PROMOTION

Parking and access management programs and facilities will be developed to function as a positive, marketable asset for the Resort Area.

Parking management strategies and programs will be cross-marketed and will support multiple access modes as a way to maximize total access capacity and to promote the Resort Area as a year–round, unique, and visitor-friendly regional destination.

Parking availability and program contributions shall be well publicized to enhance the perception of parking as a positive element of the Resort Area experience. Reinvestment of parking resources back into the Resort Area will be expanded and promoted.

CITYPARK

The City will develop a parking "brand" which will allow

parking program identity so that visitors and customers can easily recognize and locate available parking locations.

An enhanced focus on ongoing community engagement and enhanced communications strategies is recommended. Examples of this include a comprehensive web-site, the creative use of "how-to" videos online, the development of mobile device applications and/or social media sites, etc.

8. Guiding Principle for ACCOUNTABILITY AND FINANCIAL MANAGEMENT

The parking system will work toward a goal of being a self-supporting enterprise fund.

Develop a parking management program that is responsive to community needs and that is "action oriented" and accountable to stakeholders.

By aligning all parking revenue streams from on-street, off-street, and enforcement—and potentially special asset leases/sales, parking space leases, in-lieu fees, parking zoning credit funds, etc.—it is possible to develop a parking system that self-funds all operating and maintenance expenses, facility maintenance reserves, planning studies, and future capital program allocations.

It is not uncommon that cities will find that some parking revenues are not recognized within parking programs or they may be reported within other departments. When all parking revenues are consolidated into a single parking revenue and expense statement, it will begin to provide a comprehensive view of how well the City's parking-related income and expenditures are performing—a true accounting of parking finances. This provides the City the opportunity to begin to evaluate its effectiveness in creating a self-sustaining parking program that is not dependent on the City's general fund.

Ongoing analysis and reviews of parking charges, fees, and rates will provide the City with an up-to-date analysis of moving rates and fees to their true market value of the cost of parking operations, parking facilities, and improvements.

Parking management should work toward developing a parking system that continues to be self-supporting and sets asides funds for maintenance reserves and future capital asset funding.

Parking management strategies and programs should provide an integrated, action-oriented and accountable system of access that supports, facilitates, and contributes to creating an ideal Resort Area.

9. Guiding Principle for EFFECTIVE MANAGEMENT

The City will create a forward-thinking, "best in class" parking and access management program.

The City should anticipate future patron needs in the context of the Oceanfront Resort Area Design Guidelines and other planning initiatives, and seek to integrate supportive parking and multimodal access strategies as appropriate.

Evaluation of other parking management best practices and new technologies should occur on an ongoing basis.

Effective facility maintenance, infrastructure reinvestment, and other system management fundamentals will be routinely addressed. The Resort Area will see increased focus in the next five years.

10. Guiding Principle for ORGANIZATIONAL LEADERSHIP

The parking system will be organized to be "vertically integrated" within a single department with responsibility for:

- ***On-street parking***
- ***Off-street parking***
- ***Parking enforcement***
- ***Residential Permit Parking Program/permit issuance***
- ***Parking planning and development***
- ***Parking demand managed by one department or entity***

To develop and sustain the Resort Area access improvements, key decision makers that have the authority and resources will be actively involved and committed to creating and supporting an integrated, seamless and multi-modal access strategy for the Resort Area.

By consolidating the various parking functions under a single department, the City will have established a consolidated system that is action-oriented, responsive, and accountable with improved coordination and operating efficiencies.

As part of that consolidation, the City should consider establishing an easily identifiable and recognizable name for the parking system. This will differentiate the program from other resort based entities and program. An example might be Virginia Beach Parking Management Collaborative or similar. In addition, some form of stakeholder, business owner entity should be

identified which will allow collaborative and participatory communications to begin to be developed for the partnering with private parking facility owners and operators.

GUIDING PRINCIPLES SUMMARY

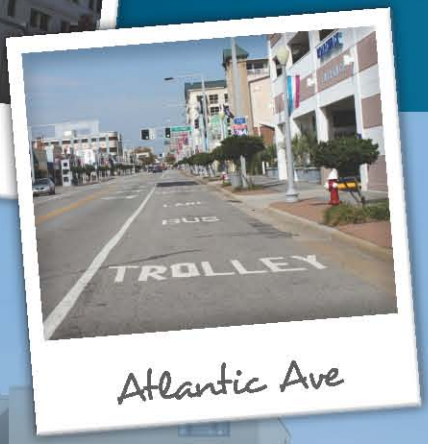
These Guiding Principles will serve as a foundation for near- and long-term decision-making and implementation of parking management and access strategies in the Resort Area.

These strategies are intended to support the ongoing economic development and vitality of the Resort Area. This is a process—not a one-time task.

The consensus nature of these Guiding Principles should provide a solid foundation from which to begin implementation of an effective program of strategies designed to support the Resort Area.

It will be important for the City and City officials to codify the Parking Strategic Plan Guiding Principles as part of the City or agency code to assure their ongoing role in facilities decision-making for the parking and access systems over time.

Teamwork and collaboration between City officials, Resort Area business owners, other agencies, and stakeholders will be a key for success moving forward.



City of Virginia Beach

Resort Area Parking Strategy

Parking Management Plan

Kimley-Horn and Associates, Inc.

Parking Management Plan

The Parking Management Plan includes the framework that will apply to all districts within the Resort Area. It includes a plan for administration, management, and operation of the parking for the entire Resort Area and is guided by the elements of the Strategic Plan, including the vision, mission statement, and guiding principles.

The Parking Management Plan includes 10 functions which parallel the 10 Guiding Principles:

1. Economic Development
2. Planning/Urban Design Policy
3. Customer Service
4. Integrated Access/Mobility Management
5. Sustainability
6. Leveraging Technology
7. Communications/Marketing/Promotion
8. Funding/Financial Management & Accountability
9. Effective Management
10. Management/Organization/Leadership

These primary elements are designed to have "transformative impact" on the Resort Area environment through enhanced partnerships with the City, community, business owners, developers, economic development agencies, and community stakeholders. This plan was developed with the intention of promoting change through a comprehensive and progressive shift in parking and transportation policy development, technology investment, and management restructuring.

The City already may have some or many of these elements in place. This plan is not intended to identify or serve as an evaluation or audit of existing parking management services and processes, but to assist the City in incorporating and developing a comprehensive Parking Management Plan. These elements are intended to highlight areas where transformative impact opportunities exist to develop the existing parking program into the program that is described in the Vision and Mission Statements. It also is intended to identify and highlight the elements that go into a well-managed comprehensive program in order to raise awareness within the community of the significance of public parking in Virginia Beach and the parking services that are provided by the City.

Under each of the 10 Guiding Principles, a tabulated action item table illustrates approximate completion time frames and an associated cost scale for each action item. The City should strive to complete short-term action items within the next 2 years, mid-term action items in the next 2 to 5 years, and long-term action items within the next 5 to 10 years. Some action items will require

ongoing attention and are noted as such. A relative cost scale is also provided in terms of dollar signs with a single dollar sign indicating a low cost action or strategy, two dollar signs indicating a more costly improvement, and three dollar signs having the highest associated costs. Actual cost estimates are difficult to predict because they will vary depending on the level of effort and/or analysis the City focuses on each action item.

CATEGORY 1 – ECONOMIC DEVELOPMENT

Integrating parking as an element of community and economic development strategies is a critical path for the implementation of the Resort Area parking plan. The options provided in this category begin to enhance and unlock economic development opportunities. Additional strategies include:

- Promote public-private partnerships related to future parking structures
- Reinvest parking revenues into local district improvement or parking structures
- Consider the impacts to the adjacent residential neighborhoods and mitigate impacts appropriately in the design of development projects

Table 5-1 – Economic Development Strategy Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Promote Public-Private Partnerships				X	$
Reinvest Parking Revenues				X	$
Consider Residential Neighborhood Impacts				X	$

CATEGORY 2 – PLANNING/URBAN DESIGN POLICY

Parking management should have an active planning function related to ongoing parking forecasting and assessment of current parking use, planning for new supply, and assessing zoning requirements to continue to be current with the needs of the Resort Area. This will help to ensure the economic vitality of the overall Resort Area and that each district is experiencing development and redevelopment in a balanced manner. Furthermore, effective planning will provide the means to relocate parking from the adjacent neighborhoods.

- **Enhance Parking Planning and Special Projects Capability** – The City should critically evaluate the parking department's planning strengths and consider the need to provide additional tools, resources, and a planning staff person if warranted. This will allow the department to gather data about current parking use, providing an ongoing analysis to assist the City in determining when and where additional parking is needed. Most planning processes at similar cities require about four years from the beginning process to construction completion to add to new parking facilities. A proactive process and ongoing needs assessment will assist the City in staying current when needs arise.

- **Explore Short-Term, Low-Cost Inventory Solutions** – Identify immediate, low-cost implementable solutions that can provide additional parking inventory or provide clarity such as striping and/or signage.
- **Formalize Parking Design Guidelines** – City staff have begun to collect and develop parking design guidelines. Those should be formally developed, reviewed, approved, and made part of the City's guidelines not only for development of its parking structures but also to guide private developers in planning and designing parking facilities which are appropriate for the City, the goals of the Resort Area Parking Strategy, and the vision developed with the Form-Based Code.
- **Annual Supply/Demand Update** – The City should update parking utilization and supply demand forecasts for the Resort Area on an annual basis. Once the baseline supply/demand forecasts are established, simple annual data collection will allow the City to update the overall supply/demand forecasts. This allows the agency to track trends and changes of the overall Resort Area and specific changes in trends within each district.
- **Reassess Residential Permit Parking Program (RPPP) on a District Basis –** Parking challenges for residents living within RPPP districts are unique depending on location and RPPP regulations should be established to respond to those specific impact times for each particular area. Current engineering studies are needed to determine the appropriate regulations. Resulting management strategies may include adjustments to enforcement hours, number of business permits issued per district or block, etc.
- **Reassess Policies and Regulations for Employee Permit Issuance in the RPPP** - One of the most significant challenges to the success of the RPPP for residents in the Resort Area is the issuance and the volume of issuance of employee permits within the RPPP. Similar to the need for a third-party analysis of the RPPP program, an engineering analysis is needed to recommend ways to effectively manage, reduce, and eventually relocate employee parking from the residential neighborhoods.
- **Integration of Other Transportation Modes** – As part of the ongoing planning process, supply/demand analysis would also track and identify impact to parking demands as a result of other transportation elements. The Parking Department should also evaluate opportunities for integrating bicycle, trolley, transit, and other transportation elements into parking structures and lots and new design. This will assist in creating an active, collaborative partnership of helping to integrate access management programs and achieving their full potential.
- **Parking Zoning Code Review** – Following the approval of Form-Based Code and the features that those codes provide, a review of the parking code will be desired and needed. Over time with the level of shared parking that is allowed by Form-Based Code, changes and/or reductions in required parking may be allowable.
- **Parking Signage/Wayfinding Program** – The City should undertake a larger Resort Area parking signage and wayfinding strategy. This will allow primary and desired

street travel paths to be identified or enhanced as a result of the Form-Based Code visioning documents. The signage/wayfinding play will guide function, placement, and identification of parking locations for customers. Too often these studies are undertaken from a design perspective; those that experience the greatest functional success are those designed from a functional planning process before the design elements are incorporated. Furthermore, this program should extend to the commercial lot operators as well to help reduce the perception that parking is unavailable. With that, commercial lot owners should contribute to the financial burden to install and maintain this equipment.

- **Support a "Park Once" Philosophy** – Evaluate "Park Once/Pedestrian First" type concepts for the Resort Area. A convenient and reliable link (trolley) between parking structures/locations and major resort destinations should be heavily marketed. This concept also supports and promotes pedestrian environment enhancements.
- **Support Walkability/Ride-ability Enhancements** – Encourage and support the development of enhanced pedestrian and bicycle amenities to improve the walkability and ride-ability of the Resort Area. These include sidewalk improvements, crosswalk improvements, installation of bicycle racks, multi-use paths, etc.
- **Consider Development of "Parking Program Criteria Documents"** – Program criteria documents can assist in improving the parking facility design process by providing operational parameters, equipment specifications, and security goals for new parking lot/structures. An example of this would be to provide equipment specifications or vendor recommendations to designers for systems that will be compatible with dynamic wayfinding and parking guidance systems to allow participation in real-time data transfer for smart phone applications.
- **Train Staff on the Basics of Parking Facility Design and Development** – The more parking staff is aware of the key issues and processes that are involved in new parking facility design and development, the more value they provide into the operational insights during the design process.
- **Ensure Staff Stays Current and Familiar with New Parking Technology Advancements** – Staff aware of the rapid advancements in parking technologies are better positioned to recommend options to improve efficiency and enhanced customer services.
- **Adapt the Mindset that Public and Private Commercial Lots are in Competition –** Public and private commercial lot owners and operators must change the mindset that the entities are in competition. Both parties should strive for a common goal to serve the parking users and make their experience the best possible. With this unity, both parties will experience more of a benefit. Therefore, continuity needs to be established among public and private lots via an image or brand, private commercial lots need to meet code requirements, private lots should be advertised through the wayfinding once code requirements are met, etc.

Table 5-2 – Planning/Urban Design Policy Strategy Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Enhance Parking Planning and Special Projects Capability				X	$
Explore Short-Term, Low Cost Inventory Solutions	X			X	$$
Formalize Parking Design Guidelines	X				$
Annual Supply/Demand Update				X	$
Reassess Residential Permit Parking Program on a District Basis	X			X	$$
Reassess Policies and Regulations for Employee Permit Issuance in the Residential Permit Parking Program	X			X	$$
Integration of Other Transportation Modes				X	$
Parking Zoning Code Review	X				$$
Parking Signage/Wayfinding Program		X			$$
Support a "Park Once" Philosophy	X			X	$
Support Walkability/Ride-Ability Enhancements				X	$$
Consider Development of "Parking Program Criteria Documents"	X			X	$
Train Staff on the Basics of Parking Facility Design and Development	X			X	$
Ensure Staff Stays Current and Familiar with New Parking Technology	X			X	$
Adapt the Mindset that Public and Private Commercial Lots are in Competition				X	$

CATEGORY 3 – CUSTOMER SERVICE

Improving the customer experience includes both active and passive strategies to change the experience for guests and patrons. These strategies may include:

- **Customer Service Training** – Enhance and ongoing customer service training for all parking system staff that interact in any way with customers.
- **Customer Satisfaction Surveys** – This tool provides mechanisms for customers to provide feedback and for parking staff to evaluate how they are doing, allowing staff to make adjustments as needed.
- **Secret Parker Program** – This allows the agency to get feedback firsthand about a parker's experience. Secret Parkers are usually given small value coupons for coffee or other local business services for their feedback.
- **Establish a Parking Hot Line** – Feedback could be gathered via a phone line, a link on the parking website, or an e-mail address.

Table 5-3 – Customer Service Strategy Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Customer Service Training	X			X	$
Customer Satisfaction Surveys	X			X	$
Secret Parker Program	X			X	$
Establish a Parking Hotline	X			X	$

CATEGORY 4 – INTEGRATED ACCESS/MOBILITY MANAGEMENT

The concept of "Integrated Access Management" serves as a means to broaden the program scope through the creative integration of parking, transportation demand management, and planning. In many environments/communities, the planning and transportation functions appear to have different or competing goals. In an integrated program approach, the goals of both programs merge and work together more collaboratively, and result in benefits for the entire community. To do this:

- **Support and Promote "Integrated Access Management"** – This approach allows the parking and transportation functions, agencies, and departments to share a common vision of what "enhanced Resort Area access" means. Parking and transportation are both support services and the goals of both functions should be subordinate to the larger Resort Area strategic goals and objectives. Parking is a major player in the Resort Area and needs to be considered and included at all levels including planning projects, public works projects, and economic development projects. Parking should not become an afterthought, but rather always have a seat at the table.
- **Explore both "Supply-Side" and "Demand-Side" Parking Management Strategies** – One effective way to look at the concept of "integrated access management" is to consider it from the perspective of "supply-side strategies" and "demand-side strategies." This assists parking management strategies in providing a diverse range of transportation options, alternatives, and demand management programs to reduce the need for additional parking supply. Managing the "supply-side" may include creating strategies to encourage shared parking, leveraging underutilized spaces, or reviewing and assessing parking regulations. Managing the "demand-side" includes strategies that decrease the vehicle demand such as incentivizing multi-occupant vehicle trips, providing/enhancing alternate transportation options (non personal vehicle travel), congestion based pricing, etc.

Table 5-4 – Integrated Access/Mobility Management Strategy Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Support and Promote "Integrated Access Management"	X			X	$
Explore both "Supply-Side" and "Demand-Side" Parking Management Strategies	X			X	$

CATEGORY 5 – SUSTAINABILITY

Many cities are incorporating sustainability into their programs, contributing to their share of enhancing "Sustainability Initiatives" related to parking. For example, sustainability can be incorporated into parking programs through:

- Developing strategies to reduce single-occupant vehicle use (through the Demand Management Options outlined in the previous section, "Integrated Access/Mobility Management"). These represent several key elements of the program's sustainability initiatives, particularly for employees in the Resort Area.
- Evaluating and promoting "Green Design" related to new parking structure projects in the future.
- Implementing environmentally-friendly parking facility maintenance strategies
- Promoting incentives to encourage more environmentally-friendly transportation choices to invest in green technologies. Set an example for the Resort Area as well as the greater community.

Table 5-5 – Sustainability Strategy Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Develop Strategies to Reduce Single-Occupant Vehicle Use				X	$
Evaluate and Promote "Green Design"				X	$
Implement Environmentally-Friendly Parking Facility Maintenance Strategies				X	$
Promote Incentives to Encourage More Environmentally-Friendly Transportation Alternatives				X	$

CATEGORY 6 – LEVERAGING TECHNOLOGY

The City should assess the potential for improving parking system integration, management reporting, customer service, operational efficiency, etc., through an ongoing parking technology assessment.

- **Continuously Assess Parking Technology** – It is recommended that the assessment be divided into the following categories: off-street applications, on-street applications, and enforcement applications.
- **Create a Technology Master Plan** – Technology changes rapidly and quickly. Many cities across the country are conducting technology master plans for their parking program to ensure that they are able to achieve an integrated system that allows system-wide communications and reporting.
- **Assess Potential Off-Street Technology Enhancements** – Evaluate new systems that offer the potential to reduce staffing and labor costs and/or improve customer services. These systems include:

- Central cashiering
- Pay-on-foot
- Automatic Vehicle Identification (AVI)
- Credit card in – Credit card out
- Pay-by-space
- Automated pay-in-lane
- Web-based parking management platforms

Table 5-6 – Leveraging Technology Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Continuously Assess Parking Technology	X			X	$
Create a Technology Master Plan	X			X	$$
Assess Potential Off-Street Technology Enhancements				X	$

CATEGORY 7 – COMMUNICATIONS/MARKETING/PROMOTION

One of the most responsive elements that the City can develop to improve their image and impact change with parking users is a Communication Plan. A Communication Plan provides the tools to advise guests, customers, and visitors how and where you want them to interface with the overall Parking Strategic Plan—even to the point of letting them know where to access parking facilities.

Developing a strategic communications program will impact all other elements of the management plan, from operations, customer service, revenues, and effectiveness of technology to the economic impact of the program.

For the plan to be effective there needs to be a commitment to the time it takes to develop and execute the plan, creating the tools for the plan, and allocating the resources for the plan. Most agencies dedicate $8 - $11 per space, per year (including on-street spaces) for implementing a communication plan.

The communication plan development begins by creating a parking brand – this is the identity that all patrons will recognize and affix to the Resort Area's parking program. Examples of these brands from other agencies include "SF Park" in San Francisco, CA, and "SMART PARK" in Portland, OR.

Examples of tools that can make-up a Strategic Communications Program include:

- A Coordinated Marketing Plan that crosses all elements of the parking program.
- A Resort Area parking/access website.
- A branded parking signage program.
- An upgraded Resort Area wayfinding/signage system.

- A "Branding Campaign" for the new parking/access program.
- A parking E-Bulletin for sending to users.
- A parking public relations program.
- Methods for regular personal contact with customers.
- A parking system information database that can become the central clearinghouse for parking and access information.
- A new employee parking and access options brochure/information packet to provide to businesses for their employees.
- Marketing tie-ins for parking for special events.
- An annual specific program marketing budget.
- A package of parking program electronic marketing collateral for distribution to merchants, media, and other stakeholders.
- The active development and promotion of customer input mechanisms.

Table 5-7 – Communications/Marketing/Promotion Strategy Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Develop a Coordinated Marketing Plan	X			X	$
Develop a Resort Area Parking/Access Website	X			X	$$
Develop a Branded Parking Signage Program	X			X	$$
Develop and Install an Upgraded Resort Area Wayfinding/Signage System		X		X	$$$
Develop a "Branding Campaign" for the New Parking/Access Program				X	$
Develop and Issue Parking E-Bulletins				X	$
Develop a Parking Public Relations Program				X	$
Develop Methods for Regular Personal Contact with Customers				X	$
Develop a Parking System Information Database				X	$
Develop a New Employee Parking and Access Brochure				X	$
Develop Marketing Tie-Ins for Special Events				X	$
Develop an Annual Specific Program Marketing Budget				X	$
Develop a Package of Parking Program Electronic Marketing Collateral				X	$
Actively Develop and Promote Customer Input				X	$

CATEGORY 8 – FINANCIAL MANAGEMENT AND ACCOUNTING

Developing a sound financial strategy for a self-sustaining parking financial program not dependent on the City's general fund is critical. To begin that evaluation, the City should review and develop strategies to consolidate all parking revenues into a single accounting/reporting strategy which will become necessary for financing future parking facilities. This process will serve as the beginning point for determining the current status and will highlight areas where

the City will need to make changes in the program to gain self-sufficiency. This process will require a carefully developed plan and strategy for community understanding and support. Many cities across the country have achieved this with a well-developed plan that includes the following elements:

- Develop internal systems for regular internal parking revenue audits.
- Create a comprehensive flow-chart summarizing all parking revenues and expenditures.
- Develop a parking rate evaluation and adjustment strategy.
- Develop a plan to adjust rates to market value over a phased time.
- Prepare parking market surveys for parking rates.
- Establish a parking facility maintenance reserve, or if one already exists, assess the adequacy and the funding rate relative to current and projected facility needs.
- As new facilities are constructed, begin a parking facility maintenance reserve fund as each new facility is opened.
- Conduct a market economic analysis of the true value of parking space in lots and facilities and determine amortized lease rates for parking space leases in lots/facilities.
- Review and increase the parking program's bonding capacity.

A review and analysis of the parking financial program will be an ongoing process to catch up with where the parking fund should be to attain sufficient equity and resources to sustain a parking plan needed for the future for the Resort Area.

Table 5-8 – Financial Management and Accounting Strategy Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Develop Internal Systems for Regular Parking Revenue Audits				X	$
Create a Flow-Chart Summarizing Parking Revenue and Costs				X	$
Develop a Parking Rate Evaluation and Adjustment Strategy	X			X	$
Develop a Plan to Adjust Rates to Market Value	X			X	$
Prepare Parking Market Surveys for Parking Rates	X			X	$
Establish/Assess a Parking Facility Maintenance Reserve				X	$$$
Update Parking Facility Maintenance Reserve with each New Facility Constructed				X	$$
Conduct a Market Economic Analysis	X			X	$$
Review and Increase the Parking Program's Bonding Capacity				X	$

CATEGORY 9 – EFFECTIVE MANAGEMENT

It is important to define the critical functional elements of an effective parking management program for the Resort Area. These should be targeted and aimed at building a "best in class" approach to the parking management plan. To create an effective Resort Area parking management plan:

- Define Specific Management Program Goals.
- Develop an ongoing parking rate evaluation and adjustment strategy (described in more detail in the previous section, "Financial Management and Accounting"). Parking rates in the Resort Area are currently too low to be sustainable long term for the parking program and for the development of new parking facilities. The City should strive to close the gap between what parking truly costs and the current parking rates in the Resort Area.
- Manage on-street spaces to achieve 15% availability, allowing adequate turnover of spaces. This means adjusting the rates to create turnover.
- Enhance special events parking/transportation coordination.
- Partner with private owners and operators of private parking lots and facilities to enhance operational efficiency and maximize use of parking spaces.
- Create a parking/access program annual report that will share with the community the state of the parking program, its services, and goals for ongoing continuous improvement.
- Support continuous professional staff development.
- Conduct operations peer reviews engaging parking professionals from other cities or regions to conduct the assessment on an annual or biannual basis.
- Review and enhance energy saving options for parking facilities.
- Conduct periodic security inspections of all public parking facilities.
- Develop new parking facilities with "Crime Prevention through Environmental Design" (CPTED) strategies.
- Ensure that parking facility security systems function properly.
- Evaluate parking facility lighting and establish lighting standards.
- Assess parking access and revenue control system security procedures.
- Assess parking access and revenue control system back-up procedures.
- Assess credit card (PCI) security in all parking equipment systems where credit cards are used for parking fee payment. Conduct audits on an annual basis as is required by PCI regulations.
- Implement themed level identification signage within garages to assist parkers in knowing where they parked.
- Enhance special events parking planning and coordination internally with peer agencies and externally with event sponsors and other private parking owners.
- Maintain a consistent, comprehensive facility maintenance program, including regularly scheduled structural condition appraisals.
- Develop a parking management resource library.
- Develop internal operations manuals.
- Conduct regular facility inspections and develop a program for effective follow-up

- Develop special programs to mitigate the negative impacts of parking enforcement, considering such items as "parking angels"—people who walk around the Resort Area and insert quarters in meters about to expire, leaving a coupon message on the vehicle. Issue tickets with a coupon for a day of free parking in parking facilities, or other similar programs, to soften the ticket receipt.
- Consider implementing an annual surfing permit to residents which allows surfers to park in on-street spaces in the morning prior to businesses opening (perhaps valid from 5 a.m. to 9 a.m. during peak season months). Rates in other beach communities generally sell for approximately $12 per month.

Table 5-9 – Effective Management Strategy Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Define Specific Management Program Goals	X			X	$
Develop an Ongoing Parking Rate Evaluation and Adjustment Strategy	X			X	$
Manage On-Street Spaces to Achieve 15% Availability	X			X	$$
Enhance Special Event Parking/Transportation Coordination (Internal)	X			X	$
Partner with Private Owners and Operators of Private Lots	X			X	$
Create a Parking/Access Program Annual Report				X	$
Support Continuous Professional Staff Development				X	$
Conduct Operations Peer Reviews Engaging Parking Professionals from Other Cities				X	$$
Review and Enhance Energy Saving Options for Parking Facilities				X	$$
Conduct Periodic Security Inspections of all Public Parking Facilities				X	$
Develop New Parking Facilities with CPTED Strategies				X	$$
Ensure that Parking Facility Security Systems Function Properly				X	$
Evaluate Parking Facility Lighting and Establish Lighting Standards				X	$
Assess Parking Access and Revenue Control System Security Procedures				X	$
Assess Parking Access and Revenue Control System Back-Up Procedures				X	$
Assess Credit Card (PCI) Security in all Parking Equipment Systems on an Annual Basis				X	$$
Implement Themed Level Identification Signage within Garages		X			$$
Enhance Special Events Parking Planning and Coordination (External)				X	$
Maintain a Consistent, Comprehensive Facility Maintenance Program				X	$
Develop a Parking Management Resource Library				X	$
Develop Internal Operations Manuals				X	$
Conduct Regular Facility Inspections and Develop a Program for Effective Follow-up				X	$
Develop Special Programs to Mitigate the Negative Impacts of Parking Enforcement	X			X	$
Implement Annual Surfing Permits	X			X	$

CATEGORY 10 – MANAGEMENT/ORGANIZATION/LEADERSHIP

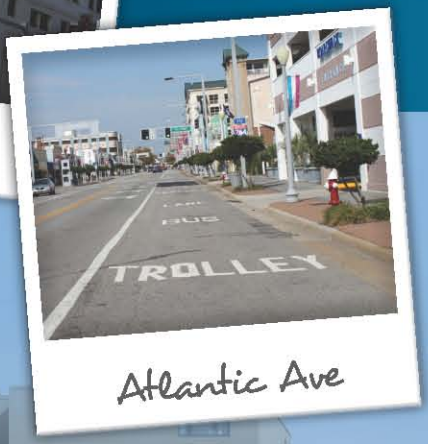
The City should make the decision to invest in public parking as an integral component of the Resort Area Strategic Action Plan. It should evaluate and refine the parking management organization and where its organizational place is within the City to meet planning, financing, development and operating of parking programs within the context of the proposed parking program. It should invest in parking expertise and a leadership team which can lead, guide and manage the program going forward. To that end, the following elements should be completed.

- Refine and elevate the parking management organizational structure within the context of the City.
- Understand the principles behind why "Vertical Program Integration" is the single most important organizational attribute.
- One of the highest priorities is to implement the "Vertical Program Integration" structure within the City. Identify those parking services that are currently managed by other City departments. Prioritize and relocate those services into the new "Vertical" parking program. Shifting all parking related functions and services into a single "vertically integrated" unit will allow the City to leverage its parking services, parking assets, and financial resources for the City and the community.
- As the parking program grows, grow the parking management staff. Invest in expertise for senior level positions within the parking program. Add personnel to current parking staff who bring additional and enhanced expertise to the program. For the program to be successful it must have strong leadership and support from the City and the community.
- Once the Resort Area Parking Strategy is finalized, the City should present it to City Council for additional review and approval as City policy to ensure appropriate support and funding.
- A regular program of parking plan implementation progress reports should be developed to keep the Council apprised of the status of the approved initiative and their results.
- Develop a stakeholder "Report Card" for specific stakeholder groups (i.e., Resort Beach Civic League). This could be combined with a feedback mechanism to create an ongoing community input and program development/refinement.
- Create and develop a simple "Annual Report" which provides stakeholders with an annual view of what has been accomplished. The report should also include goals for the following year.
- For the envisioned parking and integrated access management program to reach its full potential, it is critical that parking management be perceived as open, collaborative and resourceful. To this end, the parking function should strive to reach out to various groups and be a positive team player.

Table 5-10 – Management/Organization/Leadership Strategy Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Refine and Elevate the Parking Management Organizational Structure	X			X	$
Understand the Principles behind Vertical Program Integration	X			X	$
Implement Vertical Program Integration	X			X	$
Grow the Parking Management Staff				X	$$
Obtain City Council Support to Approve the Strategy as Policy to Ensure Support and Funding	X				$
Maintain Regular Parking Plan Implementation Progress Reports				X	$
Develop a stakeholder "Report Card"				X	$
Develop and Broadcast an "Annual Report" to keep the Public Abreast of what was Accomplished During the Year and Goals for the Upcoming Year				X	$
Change the Perception of Parking and Access Management in the Resort Area				X	$

Parking



Atlantic Ave

City of Virginia Beach

Resort Area Parking Strategy

Central Beach District Parking Management Plan

Kimley-Horn and Associates, Inc.

Central Beach District – Parking Management Plan

This Parking Management Plan includes elements which are unique to the Central Beach District, as well as some overlapping plan elements which also will appear in the two adjoining districts due to the interlinking relationships of the districts.

The recommendations for the Central Beach District are the results of Resort Area intercept surveys, public input gathered via questionnaire at a public information meeting, Resort Area Parking Committee members' concerns, and input from businesses in the district. These recommendations are also the result of the detailed parking analysis conducted by Kimley-Horn, based on current use of parking inventories, reviews of current policies and management of the public parking inventories, reviews and observations of operations of private lots, and forecast for future development within the district and associated parking inventories needs.

RESIDENTIAL PERMIT PARKING PROGRAM RECOMMENDATIONS

1. Reassess Residential Permit Parking Program

Typical RPP programs across the country are designed to protect neighborhoods from non-residential parking and traffic impacts through establishing regulations, distributing permits, and enforcing those regulations. The typical program's regulations are established following an engineering study to determine the days and hours that the non-residential impacts are occurring and the ongoing significance of these issues. As a result of those efforts, regulations and programs are established to respond to only those times when the non-residential parking issues are a problem.

In the case of the Resort Area's RPPP, the regulations are not effectively removing the non-residential parking impacts from the neighborhoods. A current engineering study is needed to determine the appropriate response to address the issues. Programs and regulations which respond to the impacts are the appropriate solution. The study will analyze and determine the appropriate recommendations to solve the neighborhood issues. Examples and recommendations include the following:

- A 24-hour enforcement of the RPPP is not recommended.
    - Regulation hours should correspond to when the impacts are occurring. If they are weekend evenings, during peak season, then regulations should be seasonal,

weekend evening hours only. Automatically implementing a 24-hour, year-round program does not solve the current problems. In fact, they exacerbate the problem, as the current 24-hour program just relocates the problem from one street to surrounding residential streets. In short order, an entire neighborhood becomes a 24-hour enforcement program, which is in conflict with the City's vision for the Resort Area. Additionally, 24-hour enforcement programs are difficult for residents to live in. They also are difficult and expensive for the City to manage. A 24-hour enforcement program requires enforcement staffing 24 hours per day, seven days per week—quickly becoming cost prohibitive, jeopardizing the effectiveness of a 24-hour RPPP.

  - If the full Resort Area Parking Strategy is implemented, including adjustments to the employee permit issuance, the need for an RPPP will be diminished, if not determined to be completely unnecessary, over time. In many communities where well-planned and well-executed parking programs are implemented in areas which are generating excessive parking and traffic inventories, RPP programs are not needed and are not implemented. The nearby residential communities remain un-impacted and are safe, quiet streets for residents to live.

- Should the community and City staff determine that a 24-hour RPPP still be established for the "hot spots," the following recommendations are offered to enhance the program:
  - Establish the 24-hour districts with a "sunset clause" to correspond with eliminating employee parking in the neighborhoods. A well-established and implemented parking management plan has, in some cases, eliminated the need for a residential permit program in similar communities. The sunset clause will phase out the 24-hour enforcement over time as this parking strategy is realized.
  - Allow employees to park within the 24-hour RPPP zones in the short-term until additional off-street parking can be established. There is currently insufficient off-street parking inventory during the peak season to accommodate the additional demand created by relocating the employees into off-street facilities.
  - As discussed above, a 24-hour RPPP places an additional financial burden on the City to manage and effectively enforce the program. As a result, those residential streets that elect to petition for 24-hour enforcement programs should be required to pay annual fees to obtain permits (both permanent and guest permits) to cover the additional cost burden of the program.
- Create and install clear, identifiable, on-street parking signs to eliminate confusion for the RPPP regulations. The importance of these signs significantly increases should 24-hour enforcement of the RPPP be implemented in select locations.
- Increase parking citation penalties.
  - Current parking citation penalties are too low to serve as a deterrent for employee and non-resident parkers without proper parking permits. It is recommended that the City evaluate and adjust the penalty schedule (Section 21-358) for illegal

parking in the RPPP zones. The fees are a similar range to daily parking in some commercial lots during the peak summer season.

- Penalties should be evaluated and adjusted on a periodic basis. Most cities review all parking penalty fees every two to three years or as enforcement costs increase.

2. Reassess Policies and Regulations for Employee Permit Issuance in RPPP Districts

One of the most significant challenges to the success of the RPPP for residents in the Resort Area is the issuance and the volume of issuance of employee permits within the RPPP Districts. Similar to the need for a third-party analysis of the RPPP, a detailed engineering analysis is needed to recommend ways to reduce and eventually eliminate employee parking within the residential neighborhoods.

The approach to resolving these issues needs to be a joint City/business owner/property owner-based solution. For the entire Resort Area to be successful, one value that needs to be embraced is that everyone wins—including the residential neighborhoods. In many communities where new development areas are emerging, the responsibility and burden for being good neighbors and not impacting surrounding residential communities is placed squarely on the shoulders of the developers, owners, managers, and businesses owners. They are charged with ensuring that their employees and customers are not disturbing and causing noise, safety, traffic, and parking issues on the surrounding residential streets and neighborhoods. The City also must participate in this problem solving.

The following recommendations should be implemented through a third-party analysis of the residential streets and neighborhoods to determine the number of on-street parking spaces to allow the City to begin to execute a series of strategies to diminish and ultimately eliminate the need for permit issuance to employees in residential neighborhoods. The following strategies are offered as follows:

- Place a cap on the number of permits issued to employers for employee parking.
    - Over a phased three- to five-year time period, annually reduce the number of permits issued until the issuance of permits to employees for parking in neighborhoods is ultimately eliminated.
- Assign specific areas for on-street employee parking until alternative employee parking is provided. This will eliminate the over demand and excessive search for spaces on residential streets.
- Identify proximity zones that correlate to the location of each business and provide those businesses parking permits that are only valid within that particular zone. This will help manage the number of permits issued compared to on-street parking inventory and reduce the abuse of business permits within the RPPP.

- Increase the cost of employee permit fees.
    - Permit fees for permits issued in the RPPP are too low. They should be increased to a point of being a deterrent for employees to select RPPP as their first choice for employee parking.
    - Parking rates in public garages and private lots for employees should not be lower than market parking rates. They should be increased as appropriate to cover the cost of constructing park spaces, operating, and maintaining parking inventories. Employee parking is not free and should not be undervalued—the high cost of parking is paid by the marketplace and Virginia Beach's residents and guests. Employers and employees will need to recognize and embrace that the cost of doing business includes the cost of market-based parking rates for parking spaces within the Resort Area.
- Require an employee parking plan for new businesses.
    - The City should incorporate within their tenant and permitting approval process a mandate that future businesses must provide an employee parking plan as part of the approval process. The plan should include where employee parking will be provided and eliminate the increasing tendency for businesses to continue to expect that employee parking will be provided within residential neighborhoods or provided by the City in their parking facilities. This is critical to the overall economic development of the Resort Area and especially important as these districts expand with intensified development in the future.
- It is <u>not</u> recommended to shift the employee parking from the neighborhoods to off-street public parking facilities at this time. The Resort Area experiences its peak parking demands when RPPP regulations are in effect. Therefore, the majority of on-street, public parking is no longer included in the inventory placing the demand on the off-street facilities, both public and private. By shifting the employees from the RPPP would further increase the demand, but it would also reduce the earned revenue because the parking space is no longer available to a paying patron. Employee parking shifts should be made into temporary, short-term lots and/or available Convention Center parking where parking revenues will not be adversely impacted.

3. Stripe On-Street Parking within RPPP Hot Spots

- Clearly delineate and number on-street parking spaces.
    - The on-street parking spaces within the RPPP Hot Spots (e.g., 16th Street, 23rd Street, 24th Street, etc.) identified by City staff through analysis of the violations issued should be striped and numbered. Striping and delineating these spaces will provide clarity to the users and could reduce the occurrences of illegally-parked vehicles (i.e., double parked). When delineating each space, a corresponding number should be assigned to each space by street and direction. For example, the first non-metered on-street parking space on the northern curb on 16th Street could

be numbered 16-1. The numbers can then be relayed by parking operations and/or the Virginia Beach Police Department to the towing service once a ticket has been issued.

- Clearly delineate areas where parking is prohibited.
    - Clearly identifying where parking is prohibited through pavement or curb markings can further reinforce areas for on-street parking. This can also be done exclusive of delineating on-street parking spaces to achieve a similar impact should delineation of on-street parking spaces within the neighborhoods not be desired.

Table 5-11 – Central Beach District RPPP Recommendations

Reassess the Residential Permit Parking Program	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Conduct Engineering Studies to Establish Appropriate RPPP Regulations per District	X			X	$$
Do not Enforce 24-hour RPPP				X	-
Allow Time to Develop and Execute the Appropriate Parking Management Plan Consistent with Strategies in this Study			X		-
Should 24-Hour RPPP be Implemented, Consider the Following:					-
-Establish a Sunset Clause	X				$
-Allow Employee Parking in 24-Hour Enforcement Areas	X				-
-Establish Permit Costs for Residents who Elect into 24-Hour RPPP to Offset Added City Costs	X				$
Create and Install Clear, Identifiable, On-street Parking Signs	X				$
Increase Parking Citation Penalties	X				$
Assess and Adjust Penalties on a Periodic Basis				X	$
Reassess the Policies and Regulations for Employee Permit Issuance in RPPP Districts	**Short-Term**	**Mid-Term**	**Long-Term**	**Ongoing**	**Cost**
Cap the Number of Employee Permits Issued	X				$
Annually Reduce the Number of Permits Issued		X			$
Assign Specific Areas for On-Street Employee Parking	X				$
Identify Proximity Zones for Employee Parking	X				$
Increase the Cost of Employee Permit Fees	X				$
Require an Employee Parking Plan for New Businesses	X			X	$
Do Not Shift Employee Parking from the Neighborhoods and Impact Parking Revenue until Additional Inventory or Realistic Employee Parking Alternatives are Identified	X			X	$
Stripe On-Street Parking within RPPP Hot Spots	**Short-Term**	**Mid-Term**	**Long-Term**	**Ongoing**	**Cost**
Delineate and Number On-Street Parking Spaces	X			X	$
Delineate Areas Where Parking is Prohibited	X			X	$

PARKING INVENTORY RECOMMENDATIONS

1. Collaborate with Private Parking Lot Owners and Operators

As part of the overall Resort Area parking plan, the City and its parking management group should collaborate with parking lot owners and operators to mutually support, market and assist each other in developing management and marketing strategies for utilizing all parking inventories. The goal and objective of year-round economic development of the Resort Area is for everyone to gain by having more customers in restaurants, hotels, and shops. That begins by making sure that customers have parking inventories. Rather than the City and the private owners viewing the parking as competing entities, they should partner so that the true winners are the customers. That requires trust, partnering for marketing opportunities, and seeking mutually agreeable strategies to support each other and especially the customers. Periodic meetings should be held to discuss and plan strategies for joint efforts.

2. Create Additional Off-Street Parking Inventory for the Short Term Parking Needs

The City should explore opportunities to create additional parking inventory out of City parcels that are currently being underused. Although existing occupancy counts indicated a slight surplus of parking on a typical weekday and weekend, the additional parking created could be used for special events and/or potential parking for RPPP businesses. City staff indicated two potential lots: the old library site on 18th Street and the old EMS building.

This solution should not just be a City-provided solution. Businesses and employers should participate in solving the parking impacts in the surrounding residential neighborhoods and jointly work to find temporary and permanent parking inventories for employee and Resort Area visitor parking.

3. Off-Season, On-Street Parking Adjustments

The City should explore short-term non-seasonal adjustments to on-street parking which will allow additional parking for patrons. These measures should consider short-term only and will need to be reviewed and adjusted on an annual basis. As the Resort Area becomes a year-round destination, parking management adjustments will need to be made for improved traffic flows, access to the Resort Area, and maximum use of parking inventories. In addition to not charging for on-street parking during the off-season, adjustments to on-street parking locations also can be reviewed as a short-term interim solution.

4. Utilize Convention Center Parking by Improving the 19th Street Corridor

- Identify strategies to "unlock" parking at the Convention Center.
    - As identified in the RASAP plan, with the adoption of Form-Based Code, and the presumption of the light rail extension into Virginia Beach, the 19th Street corridor will undoubtedly continue to change in the forthcoming years. Some of that transformation is already realized as a result of the Convention Center. Roadway improvements that front the Convention Center provide adequate access and mobility for multiple modes of transportation. The Convention Center is supported by a significant inventory of approximately 2,150 parking spaces. The inventory is often either underutilized or mostly vacant. The inventory is only typically used during Convention Center events and special events/holiday weekends because it is "disconnected" from the Resort Area. Nineteenth Street could become the vital "connection" between the Resort Area and the Convention Center, thereby realizing the unused inventory of parking spaces at the Convention Center.
- Improve walkability/ride-ability to the Resort Area through sidewalks, bike lanes, multi-use paths, crosswalks, street lighting, etc.
    - Creating a strategy to promote and foster the use of the Convention Center parking facility could provide a positive impact on the parking issues in the Resort Area. Improving the 19th Street corridor in the near term will unlock the "unused" inventory during the peak season when it's most needed. Through the 19th Street planning design project currently underway, the City should ensure that the improvements involved in reducing the current four-lane typical section into a two- or three-lane typical section include adequate right-of-way to construct wide sidewalks, bike lanes, and/or multi-use paths. Other conveniences that promote a pleasant and safe experience along the corridor should also be considered that include crosswalks, street lighting, street furniture. Creating this positive experience will promote increased safety and walkability/ride-ability to and from the Resort Area.
- Actively promote the Convention Center parking as a "Bicycle Park-and-Ride" for Hampton Roads residents and/or employees.
    - Another integral part of this transformation includes a program by the City to actively promote the Convention Center parking as a "Bicycle Park-and-Ride" for Hampton Roads residents. Additional bicycle racks should be installed throughout the Resort Area and along the Boardwalk to provide for more convenient bicycle parking. Additionally, business owners could offer incentives for their employees to use this parking. The program could be promoted as free or free for Virginia Beach residents and a nominal fee for others. Promotion of a "Bicycle Park-and-Ride" facility enables the residents of Hampton Roads a convenient, free or low cost place to park, with an inviting connection to the Resort Area so they may enjoy the amenities of the Oceanfront while avoiding and reducing congestion along Atlantic

Avenue and Pacific Avenue. This opportunity has the potential to create a short-term solution without constructing additional parking while maintaining consistency with the future vision for the corridor.

- Extend the "VB Wave" shuttle service to the Convention Center parking.
    - Providing shuttle service to/from the Convention Center parking will further encourage parking in this unused asset. It will provide Resort Area visitors a location for free parking while still enjoying the Resort Area. Shuttle service schedules and routes may require reassessment to effectively make use of this strategy.

Table 5-12 – Central Beach District Parking Inventory Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Collaborate with Private Parking Lot Owners and Operators	X			X	-
Create Additional Off-Street Parking Inventory for the Short-Term Parking Needs	X			X	$$
Identify Potential Off-Season, On-Street Parking Adjustments		X			$
Utilize Convention Center Parking by Improving the 19th Street Corridor				X	$
-Identify Strategies to Unlock Parking at the Convention Center	X				$
-Improve Walkability/Ride-ability to/from the Resort Area		X		X	$$
-Actively Promote "Bicycle Park-and-Ride" Concept	X				$
-Extend the "VB Wave" Shuttle Service	X				$

OTHER RECOMMENDATIONS

1. Install Wayfinding to Identify Parking Facilities and Parking Space Identification Technologies

- Develop a parking technology master plan for entire Resort Area.
    - New technologies allow the City and private owners to provide motorists with real-time information about parking availability and best travel paths for finding parking. The City should explore providing these technologies and partner with parking owners within the Resort Area to jointly collaborate in providing static and dynamic signage and real-time technologies to assist guests and visitors in identifying and locating available parking inventories. New technologies allow wayfinding to include both static directional signage and dynamic signage that provides real-time parking availability along with monument signage at parking facility entrances along with internal level-by-level systems.

- A growing number of cities are developing and implementing plans for parking technologies that direct guests and visitors to streets and parking facilities (public and private) to expedite trips, maximize parking inventories, reduce traffic congestions, and vehicle queuing, and improve air quality. Not only will there be more customers, but also traffic will move more easily, customers will be able to get to their destinations quickly, and customers will be able to make parking location choices based on availability of parking inventories. Many of these types of systems and technologies also include smart phone applications to alert patrons to available parking in real time. This means that customers often receive data that is current within five minutes of their arrival.

- Install static wayfinding and monument signs once a parking brand for the Resort Area is established to identify public parking in both public lots and private lots.
- Install dynamic wayfinding and monument signs once the technologies have been installed consistent with the parking technology master plan.

2. Reassess Parking Rates throughout the Resort Area

- Conduct a market analysis to determine accurate parking rates for the Resort Area.
  - On-street parking rates
    - The City should reassess the parking rates and allowable times for on-street parking within the Resort Area. The data collection effort for the Central Beach District indicated that the metered spaces currently experience a longer duration and lower turnover rate than parking spaces in off-street facilities. Currently, the meters allow for a three-hour maximum, and the total cost to park at a meter is less than the rate to park in a City lot for three hours. The rates should be established to encourage high turnover and shorter duration at the meters which will encourage use for the businesses, restaurants, and shops while encouraging long-term parking for the beach goers in the off-street facilities.
  - Off-street parking rates
    - The parking rates in the City's off-street facilities should be reevaluated as well. A parking rate analysis should be completed by a review of local private parking rates and a comparison of regional parking rates along with comparable cities allowing the City to benchmark its parking rates. It will allow parking rates to support market rates rather than suppressing the parking market which suppresses the entire local parking market. Closing the gap between public sector parking rates and private sector parking rates will create balance in the overall parking program. Numerous parking studies and books have been written which indicate that parking rates adjustments by public sector agencies do not change parking occupancies and demand for parking.

- Eliminate and/or adjust the Virginia Beach resident $2 parking fee. This rate is grossly undervalued and takes up parking inventory for full paying users. Improvements to encourage use of the Convention Center parking will help offset the elimination of this reduced fee.
- Reassess parking citation schedules to serve as a deterrent and discouragement for illegal parking in the RPPP as well as expired meters, ADA violations, red curb violations, etc. Parking citation schedules should be evaluated on a consistent basis.

Table 5-13 – Central Beach District Other Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Develop a Parking Technology Master Plan	X				$$
Improve Wayfinding through Static Street and Monument Signs once the Parking Brand has been Identified	X				$$
Install Dynamic Wayfinding and Dynamic Monument Signs Consistent with the Technology Master Plan		X			$$$
Conduct a Parking Rate Market Analysis	X			X	$$
-Reassess On-Street Parking Rates	X			X	$$
-Reassess Off-Street Parking Rates	X			X	$$
-Eliminate and/or Adjust the Virginia Beach Resident $2 Parking Fee	X				$
-Reassess Parking Citation Schedules	X			X	$
Implement New Parking Rates		X		X	$

FUTURE PARKING DEVELOPMENT RECOMMENDATIONS

1. Reassess Form-Based Code Minimum Parking Requirements

Current minimum parking code requirements for new developments are not consistent with parking requirements associated with Form-Based Code. Current requirements are based on single-use methodologies for a typical sub-urban setting which do not promote or consider shared parking among multiple land uses. Through Form-Based Code, shared off-site parking reduces the required parking from traditional single-use parking requirements. Through the development process under Form-Based Code, parking inventories will be continually monitored to determine the appropriate methods to accommodate the parking needs. Therefore, the minimum parking requirements for new developments should be reassessed.

When reevaluating minimum parking requirements, it will be very important to establish minimum parking requirements for the entire Resort Area, regardless of location. Land uses east of Pacific Avenue are significant generators that will continue to place burden on the overall parking system if not addressed as redevelopment occurs. While it may not be the best use of land to construct parking in this area, the developers have a responsibility and will have an opportunity to provide

parking through other means to contribute to the parking inventory.

2. Maintain and Update Parking Demand Model

The future parking demands analysis in the Central Beach District illustrates the importance for the City to monitor development so as new developments are identified, the need for parking can be accurately assessed. This can be achieved through the development of a parking demand model(s). A resort-wide model is not required at this time, but as development begins to occur in each of the districts, the model(s) should be developed accordingly to assist the City in making informed parking inventory management decisions. The parking demand model(s) should be developed and calibrated for the peak season and have the capabilities to account for multimodal reductions as multimodal options within the Resort Area continue to evolve.

The City has a tremendous opportunity to use the Central Beach and Laskin Districts as a sample for evaluating parking needs. Considerable redevelopment is occurring in the Laskin District and will be occurring in the near future in the Central Beach District. Many years ago, the Laskin District had similar developable areas as the Central Beach District currently has. Both of these areas should be periodically reviewed in the near-term to be used as examples as to how to successfully develop parking moving forward.

It is important to maintain the model with current data to quickly assess parking needs as new developments are identified. Therefore, it is recommended to collect inventory and occupancy data annually so the model can be updated and calibrated based on current conditions.

Table 5-14 – Central Beach District Future Development Recommendations

Recommendations	Short-Term	Mid-Term	Long-Term	Ongoing	Cost
Reassess Form-Based Code Minimum Parking Requirements		X		X	$$
Maintain and Update Parking Demand Model				X	$

City of Virginia Beach

Resort Area Parking Strategy

Appendix

April 2013

Kimley-Horn and Associates, Inc.

APPENDIX A: CITY COUNCIL RESOLUTION

CITY OF VIRGINIA BEACH
AGENDA ITEM

ITEM: A Resolution to Develop a Comprehensive Parking Strategy for the Oceanfront Resort Area

MEETING DATE: July 10, 2012

■ **Background:** In 2008, City Council adopted the Resort Area Strategic Action Plan (RASAP), the City staff has been engaged in the process of writing the Oceanfront Resort District Form-Based Code to address future land use in the area encompassed by the proposed Oceanfront Resort District.

The implementation of a comprehensive parking strategy for the Resort Area is necessary to the ultimate success of the Oceanfront Resort District; and to the optimal development of the remainder of the Resort Area.

■ **Considerations:** The attached resolution is intended to identify and provide overall direction for a process to develop a comprehensive, integrated parking strategy for the Oceanfront Resort Area. The process will include stakeholder involvement, a consultant's study, and development alternatives. The resolution also expresses the City Council's support for additional parking in the Resort Area.

In addition, the Virginia Beach Development Authority, with the assistance of City staff, will develop a process for identifying private development parking opportunities.

■ **Public Information:** Public information will be provided through the normal Council agenda process and public meetings.

■ **Attachments:** Resolution

Recommended Action: Approval

Submitting Department/Agency: City Manager's Office

City Manager: James K. Spore

A RESOLUTION DIRECTING THE CITY MANAGER TO DEVELOP A COMPREHENSIVE PARKING STRATEGY FOR THE OCEANFRONT RESORT AREA

WHEREAS, following the adoption of the Resort Area Strategic Action Plan (RASAP) by the City Council in 2008, the City staff has been engaged in the process of writing the Oceanfront Resort District Form-Based Code to address future land use in the area encompassed by the proposed OR Oceanfront Resort District; and

WHEREAS, it is the sense of the City Council that the implementation of a comprehensive parking strategy for the Resort Area, including the geographic area encompassed by the proposed OR Oceanfront Resort District, is necessary to the ultimate success of the Oceanfront Resort District Form-Based Code and to the optimal development of the remainder of the Resort Area; and

WHEREAS, the following specific goals have been identified in the Draft 2011 Parking Strategy Report prepared by the City staff:

- Protect established residential neighborhoods by reducing or removing on-street parking pressures created by public beach use and the need for business employee parking;
- Protect and support businesses by providing employee parking alternatives;
- Provide fair and equitable access to parking facilities and opportunities for citizens, businesses, visitors, property owners and developers;
- Unlock the development potential of properties by reducing on-site parking demands so as to facilitate less fragmented and more attractive developments;
- Minimize parking between Atlantic Avenue and the Boardwalk to encourage an attractive oceanfront experience;
- Encourage year-round resort business activity;
- Support attractive, high quality mixed-use and multiple-use developments;
- Enhance and support multi-modal transportation alternatives;
- Improve and create walkable areas;

- Reduce congestion; and
- Identify new funding sources to support parking facility development, maintenance and management to ensure no impact on existing revenue sources and services; and

WHEREAS, this Resolution is intended to identify and provide overall direction for a process to develop a comprehensive parking strategy for the Oceanfront Resort Area; and

WHEREAS, the City Council supports the provision of additional public parking to the Resort Area;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF VIRGINIA BEACH:

That the City Manager, including, as he may designate, the Departments of Economic Development, Planning, Management Services, Finance and Police and the Strategic Growth Area and Resort Management Offices, is hereby authorized and directed to undertake the following actions with a view toward developing a comprehensive, integrated parking strategy for the Oceanfront Resort Area, including the proposed OR Oceanfront Resort District:

1. **Stakeholder Involvement:** Throughout all phases of developing the parking strategy, continue to work with the various stakeholders and representatives in the Oceanfront Resort Area, including, but not limited to, residential neighborhoods, the Virginia Beach Hotel-Motel Association, the Resort Advisory Commission, the Virginia Beach Restaurant Association, and other interested businesses and property owners;

2. **Parking Consultant's Study:** Cause the completion of a consultant's study by the end of 2012, which study shall define all relevant parking issues and concerns; provide alternatives and recommendations to address such issues and concerns; identify future needs, costs and phasing of parking development; and identify funding sources and actions to address immediate and long-term concerns raised by the implementation of the proposed Oceanfront Resort District Form- Based Code;

3. **Development Alternatives:** Upon completion of the consultant's study, the City Manager, with input from stakeholders and interested parties, shall provide development alternatives for public

parking facilities to support future development, protect residential neighborhoods and support business employee parking. Alternatives to be considered shall include, at a minimum, (1) public development and management of parking facilities; (2) leases or other means of sharing in the development of private parking facilities to provide public-use parking; and (3) public-private partnerships to develop parking facilities.

BE IT FURTHER RESOLVED BY THE CITY COUNCIL OF THE CITY OF VIRGINIA BEACH:

That the Virginia Beach Development Authority, with the assistance of City staff, is hereby requested to develop a process for identifying private development opportunities for parking as follows:

- Establish a process for application to parking program alternatives (leasing, development, financing);
- Establish criteria for projects (size, location, public value, financial support);
- Establish a process for long-term leasing of private properties to support private development;
- Establish a process for leasing of private parking for public use; and
- Identify funding sources and financing alternatives for parking development.

BE IT FURTHER RESOLVED BY THE CITY COUNCIL OF THE CITY OF VIRGINIA BEACH:

That the City Manager shall examine and make recommendations concerning funding alternatives for implementing a parking strategy, which alternatives shall include, at a minimum.

- Tax Increment Financing;
- Special Service Districts;
- Business Improvement Districts; and
- Fee- in-lieu-of-programs.

In addition, the parking study shall examine the following additional specific issues:

- Protection of established residential neighborhoods and fulfillment of reasonable expectations of businesses regarding employee parking;

- Caps on employee parking, with either an annual percentage decrease in the amount of employee parking provided or a decrease in such cap based on actual parking built so as to eliminate the need for parking in residential areas, or both;

- Consideration of additional parking restrictions in residential neighborhoods, to include but not be limited to, twenty-four (24) hour permit parking in certain areas;

- Elimination of on-street parking in certain areas; and

- Provision of metered parking in additional areas;

- Discounting of business employee parking fees at City parking facilities;

- Discounting of business employee passes for existing public transit modes;

- Plans for providing additional parking to reduce impact on residential areas, including the funding of such plans;

- Development of satellite lots for business employee parking at the Virginia Beach Convention Center and other City-owned properties.

BE IT FURTHER RESOLVED BY THE CITY COUNCIL OF THE CITY OF VIRGINIA BEACH:

That the City Council expects the foregoing tasks to be completed according to the following schedule:

- The parking consultant's study is to be completed by December 31, 2012;

- The Development Authority is requested to provide its report to the City Council by February 28, 2013; and

- The City Manager is to provide his report to the City Council by April 30, 2013.

Adopted by the City Council of the City of Virginia Beach, Virginia, on the _____ day of _____, 2012.

APPROVED AS TO CONTENT:

DCM

City Manager's Office

APPROVED AS TO LEGAL SUFFICIENCY:

William M Macek

City Attorney's Office

CA-12309
July 5, 2012
R-8

APPENDIX B: INTERCEPT SURVEY

Municipal Parking Study

Survey of Lot & Garage Users
for the
City of Virginia Beach

August & September 2012

Prepared for: Rob Fries
City of Virginia Beach

Prepared by: Jeannine Perry, Sr. Project Director
Continental Research Associates, Inc.
757.489.4887
JPerry@ContinentalResearchUS.com

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Overview and Highlights

Overview

In June of 2010, an agreement was signed between the City of Virginia Beach and Kimley-Horn and Associates, Inc. to conduct a Resort Area Parking Strategy Project. The results from that project will be used for planning, development, and management of parking resources in the resort area of the city. This report represents just one element of the larger project and is a mechanism for customer involvement. The data generated from this survey will be incorporated into the analysis and development for the Resort Area Parking Strategy.

This survey examines the opinions of people who recently used a municipal parking lot (or garage) in the resort area of Virginia Beach. In particular, the goal of this research is to determine their attitudes towards the convenience of that parking, their willingness to walk a bit farther, and whether lower cost parking at a distance might be a popular concept, among other things.

Methodology

At a Glance

- This survey project was commissioned by the City of Virginia Beach
- This research was conducted by Continental Research Associates, Inc. of Norfolk, VA
- A survey of 543 parking customers was conducted
- The questionnaire was pre-tested by senior staff members and revised
- The days, hours, and sites were selected based on client input relative to usage patterns
- The customers were randomly selected to participate and nearly all agreed to do the survey
- The survey was administered by staff interviewers and monitored by a supervisor
- A small number of phone surveys with Virginia Beach residents (65) were included as a supplement
- The two groups are shown separately in this report
- The surveys took about 6 minutes to administer
- The data were analyzed using IBM's SPSS software.

This study was commissioned by the City of Virginia Beach Resort Management Office. The survey was conducted by Continental Research Associates, Inc., a Hampton Roads marketing research firm.

The purpose of the research was to learn how municipal parking lot/garage customers at the oceanfront feel about parking convenience, their attitudes about walking farther, and their willingness to walk twice as far to save 50% on the parking fee. A total of 543 interviews were completed with customers; 478 of them were intercepted at the lot/garage, and 65 were contacted by telephone.

~ ~ Questionnaire Design ~ ~

The questionnaire was drafted by Continental Research in consultation with representatives from the City and their contractor, Kimley-Horn and Associates, Inc. After a draft was presented to the client for suggestions and comments, it was approved.

The questionnaire was pre-tested by senior staff members on a sub-sample of 36 customers. The pre-test helps identify any wording difficulties or sequencing problems, and often suggests design or format changes that would improve the survey's flow. Only format changes were made as a result of the pre-test.

The final version of the questionnaire took approximately six minutes to administer. A warm-up question was sometimes used to eliminate topic-related refusals. Depending on where the intercept occurred, another question was asked to be sure the respondent qualified for the survey (i.e., had parked in that lot or garage). For the small sample of local residents conducted by telephone, a screening section was used.

Methodology (cont'd)

A copy of the survey instrument can be found as an Appendix in this report. The questionnaire items included:

- A rating of the convenience of this parking lot/garage
- Length of time the vehicle will be parked in that lot/garage
- Distance to the person's destination (in blocks)
- Will the person walk or use the VB Wave Trolley
- Total blocks willing to walk (for the same parking fee)
- Willingness to park twice the distance away to save half the cost
- Does the person live in Hampton Roads
- Is he or she an out-of-towner staying at least one night in the area
- Party size
- Number of children in party
- Home Zip Code
- State/Province of residence
- Age group
- Gender
- Which lot/garage used
- Month of visit
- Day of week of visit
- Time frame of visit

~ ~ Data Collection ~ ~

The intercepts occurred with customers at each parking lot/garage according to a pre-set sampling plan. Depending on the time of day and day of the week, the interviewer was given a skip interval and site rotation plan to work. Anyone who said they had not parked in the lot or garage was excluded from the sample.

Five staff interviewers performed the data collection over a 7-week period. All had worked on prior Virginia Beach tourism studies. Each had extensive training and several years of experience prior to this project. A project briefing was conducted by the Sr. Project Manager. Detailed instructions for using the questionnaire were presented, and information about the parking facilities was discussed.

Methodology (cont'd)

~ ~ Data Collection (cont'd) **~ ~**

After role-playing exercises were used to practice the proper technique for administering the survey verbatim and to test various probes, the contacts began. A statistical technique was used to select the adult in the party who would be asked to participate. At the end of each shift, a de-briefing session was held to discuss the survey's progress and how customers were responding. These meetings often provide anecdotal information that is considered when analyzing the tabulated findings.

~ ~ Data Analysis ~ ~

When the fieldwork was completed, a consolidated file was created and any open-ended items were coded (i.e., grouped into a category and assigned a numeric code to facilitate analysis). Once the data were prepared for analysis, an ASCII data file was exported, and read into a lengthy IBM-SPSS (Statistical Package for the Social Sciences) predictive analytics program. The data were tabulated and analyzed, and the results are displayed on the following pages.

Please note that the telephone sample of 65 Virginia Beach households was included simply as a point of comparison and should not be considered as representative data. Those surveys are NOT included in the Highlights section or in any supplemental crosstabulations.

~ ~ Margin of Error ~ ~

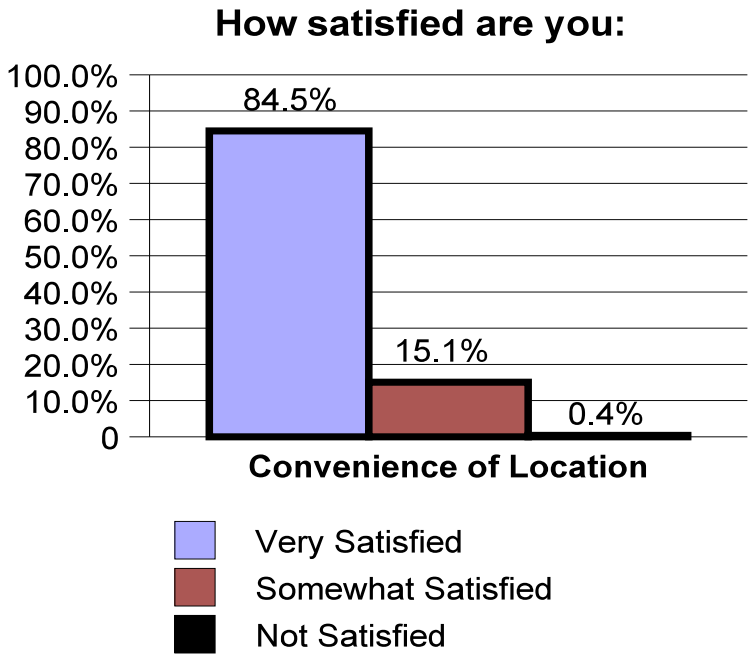
This study included a random sample of 543 parking customers. Because scientific selection techniques were used to choose survey participants, these results are representative. As such, this report should vary only slightly from the findings of a complete census.

A "Margin of Error" is the maximum amount a percentage in this report might vary from what a full census would produce. With a sample of 543 customers, we are 95% certain that any percentages in this report that are near 50% are accurate within ± 4.2 percentage points. When you see percentages that are above or below 50%, they are <u>more</u> accurate (i.e., have a smaller Margin of Error), which is better. The intercept sample of 478 parking customers has a Margin of Error of ± 4.5 percentage points. (The Virginia Beach resident interviews do not represent a stand-alone sample, as that Margin of Error is ± 12.2 percentage points.)

Highlights

This study examined the opinions of parking customers in the resort area of Virginia Beach. The highlights will focus on the responses of the 478 people intercepted outside of the parking facilities. (No phone survey data are included.)

Customers who were intercepted in the resort area were very happy with the convenience of the location of the parking lots/garages.

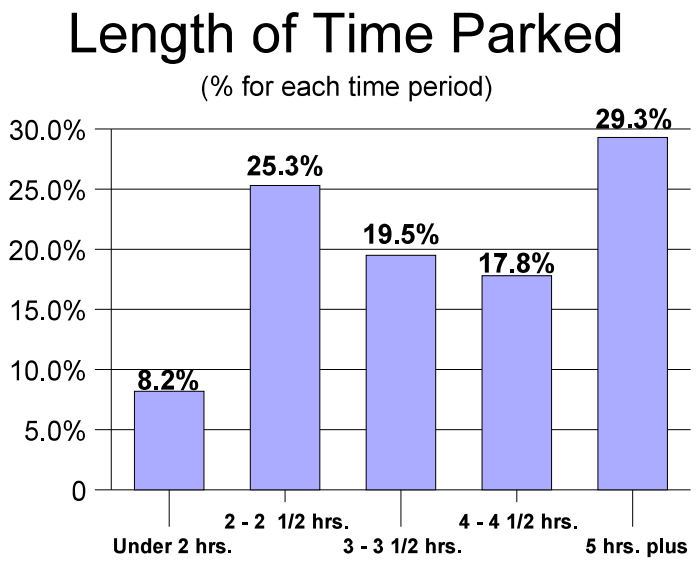


On average, those customers walked just 2.1 blocks to their destination. When asked about that destination, these customers were going:

58.6%	To the beach
11.9%	To walk the Boardwalk
10.0%	To a restaurant/bar/club
8.8%	To an event, an activity, or for entertainment
2.3%	Shopping/to stores
2.1%	To work
6.3%	Elsewhere
100.0%	

Highlights (cont'd)

Under half (42.9%) of those surveyed on-site were first-time users of that particular lot/garage. Correspondingly, 57.1% were repeat customers (at that lot/garage). On average, they parked in the facility for 3.8 hours.

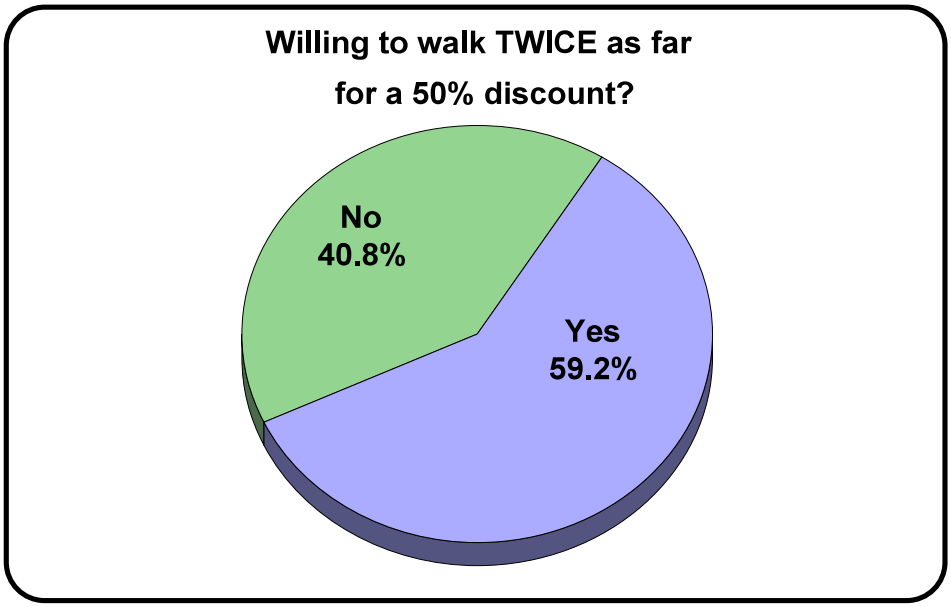


Customers were reminded that parking is somewhat limited in the resort area. Then, each was asked if he or she would have been willing to walk a little farther, assuming they paid the same parking fee. (Recall that these customers had walked an average of just 2.1 blocks to their destination that day.) When asked about their willingness to walk farther, 34.5% were not willing to park farther from their destinations if they had to pay the same parking fee.

Highlights (cont'd)

With no financial incentive, 65.5% of the customers were willing to park farther away. This suggests that at least some of those using the lots/garages may visit or live in areas where nearby parking is not an expectation. (Just over half, 52.9%, of those surveyed on-site did not live in Hampton Roads.)

Next, customers were asked to consider the possibility of parking twice as far away to achieve a 50% discount on their parking. Given the relatively inexpensive parking rates charged in the resort area, saving half did not seem to be a significant motivator. Here, we see 59.2% being willing to park farther away to save 50% on the parking fee.



Given that 195 of the 478 customers intercepted would not walk twice the distance to save money, the number of blocks walked was doubled for 283 of the customers. The "new" average total blocks willing to walk (at a 50% discount) was 3.2 (see page 17). The 195 uninterested in the financial incentive walked an average of 2.1 blocks to their destination.

Survey Results

Parking Lot Convenience

How would you rate this parking lot/garage? Are you Very Satisfied, Somewhat Satisfied, or Not Satisfied with the convenience of the location of this parking lot/garage?

	In-Person	Phone	Total
Very Satisfied	84.5%	76.9%	83.6%
Somewhat Satisfied	15.1%	20.0%	15.7%
Not Satisfied	0.4%	3.1%	0.7%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

Previously Used This Lot?

Is this the first time you have ever parked in this lot/garage?

	In-Person	Phone	Total
Yes	42.9%	9.2%	38.9%
No	57.1%	90.8%	61.1%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

Destination for Today

Where are you going today such that you chose to park here?

	In-Person	Phone	Total
To the beach/sand	58.6%	23.1%	54.3%
To walk the Boardwalk	11.9%	21.5%	13.1%
A restaurant/bar/club	10.0%	24.6%	11.8%
An event, entertainment, activity	8.8%	20.0%	10.1%
Shopping/to stores	2.3%	1.5%	2.2%
To work	2.1%	0.0%	1.8%
To my hotel	1.5%	0.0%	1.3%
To meet a friend staying in a hotel	1.0%	3.1%	1.3%
A business meeting/conference	0.8%	1.5%	0.9%
To Rudee Inlet	0.8%	1.5%	0.9%
Fishing	0.8%	0.0%	0.7%
A religious service	0.2%	3.1%	0.6%
To ride my bike on the bike paths	0.4%	0.0%	0.4%
Flipper McCoy's	0.2%	0.0%	0.2%
Meeting the Double Decker Bus Tour	0.2%	0.0%	0.2%
The Old Coast Guard Station	0.2%	0.0%	0.2%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

Length of Time Parked

How long do you think your car will be parked in this spot today?

(Grouped for presentation)

	In-Person	Phone	Total
Less than 1 hour	0.8%	0.0%	0.7%
1 to 1½ hours	7.3%	12.3%	7.9%
2 to 2½ hours	25.3%	44.6%	27.6%
3 to 3½ hours	19.5%	29.2%	20.6%
4 to 4½ hours	17.8%	6.2%	16.4%
5 to 5½ hours	10.0%	3.1%	9.2%
6 to 6½ hours	9.2%	0.0%	8.1%
7 to 7½ hours	1.5%	3.1%	1.7%
8 to 8½ hours	4.6%	1.5%	4.2%
9 or more hours	4.0%	0.0%	3.5%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

AVERAGES:*

Mean =	3.83 hours	2.70 hours	3.70 hours
Median =	3.00 hours	2.00 hours	3.00 hours
	(n=478)	(n=65)	(n=543)

* Based on non-grouped data.

Distance From Lot to Destination

How many blocks is your car parked from your destination?

(Grouped for presentation)

	In-Person	Phone	Total
1 block	45.8%	38.5%	44.9%
2 blocks	37.2%	20.0%	35.2%
3 blocks	7.1%	20.0%	8.7%
4 blocks	2.3%	7.7%	2.9%
5 blocks	1.5%	6.2%	2.0%
6 blocks	1.3%	3.1%	1.5%
7 blocks	1.3%	1.5%	1.3%
8 - 10 blocks	2.7%	3.1%	2.8%
Over 10 blocks	0.8%	0.0%	0.7%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

AVERAGES:*

Mean =	2.12 blocks	2.57 blocks	2.17 blocks
Median =	2.00 blocks	2.00 blocks	2.00 blocks
	(n=478)	(n=65)	(n=543)

* Based on non-grouped data.

Walked or Rode Trolley to Destination

Will you be walking there or riding the VB Wave Trolley?

	In-Person	Phone	Total
Walking	100.0%	100.0%	100.0%
VB Wave Trolley	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

How Far Willing to Walk

Parking is somewhat limited in the resort area. You say you parked [fill in #] blocks from your destination today. Assuming you had to park elsewhere, but the cost was THE SAME, how far would you have been willing to walk today from the parking space to your destination?

(Grouped for presentation)

	In-Person	Phone	Total
1 block	9.4%	10.8%	9.6%
2 blocks	28.7%	15.4%	27.1%
3 blocks	18.8%	9.2%	17.7%
4 blocks	8.6%	15.4%	9.4%
5 blocks	17.2%	21.5%	17.7%
6 blocks	4.8%	12.3%	5.7%
7 blocks	1.0%	3.1%	1.3%
8 - 10 blocks	8.8%	10.8%	9.0%
Over 10 blocks	2.7%	1.5%	2.6%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

AVERAGES:*

Mean =	4.03 blocks	4.58 blocks	4.10 blocks
Median =	3.00 blocks	4.00 blocks	3.00 blocks
	(n=478)	(n=65)	(n=543)

* Based on non-grouped data.

of Extra Blocks Willing to Walk for Same Price Parking

(Computer Calculated # of Additional Blocks)

	In-Person	Phone	Total
No farther	34.5%	38.5%	35.0%
1 block farther	17.4%	10.8%	16.6%
2 blocks farther	19.2%	12.3%	18.4%
3 blocks farther	11.7%	20.0%	12.7%
4 blocks farther	9.4%	6.2%	9.0%
5 blocks farther	1.0%	4.6%	1.5%
6 blocks farther	1.3%	1.5%	1.3%
7 blocks farther	0.6%	3.1%	0.9%
8 blocks farther	1.5%	0.0%	1.3%
9 blocks farther	2.1%	3.1%	2.2%
10 blocks farther	0.4%	0.0%	0.4%
11 blocks farther	0.4%	0.0%	0.4%
13 blocks farther	0.2%	0.0%	0.2%
14 blocks farther	0.2%	0.0%	0.2%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

AVERAGES:

Mean (including zeros) =	1.91 blocks	2.02 blocks	1.92 blocks
Median (including zeros) =	1.00 blocks	2.00 blocks	1.00 blocks
	(n=478)	(n=65)	(n=543)

Only including those willing to walk farther to save 50%:

Mean (not including zeros) =	2.91 blocks	3.28 blocks	2.95 blocks
Median (not including zeros) =	2.00 blocks	3.00 blocks	2.00 blocks
	(n=313)	(n=40)	(n=353)

Walking Twice as Far to Save Money

Instead of walking the [fill in #] blocks you walked today, what if there were parking available for HALF the COST, but twice the distance? Would you have parked in the lot that is [fill in # times two] blocks away to save half the money?

	In-Person	Phone	Total
Yes	59.2%	46.2%	57.6%
No	40.8%	53.8%	42.4%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

How Many Total Blocks Willing to Walk to Save 50%

How many blocks would you be willing to walk to save half the money?

Computer Calculated:

If unwilling to walk farther, today's # of blocks was entered.

If willing to walk the distance, today's # of blocks was doubled.

	In-Person	Phone	Total
1 block	13.2%	18.5%	13.8%
2 blocks	50.2%	30.8%	47.9%
3 blocks	4.2%	12.3%	5.2%
4 blocks	21.3%	12.3%	20.3%
5 blocks	0.8%	6.2%	1.5%
6 blocks	3.3%	7.7%	3.9%
7 blocks	0.6%	0.0%	0.6%
8 blocks	1.0%	6.2%	1.7%
9 blocks	0.2%	0.0%	0.2%
10 blocks	1.7%	1.5%	1.7%
12 blocks	1.0%	3.1%	1.3%
14 blocks	0.6%	1.5%	0.7%
15 blocks	0.4%	0.0%	0.4%
18 blocks	0.2%	0.0%	0.2%
20 blocks	0.8%	0.0%	0.7%
28 blocks	0.2%	0.0%	0.2%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

AVERAGES:

Mean =	3.21 blocks	3.66 blocks	3.27 blocks
Median =	2.00 blocks	3.00 blocks	2.00 blocks
	(n=478)	(n=65)	(n=543)

NOTE: In 190 cases, respondents would walk only the same number of blocks as they walked today.

Whether Lives in Hampton Roads

Do you live in the Hampton Roads area?

	In-Person	Phone	Total
Yes	47.1%	100.0%	53.4%
No	52.9%	0.0%	46.6%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

Overnight Visitors

(If lives out of Hampton Roads) During this visit, are you staying overnight in the Hampton Roads area for at least one night?

	In-Person	Phone	Total
Yes	41.2%	0.0%	36.3%
No, day visitor	11.7%	0.0%	10.3%
Not asked: Lives in Hampton Roads	47.1%	100.0%	53.4%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

Demographics

Party Size

How many total people, including yourself, are in your party today?

	In-Person	Phone	Total
1 person	10.0%	10.8%	10.1%
2 people	35.6%	44.6%	36.6%
3 people	14.9%	7.7%	14.0%
4 people	18.0%	18.5%	18.0%
5 people	7.7%	13.8%	8.5%
6 people	4.8%	1.5%	4.4%
7 people	3.1%	0.0%	2.8%
8 people	2.7%	0.0%	2.4%
9 people	1.0%	0.0%	0.9%
10 people	0.6%	1.5%	0.7%
11 people	0.0%	1.5%	0.2%
12 people	0.4%	0.0%	0.4%
14 people	0.2%	0.0%	0.2%
15 people	0.4%	0.0%	0.4%
20 people	0.2%	0.0%	0.2%
25 people	0.2%	0.0%	0.2%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

AVERAGES:

Mean =	3.48 people	3.08 people	3.43 people
Median =	3.00 people	2.00 people	3.00 people
	(n=478)	(n=65)	(n=543)

Number of Children in Party

How many people in your party are children under age 18?

	In-Person	Phone	Total
No children	53.8%	64.6%	55.1%
1 child	14.0%	13.8%	14.0%
2 children	16.7%	10.8%	16.0%
3 children	9.0%	6.2%	8.7%
4 children	3.1%	1.5%	2.9%
5 children	1.5%	1.5%	1.5%
6 children	1.0%	0.0%	0.9%
7 children	0.6%	0.0%	0.6%
8 children	0.2%	1.5%	0.4%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

AVERAGES:

Mean (incl. zeros) =	1.07 children	0.80 children	1.03 children
Median (incl. zeros) =	0.00 children	0.00 children	0.00 children
	(n=478)	(n=65)	(n=543)

State (or Province) of Residence

State/Province of Residence

	In-Person	Phone	Total
Alabama	0.2%	0.0%	0.2%
Arkansas	0.2%	0.0%	0.2%
California	0.6%	0.0%	0.6%
Connecticut	0.2%	0.0%	0.2%
Delaware	0.2%	0.0%	0.2%
District of Columbia	0.6%	0.0%	0.6%
Florida	0.6%	0.0%	0.6%
Georgia	0.8%	0.0%	0.7%
Illinois	0.2%	0.0%	0.2%
Indiana	0.2%	0.0%	0.2%
Kentucky	0.2%	0.0%	0.2%
Maine	0.2%	0.0%	0.2%
Maryland	3.8%	0.0%	3.3%
Massachusetts	0.6%	0.0%	0.6%
Michigan	0.6%	0.0%	0.6%
Missouri	0.2%	0.0%	0.2%
New Jersey	1.5%	0.0%	1.3%
New York	3.8%	0.0%	3.3%
North Carolina	2.3%	0.0%	2.0%
Ohio	1.7%	0.0%	1.5%
Oklahoma	0.2%	0.0%	0.2%
Oregon	0.2%	0.0%	0.2%
Pennsylvania	7.5%	0.0%	6.6%
Rhode Island	0.2%	0.0%	0.2%
South Carolina	0.4%	0.0%	0.4%
South Dakota	0.2%	0.0%	0.2%
Tennessee	0.8%	0.0%	0.7%
Texas	0.2%	0.0%	0.2%
Virginia, in Hampton Roads	47.1%	100.0%	53.4%
Virginia, outside of Hampton Roads	19.7%	0.0%	17.3%
West Virginia	0.8%	0.0%	0.7%
Wisconsin	0.6%	0.0%	0.6%
Out of US and Canada	0.8%	0.0%	0.7%
Canada:			
Alberta	0.2%	0.0%	0.2%
Ontario	0.8%	0.0%	0.7%
Quebec	1.3%	0.0%	1.1%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

Age Group

Age of Respondent

	In-Person	Phone	Total
Teens	3.1%	0.0%	2.8%
Twenties	24.1%	7.7%	22.1%
Thirties	28.9%	18.5%	27.6%
Forties	23.2%	16.9%	22.5%
Fifties	13.4%	35.4%	16.0%
Sixties	5.4%	15.4%	6.6%
Seventies or older	1.9%	6.2%	2.4%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

AVERAGES:

* Mean =	39.5 years	50.0 years	40.7 years
Median =	37.9 years	52.0 years	39.1 years
	(n=478)	(n=65)	(n=543)

* Based on category midpoint interpolation. A value of 19 was used for “Teens” and 74 was used for “Seventies or older.”

Gender of Respondent

Gender

	In-Person	Phone	Total
Male	55.0%	46.2%	54.0%
Female	45.0%	53.8%	46.0%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

Parking Lot/Garage Used

In which lot/garage did you park today ("that day" for phone survey)?

	In-Person	Phone	Total
Second Street Lot	7.3%	4.6%	7.0%
Fourth Street Lot	3.1%	4.6%	3.3%
Ninth Street Garage	16.1%	23.1%	16.9%
Nineteenth Street Lots	27.2%	29.2%	27.4%
Twenty-fifth Street Lot	23.4%	9.2%	21.7%
Thirty-first Street Garage	22.8%	29.2%	23.6%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

Month of Visit

Month of Visit

	In-Person	Phone	Total
March	0.0%	3.1%	0.4%
April	0.0%	1.5%	0.2%
May	0.0%	12.3%	1.5%
June	0.0%	15.4%	1.8%
July	0.0%	21.5%	2.6%
August*	70.1%	29.2%	65.2%
September*	29.9%	16.9%	28.4%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

* All of the in-person surveys were conducted in August and September. The phone survey addressed Virginia Beach residents' parking activity in the past six months.

Day of Week

Day of Week of The Visit

	In-Person	Phone	Total
Sunday	8.8%	0.0%	7.7%
Tuesday	5.9%	0.0%	5.2%
Wednesday	7.5%	0.0%	6.6%
Thursday	23.8%	0.0%	21.0%
Friday	32.6%	0.0%	28.7%
Saturday	21.3%	0.0%	18.8%
Unknown (Phone Survey)	0.0%	100.0%	12.0%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

Time Respondent Was Intercepted/Parked

Time Respondent Was Intercepted ("parked in lot" for phone survey)

	In-Person	Phone	Total
9:00 a.m. to 10:59 a.m.	7.9%	13.8%	8.7%
11:00 a.m. to 12:59 p.m.	16.7%	20.0%	17.1%
1:00 p.m. to 3:59 p.m.	27.6%	13.8%	26.0%
4:00 p.m. to 6:59 p.m.	28.5%	29.2%	28.5%
7:00 p.m. - 8:00 p.m.	19.2%	23.1%	19.7%
	100.0%	100.0%	100.0%
	(n=478)	(n=65)	(n=543)

Appendices:
Questionnaire
&
Analysis by Residence

(intercept interviews only)

Municipal Parking Customer Survey

2012 Virginia Beach Resort Area
Parking Customer Survey Form

1) [Warm-up Question] How would you rate this parking lot/garage? Are you:

   1- Very Satisfied,

   2- Somewhat Satisfied, or

   3- Not Satisfied with the convenience of the location of this parking lot/garage?

2) Is this the first time you have ever parked in this lot/garage? 1-Yes 2-No

3) Where are [were] you going today such that you chose to park here?

   01- The beach/sand
   02- Walk the Boardwalk
   03- A business meeting/conference
   04- To work
   05- A restaurant/club/bar
   06- Entertainment/activity/event
   07- To my hotel
   08- Rudee Inlet
   09- Go shopping/to stores

   OTHER: _____specify

4) How long do you think your car will be parked in this spot today? __ __ . __ __ hours (use decimals for quarter hours)

5) How many blocks is your car parked from your destination? __ __ blocks
   (If 1, 2, or 3 blocks, assume walking & go to Q7)

6) And, will you be walking there or riding the trolley? 1- Walking 2- Trolley
   Other_____

7) As you know, parking is somewhat limited in the resort area. You say you parked [Q5] blocks from your destination today. Assuming you had to park elsewhere, but the cost was THE SAME, how far would you have been willing to walk today from the parking space to your destination?

___ ___ total blocks willing to walk

(if no farther, just enter Q5 # of blocks)

8) On that same topic.... Instead of walking the [Q5] blocks you will walk today, what if there were parking available for HALF the COST [Q5 times two] blocks away? Would you have parked in the lot that is [Q5 times two] blocks away to save half the money?

1- Yes 2- No

9) Do you live in the Hampton Roads area? 1- Yes (Go to Q11) 2- No

10) (Out-of-towners only) During this visit, are you staying overnight in the Hampton Roads area for at least one night?

1- Yes 2- No, day visitor

11) How many total people, including yourself, are in your party today?

___ ___ people

12) And, how many of them are children under age 18? ____ children

13) What is your home Zip Code? ○ _ _ _ _ _ (extra "first" digit is for Canada)

14a) (If U.S.) In what state is that? _____

14b) (If Canada) In what province is that? 81-Alb 83-Manit 85-New Fou 87-Ont 89-Que 82-Br Col 84-New Br 86-Nova S 88-Pr Ed Is 90-Sask

15) Are you in your: 1- Teens 2- 20's 3- 30's 4- 40's 5- 50's 6- 60's, or 7- older?

THANKS FOR YOUR TIME. I REALLY APPRECIATE IT.

16) Gender: 1-Male 2-Female

17) In which lot/garage was respondent parked?

02nd St Lot **04th St Lot** **09th St Garage** **19th St Lot** **25th St Lot** **31st St Garage**

18) Month of visit: 8- August 9- September

19) Day of week: 1- Sun 2- Mon 3- Tues 4- Wed 5-Thurs 6- Fri 7- Sat

20) Time: ☐ 9 - 10:59 a.m. ☐11 a.m. - 12:59 p.m. ☐ 1 - 3:59 p.m.
☐ 4 - 6:59 p.m. ☐ 7 - 8 p.m.

APPENDIX C: CONSOLIDATED CITIZEN COMMENTS

Virginia Beach Resort Parking Strategy
Public Information Meeting - November 1, 2012
Attendance Record

NAME	RESIDENT	BUS. OWNER
Chuck Cayton	√	
Wade Glosson	√	
E.Creekmore	√	
G. Leach	√	
Sandy Nevev	√	
MaryAnne Nixon	√	
Amy Fawcett	√	
Bill Dale	√	
John Westbrook	√	
Bruce Berlin	√	√
Don Sheem	√	
Kathy Tornatore	√	
Robert Snyder	√	√
Barbara Snyder	√	√
Jimmie Kosh		
Laurie White	√	
Thea Schwartz	√	
Bill Gambrell		√
Jeff Beck	√	
Luther Fincham	√	
Barbara Clark	√	
Arnold Salasky	√	
Alice Dagenhardt	√	
Victoria Riekman	√	
Whitt Sessoms	√	
Barbara Hudar	√	
Marie-Louise LaFond	√	
E. Hinnant-Will	√	
Edith Seamans	√	
Emily McCain	√	
Joe Clark	√	
George Tavaras	√	
Gary Tornatore	√	
Doug Albach	√	
Bryan Cuffee	√	√
Lori Maz	√	
Tom Griffin	√	
Cid Griffin	√	
Sam R.		
Craig Blessing		
CD Thomas	√	
Mike Hyman	√	
Rob Stanton	√	
David & Debbie Davis	√	
Sandra Talley	√	
Gary Brittingham	√	
Jim H Thomas	√	
Russ Helgren	√	
Robert Winbauer	√	
Stan Chicket	√	
Kitty Bosher		
Billy Almond	√	
Brad Capps	√	
Michael Camden	√	
Cherry Modino	√	
Jeff Stewart	√	

*Obtained from handwritten sign-in sheet. Please pardon any misspellings.

RESORT AREA PARKING STRATEGY
CITY OF VIRGINIA BEACH
CITIZEN RESPONSES FROM OPEN HOUSE ON NOVEMBER 1, 2012

As of COB 12/01/2012

1. Where is parking most needed?

23rd - 28th Street (Residential areas)

23rd - 28th Street (through 300 block); 16th - 20th

Neighborhoods - Lakewood →16 - Norfolk Ave.

30-36th Street Pinewood to Atlantic.

Everywhere in the RPPP area.

In front of our homes.

Where residents do not have driveways. Where tourists can walk to the beach/attractions. For employees where there is no parking at the business location.

In the residential areas within highly impacted zone.

In residential neighborhoods. Old Beach as an example.

City need to stay committed to ensuring residents can park. There are limited on street parking spots. As businesses increase, we cannot sustain issuing additional business parking permits.

Core area of the resort - approx. 5th Street to 27th Street

South end - Rudee Inlet

Parking is most needed for commercial businesses. Try to get them out of the neighborhoods.

Need new garages near the oceanfront which offer free parking paid for with hotel room surcharge or restaurant surcharge. Need these near 5th Street and 31st Street.

In the resort area preferably on the west side of Pacific to minimize traffic congestion on Atlantic Avenue and the numbered streets between Atlantic and Pacific.

Personally I'd like to see a series of parking structures along Pacific with integral mercantile operations on the first floor. Let the parking structures provide separation between the residential and the oceanfront, let it become the transitional barrier.

There needs to be public parking in a variety of places stretching from Rudee Inlet to 37th Street. IT appears that there is adequate parking in the heart of the oceanfront, but more will be needed from 31st Street to 37th Street in the future. On street parking for the 100 and 200 blocks of 59th Street to 80th should be more organized. I suggest that parking spaces should be striped for parallel of 45 degree parking, so that local residents, who use this part of the beach area, will have specific places to park. This will allow people to park correctly and will not block driveways and fire hydrants. There will be no excuse if police tow their car.

Resident parking in the resort area neighborhoods is needed where oceanfront residents live. It would be nice for the resort area to have a centralized parking area with a transit system to move employees close to where they work. Until a centralized oceanfront employee parking area is an option employees will need to park in the resort area neighborhoods.

At the oceanfront, to help keep the neighborhoods safer.

Everywhere near the beach from 5th Street to 35th Street. I would like to see a large parking garage over near the City Dredge shop and water taxi for our visitors. Satellite parking lot over by the Harris Teeter, utilize the parking at the Convention Center and run shuttles.

Oceanfront – Leaving residential parking for the property owners

For employees at the oceanfront businesses. Companies should provide employee parking.

Near the Oceanfront.

Parking is most needed between the jetty and 42nd streets in close proximity to Pacific Ave and the gateways (31st. 21st, 19th, 17th, Norfolk Avenue. Winston Salem Avenue)

Throughout the entire resort area.

I need it on Arctic and 22 ½ Street for a residence 2nd car.

23rd Street.

Parking is needed at Old Beach.

Along entry points to the resort area and event areas (31st, 24th, 21st, 19th, 10th).

The current parking needs to be maximized. Lots and meters are not filled to capacity.

Parking at the oceanfront should be dispersed throughout the resort area. Concentration and limiting parking facilities in a central place will exasperate congestion problems.

In major traffic hubs – I264/21st Street, Norfolk Avenue, Laskin Road Gateway.

The highest concentration of parking requirements occur between 1st and 21st Streets with the areas around major intersections (19th, 21st, 22nd, 30/31st) having the most issues.

Year round in the Resort Area.

For the tourists staying and the employees working at the oceanfront as well as us residents.

2. Where is parking most underutilized?	**# of Responses**
City lots, parking lots, public parking lots	5
Private lots pay them.	1
19th Street parking lot. The city has limited square footage. I believe the city should plan on building parking garage at 19th Street.	
City garages, garages and parking garages.	6

Meters and city lots/garages - any place that requires payment. 1

In the resort business areas - lots that are not used to capacity.

Current parking does not allow business owners to use their existing lots (office buildings, retail, etc.) during off-peak times (nights and weekends) for special event, peak parking demand (Shamrock, July 4th, etc.) Code should be written to address these 10-12 days/year.

Everywhere from October to May. From May thru Sept. all parking is properly utilized.

At the oceanfront, probably due to expense.

Employees should use the public parking garages during the off season months except for major events. There should be a system in place for major events so beach front employees are less likely to use the neighborhoods to park during this time, i.e. buses.

The old Dome site and the new convention center area as well as the parking deck on 10th Street.

The Convention Center parking lots are empty unless a major event is occurring and should be used as resort parking, connected to the oceanfront with a TROLLEY shuttle. Tourists will ride a trolley because it is part of the beach experience, but they don't like riding a regular bus.

Convention Center

North of 31st street and the convention center parking lots.

The existing flat lots (19th & 18th) are seldom 20% in season

City buildings that are closed on weekends could be used for employee parking.

1st Street parking lot and 35th Street parking garage.

Meters along Pacific Avenue.

The old library site on 18th Street has been raised as possible municipal facility (although I am not certain what the effects would be on the long term use of the old Dome site). The middle school property has potential for parking of residents, guest and oceanfront employees, as does the Art Center, the vacant property formerly developed with the Seashire Motel on Laskin Road and the Convention Center on 19th Street (although an effective monitoring program and shuttle service would be needed).

In municipal lots that are not open every day. In VBCC when VBCC does not have any events.

Without a doubt the parking and areas around the Convention Center is underutilized (with the exception of a few days during the year with high attendance events). Low cost, easy, dedicated express public transportation for day trippers from those lots to the beach would certainly help. This comment in no way indicates that I support shuttles for employees – they are not the issue!

The satellite lots.

3. How convenient is parking for residents in the Resort Area?

Poor 12 Fair 7 Good 12

Parking is inconvenient where there is not a driveway at the resident's home. Inconvenient when the resident has guests and has only two parking passes to give to the guests.

It depends on # of tourists.

Tourists and employees take it.

My guests can't find a space in front of my house.

Parking passes.

Fair, due to passes issued to employees and terrible during day events at the oceanfront.

Poor to fair depends on parking at residence or going and coming for shopping, etc.

600 Block 16th is good.

In the Pinewood region it is poor, street parking is taken by construction workers.

Spaces are taken by commercial businesses.

Residents must constantly struggle against businesses need to park in the same spaces. ≈ 1600 business parking permits in 2012. Roughly a +400 increase from 2011. The demand in 2013 for business parking will increase.

What is left for residents?

Good in the Pinewood/Shadowlawn area.

During summer Jul-Aug it is no more difficult than, for example, any urban city. At other times it is very good.

Too many workers, bar-hoppers and day trippers taking up parking spaces in the neighborhood.

Fair now, but poor later. When builder takes down one home and builds three or four in its place. You just went from having 2 vehicles to having 8. Typically, the driveways can't handle any more than two cars so everyone else has to park out on the street. This is happening all over the Old Beach neighborhood now. Sure hope it doesn't happen in my neighborhood.

It is fair for Virginia Beach residents. They can park in city owned parking lots at a reduced price after 5PM and at a reasonable cost during the day and holidays and special events. The Virginia Beach residents are always out spoken when they have to pay prices based on supply and demand to park in privately owned parking lots. It is good for the oceanfront neighborhood residents in the 400-500-600 blocks of 16th Street. I live on 16th Street and monitor the parking situation on 16th Street. Each block at the oceanfront has its own issues specific to that block. It is fair for the oceanfront neighborhood residents in the 300 block of 16th Street. People including employees want to mark as close as possible to their destination. I am willing to give up on convenience to have the safety buffer that the resort area employees offer to my family.

Parking for residents in the Resort Area is fine in the off season, but poor in the summer. This is because the City tells VB residents they can park in City garages for $1, but revokes that offer if there is any major event happening at the OF, whether or not the resident is going down for that particular event. In other words, many residents will no longer go down to the OF because they've been surprised by "Special Event Parking Rates" one too many times. I recommend $2 parking for residents at all times, no hike for special events. It works at McArthur Center, as people have become used to the price of parking and it never changes.

The $2 charge for residents is a fair and convenient way of residents to use the public parking garages.

I'd rank it as fair to poor. It's hard to discern but I'd guess some of it comes from lack of onsite parking for residents…it seems to me with alley ways they could develop some onsite parking for permanent users.

Need some transit from parking off oceanfront i.e. convention center.

Poor, because non-resident people park on the street in front of our homes and we come home to no parking spaces.

There is ample supplemental parking along the streets for residents. The problem is that Old Beach and the other neighborhoods have not been required to park on-site for their own unit parking. Most Old Beach lots do not have the code required (2) on-site parking spaces. They wish through the RPP program to continue to reserve public parking spaces for their own personal use. This convenience does not exist elsewhere in the resort and has been strongly opposed by Public Works when North End and Bay Front residents have inquired.

Many homes only have street parking. During busy times-Summer and special events all spaces are taken by tourists and local citizens attending the events.

I have 1 spot in my drive to park – any other cars need to park on street and we can't ever find a 2nd spot.

Summertime parking non-existent on 23rd (beach/the block/etc.).

I get home from work and there is no place for me to park. All spots are taken by business permits.

The resident parking passes works extremely well. Day trippers create limited space especially with employee parking passes.

Why? At the present time I think there is an abundance of parking, even if you must walk a bit. I do think there should be more free parking available.

There is ample parking with the exception of a few weekends.

I believe parking for resort residents is fairly good with the exception of a limited number of days during the year. It is unfortunate that many residential and commercial properties have been developed without any on-site parking (in some cases where the ability to accommodate on-site parking exist). On the limited number of days throughout the year when parking is a problem, parking for residents is exasperated by employee parking and residents living outside of the resort area looking for a place to park for free.

I have access to alley and front of house- so I have plenty of options.

Spaces are plentiful, but additional tourist and employee parking demands during peak times make it challenging for residents in select neighborhoods.

Why? We have made great strides in developing garages for visitors to our resort and should continue to pursue additional venues for parking. This would help solve most of the "residential" issues. I think that it is unreasonable to look at the resort area as a whole here – what happens at the North End is different than Shadowlawn and what happens in Old Beach District is different from the other areas. You cannot have a "cookie" cutter plan for everyone – we all have different issues and it is totally unrealistic to think that the same requirements for everyone would be successful.

Poor to fair. Why? Poor for those that do not live in the resort area when they want to spend the day at the beach or attend the many activities on the boardwalk and fair to those who do. Those that do seem to have to fight for space in front of or close to their own homes.

4. How convenient is parking for visitors in the Resort Area?

Poor	14	Fair	9	Good	9

Why would you invite crowds to a party (4th of July, etc.) and then shut down on street parking? It is just so sad to see families with their kids circling around looking for parking. The lines at the city lots are very long and there aren't enough spots.

They drive around looking for spaces to park free.

Hotels provide it and visitors expect to pay anyway.

Garages are full. We need more garages. Hotel and parking garages.

Spaces are taken by commercial businesses.

Too many want to use residential areas to not have to pay.

After residents and businesses park, what's left for visitors? Both VA Beach citizens and tourists.

Great - they do not pay, shop around (drive) to find a free place to park in neighborhoods.

Fair if they use the lots or meters; good on most occasions except for major events at the oceanfront.

Parking garages, lots and meters. Only time it is poor to fair is on special event weekends.

There is not enough affordable parking near the oceanfront, so visitors compete for free spots in our neighborhoods and end up walking further.

I've heard poor. The garages are full during big events and smaller lots charge too much. Satellite parking and an efficiently run free bus service would help.

With the exception of July 4th, there is adequate parking within the resort area.

I don't feel it is evenly distributed….I feel if it's not within 2 blocks it is not going to be used. Most visitors aren't willing to walk more than 2 to 3 blocks.

With the City parking garages, private and hotel lots, visitors have adequate safe parking at the oceanfront. There is only a problem when a major event over parks the existing garages and lots. These events need to have a different strategy planned, such as bussing people from the convention center, malls and other parking facilities for a reasonable fee.

It's probably ok for hotel guests, but miserable for anyone who drives in for the day. Just guessing.

Most stay at Hotels/Motels – Day visitors have 31st, 25th, 9th, & Convention Center as options.

There seems to be plenty of garages and lots if only visitors would use them

There is easy access to commercial and city parking lots and parking decks. Only on a few weekends during the season do these lots fill up. Obviously tourists and day trippers want to be within walking

distance to the beach during the season. So after those main lots are full the search through the Old Beach and other resort neighborhoods begins.

If the visitor arrives early they normally find a spot. As the day progresses many visitors are seen cruising the neighborhood looking for a space. I have witnessed a visitor for a charity race while trying to park in a small space hit a car of a home owner, get out and walk away like nothing happened.

Lots of parking decks and lots as well as empty metered spots.

The city needs to monitor numbers on parking passes of employees and employers need to keep a record of passes. We had a car sit out for 4 days and the employer didn't know whose it was when we gave them pass #.

25th and 9th Street (public).

We need more parking for resort area employees.

When the parking lots are full, there is limited direction on alternative locations for parking or even satellite parking with transport like convention center parking.

Why? Again I believe there is quite enough parking but I don't think it is easily mapped out where visitors should park. I do feel there is a challenge more for the businesses at the oceanfront in regards to parking issues.

I believe that parking opportunities for visitors of the resort area is fairly good (again with the exception of a limited number of days in the summer months and when special events are held). Between the municipal parking and the commercial facilities, seldom does it appear that parking is worse than many of the larger cities that I visit (Washington DC can make parking in Virginia Beach look like a cakewalk at times). The variable pricing that occurs in response to supply and demand issues, does appear to create a problem for visitors on a strict budget; when rates rise to $15-$20 per car, many cash strapped visitors are sent scurrying for a more affordable options (again I believe that this occurs only on occasion). Many properties that could accommodate parking are left vacant because they do not meet the criteria for commercial parking lots; excess spaces available can remain vacant for the same reason. I apologize in advance for suggesting a problem, without a solution or without the benefit of thoroughly understanding the rules and how they were arrived at.

Somewhat inconvenient if we have guests after 8 PM.

There are a multitude of options available: garages, municipal and private surface lots and metered spots that are in close proximity to busy hubs such as I-264/21st Street, Laskin Road and Norfolk Avenue.

Why? Convenient public parking garages, metered spots and private lots are plentiful. We need to develop more in the center area (16th-26th).

Poor. Why? If they are not staying in a hotel with parking available then they must find parking at meters, in parking decks/lots and on the streets. The signage for parking and meters is confusing and the rates and availability of parking is always chancy. With the number of day visitors, this is a huge inconvenience and probably does affect their decision of spending a day at the oceanfront.

5. What is the ideal parking solution for this area?	**# of Responses**
24 hour residential option; 24 hour parking for residents only; 24 hour residential permit parking for residents and guests only; 24 hour controlled parking for residents only.	5

More public lots; public lots for visitors 2

More garages, more garages at/near the oceanfront; more parking garage and shuttles; 4

Employee permits are for city facilities only; Workers to use city garages; Parking garages for business/resort industry. They should PAY. 3

Find a way to use empty private sector businesses' parking lots when they are closed. Consider different needs and do not have a "one size fits all" solution. Consider the nightmare of how the parking is enforced - little guys riding around on motor scooters issuing notices - followed by police issuing tickets based on notices, tow trucks trolling for their color-coded tickets issued by police. (Colors are assigned to each tow company in order to be fair to the towing companies). The tow trucks are LOUD and persistent through day and all night. The scooters should be replaced by bicycles or go away all together. Enforcement should be included in the recommendations because it is a process that has morphed into a problem all its own. I own a B&B on the corner of 16th and Arctic and it is wildly disruptive to my business.

Flexibility - each neighborhood and even street have different concerns.

Provide parking for commercial businesses.

More widely dispersed public lots/structures and permits for on street parking.

Cap business parking. Increase cost of business parking. Review how downtown Norfolk allows business parking ($85/month to park at Main Street Tower). Enact resident only parking. Task traffic engineers to help with traffic flow.

Striped parking in Old Beach and the neighborhoods; signs which clearly designate "Parking" and "No Parking" locations with towing enforced; no parking overnight; fines for people creating a public disturbance and color coded parking stickers so employees cannot take advantage of their right to park in the neighborhoods beyond their job tenure.

Let "pay to park" prices control traffic at the resort area: public parking closest to the beach should be the most expensive and pricing is reduced as it occurs farther away. Do away with free parking. Couple this with a reliable shuttle service from outlying lots. Rescind all employees residential parking permits in resort neighborhoods; have resort employees park in remote lots with employer supported, city provided transit service from parking lots to places of employment. This will eliminate the problems occurring for resort neighborhoods residents when the bars close, and will enable employees to return SAFELY to their cars at the end of their shifts. Using the transportation and parking study results as a guide, identify appropriate locations west of Pacific Avenue for future structured parking; work towards the acquisition or assist in the development of safe. Provide safe, reliable transit from underutilized remote parking areas to the resort area. Remember that visitors will be toting coolers, beach chairs, etc. and plan to accommodate these large loads. Study how other similar resort cities handle their parking issues and learn

Evenly distributed parking structures along the western edge of Pacific, or between Atlantic and Pacific.

In an ideal scenario the city would have a central parking lot for all resort area employees. I hope the city of Virginia Beach is able to find a compromise that makes the most residents happy. On 16th Street the opinions vary from the parking should be available 24 hours a day to anyone, to the street should be gated with armed guards.

Keep RPPP in place.

Employee parking with shuttle access to the oceanfront paid for by employers/employees.

Development of parking decks along the west side of Pacific Avenue using available city properties and working with religious institutions who own most of the larger surface lots to develop public/private partnerships.

More city/private parking lots developed

Dispersion of parking opportunities for locals employees and tourist.

City employees park in garages/lots, period.

A new garage, resident only parking between Pacific and Baltic on all streets running east to west.

1) More aesthetically pleasing parking garages, they are more discreet, and FAR LESS of the eye sores that are ugly, not well maintained surface parking lots. 2) More upscale transportation such as light rail which can help with the day trippers and their need for cars. This will also help tourists, once at the oceanfront they can ditch their cars and see the rest of the city by jumping on light rail 3) The continuation of RPPP is a MUST for business owners and their employees. 4) Also, the city needs to provide business employee parking free of charge in designated areas of the parking garages. This will certainly make residents and business owners happy, and both of these groups are already paying for it, the residents with their real estate taxes and the business owners with their tax contributions. 5) Start implementing some avenues of the strategic growth plan such as more bike friendly areas and look into city wide programs that promote cars less and other forms more such as the bike share program that could be city wide where you pay to rent a bike and can return it at any one of many designated "stations". 6) More public awareness about car alternatives, perhaps a city campaign educating people on alternatives to the car. 7) We MUST stay tourist friendly!! We are a resort town, I would suggest, in restricted parking areas, always a cute part of the sign that tells the tourist where the nearest public parking area is.

Convert surface lots to garages.

Creating parking facilities that are dispersed throughout the oceanfront; increasing the amount of on-street parking; better regulations related to parking charges, and perhaps establishing a limited number of centralized (north, central and south) locations that are supplemented with jitney, trolley or other forms of alternative transportation opportunities might prove helpful. Such a facility might resemble the port authority parking facility in Manhattan (NYC).

Open municipal lots that are not open every day. Allow a percentage of employee parking here to free up RPPP spaces in established neighborhoods. 24-hour only resident parking only in select neighborhoods that are considered as RPPP hot spots.

First and foremost, we must break these areas up individually and address the issues for each area including both visitor, resident and business concerns. I believe that the majority of unhappy residents live in or around the Old Beach district so particular scrutiny should be paid on how we can increase public parking for visitors in those areas so that the impact is significantly reduced. 24 hour resident only parking is difficult for everyone – including the residents. Imagine trying to have a family reunion at your home with that restriction!

As density in the resort (both residential and businesses) increases, we must create more public parking. Better public transportation will also help. We must also utilize our existing surface lots to their fullest.

Currently, the lots close at midnight and the employees are towed. If the public lots extended their hours to employees, then it would reduce parking in the neighborhoods.

Satellite parking with shuttle service.

6. What multi-modal transportation alternatives could support parking within the Resort Area?	**# of Responses**
Shuttle for employees to park in nearby lots and ride to place of employment; I thought shuttle service (Tram) was already in the plans; shuttle from public lots; shuttles on a loop, easy connections to lots, etc.; buses from satellite parking; shuttles for businesses to parking lots.	6
Light rail, light rail to oceanfront would remove cars from the roads and parking areas in the resort, light rail or buses from Convention Ctr. might help.	5

Any resort area like Charleston, Williamsburg and of the like have charming surrounding areas. No parking allows it to be clean, noise-free, and better quality residence.

Parking at Convention Center - buses. See how they provide parking for Pungo Strawberry Festival. It works for them.

None. Shuttle buses to remote parking will likely not be used except on special event weekends. Light rail or bus rapid transit will only be marginally useful for local residents as they have to carry beach items and therefore choose to drive.

Shuttle for employees to park in nearby lots and ride to place of employment; I thought a shuttle service (tram) was already in the plans; shuttle from public lots; shuttles on a loop, easy connections to lots, etc.; buses from satellite parking; shuttles for businesses to parking lots.

The use of the special "long buses" proposed a couple of years ago, only with more seating room to accommodate people bringing families, coolers and chairs to events and general beach goers bringing locals, etc. from other off-site parking lots such as the parking desk at the mall and Town Center. The buses should be environmentally friendly.

Trollies, golf carts, open-air surries, whatever can be adapted to become "a part of the beach experience" for visitors, so they will WANT to use these connectors.

I'd love to see light rail come down Laskin to Arctic and go south to 17th and then loop back to convention center area and then back over to Laskin and then to Hilltop area. I think you could serve the Oceanfront with some sort of trolley from light rail station hubs on Arctic over the Atlantic or for that matter develop pedestrian friendly arcades from light rail station over to Atlantic, develop some really nice plaza experiences, open pedestrian friendly areas.

Shuttle to the satellite parking lots. I saw plans a few years ago for the trolleys going down the center of 19th Street, where the convention center lots were busy. When is that going to happen?

Transit from satellite parking areas to oceanfront businesses or beaches.

Shuttle buses from outlying parking lots.

Utilize the VB Convention Center, Virginia Beach Middle School, and Beach Garden Park lots for a “park + bike ride”. Also – shuttles could be run from these existing lots to ferry beach goers and their

beach equipment for day time access. Certainly Light Rail will aid in the reduction of cars but people going to the beach during the day will have trouble carrying all the beach equipment in a light rail car.

Satellite lots with dependable and timely shuttle services.

Bring back the inviting open trolleys—clear concise signage (less confusing).

Park at Convention Center or elsewhere and shuttle to beach. Use city lots on weekends that have city ___ closed for employees.

Employee shuttles/visitor shuttles for free along Atlantic/Pacific from city parking with drop offs – like city buses.

Designated drop off sites on Atlantic with satellite parking and bus/trolley service and bike rental (pedicab) at convention center. I will be happy to create city sponsored pedicab.

As I mentioned above, light rail is absolutely CRUCIAL to easing our traffic concerns. I believe a well thought out light rail with adequate stops that make sense will help with all the scenarios mentioned above and will also with employee parking as more young employees will prefer riding light rail in than dealing with paying and finding alternative places to park.

I don't see any multi-modal transportation working for visitors carrying coolers, chairs, boogie boards, umbrellas, kids, etc. However, I do feel like it may work for special events or concerts where visitors are not carrying lots of beach going items.

Bike kiosks like those found in many metropolitan cities could prove to be helpful. Creating some form of effective mass transit (perhaps light rail) along with supplemental alternatives (jitney, trolley, taxi services) could lessen the impact of parking challenges.

Buses, trolleys and bikes with better signage for tourists.

Short tern – Free parking and shuttle from VB Convention Center with transport equipped to handle families with coolers, chairs, toys and screaming babies! Resident and visitor friendly signage guiding people to the places that we want them to park! Long term – Every type of public transportation (bux, trolley, light rail, etc.). This is a whole other discussion.

Educate the public to our park and ride system.

Regularly scheduled trolleys that are convenient and reasonably priced.

7. Where are the parking "hot spots" within the RPPP? Please provide answer by block (i.e., 25th Street from Cypress Avenue to Mediterranean Avenue?

16th Street, Arctic Avenue through Arctic Crescent, 15th Street.

25th Street and all the way to 22nd on Arctic and Baltic.

25th from Cypress to Pacific.

Around Rudee Inlet, Terrace Avenue to Arctic _____. You can't get down the street, they park on both sides of the road.

There are 18 bars within 1 3 block radius between 21st Street and 24th. 23rd, especially 24, 25th-26th are awful. Not to mention the trash beer cans, liquor bottles, cigarette butts, vomit and noise that go with it.

26th Street and Baltic (all along Baltic and Arctic)

400 block of 16th Street.

Old Beach is a designated neighborhood where many of our lots never had onsite parking. For instance, in the 300 block of 26th Street. We've owned and lived there since 1934.

30th - 36th; Pinewood to Atlantic.

27th Street between Pacific and Baltic.

Don't know.

300 blocks

15th, 16th, 23rd, 24th, 25th, 26th between Arctic and Cypress.

16th Street from Baltic to Arctic to Pacific. Baltic from 16th to Lakewood Circle.

I think the major conflicts are between 22 and 27 Street and possibly around 16th sound to 10th Street.

Don't know, I'm not a resort neighborhood resident.

Any area where a resident can't park near their homes as is expected by any property owner.

10th Street through 22nd or 23rd.

N/A – do not live in Old Beach or park there

16th- 25th

22nd Street and Arctic Ave. are totally abused by "employee" parking.

23rd Street between Arctic and Baltic Avenue.

24th Street between Pacific and Arctic – it's <u>terrible</u>.

25th is a hot spot due to the many events that occur at 24th and 31st. City needs signs at parking sites direction traffic to available parking.

17th-31st.

This is not my area of expertise, I will defer to those that know this information better.

It appears that the "hot spots" are located in the central beach areas from 15th street thru 28th street in the blocks located closest to the beach; the 600-700 blocks do not seem to have as many challenges. Challenges in Shadowlawn seem to be lessened by residents having ample on-site parking, limited roadway widths and enforcement of "not blocking driveways" occurring.

West of Pacific Avenue from 15th to 27th Streets.

16th up to and around 26th Streets

25th Street municipal parking lot and all streets between Atlantic through Baltic. I cite these due to backups, confusion and sloppy/inconsiderate parking.

8. What is your perception of the current RPPP?

Too inflexible for different needs in different neighborhoods.

Not controlled properly.

Poor - let businesses pay for their parking or use a shuttle bus to and from the Convention Center.

Better than it used to be

I'd like to see it 24 hours a day. Parking enforcers do a great job in my neighborhood.

I like having it until the tourists and employees have taken over.

More burden must be put on employees and employers. Monetary burden. Why can't they utilize the parking lots and not on street parking? $25/business permit is way too low. The city is bleeding money - capital will be needed and increasing this cost is part of the solution.

It helps, but still owners and tenants have to jockey for spots when they return from work or elsewhere. Construction is exacerbating the issue because workmen also need to park.

Need to be 24 hour resident only parking.

Lacks foresight for special circumstances, e.g., construction projects, private and city projects.

Love it until businesses were issued parking passes.

It works but could be improved to better serve both residents and visitors.

The current RPPP is working well in my Lakewood Circle Neighborhood. I do not want 24-hour resident-only, on-street parking restriction in our neighborhood.

Without the current RPPP my quality of life would be much different. I would like to thank Barbara Yates for being the pioneer of the current RPPP.

I don't think it’s right. When I attended the workshops and meetings about the RPP many years ago I don't remember anything said about allowing resort employees parking in our neighborhoods. RPPP should be for residents only.

Good, but not great. Need to keep oceanfront workers, bar-hoppers and day-trippers out of the neighborhoods for safety. Not sure what the rules are in the off season and have not been able to get a straight answer from Parking Dept. or Treasurer's Office.

It's a mess; onsite parking is too restrictive, the requirements are not reasonable to lot coverage. Then when tourists converge and park illegally. I also don't agree with merchants being allowed to obtain permits, they should be forced to use public garages.

It is a disaster for those closest to the resort area, having to endure drunken behavior, littering, vandalism and violence. Resort employees park in the neighborhood with the passes whether or not they are working, or get off early, then party until closing and become a problem.

There appears to be employees who do not respect the property and residents by littering, creating disturbances, parking in driveways, etc. and the residents do not feel as though they have any power to control behavior of the visitors/employees. The parking contractor should be equipped to respond to calls from residents, assess the issue from the residence's call and either write a ticket for parking violations or

call the police to have a vehicle towed when appropriate. The parking contractor should have this as part of their contract and the police should be instructed to take seriously parking violations and respond as soon as possible as well as their supervisor monitoring the RPPP. Some residents are complaining that the police do not wish to enforce parking violations.

Needs to stay in place.

Not controlled enough

Program is completely self- serving. Other beach and Bay front communities who have tourist and day trippers park up and down their streets 12 weekends a summer are not afforded this opportunity. In fact it is the reverse as city staff each spring review and monitor encroachments in the North End and Bay Front public R.O.W. to guard against parking count loss by residents landscaping and blocking off of public parking. Citations are served and the city removes illegal encroachments. No request by any North End resident to obtain permission to control public R.O.W. for private parking has ever been entertained.

It helps by keeping most cars from the streets after 8:00.

OK

We need 24 hour residential permits – too much crime moving into area because of parking situation.

Needs work.

RPPP works considering the number of events the city hosts.

That it is absolutely vital for business owners at the current time while the city is exploring other options such as light rail. The precious amount of parking at the oceanfront must be used for guests and visitors of said businesses, not with employee parking. I do, however feel the businesses have more of a responsibility to train their employees well and not take this program for granted.

I think the RPPP works. It might need to go to 24hr in order to provide relief for the neighborhoods.

It seems to be fairly effective at this time (with a few exceptions). However, with growth it could be exasperated and become more problematic. I believe that the re-development occurring now on 31st street and future redevelopment in other areas could and will be problematic for residents if a comprehensive parking strategy is not adopted. Maintaining and not increasing parking options provided for by the RPPP, along with reduction and ultimately the elimination of employee and oceanfront visitors in neighborhoods (not friends visiting residents) probably will be necessary in the future.

It works for my street – keeps late night parking and partying down.

Current setup is fine; only select neighborhoods encounter congestion. Code does not need complete overhaul; a case-to-case review and adjustment should suffice.

There is no quick and easy solution to this and as we continue to grow – we will have to continue to modify and improve how we do things. I think the current RPPP has worked effectively in most areas but needs to be reviewed and adjusted to insure that we are looking out for all parties – VISITORS, RESIDENTS AND BUSINESSES. Consider incentives for private land owners to develop multi level garages with public parking or focus on expanding city operated garages in the central problem areas (16th through 26th). Additionally, there has to be a respectful working relationship between all of the parties with a willingness to listen to the other parties concerns.

The current RPPP helps solve the parking deficiency for employees, but is not a permanent solution. In order to have a well-balanced resort, we must look at long term parking solutions for the resort employees. Immediate solutions are inexpensive and effective. First is to open surface lots to employees all night. Second, employees only to park in RPPP during the day. Not as many spaces are needed at night and the parking lots have plenty of space at night.

I do not mind having to put a sticker on my car, but I would rather not have to send so many forms of ID when the City should have a database to verify name and address without all the paperwork.

Residents/tenants and property OWNERS should be able to utilize the RPPP.

9. Would the existing RPPP be acceptable with placing limits on the number of business permits issued? Why or why not?

Yes, extreme limits.

Yes, the employees abuse the passes.

Yes - they used the permit for other uses. They throw trash in your yard. They make a lot of noise. They slam car doors at all hours of the night. They leave their cars overnight.

Yes. Fast forward ten years, once FBC's planning and development is nearly completed. How can we sustain that much business growth without capping parking for business?

That would help.

This would help. Frankly, it would be best if businesses didn't get RPPP passes but the closing policies in lots and garages would have to change.

No. Employees do not need to be parking in residential areas, only residents.

No - you can't break bad habits unless you "starve" it. It's painful at first, but all will get used to it.

No permits should be issued to park in residential neighborhoods. Employers should work out _____ arrangement.

None

No business permits - they clam doors, talk, leave trash, sleep in cars from drinking after work!

No. Does not address special circumstances.

No. The RPPP is for residents. Not for commercial businesses.

No, it is just not an acceptable place for employees to park.

The oceanfront economy should not be stymied by placing limits on the amounts of permits issued. If the cost of the permits were to rise maybe the amount of requests for permits would decrease.

There should be no business permits issued except if the business is on a block west of Arctic Avenue.

I don't think this should be allowed, make them use public garages.

Partially. it is not monitored. Permits for _____ allow them unlimited parking anywhere in the city at any time (not just when they're working) and in any area (not just within proximity of where they work).

Why can't business get permits to park in public facilities or convention site, why neighborhoods?

Possibly so – employee parking should be developed off South Birdneck or on VB Blvd. between Birdneck and First Colonial Road and a shuttle system to run staff to businesses.

We need a better solution for workers than to have them park in our neighborhoods.

Don't limit however be cognizant of the nature of uses.

No – we need to protect Old Beach and keep it safe and keep the residents happy so they stay here as owner occupied units.

No business permits should be allowed.

Limits should correspond to employee and guest/visitor transportation needs. Many employees bus to work.

I think this could be explored and discussed. Perhaps it could work based on seating capacity or sq feet for retail, but at the present I would lean more towards making what we already have work better and perhaps being punitive only for businesses that consistently abuse the system. I have no position on this issue yet, I would like to hear all sides and explore this more.

Putting limits on business permits without replacing their needed parking would be unacceptable. Businesses are parking there out of necessity and limiting their parking would strangle their ability to provide the visitors with the proper product they are interested in.

Yes, with a few exceptions, I believe that the RPPP does work. Limiting and not increasing the number of business permits issued will be helpful (and will ultimately become necessary).

Placing limits are not acceptable as it hurts local businesses and also hinders new business from developing in the resort area.

I am at a loss as to why there is the misconception that all resort businesses run down to the Treasurer's office and purchase large numbers of employee passes – we have to pay for these passes – they are not given out free! Each business could produce a listing of employees that they are purchasing passes for and submit them when obtaining the passes. This would have to be modified monthly to allow for the increase/decrease in employee numbers. This requirement should take care of the "abusers" of the system.

No, that is not a healthy business approach.

Yes. If there is a maximum annual number of permits issued per business, this should make the business keep up with them and require the employees to return them, maybe on a daily basis, to the business to reuse instead of allowing them to purchase replacement ones which would ultimately be a free for all.

I own two properties in the RPPP Resort Area, I receive calls to perform maintenance all hours of the day and night, weekdays and weekends, and in some cases, provide routine grounds maintenance on these properties. As an OWNER and TAX PAYER of these properties, I have been DENIED a parking pass because of the simple fact that I reside elsewhere in the City of Virginia Beach, even though I have a reason to be there. If the OWNER and TAX PAYER of property located within the RPPP Resort Area are DENIED the right to park in front of the very homes they own, then no one else should be given a pass PERIOD.

10. Are you in favor of a 24-hour resident-only, on-street parking restriction within the current RPPP and how would it impact your day-today activities?

No. We need to be flexible. Resident only parking provides street to have open spaces which invites people to park and, with current enforcement, to tow trucks and parking Nazis on scooters to troll non-stop.

No (2)

No! There is no need for 24/7 restriction on Lakewood Circle and surrounding residential streets. We have no parking issues during the day in our neighborhood.

Yes.

Yes. No impact on me if allowed to purchase 4 guest permits like we used to.

Yes - whenever I come home I would have somewhere to park.

Yes! I pick up trash daily around the entire 24th Street 300 block. My time could be spend manicuring and maintaining and planting new landscape (flowers, shrubs and trees).

Very much in favor, no impacts.

Yes. My dogs won't bark at 2:00-3:30 a.m. when the bartenders and waitresses get off work.

Yes. I would be able to enjoy living in a quiet home. During the days I pick up garbage (soiled diapers/half eaten food, etc.) left by beach goers.

Yes. It would ensure I have a safe place to park, within a reasonable distance from my home. Businesses can park in the parking lots.

Yes. I have a business which relies on daytime on street parking. If residents only had variances for business use within the immediate area of that business.

Yes. As long as it's for residents only.

Yes. It is a minor inconvenience to be sure my guests have a hang-tag, but it is work the trouble. We should raise the number of hang-tags for residents to at least 6. I have a book study with 6-8 people every week and don't want to go to the Treasurer's Office each time.

Yes, I would support that….initially it would be somewhat problematic but I think the public will get used to it and go to the public facilities.

Wonderful.

Yes, yes, yes! It would ensure coming home and being able to park at your house.

Only if there was a two-hour free parking change, i.e., anyone can park anywhere on a public street for 2 hours, but to park longer requires a permit.

I would like to have 24 hour RPPP as long as the Virginia Beach Police Department can continue to keep our city safe.

What would solve some of Old Beach's issues would be 24 hour resident parking for those properties which have no onsite parking.

I'm not a resident, this should be up to them.

Resident-only parking would be the ideal situation. It would increase property values, allow for housing developers to build "better" homes/cottages. This would also cause an increase in remodeling existing homes in these neighborhoods with less financial risk and it would cause fewer headaches for the residents. To make it economical for the employees, businesses and the City, there would need to be a viable solution for transporting employees to the beachfront.

Why not, it is up to the business community to provide parking for their businesses or if city/private partnership they can use the public areas available including the convention center.

Yes. It would allow all of us to enjoy the peace and quiet that most other neighborhoods take for granted. Our guests would also be able to visit and find a parking place when they do.

Yes. I could actually have a spot for parking if I go to the store and come back. Many are abusing their parking passes and using them at night to go out to the bars at the beach and not really working.

Yes – summertime everyone parks on 23rd Street to go to the beach, work, bars, entertainment/concerts @ 25th Street, etc.. Please help provide parking relief for us long-term beach/Old Beach residents going forward.

Yes – it would make me want to keep my condo instead of selling it and leave the resort area.

If resident is defined as a person sleeping overnight even for a one night visit then yes. However, if a resident is defined as a mailing address then NO! Bed and breakfast and small apartments will suffer.

No, the business owners must have access to this program as well for their employees. I would be in favor of 24 hour resident and business employee only street parking.

Not resident only.

No; until an ultimate parking strategy is developed, it would be unfair to resort area businesses, and residents living outside of the resort area. For us, it would have some impact due to the number of business passes currently used by our staff (without an alternative, other than those available now, I am not sure what the impact might be. It could result in us hiring fewer employees, or restricting our hours of operation (which would reduce the total number of employees needed; it would also probably result in less taxes be collected and paid. It could also create the need to re-evaluate property taxes in the commercial areas). For some of our neighboring businesses, it would be devastating.

I prefer to keep it as is.

Not in favor of 24-hour restriction for all on-street parking. It does not impact my day-to-day activities but it sends an unwelcoming message to tourists and visitors. It creates a situation that is difficult and expensive to managers. Some neighborhoods are fine with current RPPP but may need to address RPPP hot spots. These severely impacted areas may require a 24-hour restriction to specific streets with better signage that directs tourists and visitors to parking areas.

Absolutely not in favor of 24 hour resident only parking – this is overkill in most areas and would present truly negative consequences to both residents and businesses.

No, not until an alternative solution has been presented.

If that means no guest parking for the residents' guests, then I would have to say no, but if not, then I would be in favor of it.

OTHER GENERAL RELATED COMMENTS

Need to inform the business owners of the regulation of issuing the passes to employees.

I think of parking as this analogy: present parking is the "bad habit" and 24-hour resident-only parking is the "good habit". Which one will thrive? The one you feed. If you continue to allow free parking, no one will ever pay for and utilize the paid parking. Breaking this "bad habit" can only be done by "starving" it. By stopping "feeding" the "bad habit" helps, but it's not enough. You must replace it with a "good habit" (plenty of paid parking). Other-wise people will easily go back to the "bad habit" any time (wherever it's free, they will go). By breaking the "bad habit", the beginning will be the most difficult. The initial phase is the most difficult but it will be easier over time. Whenever you think it's too difficult to stay on course, just remember it won't be for long. Once we decide to break the "bad habit" there can be no exceptions. It's not easy, but this step is essential to make it work.

With residential parking only in our neighborhood we would know who is in our front yard.

Please allow more residents to be on Parking Committee.

In addition to looking at parking, traffic and traffic flow must also be looked at. Get "them" in quickly, and let "them" leave quickly. People will appreciate it if traffic (and signs) can help guide them to a parking spot, so they can enjoy the beach and attractions.

The final solution, of course, will be mix of multi-modal options plus requiring all new buildings on FBC to provide onsite parking or in public garages.

If tourism employee/visitor parking continues to be allowed, have city clean sidewalks back to Baltic Avenue.

We should not prohibit parking on public streets for 24 hours. If this was to happen, it would beg a similar program at the North End.

In addition to looking at parking, traffic and traffic flow must also be looked at. Get "them" in quickly, and let "them" leave quickly. People will appreciate it if traffic (and signs) can help guide them to a parking spot, so they can enjoy the beach and attractions.

This does not happen in any other neighborhood in the city. My employer does not send me or my co-workers out into the surrounding neighborhoods to park so I can work. I don't see why this should be allowed at the Resort not do I feel it is up to the residents to prove what a negative impact 1400 extra parking passes have in our neighborhood. The employer either needs to include parking fees in the employees' pay check or pay for it themselves at all the parking garages currently not filled. It should be the employers' responsibility to ensure their employees have a place to park. Why should residents have to put up with commercial properties parking issues? We already deal with the noise and understand that it comes with living close to the beach. But parking is a different story. We thought that when the parking restrictions went into place it was for the RESIDENTS not the COMMERCIAL BUSINESSES. Why does the City planning department grant variance request to allow minimal parking? These very same businesses are requesting to build taller and wider but don't want to include parking for the very people that keeps their business running. Form Base Code established new infill/rebuild guidelines here at the oceanfront to increase density but didn't include parking solutions? The "Brains" behind that should have figured this entire issued out before it went to City Council. The 1400 businesses passes issued should not have happened in the first place and should stop now. With all the money spent on consultants and City Staff; parking should have been on the top of the list. Increasing the density and not addressing the parking is extremely poor planning but I am glad it is being addressed now.

My #1 concern of the RPPP remains safety. I have not witnessed major parking issues during the day. The oceanfront employees are not a problem. The problems arise after dark. Some of the folks who park at night do not care about the residents or neighborhood concerns. The signs explaining that parking is restricted are not easily understood. People think it should be OK to park on a local street and when they are ticketed and or towed they become irate. They believe it is the fault of the homeowner in the area where they parked. Many times these irate people have come to my door thinking I towed their car. If the city is to move in the direction of 24 hour RPPP the signs must be easily understood by the least educated and explain the City of Virginia Beach is responsible for towing. The RPPP calls for illegally parked cars to be towed. I think these cars should be towed. I would lie to see just about everything redone with the tow companies involved in the RPPP program. Virginia Beach's patrons should be treated with respect in all aspects of the tow process. The tow lots should be a safe environment, ADA compliant, well lit and not resemble a junk yard. They should accept credit cards without an additional fee and be operated 24 hours a day. The resort area of Virginia Beach is open for business and we have invited our guests to enjoy the greatest city in the world. The City of Virginia Beach must have employee parking either in a central area or in the neighborhoods. Those who do not comply with the RPP laws should be ticketed and towed by companies who understand the City's tourism goals.

I am in favor of the Form Based Codes allowing mixed-use development and improving the pedestrian experience, but the pedestrian experience will not be improved unless the parking and transit situation is improved, and not at the expense of the neighborhoods bearing the brunt of the parking.

My wife and I do not live quite so close to the beachfront (1 mile up Laskin Road) that we would be impacted by the RPPP. However, with the changes to Laskin Road in the near future, parking, biking and pedestrian traffic should be incorporated into these plans, so future problems such as these do not occur with the additional growth of Virginia Beach, businesses and residents.

Parking should be allowed on the west side of Atlantic Avenue in the winter season. This would make the oceanfront appear busy and provide much better parking for businesses in the winter.

The paid parking season should be reduced two months and be only for May, June, July, August, and September, free parking in April and October would encourage more business at the oceanfront.

Visitors and oceanfront employees park in front of our homes, return at all hours of the night, creating noisy conditions, unsafe conditions and leave trash everywhere! (Beer bottles, cans, food containers). We’ve even had them relieve themselves in our side yard! Disgusting.

Regarding the Resort Area Parking Strategy, I would like voice my opposition to a 24-hour resident-only, on-street parking restriction, at least on our street. We live on Lakewood Circle, and are relatively unaffected by tourists/employees parking, so I don't see the need for it on our street. I think it would simply become an inconvenience for residents with visitors. I feel that better parking options need to be made available closer to the strip though. Aside from more multi-level parking garages, I think light rail, better bike baths coming in from the West (down Laskin, VB Blvd and 19th), and safer and more attractive pedestrian walkways, particularly on Pacific and 19th (so people will be encouraged to walk once down here), would help the situation. I would never come to the oceanfront in the summer if I didn't live here, simply because of the parking. But hypothetically, I would be happy to park at Town Center (if there was ample parking there) and ride a train here. Also, there seems to be existing acreage that could serve as temporary summer parking: various lots not-yet developed, such as the former Library, Rudee loop, and land on Baltic near Harris Teeter). Also, I am unclear as to why people can't use the VB Middle and Cooke Elem. parking lots for summer parking. On another subject, please note my opposition to putting a cul-de-sac on 16th Street. I don't see the need for that either, and only think it would create more inconvenience for residents, and for people coming to our neighborhood by car.

Old Beach and the Resort Beach Neighborhood property owners should be required to retrofit their properties to provide code required on-site parking before asking for city control of public land and RO.W. Only on some weekends is the RPP really about peace and quiet. This is predominately about reserved parking on public streets for private property owners. This entitlement only exists in this area of the city and is not available to other neighborhoods especially North End and the Bayfront.

As a 21 year resident of Old Beach I have seen much improvement in our neighborhood. Solving the parking issue will guarantee the positive trend continues.

Let's distinguish between parking and behavior issues.

Employees of businesses need to use the parking garages. I believe there are fraudulent employee parking passes being used. I spoke to a guy who parked out on Arctic one day who clearly didn't work for Gold Key but had a pass in mirror. All employees should be given a map of parking area options. Towing should be done if violating parking areas. Tickets are not keeping people from parking in unauthorized spots.

Beach goers should have drop off sites and satellite parking available from convention center and Rudee parking. Event goers should be able to park in event parking lots. Events should take place near city parking garage. Residents and employees should be able to park in residential areas with 24 hour passes. Loose the pass you pay.

If we go to a 24-hour parking plan, I feel the price of the business permits should be lowered since they will have to purchase twice as many.(morning and evening shifts vs. just evening shifts)

As a current resident of 50th Street, a former resident of Shadowlawn and a business owner in the Marina District for 30 years I have seen our resort area change and develop substantially with each major change having growing pains. We all want a healthy, vibrant, economically vibrant and safe community that we can live, work and plan in. That should be the objective of everything that we do. Also, we must remember that we chose to live in a resort area – that means multitudes of people visiting our area. This visitor provides huge benefits to the residents in the form of schools, recreational areas, activities, etc.. Do not make overall changes for everyone based on the issues in a certain area! Look at them individually and develop solutions that will work for them. Thank you for all your hard work and the efforts spent on improving our Resort District.

I am sure there are many more informed people on this subject, as you can see from my answers, and hope that their comments and concerns are weighed more heavily than the uninformed.

I have lived in Virginia Beach for more than twenty years and own rental property within the RPPP Resort Area. Each property should be given a specific number of residential and visitor passes to be utilized by the owner and resident/tenant. It is absolutely ridiculous and insulting that property owners within the RPPP Resort Area are DENIED parking in front of the very property they OWN (and pay tax) while the city contemplates giving business owners/employees use of the very same parking.

Virginia Beach Resort Parking Strategy
Public Information Meeting - February 28, 2013
Attendance Record

NAME	RESIDENT	BUS. OWNER
J Setalic		√
Sandy Nevev	√	
Mike Hyman	√	
Frank Craddock	√	
Chuck Cayton	√	
Phil Morris	√	
Whitt Sessoms	√	
Deborah Kassir	√	√
John Vakos	√	
Mike Metts	√	
B A Andrew	√	
Marvin Daniel	√	
Cathy Daniel	√	
George Micaraz	√	√
Jessica Winbauer	√	
Robert Winbauer	√	
Bill Gambrell		√
Sandra Talley	√	
Brad Capps	√	√
Maggie Simmons	√	
January Windrow	√	
Tim Thomas	√	
Carol Hamlin	√	
Michael O'Neil	√	
Michael Camden	√	
M.L. LaFond	√	√
Stephen LaFond	√	√
Mike Georgia		√
Billy Almnond		
Bruce Berlin		
Rendy Adams	√	
Greg Nelson		√
Rob Stanton	√	√
Barbara Clark	√	
Nancy Parker	√	
Kevin Gaydosh		√
Michele Shean	√	
Maureen Uramson	√	
Dianna Howard	√	

*Obtained from handwritten sign-in sheet. Please pardon any misspellings.

RESORT AREA PARKING STRATEGY
CITY OF VIRGINIA BEACH
CITIZEN RESPONSES FROM PUBLIC INFORMATION MEETING ON FEBRUARY 28, 2013

As of COB 03/14/2013

RESIDENTIAL PERMIT PARKING PROGRAM RECOMMENDATIONS

1. Reassess Residential Permit Parking Program

A. Regulation should correspond to the impact times

B. Implementation of a 24-hour RPP is not recommended for the following reasons:

- Relocates the problem
- Difficult for residents to live in
- Expensive and difficult to manage
- Only as effective as the enforcement

Agree.

C. Should a 24-hour RPP still be established, the following enhancements are offered:

- Establish a "sunset clause"
- Still allow issuance of employee parking permits until additional inventory is created
- Residents who elect into the 24-hour RPP should offset the enforcement cost burden placed on the City through permit fees.

Absolutely not for 15th and 16th Street. Parking is already confusing for people, especially those who do not live here. Making two streets different from all others would be extremely confusing. We are unequivocally against 24-hour parking permits. When we have friends or family over, which is often daily, it is logistically ludicrous to have to provide permits.

D. Create and install clear, identifiable, on-street parking signs for RPP regulations.

This is needed immediately.

E. Reevaluate penalties for RPP violations.

2. Stripe On-Street Parking Spaces within RPP

A. Start with the "Hot Spot" locations through analysis of violations issued.

B. Number each parking space by street and direction for additional dispatch clarification between VBPD and towing services.

Number based on home address that parking space abuts

3. Reassess Policy and Regulations for Business Permits

A. Cap and annually reduce the number of permits issued as alternate employee parking locations are created.

B. Assign specific areas for on-street employee parking to balance demand and use.

C. Identify proximity zones that correlate to the location of each business to manage the number of permits issued compared to inventory and reduce abuse of business permits.

D. Increase the cost of permit fees to offset the City's management costs and deter the RPP as first choice for employee parking.

E. Public and private sector work collectively to identify and construct intermediate parking locations within the commercial areas.

F. City should require an employee parking plan prior to the issuance of a Certificate of Occupancy.

G. Parking rates in public and private lots for employees should not be lower than market rates.

PARKING INVENTORY RECOMMENDATIONS

1. Collaborate with Private Parking Lot Owners and Operators

A. Public and private parking operators should mutually support, market, and assist each other to utilize all parking inventories.

B. Hold periodic meetings to discuss and strategize joint efforts.

2. Create Additional Off-Street Parking for the Short Term

A. Create additional inventory out of parcels currently underutilized.

B. Explore short-term off-season adjustments to on-street parking to increase inventory in closer proximity to the businesses along Atlantic Avenue and Pacific Avenue.

3. Improve the 19th Street Corridor

A. Construct wide sidewalks, bike lanes, and/or multi-use paths with crosswalks, adequate street lighting, and street furniture to "connect" the Convention Center to the Oceanfront

Construct bike lanes. Bike lanes are critical strategy to satellite parking areas. Don't forget additional bike racks.

B. Create a strategy to unlock the mostly unused parking inventory

C. Promote the Convention Center parking as a "Bicycle Park-and-Ride" for Hampton Roads residents

Great idea.

D. Incentivize this parking inventory for employee use

E. Consistent with future vision of the corridor

4. Install Wayfinding to Identify Parking Facilities and Parking Space Identification Technologies

A. Provide advanced parking wayfinding technologies to inform motorists of where available parking is as they approach the Resort Area to direct parking users, reduce congestion while searching for parking, and maximize inventories.

Dynamic wayfinding systems will create havoc due to the ongoing flux of parking. Is there a City that has proven dynamic signs work?

B. Install parking space identification technology in parking garages to help internal circulation

5. Reassess Parking Rates

A. Meter spaces experience longer duration and lower turnover than off-street facilities

B. Parking rates should encourage long term parking in off-street facilities and short term parking in on-street facilities

FUTURE PARKING RECOMMENDATIONS

1. Reassess Minimum Parking Requirement Codes

A. Current minimum parking requirements are consistent with typical sub-urban development

B. Do not consider the inventory reduction benefits of shared parking

2. Maintain and Update Parking Demand Model

A. Interactive tool to annually model supply/demand for the Resort Area and districts

B. Model parking demands of proposed developments and impacts to current inventory

C. Use the Central Beach and Laskin Districts as samples to evaluate parking for the future

RESORT AREA PARKING COMMITTEE RECOMMENDATIONS

Revise Residential Parking Permit Program to Align with Recommendations

Establish Standing Committee for Unique Challenges

A. Should include additional stakeholders when areas involve separate restrictions.

Create and Identify Separate Districts with Unique Characteristics

A. Criteria for identifying areas to include nature and type of restrictions.

B. Stripe spaces in these districts to more clearly identify no parking areas.

C. Increase fines as deterrent.

D. Regulation should correspond to the impact times.

Yes

Direct Staff to Investigate 24/7 Parking

A. 16th Street from Pacific Avenue to Cypress Avenue.

B. 15th Street from Cypress Avenue to mid-block.

Absolutely not.

Do Not Cap Employee Permits; Reduce through Other Measures

A. Increase the cost of Employee Permits.

B. Establish accountability procedures for businesses whose employees dishonor rules, regulations, and ordinances.

C. Adopt rules of conduct with accountability for employees.
D. Use punitive measures for violations by employees and businesses.
E. Create incentives to relocate employees from residential areas.

Provide Discounted Employee Parking in Designated Areas

A. Designate spots in public garages "for employees only."
B. Extend parking hours in garages/lots for employee vehicles with permits.
C. Work with HRT to discount transit options to/from satellite parking for employees
D. Explore effects of parking on Atlantic Avenue during off-season.
E. Develop unused public properties as "Employee Only" parking.
F. Look at parking beyond 31st Street.

Encourage Alternative Transportation Options (Trolley-Like Options)

A. Link this conveniently to satellite parking for employees.
B. Use satellite parking during peak periods for visitors and increase shuttle service during that time.

Create Virginia Beach Branding for Parking

A. Create simple, clear, friendly signs that guide people to closest parking.
B. Develop a Master Signage Plan to be branded as a Way-Finding System.
C. Add both static and dynamic signs to guide people to parking.
D. Adopt consistent signs.
E. Incorporate a phone app to help visitors.
F. Use flyers along with tickets to give information.
G. Continue to investigate new technology for parking.
H. Require all Special Events to post available parking.

Ensure Tow Truck Drivers are Adhering to Laws, Especially in Neighborhoods

A. Review codes around towing operations in neighborhoods, being sensitive to hours of operation.
B. Consider removing towing for RPPP violation.
C. Implement scalable fines.

Increase Lighting in Neighborhoods

Yes please.

Begin a Construction Parking Plan

A. Review plan through Site Plan Review process.

B. Require it as part of the permit application to provide parking for on-site construction workers through all phases of construction.

Revise Ordinance 23-58: Commercial Lots

A. Work with commercial lot operators to bring code up to date.

B. Bring "informal" lots into compliance.

C. Encourage consistent enforcement of all lots.

Additional comments:

Parking passes should be issued to property owners that abut to public parking. The parking passes should be treated like a commodity where pass owners have the right to sell through city system.

Need more bike racks so they aren't locked to every utility pole.

Need more parking permits per household.

Need weekend access for extra permits.

APPENDIX D: PARKING COUNTS – INVENTORY, OCCUPANCY, AND RPPP NIGHTLY VEHICLE SURVEYS

Table 1 – Existing Parking Inventory

	Metered	Unmarked	Handicap	Motorcycle	Loading	Other	Total	Comments
Surface Lots								
A – Arctic Avenue between 16th and 17th		21					21	Open only for overflow
B – Arctic Avenue between 16th and 17th		20					20	
C – 17th Street between Arctic and Baltic		60					60	Open only for overflow
D – 17th Street between Arctic and Baltic		39					39	
E – 18th Street between Atlantic and Pacific		110					110	
F – 19th Street between Pacific and Arctic		331					331	
G – 19th Street between Pacific and Arctic		207					207	Open only for overflow
H – 19th Street between Atlantic and Pacific		131					131	
I – Arctic Avenue between 20th and 21st		24					24	
J – Arctic Avenue between 20th and 21st		20					20	Open only for overflow
K – 20th Street between Pacific and Arctic		38					38	Hotel overflow and Beach Parking
L – 20th Street between Pacific and Arctic		62					62	
M – 21st Street between Atlantic and Pacific		83					83	
N – 20th Street between Atlantic and Pacific		25					25	
O – Pacific Avenue between 20th and 21st		20					20	
P – 20th Street between Atlantic and Pacific		65					65	
Q – 23rd Street between Pacific and Arctic		40					40	Hotel overflow and Beach Parking
R – 25th Street between Pacific and Arctic		244					244	
S – 25th Street between Atlantic and Pacific		29					29	Open only for overflow
Total	0	1,569	0	0	0	0	1,569	
Curb Spaces								
25th Street: Atlantic to Pacific	16		1	2			19	Pay-by-space
25th Street: Pacific to Arctic	25	10					35	
25th Street: Arctic to Baltic		27	2				29	
25th Street: Baltic to Mediterranean		29					29	
25th Street: Mediterranean to Cypress		21					21	
24 1/2th Street: Pacific to Arctic	12					1	13	
Total	53	87	3	2	0	1	146	

Table 1 – Existing Parking Inventory (continued)

	Metered	Unmarked	Handicap	Motorcycle	Loading	Other	Total	Comments
Curb Spaces (continued)								
24th Street: Atlantic to Pacific	6		1			2	9	Pay-by-space
24th Street: Pacific to Arctic		41					41	
24th Street: Arctic to Baltic		61					61	
24th Street: Baltic to Mediterranean		37					37	
24th Street: Mediterranean to Cypress		36					36	
23rd Street: Atlantic to Pacific	12		1		2		15	
23rd Street: Pacific to Arctic	11	14					25	
23rd Street: Arctic to Baltic		59					59	
23rd Street: Baltic to Mediterranean		34					34	
23rd Street: Mediterranean to Cypress		25					25	
22nd Street: Atlantic to Pacific							0	Posted no parking
22nd Street: Pacific to Arctic		31					31	
22nd Street: Arctic to Baltic		29					29	
22nd Street: Baltic to Mediterranean		28					28	
22nd Street: Mediterranean to Cypress		32					32	
21st Street: Atlantic to Pacific							0	Posted no parking
21st Street: Pacific to Arctic	18						18	
21st Street: Arctic to Baltic		37					37	
21st Street: Baltic to Mediterranean		35					35	
21st Street: Mediterranean to Cypress		34					34	
20th Street: Atlantic to Pacific	4		1		1		6	
20th Street: Pacific to Arctic	16						16	
20th Street: Arctic to Baltic		37					37	
20th Street: Baltic to Mediterranean		5					5	
20th Street: Mediterranean to Cypress							0	Posted no parking
19th Street: Atlantic to Pacific							0	Posted no parking
19th Street: Pacific to Arctic	5						5	
19th Street: Arctic to Baltic	4	4					8	
19th Street: Baltic to Mediterranean							0	Posted no parking
19th Street: Mediterranean to Cypress							0	Posted no parking
18th Street: Atlantic to Pacific							0	Posted no parking
18th Street: Pacific to Arctic	32	1					33	
18th Street: Arctic to Baltic		40					40	
18th Street: Baltic to Mediterranean		22					22	
18th Street: Mediterranean to Cypress							0	Posted no parking
17th Street: Atlantic to Pacific							0	Posted no parking
17th Street: Pacific to Arctic	16				1		17	
17th Street: Arctic to Baltic							0	Posted no parking
Total	124	642	3	0	4	2	775	

Table 1 – Existing Parking Inventory (continued)

	Metered	Unmarked	Handicap	Motorcycle	Loading	Other	Total	Comments
Curb Spaces (continued)								
17th Street: Baltic to Mediterranean							0	Posted no parking
17th Street: Mediterranean to Cypress							0	Posted no parking
16th Street: Atlantic to Pacific	18		1				19	
16th Street: Pacific to Arctic		32					32	
16th Street: Arctic to Baltic		32					32	
16th Street: Baltic to Mediterranean		15					15	
16th Street: Mediterranean to Cypress		10					10	
Arctic: 16th to 17th		12					12	
Arctic: 17th to 18th	5	2					7	
Arctic: 18th to 19th							0	Posted no parking
Arctic: 19th to 20th	17		1				18	
Arctic: 20th to 21st							0	Posted no parking
Arctic: 21st to 22nd							0	Posted no parking
Arctic: 22nd to 23rd		5					5	
Arctic: 23rd to 24th							0	Posted no parking
Arctic: 24th to 25th		26					26	
Baltic: 16th to 17th		11					11	
Baltic: 17th to 18th	9						9	
Baltic: 18th to 19th		17					17	
Baltic: 19th to 20th		9					9	
Baltic: 20th to 21st		8					8	
Baltic: 21st to 22nd							0	Posted no parking
Baltic: 22nd to 23rd							0	Posted no parking
Baltic: 23rd to 24th		16					16	
Baltic: 24th to 25th		19					19	
Mediterranean: 16th to 17th							0	Posted no parking
Mediterranean: 17th to 18th							0	Posted no parking
Mediterranean: 18th to 19th							0	Posted no parking
Mediterranean: 19th to 20th							0	Posted no parking
Mediterranean: 20th to 21st							0	Posted no parking
Mediterranean: 21st to 22nd							0	Posted no parking
Mediterranean: 22nd to 23rd							0	Posted no parking
Mediterranean: 23rd to 24th							0	Posted no parking
Mediterranean: 24th to 25th		9					9	
Cypress: 16th to 17th							0	Posted no parking
Cypress: 17th to 18th							0	Posted no parking
Cypress: 18th to 19th							0	Posted no parking
Cypress: 19th to 20th							0	Posted no parking
Cypress: 20th to 21st							0	Posted no parking
Cypress: 21st to 22nd							0	Posted no parking
Cypress: 22nd to 23rd							0	Posted no parking
Cypress: 23rd to 24th							0	Posted no parking
Cypress: 24th to 25th							0	Posted no parking
Total	49	223	2	0	0	0	274	
Overall								
Total	226	2,521	8	2	4	3	2,764	

Table 1 – Existing Parking Inventory (continued)

	Metered	Unmarked	Handicap	Motorcycle	Loading	Other	Total
Surface Lot	0	1,569	0	0	0	0	1,569
Curb Spaces	226	952	8	2	4	3	1,195
Total	226	2,521	8	2	4	3	2,764

Table 2 – Existing Parking Weekday Occupancy

	Inventory	10 AM Weekday Occupancy		1 PM Weekday Occupancy		4 PM Weekday Occupancy		7 PM Weekday Occupancy		10 PM Weekday Occupancy	
		Spaces	%	Spaces	%	Spaces	%	Spaces	%	Spaces	%
Surface Lots											
A – Arctic Avenue between 16th and 17th	21	0	0%	0	0%	0	0%	0	0%	0	0%
B – Arctic Avenue between 16th and 17th	20	0	0%	1	5%	1	5%	0	0%	0	0%
C – 17th Street between Arctic and Baltic	60	0	0%	0	0%	0	0%	0	0%	0	0%
D – 17th Street between Arctic and Baltic	39	1	3%	2	8%	3	8%	3	8%	6	15%
E – 18th Street between Atlantic and Pacific	110	56	51%	62	59%	65	59%	47	43%	56	51%
F – 19th Street between Pacific and Arctic	331	4	1%	44	17%	56	17%	72	22%	114	34%
G – 19th Street between Pacific and Arctic	207	0	0%	0	0%	0	0%	0	0%	0	0%
H – 19th Street between Atlantic and Pacific	131	9	7%	63	52%	68	52%	41	31%	13	10%
I – Arctic Avenue between 20th and 21st	24	0	0%	6	33%	8	33%	8	33%	5	21%
J – Arctic Avenue between 20th and 21st	20	0	0%	0	0%	0	0%	0	0%	0	0%
K – 20th Street between Pacific and Arctic	38	8	21%	15	42%	16	42%	15	39%	17	45%
L – 20th Street between Pacific and Arctic	62	5	8%	16	26%	16	26%	7	11%	14	23%
M – 21st Street between Atlantic and Pacific	83	2	2%	14	20%	17	20%	23	28%	25	30%
N – 20th Street between Atlantic and Pacific	25	9	36%	12	60%	15	60%	16	64%	18	72%
O – Pacific Avenue between 20th and 21st	20	0	0%	0	0%	0	0%	0	0%	0	0%
P – 20th Street between Atlantic and Pacific	65	7	11%	14	15%	10	15%	13	20%	22	34%
Q – 23rd Street between Pacific and Arctic	40	3	8%	5	3%	1	3%	1	3%	2	5%
R – 25th Street between Pacific and Arctic	244	14	6%	57	20%	49	20%	70	29%	72	30%
Total	1,569	118	8%	311	20%	325	21%	316	20%	364	23%
Curb Spaces											
25th Street: Atlantic to Pacific	19	14	74%	17	89%	10	53%	16	84%	17	89%
25th Street: Pacific to Artic	35	8	23%	12	34%	13	37%	7	20%	16	46%
25th Street: Arctic to Baltic	29	14	48%	19	66%	16	55%	19	66%	11	38%
25th Street: Baltic to Mediterranean	29	7	24%	6	21%	10	34%	11	38%	11	38%
25th Street: Mediterranean to Cypress	21	0	0%	0	0%	2	10%	5	24%	5	24%
24 1/2th Street: Pacific to Artic	13	1	8%	1	8%	0	0%	4	31%	1	8%
24th Street: Atlantic to Pacific	9	3	33%	5	56%	7	78%	7	78%	7	78%
24th Street: Pacific to Artic	41	35	85%	38	93%	33	80%	38	93%	39	95%
24th Street: Arctic to Baltic	61	24	39%	15	25%	19	31%	16	26%	19	31%
24th Street: Baltic to Mediterranean	37	9	24%	10	27%	11	30%	12	32%	16	43%
24th Street: Mediterranean to Cypress	36	4	11%	4	11%	2	6%	7	19%	6	17%

Table 2 – Existing Parking Weekday Occupancy (continued)

	Inventory	10 AM Weekday Occupancy		1 PM Weekday Occupancy		4 PM Weekday Occupancy		7 PM Weekday Occupancy		10 PM Weekday Occupancy	
		Spaces	%	Spaces	%	Spaces	%	Spaces	%	Spaces	%
Curb Spaces (Continued)											
23rd Street: Atlantic to Pacific	15	12	80%	11	73%	12	80%	7	47%	5	33%
23rd Street: Pacific to Artic	25	10	40%	17	68%	17	68%	15	60%	17	68%
23rd Street: Arctic to Baltic	59	23	39%	26	44%	26	44%	45	76%	42	71%
23rd Street: Baltic to Mediterranean	34	12	35%	12	35%	10	29%	10	29%	14	41%
23rd Street: Mediterranean to Cypress	25	6	24%	6	24%	5	20%	7	28%	9	36%
22nd Street: Atlantic to Pacific	0	--	--	--	--	--	--	--	--	--	--
22nd Street: Pacific to Artic	31	18	58%	21	68%	25	81%	25	81%	24	77%
22nd Street: Arctic to Baltic	29	4	14%	8	28%	7	24%	15	52%	16	55%
22nd Street: Baltic to Mediterranean	28	6	21%	4	14%	1	4%	3	11%	6	21%
22nd Street: Mediterranean to Cypress	32	4	13%	5	16%	6	19%	1	3%	1	3%
21st Street: Atlantic to Pacific	0	--	--	--	--	--	--	--	--	--	--
21st Street: Pacific to Artic	18	0	0%	0	0%	2	11%	7	39%	6	33%
21st Street: Arctic to Baltic	37	6	16%	10	27%	13	35%	17	46%	33	89%
21st Street: Baltic to Mediterranean	35	7	20%	6	17%	4	11%	5	14%	6	17%
21st Street: Mediterranean to Cypress	34	3	9%	4	12%	3	9%	0	0%	1	3%
20th Street: Atlantic to Pacific	6	6	100%	6	100%	5	83%	5	83%	4	67%
20th Street: Pacific to Artic	16	2	13%	5	31%	2	13%	6	38%	6	38%
20th Street: Arctic to Baltic	37	15	41%	19	51%	15	41%	18	49%	18	49%
20th Street: Baltic to Mediterranean	5	0	0%	0	0%	0	0%	0	0%	0	0%
20th Street: Mediterranean to Cypress	0	--	--	--	--	--	--	--	--	--	--
19th Street: Atlantic to Pacific	0	--	--	--	--	--	--	--	--	--	--
19th Street: Pacific to Artic	5	0	0%	1	20%	3	60%	3	60%	5	100%
19th Street: Arctic to Baltic	8	5	63%	4	50%	3	38%	4	50%	2	25%
19th Street: Baltic to Mediterranean	0	--	--	--	--	--	--	--	--	--	--
19th Street: Mediterranean to Cypress	0	--	--	--	--	--	--	--	--	--	--
18th Street: Atlantic to Pacific	0	--	--	--	--	--	--	--	--	--	--
18th Street: Pacific to Artic	33	1	3%	3	9%	6	18%	9	2%	7	21%
18th Street: Arctic to Baltic	40	26	65%	30	75%	34	85%	20	50%	10	25%
18th Street: Baltic to Mediterranean	22	7	32%	5	23%	4	18%	1	5%	2	9%
18th Street: Mediterranean to Cypress	0	--	--	--	--	--	--	--	--	--	--
17th Street: Atlantic to Pacific	0	--	--	--	--	--	--	--	--	--	--
17th Street: Pacific to Artic	17	1	6%	1	6%	5	30%	1	6%	0	0%
17th Street: Arctic to Baltic	0	--	--	--	--	--	--	--	--	--	--

Table 2 – Existing Parking Weekday Occupancy (continued)

	Inventory	10 AM Weekday Occupancy		1 PM Weekday Occupancy		4 PM Weekday Occupancy		7 PM Weekday Occupancy		10 PM Weekday Occupancy	
		Spaces	%	Spaces	%	Spaces	%	Spaces	%	Spaces	%
Curb Spaces (Continued)											
17th Street: Baltic to Mediterranean	0	--	--	--	--	--	--	--	--	--	--
17th Street: Mediterranean to Cypress	0	--	--	--	--	--	--	--	--	--	--
16th Street: Atlantic to Pacific	19	2	11%	5	26%	6	32%	9	47%	11	58%
16th Street: Pacific to Artic	32	23	72%	26	81%	21	66%	28	88%	30	94%
16th Street: Arctic to Baltic	32	8	25%	8	25%	10	31%	9	28%	10	31%
16th Street: Baltic to Mediterranean	15	2	13%	4	27%	6	40%	10	67%	10	67%
16th Street: Mediterranean to Cypress	10	4	40%	3	30%	4	40%	3	30%	3	30%
Arctic: 16th to 17th	12	9	75%	9	75%	7	58%	9	75%	9	75%
Arctic: 17th to 18th	7	0	0%	1	14%	2	29%	2	29%	1	14%
Arctic: 18th to 19th	0	--	--	--	--	--	--	--	--	--	--
Arctic: 19th to 20th	18	0	0%	0	0%	0	0%	0	0%	0	0%
Arctic: 20th to 21st	0	--	--	--	--	--	--	--	--	--	--
Arctic: 21st to 22nd	0	--	--	--	--	--	--	--	--	--	--
Arctic: 22nd to 23rd	5	2	40%	4	80%	2	60%	3	60%	2	60%
Arctic: 23rd to 24th	0	--	--	--	--	--	--	--	--	--	--
Arctic: 24th to 25th	26	18	69%	17	65%	11	42%	10	38%	15	58%
Baltic: 16th to 17th	11	2	18%	1	9%	4	36%	3	27%	5	45%
Baltic: 17th to 18th	9	4	44%	3	33%	4	44%	0	0%	0	0%
Baltic: 18th to 19th	17	5	29%	9	53%	8	47%	5	29%	3	18%
Baltic: 19th to 20th	9	2	22%	4	44%	4	44%	2	22%	1	11%
Baltic: 20th to 21st	8	2	25%	2	25%	2	25%	3	38%	5	63%
Baltic: 21st to 22nd	0	--	--	--	--	--	--	--	--	--	--
Baltic: 22nd to 23rd	0	--	--	--	--	--	--	--	--	--	--
Baltic: 23rd to 24th	16	1	6%	1	6%	1	6%	4	25%	2	13%
Baltic: 24th to 25th	19	8	42%	10	53%	9	47%	12	63%	13	68%
Mediterranean: 16th to 17th	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 17th to 18th	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 18th to 19th	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 19th to 20th	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 20th to 21st	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 21st to 22nd	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 22nd to 23rd	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 23rd to 24th	0	--	--	--	--	--	--	--	--	--	--

Table 2 – Existing Parking Weekday Occupancy (continued)

		10 AM Weekday Occupancy		1 PM Weekday Occupancy		4 PM Weekday Occupancy		7 PM Weekday Occupancy		10 PM Weekday Occupancy	
	Inventory	Spaces	%	Spaces	%	Spaces	%	Spaces	%	Spaces	%
Curb Spaces (Continued)											
Mediterranean: 24th to 25th	9	3	33%	3	33%	4	44%	4	44%	3	33%
Cypress: 16th to 17th	0	--	--	--	--	--	--	--	--	--	--
Cypress: 17th to 18th	0	--	--	--	--	--	--	--	--	--	--
Cypress: 18th to 19th	0	--	--	--	--	--	--	--	--	--	--
Cypress: 19th to 20th	0	--	--	--	--	--	--	--	--	--	--
Cypress: 20th to 21st	0	--	--	--	--	--	--	--	--	--	--
Cypress: 21st to 22nd	0	--	--	--	--	--	--	--	--	--	--
Cypress: 22nd to 23rd	0	--	--	--	--	--	--	--	--	--	--
Cypress: 23rd to 24th	0	--	--	--	--	--	--	--	--	--	--
Cypress: 24th to 25th	0	--	--	--	--	--	--	--	--	--	--
Total	1,195	388	32%	441	37%	437	37%	482	40%	505	42%
Overall	2,764	506	18%	752	27%	762	28%	798	29%	869	31%

Table 3 – Existing Parking Weekend Occupancy

	Inventory	10 AM Weekend Occupancy		1 PM Weekend Occupancy		4 PM Weekend Occupancy		7 PM Weekend Occupancy		10 PM Weekend Occupancy	
		Spaces	%	Spaces	%	Spaces	%	Spaces	%	Spaces	%
Surface Lots											
A – Arctic Avenue between 16th and 17th	21	0	0%	0	0%	0	0%	0	0%	0	0%
B – Arctic Avenue between 16th and 17th	20	0	0%	6	30%	17	85%	5	25%	11	55%
C – 17th Street between Arctic and Baltic	60	0	0%	25	42%	54	90%	5	8%	27	45%
D – 17th Street between Arctic and Baltic	39	1	3%	0	0%	2	5%	25	64%	16	41%
E – 18th Street between Atlantic and Pacific	110	47	43%	100	91%	101	92%	84	76%	100	91%
F – 19th Street between Pacific and Arctic	331	18	5%	88	27%	149	45%	248	75%	297	90%
G – 19th Street between Pacific and Arctic	207	3	1%	10	5%	127	61%	205	99%	166	80%
H – 19th Street between Atlantic and Pacific	131	21	16%	83	63%	102	78%	104	79%	108	82%
I – Arctic Avenue between 20th and 21st	24	4	17%	15	63%	21	88%	23	96%	24	100%
J – Arctic Avenue between 20th and 21st	20	0	0%	0	0%	0	0%	14	70%	20	100%
K – 20th Street between Pacific and Arctic	38	12	32%	33	87%	36	95%	43	113%	36	95%
L – 20th Street between Pacific and Arctic	62	14	23%	29	47%	26	42%	36	58%	42	68%
M – 21st Street between Atlantic and Pacific	83	20	24%	50	60%	52	63%	56	67%	80	96%
N – 20th Street between Atlantic and Pacific	25	3	12%	25	100%	25	100%	25	100%	25	100%
O – Pacific Avenue between 20th and 21st	20	0	0%	0	0%	7	35%	21	105%	18	90%
P – 20th Street between Atlantic and Pacific	65	7	11%	23	35%	51	78%	63	97%	51	78%
Q – 23rd Street between Pacific and Arctic	40	5	13%	5	13%	7	18%	7	18%	7	18%
R – 25th Street between Pacific and Arctic	244	24	10%	88	36%	155	64%	233	95%	167	68%
Total	1,569	179	11%	580	37%	932	59%	1,197	76%	1,195	76%
Curb Spaces											
25th Street: Atlantic to Pacific	19	14	74%	17	89%	18	95%	17	89%	18	95%
25th Street: Pacific to Artic	35	5	14%	21	60%	23	66%	35	100%	28	80%
25th Street: Arctic to Baltic	29	22	76%	21	72%	25	86%	22	76%	22	76%
25th Street: Baltic to Mediterranean	29	10	34%	11	38%	14	48%	16	55%	14	48%
25th Street: Mediterranean to Cypress	21	0	0%	3	14%	6	29%	14	67%	8	38%
24 1/2th Street: Pacific to Artic	13	2	15%	4	31%	0	0%	13	100%	9	69%
24th Street: Atlantic to Pacific	9	3	33%	7	78%	7	78%	9	100%	9	100%
24th Street: Pacific to Artic	41	38	93%	40	98%	39	95%	34	83%	41	100%
24th Street: Arctic to Baltic	61	19	31%	27	44%	42	69%	35	57%	32	52%
24th Street: Baltic to Mediterranean	37	15	41%	18	49%	21	57%	24	65%	19	51%
24th Street: Mediterranean to Cypress	36	5	14%	4	11%	18	50%	19	53%	21	58%

Table 3 – Existing Parking Weekend Occupancy (continued)

	Inventory	10 AM Weekend Occupancy		1 PM Weekend Occupancy		4 PM Weekend Occupancy		7 PM Weekend Occupancy		10 PM Weekend Occupancy	
		Spaces	%	Spaces	%	Spaces	%	Spaces	%	Spaces	%
Curb Spaces (Continued)											
23rd Street: Atlantic to Pacific	15	8	53%	12	80%	13	87%	5	33%	5	33%
23rd Street: Pacific to Artic	25	7	28%	6	24%	5	20%	18	72%	18	72%
23rd Street: Arctic to Baltic	59	38	64%	34	58%	35	59%	41	69%	39	66%
23rd Street: Baltic to Mediterranean	34	12	35%	11	32%	11	32%	14	41%	14	41%
23rd Street: Mediterranean to Cypress	25	7	28%	6	24%	6	24%	7	28%	8	32%
22nd Street: Atlantic to Pacific	0	--	--	--	--	--	--	--	--	--	--
22nd Street: Pacific to Artic	31	19	61%	25	81%	28	90%	24	77%	22	71%
22nd Street: Arctic to Baltic	29	13	45%	13	45%	26	90%	26	90%	29	100%
22nd Street: Baltic to Mediterranean	28	4	14%	6	21%	6	21%	8	29%	16	57%
22nd Street: Mediterranean to Cypress	32	2	6%	2	6%	2	6%	2	6%	1	3%
21st Street: Atlantic to Pacific	0	--	--	--	--	--	--	--	--	--	--
21st Street: Pacific to Artic	18	0	0%	2	11%	18	100%	17	94%	12	67%
21st Street: Arctic to Baltic	37	8	22%	16	43%	21	57%	32	86%	36	97%
21st Street: Baltic to Mediterranean	35	5	14%	7	20%	12	34%	9	26%	14	40%
21st Street: Mediterranean to Cypress	34	1	3%	3	9%	1	3%	0	0%	0	0%
20th Street: Atlantic to Pacific	6	4	67%	6	100%	6	100%	5	83%	1	17%
20th Street: Pacific to Artic	16	1	6%	8	50%	16	100%	15	94%	16	100%
20th Street: Arctic to Baltic	37	10	27%	19	51%	24	65%	28	76%	29	78%
20th Street: Baltic to Mediterranean	5	0	0%	0	0%	0	0%	0	0%	0	0%
20th Street: Mediterranean to Cypress	0	--	--	--	--	--	--	--	--	--	--
19th Street: Atlantic to Pacific	0	--	--	--	--	--	--	--	--	--	--
19th Street: Pacific to Artic	5	1	20%	3	60%	5	100%	2	40%	5	100%
19th Street: Arctic to Baltic	8	4	50%	6	75%	5	63%	2	25%	4	50%
19th Street: Baltic to Mediterranean	0	--	--	--	--	--	--	--	--	--	--
19th Street: Mediterranean to Cypress	0	--	--	--	--	--	--	--	--	--	--
18th Street: Atlantic to Pacific	0	--	--	--	--	--	--	--	--	--	--
18th Street: Pacific to Artic	33	0	0%	23	70%	27	82%	23	70%	29	88%
18th Street: Arctic to Baltic	40	31	78%	36	90%	32	80%	22	55%	11	28%
18th Street: Baltic to Mediterranean	22	13	59%	2	9%	2	9%	2	9%	1	5%
18th Street: Mediterranean to Cypress	0	--	--	--	--	--	--	--	--	--	--
17th Street: Atlantic to Pacific	0	--	--	--	--	--	--	--	--	--	--
17th Street: Pacific to Artic	17	1	6%	10	59%	8	47%	16	94%	12	71%
17th Street: Arctic to Baltic	0	--	--	--	--	--	--	--	--	--	--

Table 3 – Existing Parking Weekend Occupancy (continued)

	Inventory	10 AM Weekend Occupancy		1 PM Weekend Occupancy		4 PM Weekend Occupancy		7 PM Weekend Occupancy		10 PM Weekend Occupancy	
		Spaces	%	Spaces	%	Spaces	%	Spaces	%	Spaces	%
Curb Spaces (Continued)											
17th Street: Baltic to Mediterranean	0	--	--	--	--	--	--	--	--	--	--
17th Street: Mediterranean to Cypress	0	--	--	--	--	--	--	--	--	--	--
16th Street: Atlantic to Pacific	19	6	32%	13	68%	14	74%	14	74%	16	84%
16th Street: Pacific to Artic	32	28	88%	30	94%	24	75%	19	59%	26	81%
16th Street: Arctic to Baltic	32	15	47%	27	84%	29	91%	18	56%	15	47%
16th Street: Baltic to Mediterranean	15	5	33%	3	20%	8	53%	15	100%	9	60%
16th Street: Mediterranean to Cypress	10	1	10%	2	20%	5	50%	6	60%	3	30%
Arctic: 16th to 17th	12	7	58%	11	92%	10	83%	10	83%	10	83%
Arctic: 17th to 18th	7	0	0%	0	0%	5	71%	3	43%	5	71%
Arctic: 18th to 19th	0	--	--	--	--	--	--	--	--	--	--
Arctic: 19th to 20th	18	0	0%	0	0%	0	0%	18	100%	18	100%
Arctic: 20th to 21st	0	--	--	--	--	--	--	--	--	--	--
Arctic: 21st to 22nd	0	--	--	--	--	--	--	--	--	--	--
Arctic: 22nd to 23rd	5	2	40%	1	20%	2	40%	2	40%	2	40%
Arctic: 23rd to 24th	0	--	--	--	--	--	--	--	--	--	--
Arctic: 24th to 25th	26	16	62%	19	73%	23	88%	24	92%	17	65%
Baltic: 16th to 17th	11	4	36%	3	27%	9	82%	6	55%	6	55%
Baltic: 17th to 18th	9	9	100%	5	56%	8	89%	2	22%	3	33%
Baltic: 18th to 19th	17	15	88%	8	47%	8	47%	5	29%	4	24%
Baltic: 19th to 20th	9	3	33%	5	56%	8	89%	6	67%	6	67%
Baltic: 20th to 21st	8	4	50%	4	50%	5	63%	6	75%	7	88%
Baltic: 21st to 22nd	0	--	0%	--	--	--	--	--	--	--	--
Baltic: 22nd to 23rd	0	--	0%	--	--	--	--	--	--	--	--
Baltic: 23rd to 24th	16	1	6%	3	19%	5	31%	4	25%	3	19%
Baltic: 24th to 25th	19	9	47%	12	63%	9	47%	13	68%	19	100%
Mediterranean: 16th to 17th	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 17th to 18th	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 18th to 19th	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 19th to 20th	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 20th to 21st	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 21st to 22nd	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 22nd to 23rd	0	--	--	--	--	--	--	--	--	--	--
Mediterranean: 23rd to 24th	0	--	--	--	--	--	--	--	--	--	--

Table 3 – Existing Parking Weekend Occupancy (continued)

	Inventory	10 AM Weekend Occupancy		1 PM Weekend Occupancy		4 PM Weekend Occupancy		7 PM Weekend Occupancy		10 PM Weekend Occupancy	
		Spaces	%	Spaces	%	Spaces	%	Spaces	%	Spaces	%
Curb Spaces (Continued)											
Mediterranean: 24th to 25th	9	3	33%	2	22%	2	22%	3	33%	3	33%
Cypress: 16th to 17th	0	--	--	--	--	--	--	--	--	--	--
Cypress: 17th to 18th	0	--	--	--	--	--	--	--	--	--	--
Cypress: 18th to 19th	0	--	--	--	--	--	--	--	--	--	--
Cypress: 19th to 20th	0	--	--	--	--	--	--	--	--	--	--
Cypress: 20th to 21st	0	--	--	--	--	--	--	--	--	--	--
Cypress: 21st to 22nd	0	--	--	--	--	--	--	--	--	--	--
Cypress: 22nd to 23rd	0	--	--	--	--	--	--	--	--	--	--
Cypress: 23rd to 24th	0	--	--	--	--	--	--	--	--	--	--
Cypress: 24th to 25th	0	--	--	--	--	--	--	--	--	--	--
Total	1,195	450	38%	577	48%	696	58%	730	61%	715	60%
Overall	2,764	629	23%	1,157	42%	1,628	59%	1,927	70%	1,910	69%

	Inventory	10 AM Occupancy		1 PM Occupancy		4 PM Occupancy		7 PM Occupancy		10 PM Occupancy	
		Spaces	%	Spaces	%	Spaces	%	Spaces	%	Spaces	%
WEEKDAY											
Surface Lot	1,569	118	8%	311	20%	325	21%	316	20%	364	23%
Curb Spaces	1,195	388	32%	441	37%	437	37%	482	40%	505	42%
Total	2,764	506	18%	752	27%	762	28%	798	29%	869	31%
WEEKEND											
Surface Lot	1,569	179	11%	580	37%	932	59%	1,197	76%	1,195	76%
Curb Spaces	1,195	450	38%	577	48%	696	58%	730	61%	715	60%
Total	2,764	629	23%	1,157	42%	1,628	59%	1,927	70%	1,910	69%

RPP Nightly Vehicle Survey

16th Street - 300 Block (Pacific to Arctic) — April 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
5-Apr	Thursday	10:00 PM	26	0	0	0	1	27	0%
6-Apr	Friday	2:00 AM	22	0	0	0	2	24	0%
6-Apr	Friday	10:00 PM	27	0	0	0	1	28	0%
7-Apr	Saturday	2:00 AM	18	0	0	0	1	19	0%
7-Apr	Saturday	10:00 PM	25	0	0	0	1	26	0%
8-Apr	Sunday	2:00 AM	13	0	0	0	0	13	0%
8-Apr	Sunday	10:00 PM	20	0	0	0	0	20	0%
9-Apr	Monday	2:00 AM	3	1	0	14	2	20	70%
12-Apr	Thursday	10:00 PM	5	4	0	13	0	22	59%
13-Apr	Friday	2:00 AM	3	1	0	13	0	17	76%
13-Apr	Friday	10:00 PM	2	2	0	22	1	27	81%
14-Apr	Saturday	2:00 AM	2	2	0	17	0	21	81%
15-Apr	Sunday	10:00 PM	2	2	0	24	1	29	83%
16-Apr	Monday	2:00 AM	3	2	0	21	0	26	81%
19-Apr	Thursday	10:00 PM	3	2	0	12	1	18	67%
20-Apr	Friday	2:00 AM	3	3	0	17	0	23	74%
20-Apr	Friday	10:00 PM	2	2	0	17	3	24	71%
21-Apr	Saturday	2:00 AM	2	2	0	13	0	17	76%
21-Apr	Saturday	10:00 PM	1	2	0	24	0	27	89%
22-Apr	Sunday	2:00 AM	2	2	0	17	0	21	81%
26-Apr	Thursday	10:00 PM	3	2	0	16	0	21	76%
27-Apr	Friday	2:00 AM	4	1	0	19	1	25	76%
27-Apr	Friday	10:00 PM	5	2	0	15	1	23	65%
28-Apr	Saturday	2:00 AM	6	2	0	12	1	21	57%
29-Apr	Sunday	10:00 PM	4	1	0	11	0	16	69%
30-Apr	Monday	2:00 AM	3	1	0	13	0	17	76%
Average			8.04	1.38	-	11.92	0.65	22.00	54%
Weekday Average			6.57	1.71	-	12.71	0.57	21.57	61%
Weekend Average			8.58	1.26	-	11.63	0.68	22.16	52%

16th Street - 300 Block (Pacific to Arctic) — May-12

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
3-May	Thursday	10:00 PM	4	2	0	19	0	25	76%
4-May	Friday	2:00 AM	3	1	0	15	0	19	79%
4-May	Friday	10:00 PM	3	3	0	19	1	26	73%
5-May	Saturday	10:00 PM	4	2	0	20	0	26	77%
6-May	Sunday	2:00 AM	5	0	0	14	1	20	70%
6-May	Sunday	10:00 PM	3	1	0	24	0	28	86%
7-May	Monday	2:00 AM	4	1	0	9	0	14	64%
10-May	Thursday	10:00 PM	5	1	0	18	0	24	75%
11-May	Friday	2:00 AM	5	1	0	15	0	21	71%
11-May	Friday	10:00 PM	4	1	0	24	1	30	80%
12-May	Saturday	2:00 AM	4	1	0	5	2	12	42%
12-May	Saturday	10:00 PM	5	1	0	19	2	27	70%
13-May	Sunday	2:00 AM	6	1	0	12	0	19	63%
13-May	Sunday	10:00 PM	4	1	0	18	0	23	78%
14-May	Monday	2:00 AM	4	1	0	9	0	14	64%
17-May	Thursday	10:00 PM	5	1	0	19	1	26	73%
18-May	Friday	2:00 AM	6	2	0	17	0	25	68%
18-May	Friday	10:00 PM	3	1	0	24	0	28	86%
19-May	Saturday	2:00 AM	3	2	0	12	0	17	71%
19-May	Saturday	10:00 PM	3	2	0	24	0	29	83%
20-May	Sunday	2:00 AM	3	2	0	9	0	14	64%
20-May	Sunday	10:00 PM	3	2	0	15	0	20	75%
21-May	Monday	2:00 AM	3	2	0	0	0	5	0%
24-May	Thursday	10:00 PM	6	1	0	19	0	26	73%
25-May	Friday	2:00 AM	4	3	0	14	0	21	67%
25-May	Friday	10:00 PM	4	3	0	24	0	31	77%
26-May	Saturday	2:00 AM	5	1	0	23	1	30	77%
26-May	Saturday	10:00 PM	2	3	0	20	2	27	74%
27-May	Sunday	2:00 AM	3	1	0	21	0	25	84%
28-May	Monday	2:00 AM	4	2	0	16	0	22	73%
31-May	Thursday	10:00 PM	4	0	0	22	0	26	85%
31-May	Thursday	2:00 AM	4	1	0	11	0	16	69%
Average			4.00	1.47	-	16.56	0.34	22.38	71%
Weekday Average			4.3	1.2	0	14.2	0.1	19.8	65%
Weekend Average			3.9	1.6	0.0	17.6	0.5	23.5	73%

16th Street - 300 Block (Pacific to Arctic) — June 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
1-Jun	Friday	10:00 PM	2	4	0	20	1	27	74%
2-Jun	Saturday	10:00 PM	4	6	0	17	1	28	61%
3-Jun	Sunday	2:00 AM	3	2	0	10	0	15	67%
7-Jun	Thursday	10:00 PM	6	2	0	20	2	30	67%
8-Jun	Friday	2:00 AM	4	1	0	5	0	10	50%
8-Jun	Friday	10:00 PM	6	1	0	17	2	26	65%
9-Jun	Saturday	2:00 AM	6	0	0	8	1	15	53%
10-Jun	Sunday	10:00 PM	5	1	0	17	1	24	71%
14-Jun	Thursday	10:00 PM	5	3	0	15	0	23	65%
15-Jun	Friday	2:00 AM	4	3	0	9	0	16	56%
15-Jun	Friday	10:00 PM	4	2	0	21	0	27	78%
16-Jun	Saturday	2:00 AM	3	5	0	13	0	21	62%
16-Jun	Saturday	10:00 PM	3	3	0	20	4	30	67%
17-Jun	Sunday	2:00 AM	3	3	0	12	0	18	67%
21-Jun	Thursday	10:00 PM	4	2	0	21	2	29	72%
22-Jun	Friday	2:00 AM	4	2	0	9	1	16	56%
23-Jun	Saturday	2:00 AM	3	1	0	14	0	18	78%
24-Jun	Sunday	10:00 PM	2	2	0	18	1	23	78%
25-Jun	Monday	2:00 AM	2	2	0	13	0	17	76%
28-Jun	Thursday	10:00 PM	3	2	0	21	0	26	81%
29-Jun	Friday	2:00 AM	3	1	0	10	0	14	71%
29-Jun	Friday	10:00 PM	3	1	0	23	0	27	85%
30-Jun	Saturday	10:00 PM	3	1	0	23	4	31	74%
Average			3.70	2.17	-	15.48	0.87	22.22	68%
Weekday Average			3.5	2.25	0	17.5	0.5	23.75	74%
Weekend Average			3.705882	2.058824	0	14.47059	0.882353	21.118	67%

16th Street - 300 Block (Pacific to Arctic) — July 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
1-Jul-12	Sunday	10:00 PM	3	2	0	20	1	26	77%
2-Jul-12	Monday	2:00 AM	5	1	0	2	0	8	25%
5-Jul-12	Thursday	10:00 PM	6	3	1	22	2	34	65%
6-Jul-12	Friday	2:00 AM	5	4	1	11	1	22	50%
6-Jul-12	Friday	10:00 PM	4	2	0	24	0	30	80%
7-Jul-12	Saturday	2:00 AM	3	3	0	10	0	16	63%
7-Jul-12	Saturday	10:00 PM	2	4	0	16	0	22	73%
8-Jul-12	Sunday	2:00 AM	2	5	0	12	0	19	63%
8-Jul-12	Sunday	10:00 PM	4	2	0	20	0	26	77%
9-Jul-12	Monday	2:00 AM	7	1	0	1	0	9	11%
12-Jul-12	Thursday	10:00 PM	5	1	0	22	2	30	73%
13-Jul-12	Friday	2:00 AM	5	1	0	13	0	19	68%
13-Jul-12	Friday	10:00 PM	4	0	0	25	0	29	86%
14-Jul-12	Saturday	2:00 AM	4	0	0	12	0	16	75%
14-Jul-12	Saturday	10:00 PM	3	1	0	25	1	30	83%
15-Jul-12	Sunday	2:00 AM	2	1	0	13	0	16	81%
15-Jul-12	Sunday	12:00 AM	5	1	0	19	0	25	76%
16-Jul-12	Monday	2:00 AM	6	0	0	3	0	9	33%
19-Jul-12	Thursday	10:00 PM	6	0	0	22	0	28	79%
20-Jul-12	Friday	2:00 AM	4	1	0	9	1	15	60%
22-Jul-12	Sunday	10:00 PM	4	1	0	22	1	28	79%
23-Jul-12	Monday	2:00 AM	4	2	0	18	0	24	75%
26-Jul-12	Thursday	10:00 PM	3	2	0	23	0	28	82%
27-Jul-12	Friday	2:00 AM	2	2	0	15	0	19	79%
27-Jul-12	Friday	10:00 PM	4	1	0	23	0	28	82%
28-Jul-12	Saturday	10:00 PM	1	4	0	21	0	26	81%
29-Jul-12	Sunday	10:00 PM	1	1	0	27	3	32	84%
30-Jul-12	Monday	2:00 AM	3	2	0	14	0	19	74%
Average			3.82	1.71	0.07	16.57	0.43	22.61	69%
Weekday Average			5	1.3	0.1	14.1	0.4	21	57%
Weekend Average			3.3	1.9	0.1	17.7	0.4	23.4	75%

16th Street - 300 Block (Pacific to Arctic) — August 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
2-Aug	Thursday	10:00 PM	4	1	0	13	1	19	68%
3-Aug	Friday	10:00 PM	2	0	0	27	1	30	90%
4-Aug	Saturday	2:00 AM	2	1	0	2	1	6	33%
4-Aug	Saturday	10:00 PM	2	0	0	25	2	29	86%
5-Aug	Sunday	2:00 AM	2	0	0	13	0	15	87%
12-Aug	Sunday	10:00 PM	3	0	0	25	3	31	81%
16-Aug	Thursday	10:00 PM	3	2	0	20	0	25	80%
17-Aug	Friday	2:00 AM	3	0	0	10	0	13	77%
17-Aug	Friday	10:00 PM	4	3	0	22	0	29	76%
19-Aug	Sunday	10:00 PM	5	2	0	16	1	24	67%
20-Aug	Monday	2:00 AM	5	2	0	6	0	13	46%
23-Aug	Thursday	10:00 PM	5	2	0	22	0	29	76%
24-Aug	Friday	2:00 AM	3	2	0	13	0	18	72%
24-Aug	Friday	10:00 PM	4	2	0	20	2	28	71%
25-Aug	Saturday	10:00 PM	4	2	0	14	2	22	64%
26-Aug	Sunday	2:00 AM	3	2	0	15	0	20	75%
26-Aug	Sunday	10:00 PM	2	2	0	18	0	22	82%
27-Aug	Monday	2:00 AM	2	2	0	14	0	18	78%
30-Aug	Thursday	10:00 PM	4	2	0	21	0	27	78%
31-Aug	Friday	2:00 AM	4	2	0	11	0	17	65%
31-Aug	Friday	10:00 PM	5	2	0	22	0	29	76%
Average			3.38	1.48	-	16.62	0.62	22.10	73%
Weekday Average			3.8	1.8	0.0	16.0	0.2	21.8	71.00%
Weekend Average			3.2	1.333333	0	16.86667	0.8	22.2	73.40%

16th Street - 300 Block (Pacific to Arctic) — September 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
6-Sep	Thursday	10:00 PM	3	2	0	13	1	19	68%
7-Sep	Friday	2:00 AM	4	2	0	10	0	16	63%
7-Sep	Friday	10:00 PM	3	4	0	21	0	28	75%
8-Sep	Saturday	2:00 AM	3	2	0	14	0	19	74%
9-Sep	Sunday	10:00 PM	3	0	0	14	0	17	82%
10-Sep	Monday	2:00 AM	4	0	0	11	0	15	73%
13-Sep	Thursday	10:00 PM	3	4	0	12	0	19	63%
14-Sep	Friday	2:00 AM	4	2	0	10	0	16	63%
14-Sep	Friday	10:00 PM	4	2	0	18	1	25	72%
15-Sep	Saturday	2:00 AM	5	2	0	12	0	19	63%
15-Sep	Saturday	10:00 PM	2	3	1	18	0	24	75%
16-Sep	Sunday	2:00 AM	4	2	0	12	0	18	67%
16-Sep	Sunday	10:00 PM	2	4	1	9	0	16	56%
17-Sep	Monday	2:00 AM	4	1	0	6	0	11	55%
Average			3.43	2.14	0.14	12.86	0.14	18.71	68%
Weekday Average			3.5	1.75	0	10.5	0.25	16	64.86%
Weekend Average			3.4	2.3	0.2	13.8	0.1	19.8	68.91%

16th Street - 400 Block (Arctic to Baltic) — April 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
5-Apr	Thursday	10:00 PM	3	1	0	0	1	5	0%
6-Apr	Friday	2:00 AM	3	0	0	0	2	5	0%
6-Apr	Friday	10:00 PM	13	0	0	0	2	15	0%
7-Apr	Saturday	2:00 AM	10	0	0	0	0	10	0%
7-Apr	Saturday	10:00 PM	7	0	0	0	0	7	0%
8-Apr	Sunday	2:00 AM	7	0	0	0	0	7	0%
8-Apr	Sunday	10:00 PM	4	3	0	0	1	8	0%
9-Apr	Monday	2:00 AM	5	2	0	0	0	7	0%
12-Apr	Thursday	10:00 PM	5	0	0	0	0	5	0%
13-Apr	Friday	2:00 AM	5	0	0	0	0	5	0%
13-Apr	Friday	10:00 PM	2	2	0	1	0	5	20%
14-Apr	Saturday	2:00 AM	3	2	0	1	0	6	17%
15-Apr	Sunday	10:00 PM	2	2	0	2	0	6	33%
16-Apr	Monday	2:00 AM	2	2	0	2	0	6	33%
19-Apr	Thursday	10:00 PM	2	2	0	1	0	5	20%
20-Apr	Friday	2:00 AM	3	2	0	1	0	6	17%
20-Apr	Friday	10:00 PM	3	2	0	4	0	9	44%
21-Apr	Saturday	2:00 AM	3	2	0	5	0	10	50%
21-Apr	Saturday	10:00 PM	7	3	0	2	0	12	17%
22-Apr	Sunday	2:00 AM	7	3	0	1	0	11	9%
26-Apr	Thursday	10:00 PM	4	1	0	0	0	5	0%
27-Apr	Friday	2:00 AM	4	1	0	0	0	5	0%
27-Apr	Friday	10:00 PM	5	2	0	5	0	12	42%
28-Apr	Saturday	2:00 AM	5	2	0	5	0	12	42%
29-Apr	Sunday	10:00 PM	3	1	0	0	0	4	0%
30-Apr	Monday	2:00 AM	4	2	0	0	0	6	0%
Average			4.65	1.42	-	1.15	0.23	7.46	13%
Weekday Average			3.57	1.43	-	0.43	0.14	5.57	8%
Weekend Average			5.05	1.42	-	1.42	0.26	8.16	15%

16th Street - 400 Block (Arctic to Baltic) — May-12

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
3-May	Thursday	10:00 PM	3	2	0	0	0	5	0%
4-May	Friday	2:00 AM	3	2	0	0	0	5	0%
4-May	Friday	10:00 PM	2	0	0	2	2	6	33%
5-May	Saturday	10:00 PM	3	1	0	7	1	12	58%
6-May	Sunday	2:00 AM	3	1	0	4	0	8	50%
6-May	Sunday	10:00 PM	4	2	0	4	0	10	40%
7-May	Monday	2:00 AM	6	1	0	0	1	8	0%
10-May	Thursday	10:00 PM	5	2	0	0	0	7	0%
11-May	Friday	2:00 AM	5	2	0	1	0	8	13%
11-May	Friday	10:00 PM	4	2	0	6	0	12	50%
12-May	Saturday	2:00 AM	5	3	0	5	0	13	38%
12-May	Saturday	10:00 PM	6	1	0	9	0	16	56%
13-May	Sunday	2:00 AM	6	1	0	2	0	9	22%
13-May	Sunday	10:00 PM	3	2	0	1	0	6	17%
14-May	Monday	2:00 AM	3	2	0	1	0	6	17%
17-May	Thursday	10:00 PM	4	2	0	0	0	6	0%
18-May	Friday	2:00 AM	4	2	0	0	0	6	0%
18-May	Friday	10:00 PM	4	2	0	7	0	13	54%
19-May	Saturday	2:00 AM	4	1	0	5	0	10	50%
19-May	Saturday	10:00 PM	4	3	0	4	0	11	36%
20-May	Sunday	2:00 AM	4	3	1	3	0	11	27%
20-May	Sunday	10:00 PM	5	1	0	0	0	6	0%
21-May	Monday	2:00 AM	3	3	0	0	0	6	0%
24-May	Thursday	10:00 PM	3	3	0	0	0	6	0%
25-May	Friday	2:00 AM	5	2	1	4	0	12	33%
25-May	Friday	10:00 PM	6	2	4	9	1	22	41%
26-May	Saturday	2:00 AM	8	3	0	7	0	18	39%
26-May	Saturday	10:00 PM	8	3	0	7	0	18	39%
27-May	Sunday	2:00 AM	9	2	2	2	1	16	13%
28-May	Monday	2:00 AM	5	1	4	5	0	15	33%
31-May	Thursday	10:00 PM	4	3	0	3	0	10	30%
31-May	Thursday	2:00 AM	4	3	0	2	0	9	22%
Average			4.53	1.97	0.38	3.13	0.19	10.19	25%
Weekday Average			4	2.2	0.4	1.1	0.1	7.8	10%
Weekend Average			4.8	1.9	0.4	4.0	0.2	11.3	32%

16th Street - 400 Block (Arctic to Baltic) — June 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
1-Jun	Friday	10:00 PM	6	5	0	5	0	16	31%
2-Jun	Saturday	10:00 PM	6	4	0	9	0	19	47%
3-Jun	Sunday	2:00 AM	7	5	0	7	0	19	37%
7-Jun	Thursday	10:00 PM	3	3	0	3	0	9	33%
8-Jun	Friday	2:00 AM	3	1	0	1	0	5	20%
8-Jun	Friday	10:00 PM	2	5	0	6	0	13	46%
9-Jun	Saturday	2:00 AM	2	2	0	4	0	8	50%
10-Jun	Sunday	10:00 PM	5	2	0	1	0	8	13%
14-Jun	Thursday	10:00 PM	3	2	0	4	0	9	44%
15-Jun	Friday	2:00 AM	3	2	0	3	1	9	33%
15-Jun	Friday	10:00 PM	5	2	0	13	0	20	65%
16-Jun	Saturday	2:00 AM	4	2	0	8	0	14	57%
16-Jun	Saturday	10:00 PM	2	2	0	9	1	14	64%
17-Jun	Sunday	2:00 AM	2	2	0	2	0	6	33%
21-Jun	Thursday	10:00 PM	4	1	0	0	0	5	0%
22-Jun	Friday	2:00 AM	4	2	0	4	0	10	40%
23-Jun	Saturday	2:00 AM	3	3	0	1	0	7	14%
24-Jun	Sunday	10:00 PM	4	2	0	9	0	15	60%
25-Jun	Monday	2:00 AM	3	3	0	2	0	8	25%
28-Jun	Thursday	10:00 PM	5	1	0	2	0	8	25%
29-Jun	Friday	2:00 AM	4	2	0	2	0	8	25%
29-Jun	Friday	10:00 PM	4	2	1	5	0	12	42%
30-Jun	Saturday	10:00 PM	4	1	0	13	0	18	72%
Average			3.83	2.43	0.04	4.91	0.09	11.30	38%
Weekday Average			3.75	1.75	0	2	0	7.5	24%
Weekend Average			3.764706	2.411765	0.058824	5.705882	0.117647	12.059	42%

16th Street - 400 Block (Arctic to Baltic) — July 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
1-Jul-12	Sunday	10:00 PM	4	0	0	7	1	12	58%
2-Jul-12	Monday	2:00 AM	3	0	0	0	0	3	0%
5-Jul-12	Thursday	10:00 PM	2	1	2	8	1	14	57%
6-Jul-12	Friday	2:00 AM	3	1	2	8	1	15	53%
6-Jul-12	Friday	10:00 PM	4	2	5	9	0	20	45%
7-Jul-12	Saturday	2:00 AM	4	1	5	4	0	14	29%
7-Jul-12	Saturday	10:00 PM	7	5	0	2	0	14	14%
8-Jul-12	Sunday	2:00 AM	6	3	0	0	2	11	0%
8-Jul-12	Sunday	10:00 PM	5	0	0	8	0	13	62%
9-Jul-12	Monday	2:00 AM	2	0	0	0	0	2	0%
12-Jul-12	Thursday	10:00 PM	4	1	0	2	0	7	29%
13-Jul-12	Friday	2:00 AM	4	0	0	3	1	8	38%
13-Jul-12	Friday	10:00 PM	3	1	0	8	0	12	67%
14-Jul-12	Saturday	2:00 AM	5	3	0	7	0	15	47%
14-Jul-12	Saturday	10:00 PM	4	5	0	9	1	19	47%
15-Jul-12	Sunday	2:00 AM	5	2	0	5	0	12	42%
15-Jul-12	Sunday	10:00 PM	4	0	0	6	1	11	55%
16-Jul-12	Monday	2:00 AM	3	0	0	0	0	3	0%
19-Jul-12	Thursday	10:00 PM	4	0	0	7	0	11	64%
20-Jul-12	Friday	2:00 AM	4	1	0	3	0	8	38%
22-Jul-12	Sunday	10:00 PM	3	1	0	5	0	9	56%
23-Jul-12	Monday	2:00 AM	3	0	0	1	0	4	25%
26-Jul-12	Thursday	10:00 PM	3	2	0	2	0	7	29%
27-Jul-12	Friday	2:00 AM	3	3	0	1	0	7	14%
27-Jul-12	Friday	10:00 PM	5	5	0	10	0	20	50%
28-Jul-12	Saturday	10:00 PM	5	3	0	8	2	18	44%
29-Jul-12	Sunday	10:00 PM	4	2	0	4	0	10	40%
30-Jul-12	Monday	2:00 AM	3	1	0	3	8	15	20%
Average			3.89	1.54	0.50	4.64	0.64	11.21	36%
Weekday Average			3	0.6	0.2	2.6	1.0	7.333333	25%
Weekend Average			4.3	2.0	0.6	5.6	0.5	13.1	42%

16th Street - 400 Block (Arctic to Baltic) — August 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
2-Aug	Thursday	10:00 PM	6	0	0	1	0	7	14%
3-Aug	Friday	10:00 PM	5	0	3	7	1	16	44%
4-Aug	Saturday	2:00 AM	6	0	2	0	1	9	0%
4-Aug	Saturday	10:00 PM	5	2	2	6	0	15	40%
5-Aug	Sunday	2:00 AM	6	2	2	3	0	13	23%
12-Aug	Sunday	10:00 PM	2	2	0	2	1	7	29%
16-Aug	Thursday	10:00 PM	4	0	0	0	0	4	0%
17-Aug	Friday	2:00 AM	4	3	0	1	0	8	13%
17-Aug	Friday	10:00 PM	3	3	0	2	0	8	25%
18-Aug	Saturday	2:00 AM	0	5	0	0	0	5	0%
18-Aug	Saturday	10:00 PM	0	0	0	0	0	0	0%
19-Aug	Sunday	2:00 AM	0	0	0	0	0	0	0%
19-Aug	Sunday	10:00 PM	2	2	0	1	0	5	20%
20-Aug	Monday	2:00 AM	3	2	0	3	0	8	38%
23-Aug	Thursday	10:00 PM	4	1	0	4	0	9	44%
24-Aug	Friday	2:00 AM	4	1	0	2	0	7	29%
24-Aug	Friday	10:00 PM	4	2	0	6	0	12	50%
25-Aug	Saturday	10:00 PM	3	2	0	8	0	13	62%
26-Aug	Sunday	2:00 AM	3	3	0	4	0	10	40%
26-Aug	Sunday	10:00 PM	5	0	0	6	0	11	55%
27-Aug	Monday	2:00 AM	3	1	0	2	0	6	33%
30-Aug	Thursday	10:00 PM	7	0	0	1	0	8	13%
31-Aug	Friday	2:00 AM	5	2	0	0	0	7	0%
31-Aug	Friday	10:00 PM	5	3	0	7	0	15	47%
Average			3.71	1.50	0.38	2.75	0.13	8.46	26%
Weekday Average			3.7	1.8	0.3	2.7	0.0	8.5	27.96%
Weekend Average			3.3	1.7	0.1	2.8	0.1	8	26.03%

16th Street - 400 Block (Arctic to Baltic) — September 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
6-Sep	Thursday	10:00 PM	5	1	0	0	0	6	0%
7-Sep	Friday	2:00 AM	5	2	0	0	0	7	0%
7-Sep	Friday	10:00 PM	7	1	0	1	0	9	11%
8-Sep	Saturday	2:00 AM	7	1	0	1	0	9	11%
9-Sep	Sunday	10:00 PM	5	0	0	10	0	15	67%
10-Sep	Monday	2:00 AM	9	2	0	6	0	17	35%
13-Sep	Thursday	10:00 PM	7	1	0	0	0	8	0%
14-Sep	Friday	2:00 AM	8	1	0	0	0	9	0%
14-Sep	Friday	10:00 PM	7	0	0	1	1	9	11%
15-Sep	Saturday	2:00 AM	6	0	0	1	0	7	14%
15-Sep	Saturday	10:00 PM	6	1	0	2	0	9	22%
16-Sep	Sunday	2:00 AM	7	0	0	2	0	9	22%
16-Sep	Sunday	10:00 PM	5	1	0	3	0	9	33%
17-Sep	Monday	2:00 AM	7	0	0	2	0	9	22%
Average			6.50	0.79	-	2.07	0.07	9.43	18%
Weekday Average			7	1	0	2	0	10	14.38%
Weekend Average			6.3	0.7	0	2.1	0.1	9.2	19.21%

23rd Street - 300 Block (Pacific to Arctic) April 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
5-Apr	Thursday	10:00 PM	5	0	0	0	0	5	0%
6-Apr	Friday	2:00 AM	0	0	0	0	0	0	0%
6-Apr	Friday	10:00 PM	6	0	0	0	1	7	0%
7-Apr	Saturday	2:00 AM	1	0	0	0	0	1	0%
7-Apr	Saturday	10:00 PM	9	0	0	0	3	12	0%
8-Apr	Sunday	2:00 AM	5	0	0	0	0	5	0%
8-Apr	Sunday	10:00 PM	0	1	0	1	1	3	33%
9-Apr	Monday	2:00 AM	0	1	0	1	1	3	33%
12-Apr	Thursday	10:00 PM	2	5	0	0	1	8	0%
13-Apr	Friday	2:00 AM	2	0	0	0	0	2	0%
13-Apr	Friday	10:00 PM	1	0	0	6	0	7	86%
14-Apr	Saturday	2:00 AM	1	0	0	4	0	5	80%
15-Apr	Sunday	10:00 PM	0	0	0	3	0	3	100%
16-Apr	Monday	2:00 AM	0	0	0	0	0	0	0%
19-Apr	Thursday	10:00 PM	0	0	0	8	0	8	100%
20-Apr	Friday	2:00 AM	0	0	0	2	1	3	67%
20-Apr	Friday	10:00 PM	0	2	0	6	0	8	75%
21-Apr	Saturday	2:00 AM	0	2	0	2	0	4	50%
22-Apr	Sunday	2:00 AM	0	2	0	0	0	2	0%
26-Apr	Thursday	10:00 PM	0	0	0	8	0	8	100%
27-Apr	Friday	2:00 AM	0	1	0	3	0	4	75%
27-Apr	Friday	10:00 PM	0	1	0	1	0	2	50%
29-Apr	Sunday	10:00 PM	2	0	0	3	0	5	60%
30-Apr	Monday	2:00 AM	0	0	0	1	0	1	100%
Average			1.42	0.63	-	2.04	0.33	4.42	42%
Weeday Average			1	0.86	0.00	2.57	0.29	4.71	48%
Weekend Average			1.6	0.53	0.00	1.82	0.35	4.29	40%

23rd Street - 300 Block (Pacific to Arctic) May-12

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
3-May	Thursday	10:00 PM	0	1	0	7	1	9	78%
4-May	Friday	2:00 AM	0	1	0	1	0	2	50%
4-May	Friday	10:00 PM	0	0	0	7	2	9	78%
5-May	Saturday	10:00 PM	0	0	0	5	2	7	71%
6-May	Sunday	2:00 AM	0	1	0	3	1	5	60%
6-May	Sunday	10:00 PM	0	0	0	4	0	4	100%
10-May	Thursday	10:00 PM	0	0	0	7	0	7	100%
11-May	Friday	2:00 AM	0	0	0	3	0	3	100%
11-May	Friday	10:00 PM	0	0	0	10	0	10	100%
12-May	Saturday	10:00 PM	0	1	0	2	2	5	40%
13-May	Sunday	2:00 AM	1	0	0	1	0	2	50%
13-May	Sunday	10:00 PM	0	1	0	0	0	1	0%
14-May	Monday	2:00 AM	0	1	0	8	1	10	80%
18-May	Friday	2:00 AM	0	1	0	2	0	3	67%
18-May	Friday	10:00 PM	0	0	0	11	0	11	100%
19-May	Saturday	2:00 AM	0	0	0	1	0	1	100%
19-May	Saturday	10:00 PM	0	0	0	8	0	8	100%
20-May	Sunday	2:00 AM	0	0	0	1	0	1	100%
20-May	Sunday	10:00 PM	0	2	0	1	0	3	33%
21-May	Monday	2:00 AM	1	0	0	0	0	1	0%
24-May	Thursday	10:00 PM	1	1	0	6	0	8	75%
25-May	Friday	2:00 AM	0	1	0	2	0	3	67%
25-May	Friday	10:00 PM	0	1	0	9	0	10	90%
26-May	Saturday	2:00 AM	0	1	0	1	0	2	50%
26-May	Saturday	10:00 PM	0	1	0	3	0	4	75%
27-May	Sunday	2:00 AM	1	0	0	1	0	2	50%
28-May	Monday	2:00 AM	1	0	0	1	0	2	50%
31-May	Thursday	10:00 PM	0	0	0	6	0	6	100%
Average			0.18	0.50	0	3.96	0.32	4.96	70%
Weekday Average			0.43	0.43	-	5.00	0.29	6.14	69%
Weekend Average			0.10	0.52	-	3.62	0.33	4.57	71%

23rd Street - 300 Block (Pacific to Arctic) June 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
1-Jun	Friday	10:00 PM	0	0	0	11	0	11	100%
2-Jun	Saturday	10:00 PM	0	2	0	6	0	8	75%
7-Jun	Thursday	10:00 PM	0	0	0	7	1	8	88%
8-Jun	Friday	2:00 AM	0	0	0	2	0	2	100%
8-Jun	Friday	10:00 PM	1	0	2	5	0	8	63%
9-Jun	Saturday	2:00 AM	0	0	0	1	0	1	100%
10-Jun	Sunday	10:00 PM	0	1	0	5	0	6	83%
14-Jun	Thursday	10:00 PM	0	0	0	9	0	9	100%
15-Jun	Friday	2:00 AM	0	1	0	1	1	3	33%
15-Jun	Friday	10:00 PM	0	0	0	6	0	6	100%
16-Jun	Saturday	2:00 AM	0	0	0	2	0	2	100%
16-Jun	Saturday	10:00 PM	0	0	0	9	0	9	100%
17-Jun	Sunday	2:00 AM	0	0	0	4	0	4	100%
21-Jun	Thursday	10:00 PM	0	0	0	9	0	9	100%
22-Jun	Friday	2:00 AM	0	2	0	3	0	5	0%
23-Jun	Saturday	2:00 AM	0	1	0	4	0	5	80%
24-Jun	Sunday	10:00 PM	0	1	0	7	0	8	88%
25-Jun	Monday	2:00 AM	0	0	0	1	0	1	100%
28-Jun	Thursday	10:00 PM	0	0	0	9	1	10	90%
29-Jun	Friday	2:00 AM	0	1	0	3	0	4	75%
29-Jun	Friday	10:00 PM	0	0	0	9	0	9	100%
Average			0.05	0.43	0.10	5.38	0.14	6.10	84%
Weekday Average			0.00	0.00	0.00	7.00	0.40	7.40	96%
Weekend Average			0.06	0.56	0.13	4.88	0.06	5.69	81%

23rd Street - 300 Block (Pacific to Arctic) July 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
1-Jul-12	Sunday	10:00 PM	1	1	0	5	0	7	71%
2-Jul-12	Monday	2:00 AM	1	0	0	0	0	1	0%
5-Jul-12	Thursday	10:00 PM	1	0	0	4	0	5	80%
6-Jul-12	Friday	2:00 AM	1	2	0	0	0	3	0%
6-Jul-12	Friday	10:00 PM	0	1	0	9	0	10	90%
7-Jul-12	Saturday	10:00 PM	0	0	0	11	0	11	100%
8-Jul-12	Sunday	2:00 AM	1	0	0	3	0	4	75%
8-Jul-12	Sunday	10:00 PM	1	1	0	4	0	6	67%
9-Jul-12	Monday	2:00 AM	1	0	0	0	0	1	0%
12-Jul-12	Thursday	10:00 PM	1	0	0	8	0	9	89%
13-Jul-12	Friday	2:00 AM	0	0	0	1	0	1	100%
13-Jul-12	Friday	10:00 PM	1	1	0	6	0	8	75%
14-Jul-12	Saturday	2:00 AM	0	0	0	2	0	2	100%
14-Jul-12	Saturday	10:00 PM	0	0	0	10	1	11	91%
15-Jul-12	Sunday	10:00 PM	0	0	0	2	0	2	100%
16-Jul-12	Monday	2:00 AM	1	0	0	0	0	1	0%
19-Jul-12	Thursday	10:00 PM	0	0	0	7	0	7	100%
20-Jul-12	Friday	2:00 AM	1	0	0	4	0	5	80%
22-Jul-12	Sunday	10:00 PM	0	2	0	6	0	8	75%
23-Jul-12	Monday	2:00 AM	0	3	0	1	0	4	25%
26-Jul-12	Thursday	10:00 PM	0	1	0	6	0	7	86%
27-Jul-12	Friday	2:00 AM	0	1	0	5	0	6	83%
27-Jul-12	Friday	10:00 PM	0	0	0	9	0	9	100%
28-Jul-12	Saturday	10:00 PM	0	0	0	8	1	9	89%
29-Jul-12	Sunday	10:00 PM	0	0	0	5	0	5	100%
30-Jul-12	Monday	2:00 AM	1	0	0	1	0	2	50%
Average			0.46	0.52	-	4.70	0.09	5.70	73%
Weekday Average			0.67	0.44	0.00	3.00	0.00	4.11	48%
Weekend Average			0.35	0.53	0.00	5.29	0.12	6.29	82%

23rd Street - 300 Block (Pacific to Arctic) August 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
2-Aug	Thursday	10:00 PM	2	1	0	5	0	8	63%
3-Aug	Friday	10:00 PM	0	0	0	6	1	7	86%
4-Aug	Saturday	2:00 AM	0	0	0	1	0	1	100%
4-Aug	Saturday	10:00 PM	0	0	0	6	1	7	86%
5-Aug	Sunday	2:00 AM	0	1	0	2	0	3	67%
12-Aug	Sunday	10:00 PM	0	0	0	3	2	5	60%
16-Aug	Thursday	10:00 PM	2	1	0	8	2	13	62%
17-Aug	Friday	2:00 AM	0	1	0	1	0	2	50%
17-Aug	Friday	10:00 PM	0	2	0	8	1	11	73%
18-Aug	Saturday	2:00 AM	0	1	0	2	1	4	50%
19-Aug	Sunday	10:00 PM	1	0	0	5	0	6	83%
20-Aug	Monday	2:00 AM	0	1	0	0	0	1	0%
23-Aug	Thursday	10:00 PM	0	2	0	7	0	9	78%
24-Aug	Friday	2:00 AM	0	1	0	2	0	3	67%
24-Aug	Friday	10:00 PM	1	0	0	8	1	10	80%
25-Aug	Saturday	10:00 PM	0	0	0	8	0	8	100%
26-Aug	Sunday	2:00 AM	0	1	0	1	1	3	33%
26-Aug	Sunday	10:00 PM	0	1	0	8	0	9	89%
27-Aug	Monday	2:00 AM	0	3	0	1	0	4	25%
30-Aug	Thursday	10:00 PM	0	1	0	6	0	7	86%
31-Aug	Friday	2:00 AM	0	0	0	2	0	2	100%
31-Aug	Friday	10:00 PM	0	1	0	7	1	9	78%
Average			0.27	0.82	0	4.41	0.50	6.00	69%
Weekday Average			0.67	1.50	0.00	4.50	0.33	7.00	52%
Weekend Average			0.13	0.56	0.00	4.38	0.56	5.63	75%

23rd Street - 300 Block (Pacific to Arctic) September 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
6-Sep	Thursday	10:00 PM	0	0	0	8	0	8	100%
7-Sep	Friday	2:00 AM	2	1	0	1	0	4	25%
7-Sep	Friday	10:00 PM	1	0	0	6	0	7	86%
8-Sep	Saturday	2:00 AM	1	1	0	2	0	4	50%
9-Sep	Sunday	10:00 PM	2	0	0	2	0	4	50%
10-Sep	Monday	2:00 AM	3	1	0	1	0	5	20%
13-Sep	Thursday	10:00 PM	1	0	0	5	2	8	63%
14-Sep	Friday	2:00 AM	1	1	0	1	0	3	33%
14-Sep	Friday	10:00 PM	0	1	0	7	0	8	88%
15-Sep	Saturday	2:00 AM	1	1	0	1	0	3	33%
15-Sep	Saturday	10:00 PM	0	1	0	7	0	8	88%
16-Sep	Sunday	2:00 AM	3	2	0	1	0	6	17%
16-Sep	Sunday	10:00 PM	0	1	0	3	0	4	75%
17-Sep	Monday	2:00 AM	3	1	0	1	0	5	20%
Average			1.29	0.79	-	3.29	0.14	5.50	53%
Weekday Average			1.75	0.50	0.00	3.75	0.50	6.50	51%
Weekend Average			1.10	0.90	0.00	3.10	0.00	5.10	54%

23rd Street - 400 Block (Arctic to Baltic) April 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
5-Apr	Thursday	10:00 PM	35	3	1	0	2	41	0%
6-Apr	Friday	2:00 AM	34	1	0	0	2	37	0%
6-Apr	Friday	10:00 PM	33	0	0	0	3	36	0%
7-Apr	Saturday	2:00 AM	35	0	0	0	2	37	0%
7-Apr	Saturday	10:00 PM	37	0	0	0	5	42	0%
8-Apr	Sunday	2:00 AM	41	14	1	1	3	60	2%
8-Apr	Sunday	10:00 PM	27	16	1	0	5	49	0%
9-Apr	Monday	2:00 AM	27	0	0	0	1	28	0%
12-Apr	Thursday	10:00 PM	25	1	0	0	2	28	0%
13-Apr	Friday	2:00 AM	32	1	0	0	1	34	0%
13-Apr	Friday	10:00 PM	21	5	0	8	5	39	21%
14-Apr	Saturday	2:00 AM	22	5	0	8	2	37	22%
15-Apr	Sunday	10:00 PM	18	18	0	4	2	42	10%
16-Apr	Monday	2:00 AM	18	18	0	4	0	40	10%
19-Apr	Thursday	10:00 PM	24	9	0	0	0	33	0%
20-Apr	Friday	2:00 AM	23	7	0	0	0	30	0%
20-Apr	Friday	10:00 PM	16	3	0	7	2	28	25%
21-Apr	Saturday	2:00 AM	25	6	0	0	1	32	0%
22-Apr	Sunday	2:00 AM	22	9	0	0	0	31	0%
26-Apr	Thursday	10:00 PM	19	13	0	3	1	36	8%
27-Apr	Friday	2:00 AM	22	11	0	1	1	35	3%
27-Apr	Friday	10:00 PM	22	12	0	5	0	39	13%
29-Apr	Sunday	10:00 PM	18	11	0	4	0	33	12%
30-Apr	Monday	2:00 AM	19	12	0	3	0	34	9%
Average			25.63	7.29	0.13	2.00	1.67	36.71	6%
Weeday Average			23.85714	8.00	0.14	1.43	0.86	34.29	4%
Weekend Average			26.4	7.00	0.12	2.24	2.00	37.71	6%

23rd Street - 400 Block (Arctic to Baltic) May-12

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
3-May	Thursday	10:00 PM	22	11	0	5	0	38	13%
4-May	Friday	2:00 AM	22	14	1	0	0	37	0%
4-May	Friday	10:00 PM	18	11	1	6	3	39	15%
5-May	Saturday	10:00 PM	16	14	4	10	1	45	22%
6-May	Sunday	2:00 AM	18	14	1	1	1	35	3%
6-May	Sunday	10:00 PM	21	13	0	6	0	40	15%
7-May	Monday	2:00 AM	20	15	0	0	1	36	0%
10-May	Thursday	10:00 PM	0	0	0	7	0	7	100%
11-May	Friday	2:00 AM	0	0	0	3	0	3	100%
11-May	Friday	10:00 PM	0	0	0	10	0	10	100%
12-May	Saturday	10:00 PM	19	8	0	7	0	34	21%
13-May	Sunday	2:00 AM	19	9	0	0	0	28	0%
13-May	Sunday	10:00 PM	0	1	0	0	0	1	0%
14-May	Monday	2:00 AM	0	1	0	8	1	10	80%
18-May	Friday	2:00 AM	0	1	0	2	0	3	67%
18-May	Friday	10:00 PM	0	0	0	11	0	11	100%
19-May	Saturday	2:00 AM	0	0	0	1	0	1	100%
19-May	Saturday	10:00 PM	0	0	0	8	0	8	100%
20-May	Sunday	2:00 AM	0	0	0	1	0	1	100%
20-May	Sunday	10:00 PM	23	7	0	2	0	32	6%
21-May	Monday	2:00 AM	23	7	0	2	0	32	6%
24-May	Thursday	10:00 PM	1	1	0	6	0	8	75%
25-May	Friday	2:00 AM	0	1	0	9	0	10	90%
25-May	Friday	10:00 PM	0	1	0	9	0	10	90%
26-May	Saturday	2:00 AM	0	1	0	3	0	4	75%
26-May	Saturday	10:00 PM	20	7	0	8	0	35	23%
27-May	Sunday	2:00 AM	19	8	0	7	0	34	21%
28-May	Monday	2:00 AM	28	6	2	6	0	42	14%
31-May	Thursday	10:00 PM	21	8	0	15	1	45	33%
31-May	Thursday	2:00 AM	24	8	0	3	0	35	9%
Average			11.13	5.57	0.30	5.20	0.27	22.47	46%
Weekday Average			9.14	4.29	0.14	6.29	0.57	20.43	56%
Weekend Average			10.76	5.33	0.33	5.10	0.19	21.71	46%

23rd Street - 400 Block (Arctic to Baltic) June 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
1-Jun	Friday	10:00 PM	22	9	1	10	0	42	24%
2-Jun	Saturday	10:00 PM	24	3	1	7	1	36	19%
7-Jun	Thursday	10:00 PM	17	8	0	6	0	31	19%
8-Jun	Friday	2:00 AM	18	8	0	2	0	28	7%
8-Jun	Friday	10:00 PM	24	4	2	9	0	39	23%
9-Jun	Saturday	2:00 AM	24	6	4	1	0	35	3%
10-Jun	Sunday	10:00 PM	23	4	3	10	1	41	24%
14-Jun	Thursday	10:00 PM	23	8	0	10	0	41	24%
15-Jun	Friday	2:00 AM	24	12	1	1	0	38	3%
15-Jun	Friday	10:00 PM	22	5	1	10	0	38	26%
16-Jun	Saturday	2:00 AM	24	7	0	3	0	34	9%
16-Jun	Saturday	10:00 PM	16	6	0	16	0	38	42%
17-Jun	Sunday	2:00 AM	24	5	0	4	0	33	12%
21-Jun	Thursday	10:00 PM	24	5	2	7	2	40	18%
22-Jun	Friday	2:00 AM	23	6	1	3	0	0	0%
23-Jun	Saturday	2:00 AM	16	7	0	1	0	24	4%
24-Jun	Sunday	10:00 PM	22	2	3	11	0	38	29%
25-Jun	Monday	2:00 AM	26	6	0	3	1	36	8%
28-Jun	Thursday	10:00 PM	20	7	1	10	1	39	26%
29-Jun	Friday	2:00 AM	22	9	1	2	1	35	6%
29-Jun	Friday	10:00 PM	24	11	2	12	1	50	24%
Average			22.00	6.57	1.10	6.57	0.38	35.05	17%
Weekday Average			22.00	6.80	0.60	7.20	0.80	37.40	19%
Weekend Average			22.00	6.50	1.25	6.38	0.25	34.31	16%

23rd Street - 400 Block (Arctic to Baltic) July 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
1-Jul-12	Sunday	10:00 PM	26	6	0	8	2	42	19%
2-Jul-12	Monday	2:00 AM	24	9	0	2	1	36	6%
5-Jul-12	Thursday	10:00 PM	24	8	4	9	2	47	19%
6-Jul-12	Friday	2:00 AM	26	11	2	0	1	40	0%
6-Jul-12	Friday	10:00 PM	16	16	3	10	1	46	22%
7-Jul-12	Saturday	2:00 AM	23	15	2	4	1	45	9%
7-Jul-12	Saturday	10:00 PM	18	14	3	8	1	44	18%
8-Jul-12	Sunday	2:00 AM	20	15	5	1	1	42	2%
8-Jul-12	Sunday	10:00 PM	27	5	0	10	0	42	24%
9-Jul-12	Monday	2:00 AM	24	8	0	1	0	33	3%
12-Jul-12	Thursday	10:00 PM	20	9	0	5	1	35	14%
13-Jul-12	Friday	2:00 AM	23	11	0	0	0	34	0%
13-Jul-12	Friday	10:00 PM	18	13	0	10	0	41	24%
14-Jul-12	Saturday	2:00 AM	22	11	0	2	0	35	6%
14-Jul-12	Saturday	10:00 PM	18	8	1	20	0	47	43%
15-Jul-12	Sunday	10:00 PM	25	8	0	4	1	38	11%
16-Jul-12	Monday	2:00 AM	24	11	0	2	0	37	5%
19-Jul-12	Thursday	10:00 PM	23	12	0	8	0	43	19%
20-Jul-12	Friday	2:00 AM	27	12	0	4	0	43	9%
22-Jul-12	Sunday	10:00 PM	21	12	0	10	0	43	23%
23-Jul-12	Monday	2:00 AM	25	11	0	1	1	38	3%
26-Jul-12	Thursday	10:00 PM	24	12	0	4	0	40	10%
27-Jul-12	Friday	2:00 AM	27	12	0	2	0	41	5%
27-Jul-12	Friday	10:00 PM	21	11	1	8	0	41	20%
28-Jul-12	Saturday	10:00 PM	15	8	1	8	0	32	25%
29-Jul-12	Sunday	10:00 PM	23	9	0	7	1	40	18%
30-Jul-12	Monday	2:00 AM	27	6	0	1	0	34	3%
Average			22.63	10.83	0.75	5.42	0.38	39.75	13%
Weekday Average			24.11	9.78	0.67	3.44	0.56	38.56	8%
Weekend Average			21.65	11.12	0.94	6.47	0.41	40.59	15%

23rd Street - 400 Block (Arctic to Baltic) August 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
2-Aug	Thursday	10:00 PM	20	8	1	5	0	34	15%
3-Aug	Friday	10:00 PM	20	4	0	6	2	32	19%
4-Aug	Saturday	2:00 AM	24	10	0	0	0	34	0%
4-Aug	Saturday	10:00 PM	20	10	1	9	1	41	22%
5-Aug	Sunday	2:00 AM	24	8	1	4	0	37	11%
12-Aug	Sunday	10:00 PM	23	10	0	21	0	54	39%
16-Aug	Thursday	10:00 PM	18	5	0	10	1	34	29%
17-Aug	Friday	2:00 AM	21	13	1	5	0	40	13%
17-Aug	Friday	10:00 PM	15	9	0	7	0	31	23%
18-Aug	Saturday	2:00 AM	20	10	0	1	0	31	3%
19-Aug	Sunday	10:00 PM	18	14	0	6	0	38	16%
20-Aug	Monday	2:00 AM	20	12	0	0	0	32	0%
23-Aug	Thursday	10:00 PM	23	7	0	11	0	41	27%
24-Aug	Friday	2:00 AM	25	7	0	7	0	39	18%
24-Aug	Friday	10:00 PM	18	11	2	15	2	48	31%
25-Aug	Saturday	10:00 PM	21	9	3	5	2	40	13%
26-Aug	Sunday	2:00 AM	18	6	1	4	0	29	14%
26-Aug	Sunday	10:00 PM	20	5	0	5	0	30	17%
27-Aug	Monday	2:00 AM	22	4	1	1	0	28	4%
30-Aug	Thursday	10:00 PM	19	8	2	6	0	35	17%
31-Aug	Friday	2:00 AM	19	9	0	2	0	30	7%
31-Aug	Friday	10:00 PM	26	13	11	6	1	57	11%
Average			20.64	8.73	1.09	6.18	0.41	37.05	16%
Weekday Average			20.33	7.33	0.67	5.50	0.17	34.00	15%
Weekend Average			20.75	9.25	1.25	6.44	0.50	38.19	16%

23rd Street - 400 Block (Arctic to Baltic) September 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
6-Sep	Thursday	10:00 PM	0	0	0	8	0	8	100%
7-Sep	Friday	2:00 AM	2	1	0	1	0	4	25%
7-Sep	Friday	10:00 PM	21	7	10	7	1	46	15%
8-Sep	Saturday	2:00 AM	22	6	7	3	2	40	8%
9-Sep	Sunday	10:00 PM	11	6	0	8	0	25	32%
10-Sep	Monday	2:00 AM	15	9	2	6	0	32	19%
13-Sep	Thursday	10:00 PM	23	6	0	3	0	32	9%
14-Sep	Friday	2:00 AM	25	10	0	1	0	36	3%
14-Sep	Friday	10:00 PM	16	8	0	3	0	27	11%
15-Sep	Saturday	2:00 AM	19	10	0	1	0	30	3%
15-Sep	Saturday	10:00 PM	21	11	0	6	0	38	16%
16-Sep	Sunday	2:00 AM	21	14	0	0	0	35	0%
16-Sep	Sunday	10:00 PM	18	9	0	5	0	32	16%
17-Sep	Monday	2:00 AM	21	13	0	0	0	34	0%
Average			16.79	7.86	1.36	3.71	0.21	29.93	18%
Weekday Average			14.75	7.00	0.50	4.25	0.00	26.50	32%
Weekend Average			17.60	8.20	1.70	3.50	0.30	31.30	13%

RPP Nightly Vehicle Survey

24th Street - 300 Block (Pacific to Arctic)

April 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
5-Apr	Thursday	10:00 PM	12	1	0	0	2	15	0%
6-Apr	Friday	2:00 AM	21	0	0	0	1	22	0%
6-Apr	Friday	10:00 PM	11	0	0	0	0	11	0%
7-Apr	Saturday	2:00 AM	14	0	0	0	2	16	0%
7-Apr	Saturday	10:00 PM	35	0	0	0	1	36	0%
8-Apr	Sunday	2:00 AM	24	0	0	0	1	25	0%
8-Apr	Sunday	10:00 PM	14	3	0	1	0	18	6%
9-Apr	Monday	2:00 AM	13	2	0	0	1	16	0%
12-Apr	Thursday	10:00 PM	16	6	0	4	2	28	14%
13-Apr	Friday	2:00 AM	19	1	0	0	0	20	0%
13-Apr	Friday	10:00 PM	14	5	0	14	2	35	40%
14-Apr	Saturday	2:00 AM	16	5	0	13	0	34	38%
15-Apr	Sunday	10:00 PM	16	1	0	2	0	19	11%
16-Apr	Monday	2:00 AM	16	1	0	0	0	17	0%
19-Apr	Thursday	10:00 PM	3	8	0	8	0	19	42%
20-Apr	Friday	2:00 AM	15	3	0	3	0	21	14%
20-Apr	Friday	10:00 PM	11	2	0	13	2	28	46%
21-Apr	Saturday	2:00 AM	11	2	0	9	0	22	41%
26-Apr	Thursday	10:00 PM	12	0	0	14	0	26	54%
27-Apr	Friday	2:00 AM	17	0	0	5	0	22	23%
27-Apr	Friday	10:00 PM	14	3	0	16	0	33	48%
28-Apr	Saturday	2:00 AM	12	2	0	12	0	26	46%
29-Apr	Sunday	10:00 PM	16	5	0	4	0	25	16%
30-Apr	Monday	2:00 AM	16	5	0	0	0	21	0%
Average			15.33	2.29	-	4.92	0.61	23.13	18%
Average Weekday			12.57	3.29	0.00	3.71	0.83	20.29	16%
Average Weekend			16.47	1.88	0.00	5.41	0.53	24.29	19%

24th Street - 300 Block (Pacific to Arctic)

May-12

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
3-May	Thursday	10:00 PM	16	3	0	12	1	32	38%
4-May	Friday	2:00 AM	16	4	0	3	2	25	12%
4-May	Friday	10:00 PM	13	1	0	10	0	24	42%
5-May	Saturday	10:00 PM	17	1	0	14	0	32	44%
6-May	Sunday	2:00 AM	18	1	0	7	0	26	27%
6-May	Sunday	10:00 PM	15	1	0	6	0	22	27%
7-May	Monday	2:00 AM	14	3	0	1	0	18	6%
10-May	Thursday	10:00 PM	14	1	1	10	1	27	37%
11-May	Friday	2:00 AM	17	0	0	6	0	23	26%
11-May	Friday	10:00 PM	11	3	0	17	0	31	55%
12-May	Saturday	10:00 PM	7	2	0	15	0	24	63%
13-May	Sunday	2:00 AM	11	1	0	4	0	16	25%
13-May	Sunday	10:00 PM	14	2	1	16	0	33	48%
14-May	Monday	2:00 AM	14	1	0	6	1	22	27%
17-May	Thursday	10:00 PM	14	1	0	16	1	32	50%
18-May	Friday	2:00 AM	15	0	0	5	0	20	25%
18-May	Friday	10:00 PM	11	4	0	20	1	36	56%
19-May	Saturday	2:00 AM	13	2	0	9	0	24	38%
19-May	Saturday	10:00 PM	14	3	0	13	2	32	41%
20-May	Sunday	2:00 AM	14	3	0	10	0	27	37%
20-May	Sunday	10:00 PM	16	0	0	6	0	22	27%
21-May	Monday	2:00 AM	16	0	0	2	0	18	11%
24-May	Thursday	10:00 PM	12	4	3	14	0	33	42%
25-May	Friday	2:00 AM	13	1	0	9	0	23	39%
25-May	Friday	10:00 PM	10	4	3	19	2	38	50%
26-May	Saturday	2:00 AM	16	3	2	7	0	28	25%
26-May	Saturday	10:00 PM	6	1	0	17	0	24	71%
27-May	Sunday	2:00 AM	13	1	0	3	0	17	18%
31-May	Thursday	10:00 PM	16	3	5	16	0	40	40%
31-May	Thursday	2:00 AM	15	1	0	3	0	19	16%
Average			13.70	1.83	0.50	9.87	0.37	26.27	35%
Average Weekday			14.56	1.89	1.00	8.89	0.44	26.78	30%
Average Weekend			13.33	1.81	0.29	10.29	0.33	26.05	38%

24th Street - 300 Block (Pacific to Arctic)

June 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
2-Jun	Saturday	10:00 PM	16	1	1	17	0	35	49%
7-Jun	Thursday	10:00 PM	15	3	2	21	0	41	51%
8-Jun	Friday	2:00 AM	15	3	0	7	0	25	28%
8-Jun	Friday	10:00 PM	10	6	3	26	0	45	58%
9-Jun	Saturday	2:00 AM	11	4	0	10	0	25	40%
10-Jun	Sunday	10:00 PM	13	2	3	13	1	32	41%
14-Jun	Thursday	10:00 PM	14	3	3	19	0	39	49%
15-Jun	Friday	2:00 AM	14	2	0	6	0	23	26%
15-Jun	Friday	10:00 PM	8	4	4	21	1	38	55%
16-Jun	Saturday	2:00 AM	10	6	0	8	0	24	33%
16-Jun	Saturday	10:00 PM	11	5	0	16	1	33	48%
17-Jun	Sunday	2:00 AM	13	3	0	8	0	24	33%
21-Jun	Thursday	10:00 PM	10	3	4	22	1	40	55%
22-Jun	Friday	2:00 AM	14	2	0	6	0	22	27%
24-Jun	Sunday	10:00 PM	12	6	2	16	0	36	44%
25-Jun	Monday	2:00 AM	12	6	0	8	0	26	31%
28-Jun	Thursday	10:00 PM	11	5	2	16	0	34	47%
29-Jun	Friday	2:00 AM	12	2	0	9	0	23	39%
29-Jun	Friday	10:00 PM	10	6	2	21	0	39	54%
30-Jun	Saturday	10:00 PM	8	4	1	22	0	35	63%
Average			12.00	3.80	1.35	14.60	0.20	31.95	44%
Average Weekday			12.40	4.00	2.20	17.20	0.20	36.00	47%
Average Weekend			11.87	3.73	1.07	13.73	0.20	30.60	43%

24th Street - 300 Block (Pacific to Arctic)

July 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
1-Jul-12	Sunday	10:00 PM	8	3	0	12	0	23	52%
2-Jul-12	Monday	2:00 AM	8	2	0	2	0	12	17%
5-Jul-12	Thursday	10:00 PM	12	5	4	17	0	38	45%
6-Jul-12	Friday	2:00 AM	11	4	0	5	0	20	25%
6-Jul-12	Friday	10:00 PM	9	7	3	20	3	42	48%
7-Jul-12	Saturday	10:00 PM	10	7	1	22	0	40	55%
8-Jul-12	Sunday	2:00 AM	10	4	1	13	0	28	46%
8-Jul-12	Sunday	10:00 PM	8	4	0	15	0	27	56%
9-Jul-12	Monday	2:00 AM	8	1	0	3	0	12	25%
12-Jul-12	Thursday	10:00 PM	9	7	0	19	1	36	53%
13-Jul-12	Friday	2:00 AM	13	4	0	6	0	23	26%
13-Jul-12	Friday	10:00 PM	10	6	1	19	6	42	45%
14-Jul-12	Saturday	10:00 PM	12	8	2	20	0	42	48%
15-Jul-12	Saturday	10:00 PM	7	4	0	10	0	21	48%
16-Jul-12	Sunday	2:00 AM	6	3	0	3	0	12	25%
19-Jul-12	Thursday	10:00 PM	12	9	1	15	0	37	41%
20-Jul-12	Friday	2:00 AM	13	7	0	6	1	27	22%
22-Jul-12	Sunday	10:00 PM	9	6	2	17	0	34	50%
23-Jul-12	Monday	2:00 AM	10	4	0	1	0	15	7%
26-Jul-12	Thursday	10:00 PM	11	8	0	12	0	31	39%
27-Jul-12	Friday	2:00 AM	11	8	1	8	1	29	28%
28-Jul-12	Saturday	10:00 PM	14	10	1	21	0	46	46%
Average			10.05	5.50	0.77	12.09	0.55	28.95	38%
Average Weekday			10.00	5.14	0.71	9.86	0.14	25.86	32%
Average Weekend			10.07	5.67	0.80	13.13	0.73	30.40	41%

24th Street - 300 Block (Pacific to Arctic)

August 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
2-Aug	Thursday	10:00 PM	13	7	0	15	1	36	42%
3-Aug	Friday	10:00 PM	12	1	1	15	0	29	52%
4-Aug	Saturday	2:00 AM	11	2	0	3	0	16	19%
4-Aug	Saturday	10:00 PM	6	3	2	13	0	24	54%
5-Aug	Sunday	2:00 AM	10	3	1	7	0	21	33%
12-Aug	Sunday	10:00 PM	12	0	0	9	0	21	43%
16-Aug	Thursday	10:00 PM	8	3	1	25	1	38	66%
17-Aug	Friday	2:00 AM	12	4	0	8	0	24	33%
17-Aug	Friday	10:00 PM	12	3	0	24	1	40	60%
18-Aug	Saturday	2:00 AM	12	3	0	11	0	26	42%
19-Aug	Sunday	10:00 PM	14	4	0	19	0	37	51%
20-Aug	Monday	2:00 AM	15	1	0	6	1	23	26%
23-Aug	Thursday	10:00 PM	9	3	2	23	2	39	59%
24-Aug	Friday	2:00 AM	13	3	0	5	0	21	24%
24-Aug	Friday	10:00 PM	6	3	0	21	2	32	66%
25-Aug	Saturday	10:00 PM	7	4	3	19	3	36	53%
26-Aug	Sunday	2:00 AM	7	4	1	10	0	22	45%
26-Aug	Sunday	10:00 PM	10	2	0	19	0	31	61%
27-Aug	Monday	2:00 AM	9	2	0	8	0	19	42%
30-Aug	Thursday	10:00 PM	11	3	0	16	0	30	53%
31-Aug	Friday	2:00 AM	14	4	0	9	0	27	33%
31-Aug	Friday	10:00 PM	10	7	1	12	1	31	39%
Average			10.59	3.14	0.55	13.50	0.55	28.32	45%
Average Weekday			10.83	3.17	0.50	15.50	0.83	30.83	48%
Average Weekend			10.50	3.13	0.56	12.75	0.44	27.38	44%

24th Street - 300 Block (Pacific to Arctic)

September 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
6-Sep	Thursday	10:00 PM	13	1	0	9	1	24	38%
7-Sep	Friday	2:00 AM	13	2	0	5	0	20	25%
7-Sep	Friday	10:00 PM	9	4	0	18	1	32	56%
8-Sep	Saturday	2:00 AM	12	4	0	12	0	28	43%
9-Sep	Sunday	10:00 PM	10	2	0	6	0	18	33%
10-Sep	Monday	2:00 AM	16	5	2	8	0	31	26%
13-Sep	Thursday	10:00 PM	12	3	0	12	0	27	44%
14-Sep	Friday	2:00 AM	14	2	0	6	0	22	27%
14-Sep	Friday	10:00 PM	12	4	1	19	0	36	53%
15-Sep	Saturday	2:00 AM	10	5	0	12	0	27	44%
15-Sep	Saturday	10:00 PM	12	3	0	19	1	35	54%
16-Sep	Sunday	2:00 AM	10	3	0	14	1	28	50%
16-Sep	Sunday	10:00 PM	9	1	0	19	0	29	66%
17-Sep	Monday	2:00 AM	10	2	0	16	0	28	57%
Average			11.57	2.93	0.21	12.50	0.29	27.50	44%
Average Weekday			12.75	2.75	0.50	11.25	0.25	27.50	41%
Average Weekend			11.10	3.00	0.10	13.00	0.30	27.50	45%

24th Street - 400 Block (Arctic to Baltic)

April 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
5-Apr	Thursday	10:00 PM	19	0	0	0	0	19	0%
6-Apr	Friday	2:00 AM	19	0	0	0	0	19	0%
6-Apr	Friday	10:00 PM	28	0	0	0	2	30	0%
7-Apr	Saturday	2:00 AM	13	0	0	0	1	14	0%
7-Apr	Saturday	10:00 PM	16	0	0	0	3	19	0%
8-Apr	Sunday	2:00 AM	16	0	0	0	1	17	0%
8-Apr	Sunday	10:00 PM	8	5	0	1	1	15	7%
9-Apr	Monday	2:00 AM	8	6	0	1	0	15	7%
12-Apr	Thursday	10:00 PM	13	1	0	0	0	14	0%
13-Apr	Friday	2:00 AM	16	0	0	0	0	16	0%
13-Apr	Friday	10:00 PM	8	5	0	1	1	15	7%
14-Apr	Saturday	2:00 AM	10	5	0	1	0	16	6%
15-Apr	Sunday	10:00 PM	7	3	0	3	1	14	21%
16-Apr	Monday	2:00 AM	7	3	0	3	0	13	23%
19-Apr	Thursday	10:00 PM	9	8	0	0	0	17	0%
20-Apr	Friday	2:00 AM	8	6	0	0	0	14	0%
20-Apr	Friday	10:00 PM	9	6	0	1	0	16	6%
21-Apr	Saturday	2:00 AM	9	6	0	1	0	16	6%
26-Apr	Thursday	10:00 PM	10	3	0	1	0	14	7%
27-Apr	Friday	2:00 AM	11	4	0	1	0	16	6%
27-Apr	Friday	10:00 PM	10	5	0	0	0	15	0%
28-Apr	Saturday	2:00 AM	11	5	0	0	0	16	0%
29-Apr	Sunday	10:00 PM	9	4	0	1	0	14	7%
30-Apr	Monday	2:00 AM	10	4	0	0	0	14	0%
Average			11.83	3.29	-	0.63	0.42	16.17	4%
Average Weekday			10.86	3.57	0.00	0.71	0.00	15.14	5%
Average Weekend			12.24	3.18	0.00	0.59	0.59	16.59	4%

24th Street - 400 Block (Arctic to Baltic)

May-12

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
3-May	Thursday	10:00 PM	10	5	0	1	0	16	6%
4-May	Friday	2:00 AM	11	5	0	0	0	16	0%
4-May	Friday	10:00 PM	9	5	0	2	3	19	11%
5-May	Saturday	10:00 PM	7	2	0	2	0	11	18%
6-May	Sunday	2:00 AM	8	2	0	2	0	12	17%
6-May	Sunday	10:00 PM	9	3	0	2	1	15	13%
7-May	Monday	2:00 AM	12	2	0	2	0	16	13%
10-May	Thursday	10:00 PM	11	6	0	0	1	18	0%
11-May	Friday	2:00 AM	11	6	0	0	0	17	0%
11-May	Friday	10:00 PM	11	7	0	0	0	18	0%
12-May	Saturday	10:00 PM	11	7	0	11	2	31	35%
13-May	Sunday	2:00 AM	11	2	0	4	2	19	21%
13-May	Sunday	10:00 PM	11	6	0	2	1	20	10%
14-May	Monday	2:00 AM	12	6	0	1	1	20	5%
17-May	Thursday	10:00 PM	12	5	0	1	0	18	0%
18-May	Friday	2:00 AM	14	5	0	1	0	20	5%
18-May	Friday	10:00 PM	11	7	0	5	0	23	22%
19-May	Saturday	2:00 AM	11	7	0	0	0	18	0%
19-May	Saturday	10:00 PM	8	4	0	10	0	22	45%
20-May	Sunday	2:00 AM	8	4	0	7	0	19	37%
20-May	Sunday	10:00 PM	9	5	0	0	0	14	0%
21-May	Monday	2:00 AM	13	6	0	0	0	19	0%
24-May	Thursday	10:00 PM	10	7	0	1	1	19	5%
25-May	Friday	2:00 AM	13	7	0	1	1	22	5%
25-May	Friday	10:00 PM	10	7	1	12	0	30	40%
26-May	Saturday	2:00 AM	15	2	1	5	0	23	22%
26-May	Saturday	10:00 PM	13	8	0	13	0	34	38%
27-May	Sunday	2:00 AM	11	1	0	3	0	15	20%
31-May	Thursday	10:00 PM	18	8	0	3	0	29	10%
31-May	Thursday	2:00 AM	15	5	0	1	0	21	5%
Average			11.17	5.07	0.07	3.07	0.43	19.80	13%
Average Weekday			12.56	5.56	0.00	1.11	0.33	19.56	5%
Average Weekend			10.57	4.86	0.10	3.90	0.48	19.90	17%

24th Street - 400 Block (Arctic to Baltic)

June 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
2-Jun	Saturday	10:00 PM	9	5	6	6	0	26	30%
7-Jun	Thursday	10:00 PM	12	5	1	6	0	24	25%
8-Jun	Friday	2:00 AM	12	5	0	2	0	19	11%
8-Jun	Friday	10:00 PM	8	4	3	15	1	31	48%
10-Jun	Sunday	2:00 AM	13	4	0	7	0	24	29%
14-Jun	Thursday	10:00 PM	12	8	0	10	0	30	33%
15-Jun	Friday	10:00 PM	13	8	0	1	0	22	5%
15-Jun	Friday	2:00 AM	10	2	1	14	0	27	52%
16-Jun	Saturday	10:00 PM	12	3	1	6	0	22	27%
16-Jun	Saturday	2:00 AM	13	5	0	13	0	31	42%
17-Jun	Sunday	10:00 PM	12	4	0	4	0	20	20%
21-Jun	Thursday	2:00 AM	11	6	0	4	0	21	19%
22-Jun	Friday	10:00 PM	11	6	0	2	0	19	11%
24-Jun	Sunday	2:00 AM	5	4	3	11	0	23	48%
25-Jun	Monday	10:00 PM	10	6	1	1	0	18	6%
28-Jun	Thursday	2:00 AM	12	6	0	5	0	23	22%
29-Jun	Friday	10:00 PM	13	5	0	0	0	18	0%
29-Jun	Friday	2:00 AM	12	3	1	1	0	17	6%
30-Jun	Saturday	10:00 PM	13	3	2	8	0	26	31%
Average			11.26	4.79	0.68	6.11	0.05	22.89	24%
Average Weekday			11.00	6.00	0.20	5.20	0.00	22.40	22%
Average Weekend			11.36	4.36	0.86	6.43	0.07	23.07	25%

24th Street - 400 Block (Arctic to Baltic)

July 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
1-Jul-12	Sunday	10:00 PM	9	7	0	5	0	21	24%
2-Jul-12	Monday	2:00 AM	14	5	1	1	0	21	5%
5-Jul-12	Thursday	10:00 PM	10	5	3	9	0	27	33%
6-Jul-12	Friday	2:00 AM	16	4	0	1	0	21	5%
6-Jul-12	Friday	10:00 PM	11	3	1	5	0	20	25%
7-Jul-12	Saturday	10:00 PM	11	3	1	7	0	22	32%
8-Jul-12	Sunday	2:00 AM	13	3	0	1	0	17	6%
8-Jul-12	Sunday	10:00 PM	8	9	0	7	0	24	29%
9-Jul-12	Monday	2:00 AM	15	4	2	1	0	22	5%
12-Jul-12	Thursday	10:00 PM	10	4	2	6	2	24	25%
13-Jul-12	Friday	2:00 AM	12	6	0	0	0	18	0%
13-Jul-12	Friday	10:00 PM	11	6	1	6	2	26	23%
14-Jul-12	Saturday	10:00 PM	10	9	4	8	0	31	26%
15-Jul-12	Saturday	10:00 PM	13	9	0	5	0	27	19%
16-Jul-12	Sunday	2:00 AM	16	6	0	1	0	23	4%
19-Jul-12	Thursday	10:00 PM	11	5	0	5	0	21	24%
22-Jul-12	Sunday	10:00 PM	12	8	1	7	0	28	25%
23-Jul-12	Monday	2:00 AM	14	9	0	2	0	25	8%
26-Jul-12	Thursday	10:00 PM	14	9	0	5	0	28	18%
27-Jul-12	Friday	2:00 AM	14	8	0	0	0	22	0%
28-Jul-12	Saturday	10:00 PM	12	7	2	11	0	32	34%
Average			12.19	6.14	0.86	4.43	0.19	23.81	18%
Average Weekday			12.86	7.00	0.43	3.14	0.00	23.43	13%
Average Weekend			11.86	5.71	1.07	5.07	0.29	24.00	20%

24th Street - 400 Block (Arctic to Baltic)

August 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
2-Aug	Thursday	10:00 PM	8	6	0	1	0	18	6%
3-Aug	Friday	10:00 PM	10	7	2	4	0	23	17%
4-Aug	Saturday	2:00 AM	10	9	0	0	0	19	0%
4-Aug	Saturday	10:00 PM	6	6	1	6	0	19	32%
5-Aug	Sunday	2:00 AM	8	6	0	3	0	17	18%
12-Aug	Sunday	10:00 PM	9	3	0	2	0	14	14%
16-Aug	Thursday	10:00 PM	10	4	2	3	1	20	15%
17-Aug	Friday	2:00 AM	11	5	0	1	0	17	6%
17-Aug	Friday	10:00 PM	8	8	1	7	0	24	29%
18-Aug	Saturday	2:00 AM	10	7	0	2	0	19	11%
19-Aug	Sunday	10:00 PM	7	1	0	2	0	10	20%
20-Aug	Monday	2:00 AM	12	1	0	0	0	13	0%
23-Aug	Thursday	10:00 PM	8	2	1	5	0	16	31%
24-Aug	Friday	2:00 AM	12	2	0	0	0	14	0%
24-Aug	Friday	10:00 PM	14	4	3	7	1	29	24%
25-Aug	Saturday	10:00 PM	7	5	4	8	2	26	31%
26-Aug	Sunday	2:00 AM	8	4	0	2	0	14	14%
26-Aug	Sunday	10:00 PM	10	4	1	3	2	20	15%
27-Aug	Monday	2:00 AM	13	4	0	0	0	18	6%
30-Aug	Thursday	10:00 PM	8	7	2	3	0	20	15%
31-Aug	Friday	2:00 AM	13	4	0	0	0	17	0%
31-Aug	Friday	10:00 PM	7	9	6	8	1	31	26%
Average			9.55	5.00	1.05	3.09	0.32	19.00	15%
Average Weekday			10.00	4.33	0.83	2.17	0.17	17.50	12%
Average Weekend			9.38	5.25	1.13	3.44	0.38	19.56	16%

24th Street - 400 Block (Arctic to Baltic)

September 2012

Date	Day	Time	Resident	Guest	Temp	Business	Violation	Total	% Biz
6-Sep	Thursday	10:00 PM	8	5	0	0	0	13	0%
7-Sep	Friday	2:00 AM	10	4	0	0	0	14	0%
7-Sep	Friday	10:00 PM	13	3	0	2	0	18	11%
8-Sep	Saturday	2:00 AM	14	4	0	0	0	18	0%
9-Sep	Sunday	10:00 PM	11	3	0	10	0	24	42%
10-Sep	Monday	2:00 AM	15	6	1	7	0	29	24%
13-Sep	Thursday	10:00 PM	10	6	0	1	0	17	6%
14-Sep	Friday	2:00 AM	11	6	0	0	0	17	0%
14-Sep	Friday	10:00 PM	10	4	0	2	0	16	13%
15-Sep	Saturday	2:00 AM	9	5	0	0	0	14	0%
15-Sep	Saturday	10:00 PM	10	5	0	4	0	19	21%
16-Sep	Sunday	2:00 AM	12	6	0	1	0	19	5%
16-Sep	Sunday	10:00 PM	9	3	0	5	0	17	29%
17-Sep	Monday	2:00 AM	12	6	0	1	0	19	5%
Average			11.00	4.71	0.07	2.36	-	18.14	11%
Average Weekday			11.25	5.75	0.25	2.25	0.00	19.50	9%
Average Weekend			10.90	4.30	0.00	2.40	0.00	17.60	12%

APPENDIX E: FUTURE DEVELOPMENT CALCULATIONS

Parking Zone	North Limit	South Limit	East Limit	West Limit	Block Size		Total SF	Buildable SF	Residential Units	Hotel Units	GLA Office	GLA Commercial Retail	GLA Restaurants
A	Zone A Totals				-	-	0	0	0	0	0	0	0
B	25	24.5	Atlantic	Pacific	250	150	37,500	25,000	63	0	0	9,844	3,282
	24.5	24	Atlantic	Pacific	75	300	22,500	15,000	0	132	0	0	0
	24	23	Atlantic	Pacific	250	225	56,250	37,500	94	0	0	14,766	4,922
	23	22	Atlantic	Pacific	250	300	75,000	50,000	125	0	0	19,688	6,563
	22	21	Atlantic	Pacific	250	150	37,500	25,000	63	0	0	9,844	3,282
	25	24.5	Pacific	Arctic	-	-	-	0	143	0	0	8,000	0
	24.5	24	Pacific	Arctic	125	300	37,500	25,000	34	0	0	9,844	3,282
	24.5	24	Pacific	Arctic	140	500	70,000	46,667	40	0	0	18,375	6,125
	24	23	Pacific	Arctic	125	300	37,500	25,000	34	0	0	9,844	3,282
	23	22	Pacific	Arctic	125	300	37,500	25,000	34	0	0	9,844	3,282
	22	21	Pacific	Arctic	500	150	75,000	50,000	68	0	0	19,688	6,563
	Zone B Totals				-	-	486,250	324,167	696		0	129,737	40,582
C	21	20	Atlantic	Pacific	250	300	75,000	50,000	125	0	0	19,688	6,563
	20	19	Atlantic	Pacific	250	200	50,000	33,333	83	0	0	13,125	4,375
	18	17	Atlantic	Pacific	150	300	45,000	30,000	72	0	0	11,813	3,938
	18	17	Atlantic	Pacific	250	150	37500	25000	63	0	0	9,844	3,282
	17	16	Atlantic	Pacific	250	225	56,250	37,500	94	0	0	14,766	4,922
	21	20	Pacific	Arctic	500	300	75,000	50,000	68	0	0	19,688	6,563
	20	19	Pacific	Arctic	280	500	195,000	130,000	0	0	0	146,250	48,750
	19	18	Pacific	Arctic	280	500	195,000	130,000	0	0	0	146,250	48,750
	18	17	Pacific	Arctic	250	300	75,000	50,000	68	0	0	19,688	6,563
	17	16	Pacific	Arctic	140	500	70,000	46,667	0	0	49,000	18,375	6,125
	Zone C Totals				-	-	873,750	582,500	571		49,000	419,487	139,831
D	22	21	Arctic	Baltic	500	150	75,000	50,000	68		0	19,688	6,563
	22	21	Mediterranean	Cypress	280	250	70,000	46,667	70		0	36,750	12,250
	Zone D Totals					-	145,000	96,667	138		0	56,438	18,813
E	21	20	Arctic	Baltic	140	500	70,000	46,667	0	0	49,000	18,375	6,125
	21	20	Arctic	Baltic	140	500	70,000	46,667	40	0	0	18,375	6,125
	20	19	Arctic	Baltic	500	300	150,000	100,000	0	0	0	47,250	5,250
	19	18	Arctic	Baltic	140	500	70,000	46,667	54	0	0	18,375	6,125
	19	18	Arctic	Baltic	140	500	70,000	46,667	0	0	49,000	18,375	6,125
	18	17	Arctic	Baltic	280	500	140,000	93,333	80	0	0	36,750	12,250
	17	16	Arctic	Baltic	140	500	70,000	46,667	16	0	0	18,375	6,125
	20	19	Baltic	Mediterranean	140	500	70,000	46,667	40	0	0	18,375	6,125
	20	19	Baltic	Mediterranean	140	500	70,000	46,667	54	0	0	18,375	6,125
	19	18	Baltic	Mediterranean	140	500	70,000	46,667	54	0	0	18,375	6,125
	19	18	Baltic	Mediterranean	140	500	70,000	46,667	0	0	49,000	18,375	6,125
	18	17	Baltic	Mediterranean	280	500	140,000	93,333	80	0	0	36,750	12,250
	17	16	Baltic	Mediterranean	140	500	70,000	46,667	16	0	0	18,375	6,125
	18	17	Mediterranean	Cypress	280	500	140,000	93,333	80	0	0	36,750	12,250
	17	16	Mediterranean	Cypress	140	500	70,000	46,667	16	0	0	18,375	6,125
	Zone E Totals				-	-	1,340,000	893,333	529		147,000	359,625	109,375
F	23	22	Cypress	Parks	140	500	70,000	46,667	16	0	0	18,375	6,125
	22	19	Cypress	Parks	500	300	150,000	100,000	135	0	0	39,375	13,125
	22	19	Cypress	Parks	500	300	150,000	100,000	135	0	0	39,375	13,125
	19	18	Cypress	Washington	-	-	-	0	0	351	0	-	-
	19	18	Cypress	HQ Hotel	280	500	140,000	93,333	0	0	98,000	36,750	12,250
	17	16	Cypress	Parks	140	500	70,000	46,667	40	0	0	18,375	6,125
	17	16	Parks	Washington	140	500	70,000	46,667	40	0	0	18,375	6,125
	23	22	Cypress	Parks	140	500	70,000	46,667	16	0	0	18,375	6,125
	19	VB Blvd	Existing Surface Lots		-	-	0	0	0	0	0	0	0
	Zone F Totals				-	-	720,000	480,000	382		98,000	189,000	63,000

Zone	Total SF	Buildable SF	Residential Units	Hotel Units	GLA Office (S.F.)	GLA Commercial Retail (S.F.)	Restaurants (S.F.)
Zone A Totals	0	0	0	0	0	0	0
Zone B Totals	486,250	324,167	564	132	0	129,737	40,582
Zone C Totals	873,750	582,500	571	0	49,000	419,487	139,831
Zone D Totals	145,000	96,667	138	0	0	56,438	18,813
Zone E Totals	1,340,000	893,333	529	0	147,000	359,625	109,375
Zone F Totals	720,000	480,000	31	351	98,000	189,000	63,000
Sub-Area Total	3,565,000	2,376,667	1,832	483	294,000	1,154,286	371,600

APPENDIX F: PARKING DEMAND MODEL INPUTS/OUTPUTS

Parking Demand Model - Data Input Sheet (Existing and 3-Year Development Conditions)

ANALYSIS ZONE A

Existing Conditions

Development Summary		
Residential	0	d.u.
Commercial Retail	7,500	s.f.
Restaurant	43,480	s.f.
Office	0	s.f.
Government Office	0	s.f.
Church	0	s.f.
Museum/Other Civic	8,000	s.f.
Light Industrial	0	s.f.
Hotel	1,344	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

Parking Supply Information	
Occupied Public Spaces	0
Occupied Private Spaces	1,344
Total Occupied Spaces	1,344
Number of Total Spaces	1,344

Future Year Conditions

Development Summary		
Residential	0	d.u.
Commercial Retail	7,500	s.f.
Restaurant	43,480	s.f.
Office	0	s.f.
Government Office	0	s.f.
Church	0	s.f.
Museum/Other Civic	8,000	s.f.
Light Industrial	0	s.f.
Hotel	1,344	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

	Existing	Future
Public On-Street Spaces	0	0
Public Off-Street Spaces	0	0
Private Spaces	1,344	1344
Total	1,344	1344

ANALYSIS ZONE B

Existing Conditions

Development Summary		
Residential	113	d.u.
Commercial Retail	77,890	s.f.
Restaurant	61,569	s.f.
Office	6,560	s.f.
Government Office	0	s.f.
Church	0	s.f.
Museum/Other Civic	0	s.f.
Light Industrial	0	s.f.
Hotel	199	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

Parking Supply Information	
Occupied Public Spaces	219
Occupied Private Spaces	338
Total Occupied Spaces	557
Number of Total Spaces	1304

Future Year Conditions

Development Summary		
Residential	256	d.u.
Commercial Retail	85,890	s.f.
Restaurant	61,569	s.f.
Office	6,560	s.f.
Government Office	0	s.f.
Church	0	s.f.
Museum/Other Civic	0	s.f.
Light Industrial	0	s.f.
Hotel	199	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

	Existing	Future
Public On-Street Spaces	213	213
Public Off-Street Spaces	378	753
Private Spaces	338	338
Total	929	1304

ANALYSIS ZONE C

Existing Conditions

Development Summary		
Residential	36	d.u.
Commercial Retail	130,884	s.f.
Restaurant	57,604	s.f.
Office	0	s.f.
Government Office	0	s.f.
Church	28,487	s.f.
Museum/Other Civic	2,040	s.f.
Dome Site	0	patrons
Hotel	157	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

Parking Supply Information	
Occupied Public Spaces	297
Occupied Private Spaces	302
Total Occupied Spaces	599
Number of Total Spaces	2456

Future Year Conditions

Development Summary		
Residential	108	d.u.
Commercial Retail	142,697	s.f.
Restaurant	60,408	s.f.
Office	0	s.f.
Government Office	0	s.f.
Church	28,487	s.f.
Museum/Other Civic	2,040	s.f.
Dome Site	12,625	patrons
Hotel	157	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

	Existing	Future
Public On-Street Spaces	156	156
Public Off-Street Spaces	1027	1998
Private Spaces	302	302
Total	1,485	2456

ANALYSIS ZONE D

Existing Conditions

Development Summary		
Residential	402	d.u.
Commercial Retail	18,496	s.f.
Restaurant	0	s.f.
Office	78,738	s.f.
Government Office	0	s.f.
Church	0	s.f.
Museum/Other Civic	0	s.f.
Light Industrial	0	s.f.
Hotel	8	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

Parking Supply Information	
Occupied Public Spaces	194
Occupied Private Spaces	588
Total Occupied Spaces	782
Number of Total Spaces	1120

Future Year Conditions

Development Summary		
Residential	402	d.u.
Commercial Retail	18,496	s.f.
Restaurant	0	s.f.
Office	78,738	s.f.
Government Office	0	s.f.
Church	0	s.f.
Museum/Other Civic	0	s.f.
Light Industrial	0	s.f.
Hotel	8	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

	Existing	Future
Public On-Street Spaces	532	532
Public Off-Street Spaces	0	0
Private Spaces	588	588
Total	1,120	1120

ANALYSIS ZONE E

Existing Conditions

Development Summary		
Residential	364	d.u.
Commercial Retail	171,205	s.f.
Restaurant	23,790	s.f.
Office	23,310	s.f.
Government Office	0	s.f.
Church	6,828	s.f.
Museum/Other Civic	0	s.f.
Light Industrial	0	s.f.
Hotel	81	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

Parking Supply Information	
Occupied Public Spaces	111
Occupied Private Spaces	1154
Total Occupied Spaces	1265
Number of Total Spaces	2412

Future Year Conditions

Development Summary		
Residential	346	d.u.
Commercial Retail	214,640	s.f.
Restaurant	29,040	s.f.
Office	20,235	s.f.
Government Office	0	s.f.
Church	6,828	s.f.
Museum/Other Civic	0	s.f.
Light Industrial	0	s.f.
Hotel	81	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

	Existing	Future
Public On-Street Spaces	294	294
Public Off-Street Spaces	164	964
Private Spaces	1195	1154
Total	1,653	2412

ANALYSIS ZONE F

Existing Conditions

Development Summary		
Residential	52	d.u.
Commercial Retail	41,275	s.f.
Restaurant	9,000	s.f.
Office	125,675	s.f.
Convention Center	525,125	s.f.
Church		s.f.
Museum/Other Civic	71,950	s.f.
Light Industrial		s.f.
Hotel	489	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

Parking Supply Information	
Occupied Public Spaces	0
Occupied Private Spaces	936
Total Occupied Spaces	936
Number of Total Spaces	3072

Future Year Conditions

Development Summary		
Residential	52	d.u.
Commercial Retail	41,275	s.f.
Restaurant	9,000	s.f.
Office	125,675	s.f.
Convention Center	525,125	s.f.
Church		s.f.
Museum/Other Civic	71,950	s.f.
Light Industrial		s.f.
Hotel	840	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

	Existing	Future
Public On-Street Spaces	0	0
Public Off-Street Spaces	2136	2136
Private Spaces	1126	936
Total	3,262	3072

Parking Demand Model - Data Input Sheet (Existing and 15-Year Development Conditions)

ANALYSIS ZONE A

Existing Conditions

Development Summary		
Residential	0	d.u.
Commercial Retail	7,500	s.f.
Restaurant	43,480	s.f.
Office	0	s.f.
Government Office	0	s.f.
Church	0	s.f.
Museum/Other Civic	8,000	s.f.
Light Industrial	0	s.f.
Hotel	1,344	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

Parking Supply Information	
Occupied Public Spaces	0
Occupied Private Spaces	1,344
Total Occupied Spaces	1,344
Number of Total Spaces	1,344

Future Year Conditions

Development Summary		
Residential	0	d.u.
Commercial Retail	7,500	s.f.
Restaurant	43,480	s.f.
Office	0	s.f.
Government Office	0	s.f.
Church	0	s.f.
Museum/Other Civic	8,000	s.f.
Light Industrial	0	s.f.
Hotel	1,344	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

	Existing	Future
Public On-Street Spaces	0	0
Public Off-Street Spaces	0	0
Private Spaces	1,344	1344
	1,344	1344

ANALYSIS ZONE B

Existing Conditions

Development Summary		
Residential	113	d.u.
Commercial Retail	77,890	s.f.
Restaurant	61,569	s.f.
Office	6,560	s.f.
Government Office	0	s.f.
Church	0	s.f.
Museum/Other Civic	0	s.f.
Light Industrial	0	s.f.
Hotel	199	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

Parking Supply Information	
Occupied Public Spaces	219
Occupied Private Spaces	130
Total Occupied Spaces	349
Number of Total Spaces	962

Future Year Conditions

Development Summary		
Residential	768	d.u.
Commercial Retail	129,737	s.f.
Restaurant	45,682	s.f.
Office	0	s.f.
Government Office	0	s.f.
Church	0	s.f.
Museum/Other Civic	0	s.f.
Light Industrial	0	s.f.
Hotel	192	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

	Existing	Future
Public On-Street Spaces	213	213
Public Off-Street Spaces	378	619
Private Spaces	338	130
	929	962

ANALYSIS ZONE C

Existing Conditions

Development Summary		
Residential	36	d.u.
Commercial Retail	130,884	s.f.
Restaurant	57,604	s.f.
Office	0	s.f.
Government Office	0	s.f.
Church	28,487	s.f.
Museum/Other Civic	2,040	s.f.
Dome Site	0	patrons
Hotel	157	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

Parking Supply Information	
Occupied Public Spaces	297
Occupied Private Spaces	22
Total Occupied Spaces	319
Number of Total Spaces	1797

Future Year Conditions

Development Summary		
Residential	605	d.u.
Commercial Retail	165,144	s.f.
Restaurant	62,430	s.f.
Office	49,000	s.f.
Government Office	0	s.f.
Church	28,487	s.f.
Museum/Other Civic	0	s.f.
Dome Site	12,625	patrons
Hotel	67	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

	Existing	Future
Public On-Street Spaces	156	156
Public Off-Street Spaces	1027	1619
Private Spaces	302	22
	1,485	1797

ANALYSIS ZONE D

Existing Conditions

Development Summary		
Residential	402	d.u.
Commercial Retail	18,496	s.f.
Restaurant	0	s.f.
Office	78,738	s.f.
Government Office	0	s.f.
Church	0	s.f.
Museum/Other Civic	0	s.f.
Light Industrial	0	s.f.
Hotel	8	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

Parking Supply Information	
Occupied Public Spaces	194
Occupied Private Spaces	490
Total Occupied Spaces	684
Number of Total Spaces	1022

Future Year Conditions

Development Summary		
Residential	519	d.u.
Commercial Retail	74,934	s.f.
Restaurant	18,813	s.f.
Office	78,738	s.f.
Government Office	0	s.f.
Church	0	s.f.
Museum/Other Civic	0	s.f.
Light Industrial	0	s.f.
Hotel	8	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

	Existing	Future
Public On-Street Spaces	532	532
Public Off-Street Spaces	0	0
Private Spaces	588	490
	1,120	1022

ANALYSIS ZONE E

Existing Conditions

Development Summary		
Residential	364	d.u.
Commercial Retail	171,205	s.f.
Restaurant	23,790	s.f.
Office	23,310	s.f.
Government Office	0	s.f.
Church	6,828	s.f.
Museum/Other Civic	0	s.f.
Light Industrial	0	s.f.
Hotel	81	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

Parking Supply Information	
Occupied Public Spaces	111
Occupied Private Spaces	435
Total Occupied Spaces	546
Number of Total Spaces	1529

Future Year Conditions

Development Summary		
Residential	792	d.u.
Commercial Retail	385,489	s.f.
Restaurant	120,558	s.f.
Office	147,000	s.f.
Government Office	0	s.f.
Church	6,828	s.f.
Museum/Other Civic	0	s.f.
Light Industrial	0	s.f.
Hotel	26	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

	Existing	Future
Public On-Street Spaces	294	294
Public Off-Street Spaces	164	800
Private Spaces	1195	435
	1,653	1529

ANALYSIS ZONE F

Existing Conditions

Development Summary		
Residential	52	d.u.
Commercial Retail	41,275	s.f.
Restaurant	9,000	s.f.
Office	125,675	s.f.
Convention Center	525,125	s.f.
Church		s.f.
Museum/Other Civic	71,950	s.f.
Light Industrial		s.f.
Hotel	489	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

Parking Supply Information	
Occupied Public Spaces	0
Occupied Private Spaces	824
Total Occupied Spaces	824
Number of Total Spaces	2960

Future Year Conditions

Development Summary		
Residential	382	d.u.
Commercial Retail	189,000	s.f.
Restaurant	67,500	s.f.
Office	175,300	s.f.
Government Office	525,125	s.f.
Church	0	s.f.
Museum/Other Civic	71,950	s.f.
Light Industrial	0	s.f.
Hotel	743	rooms

Alternative Modes	
Transit Usage	0%
Bicycle Usage	2%
Walking Trips	3%

Assume Shared Use Parking? (Y/N) Y

	Existing	Future
Public On-Street Spaces	0	0
Public Off-Street Spaces	2136	2136
Private Spaces	1126	824
	3,262	2960

Parking Demand Model - Data Output Sheet (Weekday Analysis)

ZONE	Peak Parking Demand[B]	Parking Supply[C]	Parking Supply Surplus[D]	Available Proximity Parking[E]	Adjusted Parking Supply[F]	Net Parking Surplus/Deficit[G]
A	1,646	1,344	-302	424	1,768	122
B	882	929	46	436	1,318	436
C	827	1,485	657	330	1,157	330
D	648	1,120	472	237	885	237
E	1,052	1,653	601	300	1,352	300
F	733	3,262	2,529	49	3,311	2,578
Zones A-E	5,055	6,530	1,476	1,727	6,480	1,425

TOTAL NUMBER OF PARKING SPACES REQUIRED **0**

Peak Period: *Weekday - 7:00:00 PM*
Scenario: *Base year analysis period (2012)*
Event: *Assumes maximum occupancy of all private parking*

A = Shared Parking is the use of a parking space to serve two or more individual land uses without conflict or encroachment.

B = Peak parking demand represents the total number of parking spaces required to meet peak parking accumulation with an effective parking supply. The effective parking supply allows a small cushion of spaces (10%) over the peak parking accumulation to provide for operation fluctuations, misparked vehicles, snow cover, vehicle maneuvers, and vacancies created by reserving spaces for specific users, such as disabled parking. The cushion reduces the need to search the entire system for the last few parking spaces, thus reducing patron frustration. The 85th percentile of observed peak hour accumulations is employed by the Urban Land Institute and the Institute of Transportation Engineers for determining the parking ratios used in this analysis.

C = Parking supply includes all available parking spaces identified within the zone, whether provided in parking decks, on-street parking spaces, or surface lots.

D = Parking supply minus peak parking demand.

E = Available Proximity Parking shows the amount of donated spaces that each zone can receive, up to the zone's total need.

F = Adjusted parking supply accounts for proximity parking spaces donated from adjacent zones (if available).

G = Adjusted parking supply minus peak parking demand.

Parking Demand Model - Data Output Sheet (Weekend Analysis)

ZONE	Peak Parking Demand[B]	Parking Supply[C]	Parking Supply Surplus[D]	Available Proximity Parking[E]	Adjusted Parking Supply[F]	Net Parking Surplus/Deficit[G]
A	1,816	1,344	-472	308	1,652	-164
B	1,115	929	-187	321	1,250	134
C	974	1,485	511	234	1,208	234
D	791	1,120	329	170	961	170
E	1,207	1,653	446	220	1,427	220
F	757	3,262	2,505	35	3,297	2,540
Zones A-E	5,903	6,530	627	1,253	6,497	594
			TOTAL NUMBER OF PARKING SPACES REQUIRED			**0**

Peak Period: *Saturday - 7:00:00 PM*
Scenario: *Base year analysis period (2012)*
Event: *Assumes maximum occupancy of all private parking*

A = Shared Parking is the use of a parking space to serve two or more individual land uses without conflict or encroachment.

B = Peak parking demand represents the total number of parking spaces required to meet peak parking accumulation with an effective parking supply. The effective parking supply allows a small cushion of spaces (10%) over the peak parking accumulation to provide for operation fluctuations, misparked vehicles, snow cover, vehicle maneuvers, and vacancies created by reserving spaces for specific users, such as disabled parking. The cushion reduces the need to search the entire system for the last few parking spaces, thus reducing patron frustration. The 85th percentile of observed peak hour accumulations is employed by the Urban Land Institute and the Institute of Transportation Engineers for determining the parking ratios used in this analysis.

C = Parking supply includes all available parking spaces identified within the zone, whether provided in parking decks, on-street parking spaces, or surface lots.

D = Parking supply minus peak parking demand.

E = Available Proximity Parking shows the amount of donated spaces that each zone can receive, up to the zone's total need.

F = Adjusted parking supply accounts for proximity parking spaces donated from adjacent zones (if available).

G = Adjusted parking supply minus peak parking demand.

Parking Demand Model - Data Output Sheet (Weekday Analysis)

ZONE	Peak Parking Demand[B]	Parking Supply[C]	Parking Supply Surplus[D]	Available Proximity Parking[E]	Adjusted Parking Supply[F]	Net Parking Surplus/Deficit[G]
A	1,646	1,344	-302	558	1,902	256
B	1,088	1,304	216	499	1,587	499
C	1,817	2,456	639	673	2,490	673
D	648	1,120	472	476	1,124	476
E	1,142	2,412	1,270	308	1,450	308
F	1,054	3,072	2,018	83	3,155	2,101
Zones A-E	6,340	8,636	2,296	2,514	8,553	2,212

TOTAL NUMBER OF PARKING SPACES REQUIRED **0**

Peak Period: *Weekday - 7:00:00 PM*
Scenario: *Short Term (3-Year) Development Build-Out*
Event: *Assumes maximum occupancy of all private parking*

A = Shared Parking is the use of a parking space to serve two or more individual land uses without conflict or encroachment.

B = Peak parking demand represents the total number of parking spaces required to meet peak parking accumulation with an effective parking supply. The effective parking supply allows a small cushion of spaces (10%) over the peak parking accumulation to provide for operation fluctuations, misparked vehicles, snow cover, vehicle maneuvers, and vacancies created by reserving spaces for specific users, such as disabled parking. The cushion reduces the need to search the entire system for the last few parking spaces, thus reducing patron frustration. The 85th percentile of observed peak hour accumulations is employed by the Urban Land Institute and the Institute of Transportation Engineers for determining the parking ratios used in this analysis.

C = Parking supply includes all available parking spaces identified within the zone, whether provided in parking decks, on-street parking spaces, or surface lots.

D = Parking supply minus peak parking demand.

E = Available Proximity Parking shows the amount of donated spaces that each zone can receive, up to the zone's total need.

F = Adjusted parking supply accounts for proximity parking spaces donated from adjacent zones (if available).

G = Adjusted parking supply minus peak parking demand.

Parking Demand Model - Data Output Sheet (Weekend Analysis)

ZONE	Peak Parking Demand[B]	Parking Supply[C]	Parking Supply Surplus[D]	Available Proximity Parking[E]	Adjusted Parking Supply[F]	Net Parking Surplus/Deficit[G]
A	1,816	1,344	-472	354	1,698	-118
B	1,393	1,304	-89	377	1,681	288
C	1,997	2,456	460	544	2,541	544
D	791	1,120	329	373	1,164	373
E	1,276	2,412	1,136	208	1,484	208
F	1,102	3,072	1,970	70	3,142	2,040
Zones A-E	7,272	8,636	1,364	1,856	8,567	1,295

TOTAL NUMBER OF PARKING SPACES REQUIRED **0**

Peak Period: *Saturday - 7:00:00 PM*
Scenario: *Short Term (3-Year) Development Build-Out*
Event: *Assumes maximum occupancy of all private parking*

A = Shared Parking is the use of a parking space to serve two or more individual land uses without conflict or encroachment.

B = Peak parking demand represents the total number of parking spaces required to meet peak parking accumulation with an effective parking supply. The effective parking supply allows a small cushion of spaces (10%) over the peak parking accumulation to provide for operation fluctuations, misparked vehicles, snow cover, vehicle maneuvers, and vacancies created by reserving spaces for specific users, such as disabled parking. The cushion reduces the need to search the entire system for the last few parking spaces, thus reducing patron frustration. The 85th percentile of observed peak hour accumulations is employed by the Urban Land Institute and the Institute of Transportation Engineers for determining the parking ratios used in this analysis.

C = Parking supply includes all available parking spaces identified within the zone, whether provided in parking decks, on-street parking spaces, or surface lots.

D = Parking supply minus peak parking demand.

E = Available Proximity Parking shows the amount of donated spaces that each zone can receive, up to the zone's total need.

F = Adjusted parking supply accounts for proximity parking spaces donated from adjacent zones (if available).

G = Adjusted parking supply minus peak parking demand.

Parking Demand Model - Data Output Sheet (Weekday Conditions)

ZONE	Peak Parking Demand[B]	Parking Supply[C]	Parking Supply Surplus[D]	Available Proximity Parking[E]	Adjusted Parking Supply[F]	Net Parking Surplus/Deficit[G]
A	1,646	1,344	-302	1	1,345	-301
B	1,733	962	-771	3	965	-768
C	2,468	1,797	-671	1	1,798	-670
D	1,015	1,022	7	0	1,015	0
E	2,624	1,529	-1,095	2	1,531	-1,093
F	2,058	2,960	902	0	2,960	902
Zones A-E	9,485	6,654	-2,831	7	6,654	-2,831

TOTAL NUMBER OF PARKING SPACES REQUIRED **2,800**

Peak Period: *Weekday - 7:00:00 PM*
Scenario: *Long Term (15-Year) Development Build-Out*
Event: *Assumes maximum occupancy of all private parking*

A = Shared Parking is the use of a parking space to serve two or more individual land uses without conflict or encroachment.

B = Peak parking demand represents the total number of parking spaces required to meet peak parking accumulation with an effective parking supply. The effective parking supply allows a small cushion of spaces (10%) over the peak parking accumulation to provide for operation fluctuations, misparked vehicles, snow cover, vehicle maneuvers, and vacancies created by reserving spaces for specific users, such as disabled parking. The cushion reduces the need to search the entire system for the last few parking spaces, thus reducing patron frustration. The 85th percentile of observed peak hour accumulations is employed by the Urban Land Institute and the Institute of Transportation Engineers for determining the parking ratios used in this analysis.

C = Parking supply includes all available parking spaces identified within the zone, whether provided in parking decks, on-street parking spaces, or surface lots.

D = Parking supply minus peak parking demand.

E = Available Proximity Parking shows the amount of donated spaces that each zone can receive, up to the zone's total need.

F = Adjusted parking supply accounts for proximity parking spaces donated from adjacent zones (if available).

G = Adjusted parking supply minus peak parking demand.

Parking Demand Model - Data Output Sheet (Weekend Conditions)

ZONE	Peak Parking Demand[B]	Parking Supply[C]	Parking Supply Surplus[D]	Available Proximity Parking[E]	Adjusted Parking Supply[F]	Net Parking Surplus/Deficit[G]
A	1,816	1,344	-472	0	1,344	-472
B	2,225	962	-1,263	0	962	-1,263
C	2,893	1,797	-1,096	0	1,797	-1,096
D	1,256	1,022	-234	0	1,022	-234
E	3,168	1,529	-1,639	0	1,529	-1,639
F	2,383	2,960	577	0	2,960	577
Zones A-E	11,359	6,654	-4,705	0	6,654	-4,705

TOTAL NUMBER OF PARKING SPACES REQUIRED **4,700**

Peak Period: *Saturday - 7:00:00 PM*
Scenario: *Long Term (15-Year) Development Build-Out*
Event: *Assumes maximum occupancy of all private parking*

A = Shared Parking is the use of a parking space to serve two or more individual land uses without conflict or encroachment.

B = Peak parking demand represents the total number of parking spaces required to meet peak parking accumulation with an effective parking supply. The effective parking supply allows a small cushion of spaces (10%) over the peak parking accumulation to provide for operation fluctuations, misparked vehicles, snow cover, vehicle maneuvers, and vacancies created by reserving spaces for specific users, such as disabled parking. The cushion reduces the need to search the entire system for the last few parking spaces, thus reducing patron frustration. The 85th percentile of observed peak hour accumulations is employed by the Urban Land Institute and the Institute of Transportation Engineers for determining the parking ratios used in this analysis.

C = Parking supply includes all available parking spaces identified within the zone, whether provided in parking decks, on-street parking spaces, or surface lots.

D = Parking supply minus peak parking demand.

E = Available Proximity Parking shows the amount of donated spaces that each zone can receive, up to the zone's total need.

F = Adjusted parking supply accounts for proximity parking spaces donated from adjacent zones (if available).

G = Adjusted parking supply minus peak parking demand.

THIS BLOCK
6 PM - 6 AM
APR 1 - SEPT 30