

Parking Service Enhancements

For The
City of Portsmouth, New Hampshire



Prepared By



November 2006

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Table of Contents

Table of Contents	2
Cover Letter	3
Executive Summary	4
Introduction.....	7
Section One: Parking Rate Evaluation.....	8
Methodology	9
Legal Mandates.....	9
Market Conditions	10
Rate Comparisons	11
Mission and Goals.....	16
Impact of New Rates.....	19
Summary of Rate Evaluation	26
Review of Alternate Rate Proposals	27
Recommendations – Parking Rates	30
Section Two: Service Delivery Evaluation.....	33
Parking Organization	33
Off-Street Parking.....	34
On-Street Parking.....	47
Alternate Service Delivery.....	48
Recommendations.....	55
Section Three: Parking Program Development	58
Parking Asset Analysis	58
Residential Parking Permit Program.....	62
Valet Parking Zones.....	68

November 16, 2006

Mr. Jon Frederick
Parking Manager
City of Portsmouth
680 Peverly Hill Road
Portsmouth, NH 03801

Dear Mr. Frederick:

No one goes downtown to park but without parking, no one goes downtown. When citizens and/or visitors perceive that there is an adequate supply of convenient and valued-priced parking, the issue of parking remains invisible. Once the demand for parking exceeds the supply, however, parking becomes a nuisance. If citizens circle the downtown area unable to locate a place for their car, parking then becomes a crisis.

Recognizing the importance parking has on the local economy, the City of Portsmouth provides a variety of parking services. As the City, particularly its Downtown, evolves, it is important to occasionally examine its parking services to ensure they are supporting the mission of the parking program and preparing the City for the future.

The Consulting Engineers Group, Inc. (CEG) has worked with the City Administration, Parking Commission, and stakeholders to examine parking fees, service delivery, and parking program enhancements. This report is the result of that examination.

The findings and recommendations contained herein reflect the goals of the City's parking program and provide direction for new programs. The implementation of the recommendations will enable the City of Portsmouth to continue its regional economic growth and Downtown vitality.

Sincerely,

THE CONSULTING ENGINEERS GROUP, INC.

Charles J. Cullen, CPFM, CAPP
Director of Parking Consulting Services

Executive Summary

The downtown area of the City of Portsmouth is currently witnessing a transformation. New entertainment, residential, dining and retail venues are merging with the traditional office environment. This transformation is altering parking requirements. No longer can parking be thought of in terms of an 8-to-5 service. Parking services must be able to meet the multiple demands of a 24/7 downtown.

The existing rates have not adversely impacted parking services and, more importantly, are fulfilling the mission of the Parking Program. As a result, we conclude that the existing rates are appropriate for the City of Portsmouth at this time. There are indicators (current market conditions, the comparison of off-street rates charged by other cities, and the high level of on-street occupancy), however, that a higher hourly rate may be justified in the near future (2007 or 2008). There are also opportunities to introduce new rate features that will improve the quality of existing parking services. Our recommendations regarding rates are:

- 1. Conduct a biennial review of parking rates and policies*
- 2. Expand the use of a flat rate in the garage when a large number of customers are expected to exit within a short period of time*
- 3. Establish a maximum daily rate for the garage*
- 4. Impose different hourly rate for on-street and off-street parking*
- 5. Establish a relationship between hourly and contract Parking*
- 6. Modify the night contract permit program*

The High/Hanover Parking Facility is Portsmouth's most important parking asset. Since its opening, the parking habits of its customers have changed and continue to change. The time-based method of operation that has been in place since 1985 is not fully compatible with the parking needs of Garage customers in 2006. At the conclusion of an event, or when several establishments close at the same time, there is often a mass exodus of vehicle that the current operational mode cannot efficiently process. Operational options are needed to improve customer service.

The existing parking meters are nearing a decade of service. The staff reported occasional failures and service shortcomings with the current model. Based upon our review, the existing meters are providing good service. There is no immediate need to replace the meters now in use. In the near future (2 to 5 years), however, replacement of the meters will be necessary.

There are several options to replace the existing meters. Since there is no immediate need to purchase new equipment, the City has the opportunity to test new equipment and technology so that it can purchase the right equipment in the future.

Our recommendations to enhance service delivery include:

- 7. Consider centralizing the parking functions as much as possible*
- 8. Commence funding a capital budget program to replace/upgrade both on-street and off-street equipment*
- 9. Upon completion of the new bus loading/unloading center in front of the High/Hanover Parking facility, evaluate the need for mirrors and warning lights for the two exit lanes*
- 10. Eliminate on-street parking on the north side of Hanover Street across from the Garage westward to High Street after 7:00 PM, at least on weekends*
- 11. Modify the exit on Fleet Street to accommodate transient customers. We recommend consideration of a Pay-In-Lane unit*
- 12. With another transient exit on Fleet Street, provide an alternate route for vehicles exiting from Levels 2-4 to use that exit*
- 13. Establish a permanent plan to assist outbound traffic from the Garage onto Hanover Street during peak exiting periods*
- 14. Adopt a Special Event mode of operation on weekend evenings and whenever 200 or more customers would be expected to exit at one time*
- 15. Explore new equipment for the High/Hanover Parking Facility*
- 16. Investigate and test Pay & Display equipment - Since the current parking meters are well maintained, there is no need to seek immediate replacement.*
- 17. Monitor the Parcsmart program in other cities*

As the regional center of commerce, culture, and community, Portsmouth exhibits an envious vitality. While each new development project adds to the vitality of the City, each project also increases parking demand. Already, there are indications that the current parking demand is greater than the supply, particularly during the months of May through September.

Four projects (Gaslight Company expansion, Hilton Garden Inn, Sheraton Hotel expansion, and development of Eagle Photo site) represent an unmet parking demand of 829 spaces. Even with the conversion of the Worth Avenue Lot into a garage, parking demand is likely to exceed supply by 300 to 600 spaces. Future development projects (such as the Federal Building) will provide opportunities for the City to meet the demand for parking. It is also important for the City to maintain the structural integrity of the High/Hanover Garage.

Other indications of the increasing demand for Downtown parking are the increasing number of requests for a Residential Parking Permit Program (RPPP) and valet parking. A RPPP allows only vehicles registered to local residents to park on designated streets in excess of a specified time limit. A valet parking program allows businesses to use a section of the street during specified time periods as a vehicle drop-off and pick-up point. This report presents guidelines for the establishment of both parking services.

Introduction

Shortly after the Second World War, the United States embarked on a cultural evolution that resulted in the age of automobilism. Americans transformed the concepts of life, liberty, and the pursuit of happiness into a four-door sedan with air conditioning and power steering. At the same time, we created an interstate concrete thoroughfare linking sea to shinning sea. Within a decade, vehicles were emerging downtown in greater numbers forcing cities realize that they now had a new utility to provide – parking.

Since municipalities controlled the streets, many initiated or revised time restrictions to ensure multiple use of the same space during a business day. Parking meters soon became common and fees imposed to encourage compliance with the time restrictions. Cities also acquired vacant properties and converted them into parking lots. As the number of cars increased, cities began constructing garages to accommodate more vehicles. In recent years, as Downtowns undergo changes, municipalities have expanded parking services and adopted new technology to better meet the parking challenges of the new century.

The downtown area of the City of Portsmouth is currently witnessing a transformation. New entertainment, residential, dining and retail venues are merging with the traditional office environment. This transformation is altering parking requirements. No longer can parking be thought of in terms of an 8-to-5 service. Parking services must be able to meet the multiple demands of a 24/7 downtown.

This document serves a guide for the City of Portsmouth in meeting the parking challenges of 2006 and in the future. It is comprised of three sections, each addressing a particular aspect of parking.

- Section One evaluates the appropriateness of the existing parking rate and fine structure.
- Section Two reviews the existing methods of delivering parking services and provides an evaluation of alternative service delivery methods.
- Section Three analyzes future parking conditions facing the City, provides guidance on instituting a residential parking permit program, and imparts assistance in the establishment of valet parking zones.

Together, the three sections represent a comprehensive tool for the City to use in continuing its effort to enhance the quality of life for the City of Portsmouth and the surrounding region.

Note: data collection and field observations used in this report were gathered between December 2004 and March 2005.

Section One: Parking Rate Evaluation

All businesses face the problem of establishing a price for their products or services. They must consider the quality of the product or service, the intended market, the mission of the company, the price charged by the competition, costs associated with providing the product/service (labor, supplies, utilities, etc.), the need for capital improvement (expansion, repairs, replacement, etc.), and any existing debt obligations. Parking facilities must also consider these factors when establishing rates for their services. If a municipal government owns the parking facilities, the additional factors of legal mandates and public policy must also be considered.

On July 1, 2004, the City of Portsmouth increased its hourly rate for on-street metered parking and garage parking. Fees for contract or monthly parking in the garage were not adjusted. Rates, existing and previous, are shown in Table #1.

Table 1
Parking Rates – City of Portsmouth

Parking Service	As of 7/1/04	Prior to 7/1/04 ¹
Metered Parking ²	\$0.75 per hour	\$0.50 per hour
Hourly Garage ³	\$0.75 per hour	\$0.50 per hour
Contract (24 hour)	\$100.00 per month	\$100.00 per month
Contract (12 hour-day) ⁴	\$80.00 per month	\$80.00 per month
Contract (12 hour-night) ⁵	\$50.00 per month	\$50.00 per month
Remote Lots ⁶	\$0.00	\$0.00

1. The hourly rate of \$0.50 had been in effect since 1997.
2. Metered parking is provided on designated streets and lots in the City.
3. The hourly fee applies to customers of the High/Hanover Parking Facility.
4. Customers are authorized to park each day from 7:00 AM to 7:00 PM.
5. Customers are authorized to park each day between the hours of 7:00 PM and 7:00 AM.
6. This includes the Parrot Avenue, South Mill, Masonic, and JFK Lots.

Also on July 1, 2004, the hours of on-street enforcement were adjusted from 9:00 AM to 7:00 PM (previously 9:00 AM to 6:00 PM); the initial fine for parking at an expired meter was increased from \$5.00 to \$10.00; and the initial fine for parking in excess of the posted time limited was increased from \$5.00 to \$15.00. The cost of paying a fine after thirty days did not change.

During the rate and fine approval process, several citizens offered suggestions for alternate parking fees and enforcement policies for the City. Although the rates were approved, the City Council requested a rate study to ensure that the newly implemented fees were appropriate for Portsmouth. This section of the report responds to City Council's request for an evaluation of existing parking fees.

Methodology

Downtowns are dynamic entities that reflect their own personality. They are impacted by both national economic trends and local market conditions. There is interdependency between a Downtown and the many enterprises that operate within it. The loss or gain of one business impacts the vitality of other businesses. The success of parking programs Downtown leads to the success of other businesses. Adequate turnover of parking spaces in front of a business increases the number of customers for the business. Likewise, the success of businesses near parking facilities significantly aids the parking facility. As more people shop at a business, more will seek parking. The mission and goals of the City's Parking Program define the relationship between the Downtown and its public parking.

To establish parking rates that are appropriate for a downtown, it is critical to understand that relationship between a Downtown and the many businesses that operate within it. Each downtown has its own unique conditions that impact parking and those conditions change over time. Parking policies, including rates, must respond to the changes.

To determine the appropriate rates for parking services offered by the City of Portsmouth, we first:

- Reviewed the existence of any legal mandates
- Explored local market conditions
- Conducted rate comparisons

While those tasks are very useful, the best measure of appropriateness is examining the Parking Program's mission and goals and determining if the rates support the goals.

Since the rates had been in effect for six months at the time of this analysis, it was also possible to scrutinize actual data to quantify the effectiveness of the rates and their compliance with the mission and goals. As part of this study, we performed several field observations and conducted an on-street survey to gauge the impact of the rates.

Finally, in reviewing alternate rate structures submitted by citizens and staff, we measured their impact on the goals of the parking program.

Legal Mandates

Some municipalities impose a parking tax or manage rates by placing a maximum fee for certain parking services. Public entities that use Revenue Bonds to construct new facilities often have provisions for mandatory rate adjustments based upon financial performance of the city's parking program.

Neither the State of New Hampshire, Rockingham County, nor the City of Portsmouth place any restrictions on fees charged for parking services. Likewise, no government entity imposes a parking tax. The City issued a General Obligation Bond to finance the High-Hanover Street Garage. As a result, the fee mandates often associated with a Revenue Bond are not present.

For Portsmouth, therefore, there are no legal mandates that must be considered in the establishment of rates.

Market Conditions

Downtown Portsmouth offers a mix of small retail, professional offices, restaurants, entertainment venues, and some residential units. It also offers a number of historic sites that entice visitors to the Downtown area. The Downtown maintains a steady volume of visitors year round but there is a noticeable increase of out of town visitors during the months of May-September. Weekend nights also see a significant increase in downtown activity.

The variety of people who live, work, or visit Downtown requires a range of parking services. Workers seek long-term parking. Visitors look for convenient short-term parking. Residents want parking for nights and weekends. Providing multiple parking services increase operating costs and limits opportunities for maximizing revenue generation.

The vitality of the Downtown has resulted in new development and more is planned. A downtown restaurant recently expanded to include a nightclub. A new hotel recently opened. An existing hotel intends to significantly expand its facilities. The owner of a substantial site is considering a major redevelopment project. All of these projects will increase the demand for parking. While some projects will also add to the parking supply, the net impact will result in a decrease of supply with a greater demand. According to the laws of economics, this condition encourages higher prices – but it also encourages action to increase the parking supply.

The High/Hanover Parking Facility represents the largest off-street parking supply in Downtown Portsmouth. It reaches capacity on many weekend evenings and even during some afternoons. We anticipate the number of days when the garage reaches capacity will increase with the expansion of the adjacent restaurant and the opening of the hotel across the street. These market conditions indicate that the garage may charge higher fees for services.

Another market consideration is the changing dynamics of Downtown Portsmouth. Office complexes outside of the Downtown area are attracting professional businesses that once would consider locating Downtown. New development is taking place in Downtown Portsmouth and more is anticipated in the near future. It is important that City's Parking Program regularly review rates and policies to adapt to changes Downtown.

Rate Comparisons

While comparing rates, it is important to recognize that public or private parking providers may have different missions and goals that are reflected in their rates. Conditions in one city will vary from others. Consequently, “apples-to-apples” comparisons are not always possible. Customers, however, do make direct rate comparison. A visitor from Portland, Maine may wonder why meter rates are higher in Portsmouth. Likewise, a visitor from Albany, New York may consider the parking rate in Portsmouth a real bargain.

Rate comparisons do provide a range of rates for similar services. If the rates of a city fall outside of that range, it indicates the need to ensure that there is sufficient justification for that rate variation. If one store charges \$2.00 for a loaf of bread and ten other stores charge between \$1.00 to \$1.50, there must be a reason to justify the \$2.00 loaf or customers will soon not buy their bread there. On the other hand, if the store only charges \$0.50 for bread, the store will sell more bread but will likely go bankrupt since it cannot generate sufficient revenue to meet expenses.

Averages of parking rates can also be used in a similar manner. A rate that varies excessively from an average rate requires a careful examination to ensure its appropriateness.

On-Street Rates

The City is the sole provider of on-street parking in Portsmouth so it is not possible to compare the rates with other local providers. We did contact other regional cities for their on-street parking rates. The information is found in Table #2 below.

Table 2
Hourly On-Street Rates - Regional

City	Hourly On-Street Rate
Portland, ME	\$0.50
Springfield, MA	\$0.50
Concord, NH ¹	\$0.50
Nashua, NH	\$0.50
Boston, MA	\$1.00
Albany, NY	\$1.25

1. Rate effective 7/1/05

We also examined data¹ from other cities with populations under 100,000. The findings are in Table #3.

Table 3
Hourly On-street Rates – National

City	Highest Hourly On-Street Rate
Appleton, WI	\$1.00
Ashville, NC	\$0.60
Aspen, CO	\$1.00
Bethlehem, PA	\$0.25
Beverly Hills, CA	\$1.00
Billings, MT	\$0.50
Boulder, CO	\$0.75
Bronxville, NY	\$0.60
Camden, NJ	\$0.75
Chapel Hill, NC	\$1.00
Davenport, IA	\$0.50
Evanston, IL	\$0.50
Harrisburg, PA	\$1.00
New Brunswick, NJ	\$0.50
Norwalk, CT	\$0.25
Santa Fe, NM	\$0.75
Scranton, PA	\$0.50
West Hollywood, CA	\$1.00
West Palm Beach, FL	\$0.50
White Plains, NY	\$1.00
Average	\$0.70

The range of rates is \$0.25 to \$1.00 with an average rate of \$0.70. The \$0.75 rate employed in Portsmouth is within the range and only slightly higher than the average.

Off-Street

There are two other commercial parking operations in Downtown Portsmouth that regularly offer off-street parking for a fee. (We did not consider businesses that provide free parking to customers or tenants.) The Sheraton Hotel charges overnight guests \$8.00 per day for parking. Non-guest are charge a \$10.00 fee for parking. The Harbor Place Garage charges \$2.00 per hour with a \$10.00 maximum per day. The City’s hourly fee is much lower than the one offered by the private parking facility.

¹ Source: International Parking Institute

Hourly off-street rates from regional public parking providers are listed below in Table #4.

Table #4
Hourly Off-Street Rates - Regional

Public Entity	Hourly Off-street Rate
Portland, ME	\$1.00
Springfield, MA	\$1.50
Nashua, NH ¹	\$0.50
Boston, MA	Varies ²
Albany, NY	\$2.00
University of New Hampshire	\$1.00

1. All off-street parking spaces are controlled by meters. A proposal to lower the hourly rate for those using a pre-paid “smart card” is under consideration.
2. There is no one standard rate charged.

When compared against most of these regional cities, the hourly off-street rate in Portsmouth is lower.

We also recorded the off-street hourly rate from the same cities used to compare on-street rates². Those rates are in Table #5 on the following page.

² Source: International Parking Institute

Table 5
Off-Street Rates - National

City	Highest Hourly Off-Street Rate
Appleton, WI	\$1.00
Ashville, NC	\$0.50
Aspen, CO	\$0.75
Bethlehem, PA	\$1.00
Beverly Hills, CA	\$2.00
Billings, MT	\$0.50
Boulder, CO	\$1.00
Bronxville, NY	\$0.60
Camden, NJ	\$5.00
Chapel Hill, NC	\$1.20
Davenport, IA	\$0.75
Evanston, IL	\$1.00
Harrisburg, PA	\$2.50
New Brunswick, NJ	\$2.00
Norwalk, CT	\$15.00
Santa Fe, NM	\$1.50
Scranton, PA	\$0.90
West Hollywood, CA	\$7.50
West Palm Beach, FL	\$1.00
White Plains, NY	\$0.50
Average	\$1.64 ¹

1. The \$15.00 hourly rate from Norwalk CT was omitted since that rate would adversely skew the calculation of the average fee.

The range of rates is \$0.50 to \$7.50 with an average rate of \$1.64. (Note: we did not use the \$15.00 hourly rate reported by Norwalk, Connecticut since that rate would adversely impact the average.) The \$0.75 rate employed in Portsmouth is at the low end of the range and much lower than the average hourly rate.

Overtime Parking Fine

Besides the rates for on-street and off-street parking, we also reviewed the fine amount for overtime parking. That data³ is shown below in Table #6

Table 6
Overtime Parking Fine

City	Basic Fine for Overtime Parking ¹
Appleton, WI	\$5.00
Ashville, NC	\$15.00
Aspen, CO	\$15.00
Bethlehem, PA	\$5.00
Beverly Hills, CA	\$23.00
Billings, MT	\$10.00
Boulder, CO	\$15.00
Bronxville, NY	\$10.00
Camden, NJ	\$18.00
Chapel Hill, NC	\$15.00
Davenport, IA	\$10.00
Evanston, IL	\$25.00
Harrisburg, PA	\$14.00
New Brunswick, NJ	\$22.00
Norwalk, CT	\$10.00
Santa Fe, NM	\$15.00
Scranton, PA	\$10.00
West Hollywood, CA	\$29.00
West Palm Beach, FL	\$12.00
White Plains, NY	\$15.00
Average	\$14.65

1. Basic overtime parking fine reflects the amount of money charged by municipalities for parking in excess of the maximum time permitted by the meter. It omits late fees and surcharges imposed by some agencies.

The range of fine amounts is \$5.00 to \$29.00 with an average of \$14.65. The \$15.00 fine currently imposed by the City of Portsmouth for overtime parking is within the range and close to the average.

³ Source: International Parking Institute

Mission and Goals

The mission of Portsmouth's Parking Program is to:

Actively promote Downtown Portsmouth as the regional center of commerce, culture, and community.

To fulfill this mission, it is necessary to provide parking services for the people represented by commerce (workers, shoppers, visitors), culture (those attending historical and entertainment venues), and community (residents, attendees of parades and other special events). Indeed, the Portsmouth's Parking Program offers both short-term and long-term parking services intended to meet those markets. It does not cater to just one segment of the Downtown population.

The Parking Program has five goals that are derived from its mission. The goals reflect City policy and provide the best measurement of rate appropriateness.

1. *Provide outstanding customer service*

- a) *Provide services on a fair and consistent basis in accordance with mission and goals*
- b) *Acknowledge inquiries within one business day*

This goal reflects the City's commitment to quality service. Providing that level of service requires a well-trained staff in sufficient quantities to provide assistance when needed. It also requires regular action to maintain facilities. Both of these involve operating costs that must be reflected in pricing.

2. *Support the transportation policies of City*

- a) *Coordinate municipal parking assets with local and regional transportation systems*
- b) *Support initiatives for alternate transportation methods*

Parking is one element of a regional transportation system. As new development unfolds in the future, the Parking Program must be able to expand to meet the demand. This will require a significant outlay of capital dollars. By partnering with other methods of transportation, the number of spaces can be reduced.

Rates for parking must not discourage the use of bicycling, walking, or the use of public transportation. According to the Department of Public Works, transit ridership has increased in recent years.

3. *Manage Parking Assets*

- a) *Operate on a fiscally sound basis*
- b) *Impose fines that encourage compliance with parking ordinances*
- c) *Establish fees for parking services that support other goals*
- d) *Maintain parking infrastructure*
- e) *Expand to meet demand as financially feasible*

The City's Parking Program operates much like a business. It charges fees that are used to pay salaries, utilities, and supplies; maintain equipment and infrastructure; and meet financial obligations due to the bond used to construct the High/Hanover Parking Facility. Any remaining revenue can be used to support improvements and expansion.

It is important to emphasize the need for adequate funds for maintenance and repair of parking structures. These facilities are subject to temperature variations, precipitation, exposure to ultraviolet rays, contact with environmental chemicals, and the corrosive effects of most de-icing chemicals. The loss of the High/Hanover Parking Facility would adversely impact the Downtown region.

It is also important to recognize the importance of a positive cash flow to assist with expansion opportunities. New parking structures usually do not generate sufficient revenue to meet all operating, maintenance, and debt obligations. Funds from the existing Parking Program will assist the City in providing future parking assets.

4. *Support downtown businesses*

- a) *Provide short-term on-street parking in core business district*
- b) *Establish an annual benchmark for long-term visitor parking*
- c) *Offer a parking validation program for downtown shoppers*

The City allocates its on-street resources in a very business-friendly manner. While most of the available curb space is dedicated to metered parking, space is also designated for loading zones. Most metered spaces in the central core of Downtown have a two-hour duration to encourage repeated use of these spaces by different visitors. Meters with longer durations are located just outside the central shopping district. A few fifteen-minute meters are located throughout the Downtown.

For workers, the City offers two contract options. One permits access to the garage at all times (\$100.00 per month). The other allows parking between the hours of 7:00 AM to 7:00 PM (\$80.00 per month). Both options offer a substantial discount over the hourly rate for Downtown workers.

Another parking service that supports Downtown businesses is the free parking option available at several surface lots outside the immediate Downtown area. This service reduces traffic congestion Downtown and allows more visitors to park adjacent to businesses.

On-street parking is regulated Monday through Saturday from 9:00 AM to 7:00 PM. At other times, the maximum parking durations do not apply and no fee is charged. While this free parking program is intended to assist Downtown, it may reduce the availability of parking thus neutralizing the intended purpose.

The City provides a validation program for Downtown businesses. The City sells books of coupons (each book has 100 coupons) for \$50.00. The face value of the coupons is \$75.00. A total of 232 books have been sold in the past eighteen months. Approximately 839 coupons are actually used each month.

5. Support existing downtown residential living

- a) Offer an off-street contract parking program designed to support downtown residency*

The City offers a monthly rate intended to provide downtown residents a parking option. The cost is \$50.00 per month and allows use of the garage between the hours of 7:00 PM and 7:00 AM. Currently, no customers are utilizing this service.



Impact of New Rates

To measure the impact of the new rates, we first conducted a review of records to compare activity before and after the rate adjustment implemented on July 1, 2004.

Off-Street

We first measured the impact of the new hourly rate by examining the average parking duration of customers for three consecutive days. The dates in July were after the rate increase.

Table #7 reflects a slight decrease (.19 hour or 11 minutes) in the average duration from the April 15 date to the July 14 date.

Table 7
Average Parking Duration – Thursday

	Thursday 4/15/04	Thursday 7/14/04
Average Fee	\$1.81	\$2.57
Average Duration	3.62 hours	3.43 hours

On the following day, as shown in Table #8, Friday July 15, the average duration increases by .19 hours or 11 minutes when compared to the Friday in April.

Table 8
Average Parking Duration – Friday

	Friday 4/16/04	Friday 7/15/04
Average Fee	\$1.58	\$2.51
Average Duration	3.16 hours	3.35 hours

The average duration for Saturday July 16 shows a slight increase (.12 hour or 7 minutes) when compared to the Saturday in April. That data is presented in Table #9 below.

Table 9
Average Parking Duration – Saturday

	Saturday 4/17/04	Saturday 7/16/04
Average Fee	\$1.62	\$2.52
Average Duration	3.24 hours	3.36 hours

Overall, no significant change is found for the three dates. Based upon this very limited data, the average duration actually increased slightly. From this data we conclude that the new hourly rate has not caused garage customers to spend less time in the Garage.

We next looked at revenue data to determine if the number of Garage customers had changed since the new rates became effective. There are a number of factors that influence the patronage of a parking facility. Some factors are external to the garage like weather, number of events, traffic conditions, cost of fuel, availability of alternate transportation methods, level of retail activity, etc. Other factors are internal such as rates, equipment efficiency, staffing levels, etc. In measuring the impact of rates on garage patronage, one must also be aware of all factors that can influence usage. Financial records from parking garages reflect revenue generation and not economic and/or social conditions that also impact parking utilization.

Transient Revenue from the last six months of 2003 and 2004 is listed below in Table #10.

Table 10
Transient Revenue

Month	2003	2004
July	\$94,643	\$122,820
August	\$89,554	\$130,409
September	\$76,697	\$91,724
October	\$73,911	\$83,197
November	\$55,059	\$79,351
December	\$82,044	\$86,142
Average	\$67,415	\$84,806

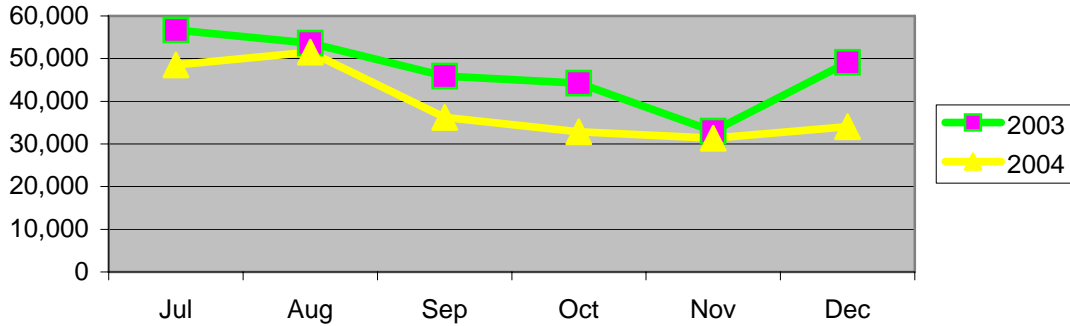
The rates, effective in July 2004, had a positive impact on gross revenue but the figures also reflect a decline in the number of transient customers. Using \$1.67 as an average fee for 2003 and \$2.53 as an average fee for 2004, Table #11 approximates the number of transient vehicles parked in the High/Hanover Garage.

Table 11
Transient Vehicles

Month	2003	2004
July	56,672	48,545
August	53,625	51,545
September	45,926	36,255
October	44,258	32,884
November	32,969	31,364
December	49,128	34,048

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When the approximate Garage utilization numbers are shown graphically, they reflect a general decline for both years from July through November with an increase in December. The numbers for 2004, however, are less than those from 2003.



The revenue from contract parking, however, has shown a gradual increase even though rates have not changed. See Table #12 below.

Table 12
Contract Parking Revenue

Month	2003	2004
July	\$32,850	\$35,960
August	\$25,240	\$25,200
September	\$35,430	\$49,700
October	\$35,685	\$37,180
November	\$20,700	\$39,000
December	\$39,910	\$41,320
Average	\$27,116	\$32,623

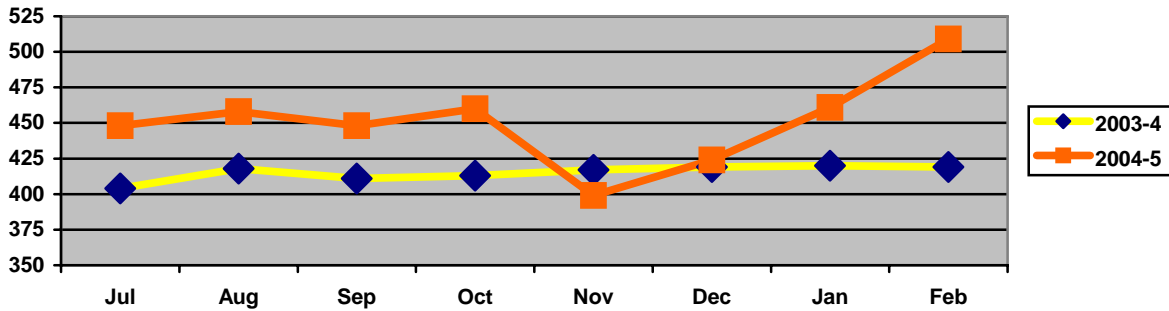
Table #13 shows the number of contract or monthly permits sales during the past two years.

Table 13
Contract Permit Sales

Month	2003	2004
July	404	448
August	418	458
September	411	448
October	413	460
November	417	399
December	419	424
TOTAL	2,482	2,637
Average	414	440

The Consulting Engineers Group, Inc.

Since December of 2004, the number of contract accounts has increased significantly. As of February 2005, the number of contract customers reached 509, far exceeding previous years.



Since the rate adjustment of July 2004, revenue has increased but the composition of garage users has changed and is continuing to change. There are now more contract customers and fewer daily customers. For persons parking in the High/Hanover Parking Facility every business day, the contract permit is now even more economical. For nine hours of parking at the hourly rate, the fee is \$6.75. For 22 workdays a month, the customer pays \$148.50. This is much higher than the \$100.00 fee for a monthly parking permit.

Since the contract rates were not adjusted at the time the hourly rate increased, we anticipate a continuing upward trend in the number of contract permit holders and a decline in the number of transient customers.

So while total garage patronage has seen only a modest change, there has been a significant transformation in the constitution of garage users.

On-Street

To evaluate the impact of the new hourly rates on on-street parking, we conducted a survey of meter usage. Each hour, from 9:00 AM to 3:00 PM, on Thursday December 9, 2004, we inventoried every metered space along a designated route (see map below). If a vehicle was present, the last three digits of its license plates were recorded.



The weather was partly cloudy with temperatures in the 40's. The survey route consisted of a total of 75 meters and one loading zone as shown in Table #14.

Table 14
Survey Area Meter Inventory

Meter Type	Quantity
Two Hours	67
Fifteen Minutes	4
ADA Accessible	4
TOTAL	75

With the data collected, we were able to measure the occupancy of the metered spaces and the effectiveness of the rates in maximizing the use of each space (turnover).

Occupancy

Meter Occupancy measures the percentage of metered spaces occupied on an hourly basis. It is obtained by dividing the number of vehicles parked by the number of meters. If there are ten metered spaces and eight spaces have cars parked in them, the occupancy rate would be 80%. Consequently, the vacancy rate would be 20%.

The occupancy of the two-hour meters is shown below in Table #15. Notice that at noon, all two-hour meters were occupied.

Table 15
Hourly Occupancy of Metered Spaces – Two-Hour Meters

Time	# Vehicles	% Occupied
9:00 AM	50	74.6
10:00 AM	60	89.6
11:00 AM	61	91.0
12:00 PM	67	100.0
1:00 PM	66	98.5
2:00 PM	65	97.0
3:00 PM	65	97.0

The fifteen-minute meters also were regularly occupied on that day.

Table 16
Hourly Occupancy of Metered Spaces – Fifteen-Minute Meters

Time	# Vehicles	% Occupied
9:00 AM	2	50.0
10:00 AM	3	75.0
11:00 AM	4	100.0
12:00 PM	3	75.0
1:00 PM	4	100.0
2:00 PM	2	50.0
3:00 PM	4	100.0

On the survey date, the spaces designated for those with disabilities were underutilized.

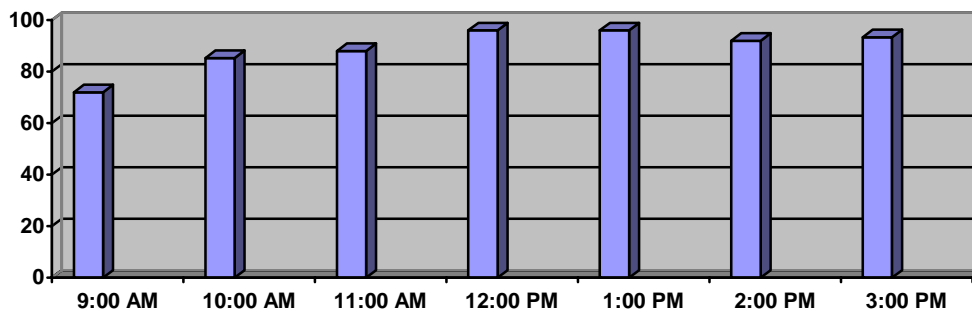
Table 17
Hourly Occupancy of Metered Spaces – ADA Accessible Spaces

Time	# Vehicles	% Occupied
9:00 AM	2	50.0
10:00 AM	1	25.0
11:00 AM	1	25.0
12:00 PM	2	50.0
1:00 PM	2	50.0
2:00 PM	2	50.0
3:00 PM	1	25.0

Overall occupancy for all spaces is shown in Table #18 and represented in the graph below.

Table 18
Hourly Occupancy of Metered Spaces – All Spaces

Time	# Vehicles	% Occupied
9:00 AM	54	72.0
10:00 AM	64	85.3
11:00 AM	66	88.0
12:00 PM	72	96.0
1:00 PM	72	96.0
2:00 PM	69	92.0
3:00 PM	70	93.3



Occupancy reached a 90% level after 11:00 AM and maintained that level throughout the day. In most downtowns, occupancy peaks between 12 noon and 1:00 PM then gradually drops. By 3:00 PM, it is not unusual to see the same occupancy level as 11:00 AM. In Portsmouth, however, the occupancy peaked between noon and 1:00 PM but the level did not drop significantly during the afternoon. Occupancy exceeded the 90% level all afternoon.

When occupancy levels are less than 80%, visitors are easily able to find parking. Once the occupancy level reaches the 85% level, spaces are more difficult to locate. At this level, it is appropriate to provide additional spaces (if available), adjust the parking durations, increase enforcement, and/or consider a rate adjustment to reduce demand. As occupancy reaches the 90% level or higher, parking availability becomes a real challenge. The inability to easily locate convenient parking creates a parking crisis.

The very high level of occupancy not only indicates a willingness to pay the current fee for convenient on-street parking but also suggests a higher hourly fee should be considered.

Turnover

While occupancy measures the quantity of parking, turnover measures the quality or effectiveness of meter usage. The greater the turnover means the more cars parked means the more visitors conduct business. Turnover is obtained by dividing the number of different vehicles by the number of spaces. For one-hour meters, during a seven-hour business day, the optimum turnover would be 7. This means that seven different vehicles parked at that space during the day. Of course, for two-hour meters, the optimum turnover figure would be 3.5. Normally, we adjust the optimum turnover rate by the meter occupancy rate to determine a realistic benchmark for a city. So if meter occupancy is at 50%, we would reduce the optimum turnover rate by one-half to derive a realistic benchmark for the survey area. For Portsmouth, however, the high level of occupancy does not warrant any adjustment, so the benchmark for the two-hour meters is 3.5.

During the survey period, we observed a total of 320 vehicles parked at the 67 two-hour meters. This produced a turnover rate of 4.78 (320/67). Meeting or exceeding the benchmark indicates that the existing rates are producing the desired effect.

Summary of Rate Evaluation

The market conditions in Downtown Portsmouth reflect a strong demand for parking and there are indications that that demand will increase even with new spaces being added to the parking supply. The strong demand does not warrant any decrease in parking rates at this time. In fact, rates may need to be increased in the next several years in response to the increased demand anticipated. Regular reviews of both expenses and revenue are important to maintain the parking challenges in a dynamic Downtown.

The rate comparison for on-street parking indicates that the current \$0.75 hourly fee is just slightly higher the national average for similar sized cities. The off-street hourly rate, however, is much lower than the local, regional or national rates. The current penalty for overtime parking is comparable to the national average.

The present rate structure is business-friendly. The hourly fee of \$0.75 is much lower than the \$2.00 rate charged at another Downtown facility. The rates for contract parking have not increased since 1997 and represent a considerable discount over the hourly rate. The revenue generated by the current rates enables the Parking Program to meet its financial and quality of service commitments without adversely impacting other transportation options. The only goal that the current rate structure does not adequately address is the one of supporting existing Downtown residential needs. The current hours of the program (7:00 PM to 7:00 AM) simply do not correspond to the parking needs of Downtown residents.

The hourly fee for on-street parking produces a very positive turnover rate but the high rate of occupancy indicates the need to increase that rate.

In reviewing parking sales before and after the recent rate increase, we noticed a decrease in transient sales along with a comparable increase in contact sales. Overall use of the garage by all customers has declined only slightly since the new hourly rate was implemented. The average length of time spent in the garage has not been adversely impacted by the new rate.

In conclusion, since the existing rates have not adversely impacted on parking and, more importantly, are fulfilling the mission of the Parking Program, we must conclude that the existing rates are appropriate for the City of Portsmouth at this time. There are indicators (current market conditions, the comparison of off-street rates charged by other cities, and the high level of on-street occupancy), however, that a higher hourly rate may be justified in the near future (2007 or 2008). There are also opportunities to introduce new rate features that will improve the quality of existing parking services.

The fact that the rates are appropriate does not exclude the potential for improvement. Before recommending any changes, however, we want to examine several proposals submitted by residents during the rate approval process and by staff.

Review of Alternate Rate Proposals

Enforcement Hours

This issue, although not directly related to rates, was raised by several citizens during the rate approval process. They expressed a desire not to increase the hours of on-street parking enforcement.

Time limits are enforced only to increase the number of customers for local businesses. Once the level of commercial activity has substantially subsided for the day, enforcement of on-street parking restrictions is no longer necessary. During our observations of activities in Downtown Portsmouth, a number of retail and dining establishments are open after normal business hours. In our opinion, the enforcement of meters until 9:00 PM, particularly on weekends, is appropriate at this time.

As changes take place in Downtown, however, the need to adjust enforcement hours should be reviewed.

Seasonal Rates

Another proposal suggested increasing rates during the peak season. We do not recommend this alternative. Increasing the existing hourly and contract rates during certain months (May-September) will increase revenue for the City's Parking Program. Maximizing revenue, however, is not a goal of the Parking Program.

While out of town visitors may not protest the higher seasonal fees, local workers and shoppers would most likely object to them.

A variation to the seasonal rate concept is to lower the existing rates during October-April. This action would reduce revenue thus preventing the Parking Program from realizing its goal of managing its assets.

Variable Rates

Variable rates are rates incrementally adjusted according to duration. The current rate of \$0.75 is a constant rate. It is applied to every hour parked. With a variable rate, the hourly fee changes as the duration increases. An example of a variable rate is \$1.00 for the first hour, \$2.00 for the next hour, and \$3.00 for each additional hour. The hourly rate can increase or decrease depending upon the intention of the facility owner.

Municipalities frequently use variable rates to discourage long-term parking. They offer a low hourly fee for the first two or three hours then increase the hourly fee progressively after that time.

In the High/Hanover Parking Facility, the average duration of parking for transient customers is less than four hours. This duration is reasonable so we do not recommend variable rates at this time.

If the garage reaches 100% occupancy more frequently during weekdays, variable rates may be a useful method to reduce long-term usage and provide more short-term parking.

Maximum Daily Fee

Currently, the High/Hanover Parking Facility has no maximum fee for hourly parking. The \$0.75 rate is applied for the entire duration. Most off-street parking facilities have a maximum daily fee. This limits the financial burden of the customer thereby providing a certain level of comfort. They know that the most they will pay is fixed amount for a twenty-four hour period.

Facilities that do not offer a daily maximum fee do so usually to produce more revenue or discourage long-term parking. This is most often applied in major metropolitan areas and at hotel facilities near airports. In our review of the records of the High/Hanover Parking Facility, we did not observe any indication that overnight parking reduces short-term parking. In our opinion, the establishment of a daily maximum rate is in compliance with the goals of the Parking Program.

Flat Rate

The City occasionally uses a flat rate for special event parking. We encourage expansion of a flat rate for weekend evenings or anytime a large number of customers are expected to use the facility within a short period of time. In the second section of this report, we examined methods to improve the management of vehicles entering and exiting the High/Hanover Parking facility. One method will be the use of a flat rate paid upon entry.

Different Hourly Rates For Off-Street and On-Street Parking

Some people believe that the hourly rate for on-street and off-street parking should be different.

On-street parking is the best parking service the City can provide. It is more convenient and perceived as safer than other parking services. Even the shopping malls cannot provide parking closer than curb parking.

Since on-street parking is the most preferred parking service, it should command a higher price. We concur, therefore, that there should be a different hourly rate for on-street and off-street parking and that the on-street rate should be higher.

Contract (Monthly) Rate and Hourly Rate

Currently, there is no relationship between the hourly rate and the rate for contract parking.

Prior to July 1, 2004, a transient customer utilizing the High/Hanover Parking Facility for nine hours a day paid \$4.50. If that person worked 22 days in a month, he/she would pay a total of \$99.00 for the month. A customer with a day contract permit would pay only \$80.00 and also have access to the garage on weekends.

Currently, a transient customer utilizing the Garage for nine hours a day pays \$6.75. If that person worked 22 days in a month, he/she would pay a total of \$148.50 for the month. The customer with a day contract permit still pays only \$80.00.

For \$100.00, a customer may purchase a permit that grants access to the Garage at all times for a month. Assuming 30 days in a month, that \$100.00 provides up to 720 hours of parking. The customer is paying \$0.14 per hour. This is substantial discount over the standard hourly rate of \$0.75.

We agree that there should be some relationship between the hourly rate and the contract rate.

Recommendations – Parking Rates

While our analysis concluded that the hourly rate of \$0.75 is appropriate for the City of Portsmouth, we offer several rate recommendations that will better promote the mission and goals of the City's Parking Program.

1. Conduct a biennial review of parking rates and policies

The City's parking assets are too valuable to allow years to pass without a thorough review of policies and rates. Downtown Portsmouth is not static and the municipal parking services must continually respond to a changing downtown. We recommend a review of rates, policies, mission, goals, enforcement hours, staffing requirements, capital projects, etc. at least every other year. This review should be scheduled prior to the budget process.

2. Expand the use of a flat rate in the High/Hanover Garage

We recommend the use of a flat rate for periods when large number of customers will enter or exit the High/Hanover Parking Facility. We recommend \$4.00 for this fee.

3. Establish a maximum daily rate for the High/Hanover Garage

We recommend a daily maximum of \$10.00. Most parking facilities adopt a maximum fee as part of their customer service program and we recommend Portsmouth add this feature.

4. Impose different hourly rate for on-street and off-street parking

On-street parking offers more convenience so its pricing should reflect that fact. A lower off-street rate will encourage more use of the garage and lots freeing more on-street spaces for visitors to Downtown.

The next time rates are adjusted, this recommendation should be implemented.

5. Establish a relationship between hourly and contract (monthly) parking

Establishing a relationship between the hourly rate and the rate charged for contract parking is recommended to avoid the discount disparity now in effect. We offer the following method:

For the 24-hour contract rate, first multiply the daily maximum fee by 22 (the typical number of business days in a month). Then, multiply that product by .5, .6, .7 and .8. These calculations provide a 20% to 50% discount to those purchasing a 24-hour permit. With a range of discounts, the City can impact the number of contract permit buyers in accordance with its mission and goals while still providing a discount.

For the day contract rate, multiply the rate for the 24-hour permit by .8. This provides a 20% discount off the 24-hour contract rate.

For the night contract rate, multiply the rate for the 24-hour contract permit by .5. This provides a 50% discount off the 24-hour contract rate.

If we apply this formula, assuming a \$10.00 daily maximum, the 24-hour contract rate would range from \$110.00 to \$176.00. The other contract rates would be adjusted once the 24-hour rate was established.

Since contract rates were not adjusted in 2004, the City should consider an adjustment as soon as practical. Considering all of the goals of the City's Parking Program, we recommend the following contract rates:

- \$125.00 for the 24-hour permit
- \$100.00 for the day permit
- \$62.50 for the night permit

6. Night Contract Permit

Currently, there are no customers purchasing the night contract permit. Although it is intended for Downtown residents, the hours of authorized use (7:00 PM to 7:00 AM) prevent most from using the rate.

Since one of the goals of the Parking Program is to support existing Downtown residents, we recommend altering the service. We propose establishing the upper most section of the roof as a residential zone. This area has about 35 spaces. At first, the spaces can be signed. At a later date, if the revised service is accepted, the area can be monitored with additional parking equipment. Downtown residents would have 24-7 access to these spaces on a first-come, first-serve basis.

Section Two: Service Delivery Evaluation

The High/Hanover Parking Facility represents the most important parking infrastructure in Downtown Portsmouth. It offers both contract (monthly) for residents and workers as well as transient parking for visitors. Contract customers utilize a key card that is verified upon each entry and exit. A valid card activates the gate. Should a customer not pay the monthly fee, the card is voided thus preventing further use. Transient customers pay a fee based upon the duration of their stay in the facility. Upon entry, a transient customer receives a ticket with the date and time encoded on it. Upon exit, the ticket is handed to the attendant who employs a fee terminal (specially programmed computer) that calculates the fee and records the transaction for auditing purposes. The fee is based upon the duration of the stay. This “time-based” method of operation is a common practice and functions well as long as the facility can efficiently process exiting vehicles. Customers of the High/Hanover Parking Facility report excessive delays on weekend evenings. The Garage currently has a policy to by-pass the normal cashiering system whenever excessive delays occur. This situation is not desirable for the customers or the City.

On-street parking, as well as some surface lots, is regulated by parking meters. Within the past decade, Portsmouth has replaced its mechanical parking meters with electronic meters. The electronic meters are more reliable, easier to maintain, and provide data for use in managing the spaces. The meters require the insertion of coin(s) for activation. Parking time is visually displayed for enforcement purposes. Parking meters have been used by cities for over fifty years to assist businesses and most people understand their operation. One common concern with parking meters is the need to have coins to purchase time. As rates increase, the practicality of customers maintaining a sufficient supply of coins to purchase multiple hours of parking diminishes.

This section of the report examines the existing methods of service delivery, explores optional methods, and makes recommendations regarding equipment and procedures to enhance the delivery of parking services.

Parking Organization

With any organization, the delivery of quality service starts with the staff. The quality of parking services provided by the City of Portsmouth is no exception. The organization reflects most municipal parking operations. The staff is a mix of full-time and part-time employees. There is an administrative section, an off-street parking (garage) section, a parking enforcement section, a maintenance section, and a revenue collection/adjudication section.

During our observations, we did not detect any failures in the delivery of parking services by the staff. We noted several instances of employees going the extra mile to serve the public. We observed a Parking Attendant assist a motorist whose vehicle was without fuel. We saw Parking Enforcement Officers performing their duties during periods of inclement weather. We observed extra effort being made by staff to remove snow from parking areas.

The employees of the Parking Division are located in different offices throughout the City. The City's Parking Manager is located at an office on Peverly Hill Road. The Garage Manager works from an office at the High/Hanover Street Garage. Parking Enforcement is housed at an office in a Downtown recreation center. Parking Meter Maintenance has a converted storage room at the Garage. Payments for contract parking and parking fines are made at an office at City Hall. This decentralization results in some inefficiencies.

Validations for the High/Hanover Garage are sold at City Hall – not at the Garage where they will be used. The Enforcement Supervisor must travel to City Hall daily to exchange data between the ticket issuing devices and the office computer.

Off-Street Parking

The City of Portsmouth oversees one parking structure (900 spaces) and six surface lots (533 spaces). Most (357) of the lot spaces are managed by posted signs that inform customers of the maximum parking duration. These spaces are offered to the public at no charge. Only 176 of the lot spaces are managed by parking meters. The fee is \$0.75 per hour for those spaces. Since the issue of parking meters will be discussed in the next section of this report, this section will concentrate on the delivery of service at the City's Garage.

The High/Hanover Parking Facility opened in 1985 with 685 spaces. It was expanded to its current capacity of 900 spaces. Prior to its original construction, planners no doubt considered many factors including the target market for the facility. Based upon their findings, the garage was then designed to meet the parking needs of Downtown Portsmouth in 1985.



Over the past 20⁺ years, Downtown Portsmouth has changed. It no longer has the same mix of offices, retail establishments, restaurants, and entertainment venues as in 1985. Moreover, Downtown Portsmouth continues to change. Even within a few feet of the High/Hanover Parking Facility, one restaurant recently expanded, a hardware store closed, and a hotel is now welcoming guests. Additional development is anticipated within the next few years. These changes can alter parking requirements for customers and thus require examination of service delivery methods. It cannot be assumed that the same time-based method of operation that has been in place since 1985 is fully compatible with the parking needs of Garage customers in 2005.

To begin the analysis, we will start with an overview of the garage and its current methods of service delivery.

The original garage section has a two-way traffic pattern with straight-in or 90 degree parking while the addition employs a one-way pattern with angled parking. The two sections interconnect at the west and east ends of the facility.

The High/Hanover Parking Facility has four levels. Due to its varying elevation, two entry/exits plazas (Fleet Street and Ladd Street) are on Level 1. A third entry/exit plaza (Hanover Street) is located on Level 2.

The breakdown of the entry and exit lanes is shown on the next page in Table #19 and the corresponding map.

Table 19
High/Hanover Parking Facility Entrances and Exits

Street Location	Garage Location	Lane Type	Customer Type
Fleet	Level 1	Entry	Contract and Transient
Fleet	Level 1	Exit	Contract
Ladd & High	Level 1	Entry	Contract and Transient
Hanover	Level 2	Entry	Contract and Transient
Hanover	Level 2	Exit	Contract and Transient
Hanover	Level 2	Exit	Contract and Transient



At least one exit lane is available at all times for transient customers. The other exit lane is staffed during periods when the staff anticipates a larger number of transient transactions.

Hanover Street is a four-lane street with a two-way traffic flow. On each side of the street, on-street parking is permitted in the curb lane. Fleet Street is a two-lane street with no on-street parking. Ladd Street is a narrow one-way street with no on-street parking. A Garage entrance is located where Ladd Street intersects with High Street.

The garage utilizes parking access and control equipment manufactured by a leading manufacturer. For customers with valid contract parking, the system grants ingress and egress. Upon entry, the customer presents an access card near a reader. The reader reads the card number and sends the card information to a central computer. The computer checks the validity of the card and then transmits a signal for the barrier gate to rise.

Parking planners use ten seconds as an average time for a contract parking customer to enter or exit the facility. This is faster than transient transactions since most contract customers are very familiar with the entry/exit procedure and there is no interaction with an Attendant. During our observations, contract transactions required an average of 11 seconds.

There is equipment that could reduce the exiting time for contract customers. The system is similar to E-Z Pass and other vehicle identifiers that utilize a radio frequency. Each vehicle is equipped with a windshield or dashboard-mounted transponder that transmits data to a reader usually mounted overhead in the entry or exit lane. Since the customer is not required to present a card for access, the transaction time is reduced by several seconds. This equipment is more expensive than traditional card access systems and, in our opinion, is not a cost-effective purchase for the City of Portsmouth. Besides, according to contract customers, delays are caused primarily by transient customers requiring too much time to exit the facility. Our observations support their assertion. The equipment and transaction process for contract customers are not issues. During peak periods of garage exiting activity, the ability of a contract customer to exit on Hanover Street is more dependent upon the number of transient customers ahead of him/her. The focus of this analysis, therefore, will be on the transient customer.

Arriving transient customers must obtain a ticket upon entry. The removal of the ticket from the ticket-issuing device causes the barrier gate to rise. The gate is lowered once the vehicle clears the entry lane. An entry by a transient customer should require no more than 8 seconds. Most entry activities we observed did not exceed that time frame.

Upon exit, transient customers must present the ticket obtained at the entrance to the Attendant who operates a cashier terminal (a computer with a specialized data base program). The cashier terminal computes the fee and records the transaction data for auditing purposes. The Attendant announces the fee to the customer, collects the revenue, makes change if necessary, and activates a key on the cashier terminal that completes the transaction. That key activation causes an electronic signal to be sent to the barrier gate to rise. A detection system buried under the exit lane alerts the barrier gate when the vehicle is no longer present in the lane and the gate then lowers. In some instances, a receipt is issued if requested by the customer.

Under ideal conditions, the time required to complete a transient transaction should require no more than 20 seconds. Many factors, however, impact the duration of the transaction period. Some of the factors are external to the facility and there is little, if any, room for improvement. The City can, however, influence some of the internal factors that impact exiting time for transient customers.

External Factors

- Weather

During periods of cold weather, customers are reluctant to lower their car window until the last possible moment. Likewise, Attendants will usually close the door to their booth as long as possible. Both actions can add seconds to each transaction.

- On-Street Traffic (vehicular and pedestrian)

Vehicles exiting the garage, after being processed, must approach the street with caution watching for pedestrians and vehicles on the street. Only after making a visual assessment of traffic conditions can the vehicle proceed onto the street. During periods of intense street traffic, the wait to enter the street is often extended.

On many weekend nights, the staff reports excessive street traffic on Hanover Street. This causes delays for cars exiting the facility (particularly turning left) and cars entering the facility from westbound Hanover. One potential solution is a traffic signal that could halt street traffic thus allowing cars to exit the garage with less delay. Of course, this solution assumes compliance with established guidelines for justifying a traffic control signal. It must also be noted that this solution would have an impact on traffic on adjacent streets. The same advantages of a traffic signal can be accomplished by the utilization of contract personnel to direct traffic as necessary.

The new transit stop in front of the High/Hanover Garage has eliminated some on-street parking. This will provide exiting customers a better view of oncoming street traffic. At the same time, the location of the bus stop will also increase pedestrian traffic in front of the exits and entrance to Hanover Street. It may be necessary to install mirrors for drivers and/or warning lights for pedestrians to communicate exiting vehicles.

During the evening hours, cars westbound on Hanover must usually wait for eastbound traffic before they can enter the garage. Since on-street parking is permitted on Hanover, vehicles behind the turning vehicle(s) must stop. If on-street parking was eliminated after 7:00 PM on the north side of Hanover across from the Garage entrance/exit, vehicles could drive around the turning vehicles, thus increasing traffic flow.

- Street Capacity

Related to the traffic volume is the actual space available for street traffic. Increasing the street capacity by adding lanes would improve traffic flow thus reducing delays on the street. This solution is not very practical since it would eliminate retail in the area and result in an adverse impact on the City's budget.

- Customer Readiness

The exiting process for transients is faster if the customer immediately hands the ticket to the Attendant upon arriving at the booth and has money readily available. Most customers have the ticket ready but many do not have money immediately available. This adds seconds to the processing time. Customers who misplace their ticket, fold their ticket excessively, or request directions, delay the normal 20 second processing time.

Internal Factors

- Number of Vehicles

One obvious factor impacting the time required to exit the garage is the number of vehicles. By reducing the number of vehicles that enter the garage, the flow of exiting traffic can be better managed. Naturally, this solution should be considered a last resort since it wastes parking resources.

- Skill of Attendants

The ability of the Attendants to process a transient customer is another factor. It is important that staff members have the manual dexterity, communicative skills, equipment proficiency, and knowledge of procedures to perform all required functions in an efficient and courteous manner. During our observations, all staff members appear to have the required qualifications. On the evening of December 10, 2004 we observed up to four transient transactions per minute with an average of 2.3 transactions per minute. This is less than the ideal rate of 3 per minute but, considering other factors (rates, weather, customer preparedness, etc.), this is a good processing time.

- Staffing Level

Besides the quality of the staff, it is also necessary to have a sufficient quantity of personnel on duty to handle peak outbound traffic. There are only two exit lanes currently equipped to process transient transactions. Both lanes are staffed during busy periods. If additional exit lanes were equipped and staffed, it would decrease the time to exit the facility during busy periods.

- Speed of Equipment

The fee processing equipment must be able to read the ticket data and compute the fee within one second. The existing equipment at the High/Hanover Parking Facility performs within that time frame.

- Fee Structure

Fees that require the collection and/or distribution of coins delay the exiting process. The current hourly rate of \$0.75 results in a large percentage (78%) of transactions that involve coins. Up to five seconds per transaction can be saved with a fee structure that eliminates coins.

- Physical Layout

The garage has three lanes for entry of transient customers. Neither staff nor customers reported any problems with entering the facility. We did not observe any unusual delays related to vehicle entry.

The garage has two exit lanes for transient customers, both located on Level 2 on Hanover Street. Vehicles parked on Level 1 drive up to Level 2 and meet with the vehicles that were parked on the other levels. The intersection of incoming and outbound vehicles in front of the exit lane area occasionally creates some internal traffic congestion.

During morning and early afternoon hours, only one exit lane is staffed. We observed no delays for exiting vehicles during those times. Between 5:00 PM and 6:00 PM, there is a modest number of transient vehicles that exit. With both exit lanes open, there was minimal delay. The maximum time to exit during that period was three minutes.

Both staff and customers reported long delays on weekend nights. We observed the parking operation on the evening of Friday December 10, 2004 between the hours of 4:00 PM and 10:30 PM. There was a steady rain throughout evening with brief periods of heavy rain. Strong wind gusts were also present throughout the night. Temperatures were in the mid 40's during the evening. The Music Hall had a performance of The Nutcracker at 7:00 PM.

On that evening, the Garage did not reach capacity. The traffic on Hanover Street outside of the Garage was not a factor in preventing vehicles from exiting the facility.

Table #20, on the following page, summarizes our observations that evening.

Table 20
Summary of Observations December 10, 2004

Time	Observations	# Transient Transactions
4:00-4:59 PM	<ul style="list-style-type: none"> Minimal traffic observed in garage. No queue. 	
5:00-5:59 PM	<ul style="list-style-type: none"> Light traffic in garage. Maximum of 12 cars in queue at one time. 	97
6:00-6:59 PM	<ul style="list-style-type: none"> Curb parking adjacent to garage on Hanover at capacity East end of lot at High and Hanover at 50% capacity Staff placed traffic cones to prevent vehicles entering on Hanover to park on Level 1 at 6:18 PM Vehicle exiting at random times with no delay 	111
7:00-7:59 PM	<ul style="list-style-type: none"> East end of lot at High and Hanover at 95% occupancy by 7:30 PM Steady traffic entering and exiting facility 	129
8:00-8:59 PM	<ul style="list-style-type: none"> Steady traffic exiting with up to 12 cars in queue 	192
9:00-9:04 PM	<ul style="list-style-type: none"> Staff directed vehicles to use both exit lanes 	15
9:05-9:09 PM	<ul style="list-style-type: none"> Vehicles beginning to back up ramp - 16 cars in queue 	26
9:10-9:14 PM	<ul style="list-style-type: none"> 29 cars in queue 	24
9:15-9:19 PM	<ul style="list-style-type: none"> 31 cars in queue 	25
9:20-9:24 PM	<ul style="list-style-type: none"> 39 cars in queue 	25
9:25-9:29 PM	<ul style="list-style-type: none"> Vehicles up to Level 3 to exit 57 cars in queue 	24
9:30-9:34 PM	<ul style="list-style-type: none"> 47 cars in queue 	24
9:35-9:39 PM	<ul style="list-style-type: none"> Vehicle exiting garage ran out of gas while in line just before cashier booth. Staff members and Consultant pushed vehicle out of traffic. 	21
9:40-9:44 PM	<ul style="list-style-type: none"> 42 cars in queue 	26
9:45-9:49 PM	<ul style="list-style-type: none"> 39 cars in queue 	Data not available
9:50-9:54 PM	<ul style="list-style-type: none"> 19 cars in queue Shift change took place Exiting traffic volume rapidly reducing 	Data not available
9:55-9:59 PM	<ul style="list-style-type: none"> 6 cars in queue 	Data not available
10:00 PM	<ul style="list-style-type: none"> 4 cars in queue 	Data not available
10:30 PM	<ul style="list-style-type: none"> No queue 	

During the peak exiting period (9:00 PM to 9:45 PM), the Attendants were each able to process 2.3 transactions per minute. At approximately 9:25 PM, there were 57 vehicles waiting to exit. The wait time for the last vehicle in line at that time was about 12 minutes.

At 2.3 transactions per minute per attendant, a garage filled with transient customers leaving at one time will require over 3 hours to empty! Table #21 presents estimated exiting time for various numbers of vehicles in the High/Hanover Garage.

Table 21
Projected Exiting Duration

# Transient Vehicles	Estimated Exiting Time
900	3 hours and 15 minutes
800	2 hours and 54 minutes
700	2 hour and 32 minutes
600	2 hours and 10 minutes
500	1 hour and 49 minutes
400	1 hour and 27 minutes
300	1 hour and 5 minutes
200	43 minutes
100	22 minutes

Fortunately, 900 vehicles typically do not leave at one time but there are occasions when several hundred vehicles do exit at one time so it is important to prepare an appropriate plan to provide efficient service at those times.

The Music Hall represents the largest single generator of potential garage transient customers. With a seating capacity of 900, one can assume that a capacity crowd at Music Hall will generate about 300 vehicles downtown. Not every vehicle will park in the High/Hanover Parking Facility, so we will assume that 80% (240 vehicles) will use the facility. After an event, some attendees will likely visit other Downtown venues so not every vehicle will leave at the same time. At the same time, however, others who were at other venues will exit the garage so planning for a mass exiting of 240 vehicles is appropriate.

At the 2.3 transactions per minute per lane, it will require 52 minutes to process 240 vehicles. Should a third lane be added, the exiting duration is reduced by 17 minutes. For each additional lane, the exiting time is reduced but by a decreasing amount. Table #22, on the following page, shows the projected exit time for 240 vehicles with different number of exits.

Table 22
Projected Exiting Duration With Additional Lanes

# Exit Lanes	Time To Process 240 Transactions
2	52
3	35
4	26
5	21
6	17
7	15
8	13

The addition of four or more exit lanes is not possible without major structural modification to the Garage and adjacent streets. The most cost-effective approach would be to add one additional exit. This will reduce the exiting time by 33%.

We examined the Garage for locations of an additional exit and selected four sites for further review.

Site A - an interior exit ramp from Level 2 (addition) to metered parking area (See picture below.)



This option is not recommended because of:

- Limited opportunity to divert cars from the Hanover exit lanes
- Expenses related to construction of the new ramp
- Elimination of metered parking area
- Diversion of exiting vehicles into a narrow alley often used by pedestrians

Site B – an exterior ramp east of garage from Level 2 to Hanover Street (See picture below.)

East Side of Garage



This option is not recommended because of:

- Expenses related to construction of the new ramp
- Potential land acquisition issues
- Conflict with existing plans to enhance pedestrian access to area

Site C – The entry lane on Hanover

The concept would be to modify the entry lane into reversible lane that could be used as an exit when necessary. This option was rejected due to traffic concerns, both internal and external. In addition, it would eliminate a widely used entrance for transient customers.

Site D - Modify the existing exit on Fleet Street for to accept both contract and transient customers (See picture below.)



Fleet St. Entrance

This option has the most potential. Currently, there is one entry lane for both transient and contract customers and one exit lane for contract customers. The exit lane can be converted to accept transient customers without any structural changes. It would require the installation of equipment (booth, CCTV, intercom, parking equipment, etc.). It could be used only for peak periods or as a backup should one of the transient exit lanes on Hanover Street become inoperational. It may be possible to install equipment that would not require the use of personnel.

- Operational Method

For transient customers, the facility uses a “pay-at-exit” method of operation. This is a standard method for parking garages catering to retail and office customers. For times when large volumes of vehicles exit the facility, this operational method results in poor service delivery in the form of exiting delays.

We explored several optional methods of parking operations to determine the most appropriate one for the High/Hanover Parking Facility.

We first examined *Pay-On-Foot*. With this operational method, transient customers receive a dated ticket at entry. Prior to exiting, however, they must go to a Pay Station. At the Pay Station, the customer inserts the ticket, pays the fee (usually cash or credit card), and receives a validated ticket. The customer then drives to the exit lane, inserts the validated ticket into a machine installed at the exit lane, and exits the facility when the gate rises. Usually the validated ticket requires the customers to exit within 5 to 15 minutes after making payment.



Typical Pay-On-Foot Station

This method functions best in facilities designed for Pay Stations. Newer garages limit pedestrian access to the facility primarily for security reasons. The limited access areas, such as lobbies or elevator landings, are convenient locations for Pay Stations. If customers cannot easily locate a Pay Station, they quickly become dissatisfied with the service. If Pay Stations are located in outdoor environments, they are more prone to failure.

The High/Hanover Parking Facility is not an ideal candidate for “Pay-On-Foot.” Customers can walk into the facility from several locations. There is only one enclosed area suitable for a Pay Station and with 900 spaces, up to four Pay Stations would be required for routine number of transactions. With large volumes of traffic, instead of customers waiting in line in their vehicles to pay, they would wait to use the machine then wait again at the exit to use their validated ticket. For these reasons, this method of operation is not recommended.

One potential option for non-peak periods is the use of *Pay-In-Lane* equipment. The unit is installed in the exit lane. The customer inserts the ticket, the fee is displayed, and payment (most often credit card) is made by the customer. If the customer is familiar with this equipment, the processing time is no longer than an Attendant-assist transaction. A modified exit on Fleet Street would be an ideal location for this type of equipment.

An emerging operating method is called *Credit Card In-Out*. With this system, customers gain entrance to the facility by inserting a valid credit card into a reader at the entrance. The credit card number is recorded along with the date and time of entry. No ticket is necessary. Upon exit, the customer inserts the same credit card into a reader at the exit lane. The computer matches the credit card number used at entry and calculates the fee based upon elapsed time. The credit card account is charged and the exit gate opens.

Provided the customers are familiar with this system, and they use the same credit card at the exit, the transaction time is reduced. Up to 3.5 transactions per minute are possible.

This system requires the use of a valid credit card and not everyone has one. In addition, the City would incur fees associated with credit card use. The elimination of cash and reduction in personnel cost are major advantages of this operating method.

For handling large number of vehicles at one time, however, it is not always appropriate. Even with a faster processing time, this method will still result in unacceptable delays.

We observed, and staff reported, that on weekend evenings and on some other evenings with an event at Music Hall, customers arrive at varying times. At the conclusion of an event, or when several establishments close at the same time, there is often a mass exodus. This parking behavior is similar to amusement parks and major sporting event venues. To provide the best possible service, they use a *Special Event* method of operation. This method is very efficient in handling large volumes of traffic within a short period of time. The Attendant collects the fee and issues a receipt as each vehicle enters the facility. The same fee is applied to all vehicles. Usually, the fee is a multiple of \$1.00. By eliminating the need for coins and time to calculate the fee, entry time is significantly decreased. When exiting the garage, it is not necessary to process tickets, collect fees, or make change. Barrier gates are locked in the raised position thus hastening the exiting time even further. Vehicles can exit at a rate of 10 per minute per lane. Only the volume of street traffic restricts garage traffic. A crowd of 240 vehicles can exit in about 12 minutes under ideal conditions. Not only are transient customers able to exit in less time, contract customers also benefit since transient transactions at the exit are eliminated.

To take full advantage the *Special Event* mode of operation, it is important to have:

- Signage announcing the rate to entering customers
- Adequate staffing to collect fees and direct internal garage traffic to expedite both entry and exit
- Equipment (counters) to monitor transactions
- Coordination with event venues to determine when his method should be used

While this operating method is very advantageous for reducing long queues, it does require the payment of the fee for all incoming vehicles after an established time, say 5:30 PM. This includes customers only intending to park for a short period of time. Transient customers, who enter prior to the start of the special event period and exit during a peak time when the barrier gate is raised, will avoid payment.

It also requires the establishment of a fee that manifests the goals of the City's Parking Program and reflects the expenses related to the additional staffing requirements. In Section One of this document, we recommended an initial rate of \$4.00.

On-Street Parking

Meter Evaluation

The City's on-street parking program currently consists of 678 metered spaces. There are also 176 off-street spaces that are regulated by parking meters. The current inventory of parking meters is detailed in Table #23.

Table 23
Parking Meter Inventory

Quantity	Manufacturer	Model	Approximate Age
800	Duncan	Eagle	8 years
40	POM	APM-E	1 year
10	POM	APM-2X	1 year

Electronic meters have been on the market in some form for about fifteen years. They have a practical life expectancy of ten years provided they receive adequate maintenance. As with other electronic and computing equipment, there is continual improvement of functionality, internal components, and related software. As a result, some models gradually become obsolete even with regular maintenance.

We inspected several meters, toured the meter repair maintenance facilities, and reviewed maintenance records provided by the City. The City reports that batteries are replaced bi-annually, coin tracts and locks are cleaned annually. Repair records from 2004 are listed below in Table #24.

Table 24
Parking Meter Malfunctions - 2004

Meter Malfunction Category	Average Per Month in 2004
Battery Failure ¹	8
Coin Slot Jam ²	12
Program Adjustment	5
Mechanism Replacement	7
Other	1

1. This is usually the result of a battery manufacturer error or the use of a battery that has exceeded its shelf life.
2. During 2004, the nearly half of the jams occurred during the months of July and August, the peak tourist season.

During a survey of metered parking usage on December 9, 2004, we observed only one meter malfunction (battery failure). It was reported to the Office and repaired within three hours.

The staff reported some failures and service shortcomings with the Duncan meters so, when additional meters were needed several years ago, the City purchased them from POM. Based upon our review, the existing meters are providing good service. There is no immediate need to replace the meters now in use. In the near future (2 to 5 years), however, replacement of the meters will be necessary.

Enforcement

Downtown Portsmouth, for enforcement purposes, is divided into two routes (east and west). Enforcement is provided from 9:00 AM to 7:00 PM Monday through Saturday. At least one Enforcement Officer is scheduled on each route during the enforcement hours.

The supervisor, besides performing various administrative and supervisory duties, also provides most of the enforcement of the truck loading zones.

On the average, an Enforcement Officer can monitor about three metered spaces per minute or 180 per hour. This rate includes occasional ticket issuing. With about 850 meters, each Officer is responsible for 425 meters. At 180 meters per hour, each metered space can be enforced every 2 hours and 24 minutes. Since the majority of meters have a two-hour limit, this enforcement coverage is adequate.

During a survey of metered usage conducted on December 9, we observed a total of 320 vehicles parked at the 67 two-hour meters. This produced a turnover rate of 4.78 (320/67). This rate exceeded the benchmark of 3.50 indicating that the rates and enforcement practices of the City are effective in promoting Downtown business activity.

The only enforcement weakness observed was with the enforcement of the fifteen-minute spaces. We observed one vehicle parked in a fifteen-minute space in excess of two hours with the meter expired during most of that period.

Alternate Service Delivery

The single-space parking meter has been used throughout the United States for over fifty years. Over the past fifteen years, its mechanical components (timer, coin acceptor, violation indicator, etc.) have been replaced by electronic components. Today's electronic meters are more accurate, easier to program, more difficult to vandalize, and provide auditing data. Single-space parking meters, however, are not the only method of regulating on-street parking. There are a variety of optional service delivery methods.

- Multi-Space Meters

The City already uses one option, the multi-space meter. Currently, the City has eight dual-space meters in operation. With just one mechanism, two spaces are monitored. The meter has two buttons (as indicated on the picture) on its exterior, one for each space. The user must press the button designated for his/her space and then insert coins. The meter has two displays to show expired time. Up to four different parking spaces can be monitored by one mechanism.



Advantages	Disadvantages
<ul style="list-style-type: none"> Reduces maintenance Enforcement remains the same 	<ul style="list-style-type: none"> May increase collection requirements Users must know to press correct button

- Pay & Display

With this service delivery system, customers park their vehicle, walk to a Pay & Display Machine, purchase the desired amount of time, receive a receipt, and place the receipt on their dashboard. The Machine can accept cash, including currency, and/or credit cards. They do not make change. The number of Pay & Display Machines is determined by determining an acceptable walking distance for customers in a particular city. For short block faces, one machine is sufficient. Two may be installed for longer block faces. The units require electricity to operate but all major manufacturers have a solar panel option. Some cities elect not to mark the parking stalls believing this will increase the number of cars that can park in an area.



These units are more expensive than the traditional parking meters but one unit can replace up to 15 meters and they offer other cost-saving benefits. Many people also prefer them since they reduce urban clutter. The Enforcement Officer must look in each vehicle for the valid receipt. Vehicles without a valid receipt are issued a citation. Collection personnel must now retrieve revenue from fewer meters and since credit cards are accepted, there is often less cash to collect. When a unit fails or requires maintenance, it will notify the Office or nearest repair personnel by an internal wireless phone. The same wireless phone system is used for programming and data collection. When one Pay & Display unit fails, however, up to fifteen spaces are not generating revenue.

Advantages	Disadvantages
<ul style="list-style-type: none"> • Accepts currency, credit cards, and/or Smart Cards • Reduces maintenance • May increase number of parking spaces • Reduces collection requirements 	<ul style="list-style-type: none"> • User must walk to unit and return to vehicle with permit • Failure of one unit impacts multiple spaces • Enforcement requires examining receipts in vehicles • Bootleg receipts are potential problem

- Pay-By-Space

This system is similar to Pay & Display in that a single unit manages multiple spaces. With this system, however, it is necessary to have each parking space designated with a number. The number can be painted on the curb or mounted on an embedded post. After parking, the customer goes to the Pay-By-Space unit, enters the space number, and pays the fee for the desired amount of time. There is no need to return to the vehicle with a receipt. The unit keeps track of each payment. The Enforcement Officer retrieves a report at the machine that informs him/her of the payment status of each space. The Officer then looks for vehicles in unpaid spaces and conducts enforcement action.

Advantages	Disadvantages
<ul style="list-style-type: none"> • Accepts currency, credit cards, and/or Smart Cards • Reduces maintenance • No need for customer to return to car with receipt 	<ul style="list-style-type: none"> • Spaces must be marked (may be a problem in winter) • Failure of one unit impacts multiple spaces • Enforcement requires retrieving report from each unit and verifying vehicles parked in area

- In-Vehicle Meter

An in-vehicle meter is a device that displays parking time. A customer purchases or leases an in-vehicle meter and then purchases time. Additional time can be purchased in the future. When parked, the customer activates the device and hangs it from the rear view mirror. The display shows time remaining. The Enforcement Officer can visually see the device and issue citations if the display is blank.



Advantages	Disadvantages
<ul style="list-style-type: none"> • City receives revenue up front • On-street equipment optional • May increase number of parking spaces 	<ul style="list-style-type: none"> • User must remember to deactivate when leaving parking space • Potential of theft of device from vehicle • User must purchase or lease device

- In-Vehicle Permit

This is a low-tech version of in-vehicle meters. The customer purchases one or more permits in advance. To use, the customer scratches off the appropriate date and time and displays the permit on the vehicle's dashboard. Enforcement is accomplished by examining the date and time on the permit to the actual date and time.



These permits are more suitable for all-day parking situations.

Advantages	Disadvantages
<ul style="list-style-type: none"> • City receives revenue up front • On-street equipment optional • May increase number of parking spaces 	<ul style="list-style-type: none"> • User must remember to scratch correct locations when arriving at parking space • Potential of theft of device from vehicle • Bootleg permits possible

- Pay-By-Call

This method allows customers to purchase time by simply calling an office and entering an area and ID number. Most systems require the customer to pre-register and authorizing parking charges to be placed on a credit card account. Upon registering, the customer receives an ID number. Once parked, the customer calls the office. Parking charges start from that time. When leaving the parking area, the customer calls a number and the charges end. On-street equipment is optional. Some providers will also permit the customer to extend their parking time by calling thus eliminating the need to return to the meter to “feed” it. Enforcement information is relayed to Officers by cell-enabled PDA’s.

Advantages	Disadvantages
<ul style="list-style-type: none"> • On-street equipment optional • May increase number of parking spaces 	<ul style="list-style-type: none"> • Not every customer has a cell phone • User must remember to call after parking and when leaving

- Smart Cards

Smart cards are not a service delivery method. They represent a payment option that can be used to enhance single-space meters, multi-space meters, Pay & Display units, and Pay-By-Space units.

Smart cards resemble a traditional credit card but, upon closer inspection, one can see an array of tiny wires that constitute a “chip” embedded into the card. That chip holds data that can be read and modified by readers designed for that purpose. This technology has been in the market place for nearly twenty years and has a proven track record.



One application of the smart card is its use as an electronic wallet. The customer first obtains a smart card. They may be sold for a nominal fee or issued without cost to the user. Then, the customer uses a validating or loading unit to purchase value onto the card using cash or a credit card. When used in a compatible application, the value stored on the smart card is reduced to reflect the cost of the product or service being obtained. The elimination of cash increases operating efficiencies for the service provider and offers a convenience for the customer.

Some universities issue a smart card to each student. The student (or parents) can place value on the card. The card can be used to purchase food, vending machine products, supplies, laundry services, etc. Some commuter train and transit systems accept smart card payment for their customers thus eliminating the need to have exact change and allowing more efficient entry.

Smart cards have been used in the parking industry for about ten years. As parking meter fees increase, it becomes increasingly more difficult for customers to have a sufficient supply of quarters. Smart cards eliminate that requirement and allow an easy payment option, particularly for those who frequent an area. In recent years, the use of smart cards has expanded to other on-street equipment as well as off-street parking. Regionally, the City of Nashua offers a smart card option for its parking customers.

Advantages	Disadvantages
<ul style="list-style-type: none">• City receives revenue up front• Works with most on-street equipment• Reduces collection of cash	<ul style="list-style-type: none">• User must load value onto card• Smart Card, if lost, may not be replaceable

The major disadvantage of smart cards is the necessity to load value onto the card. This can be done only at designated locations. It is important to find loading sites that are convenient to customers.

In response to this issue of convenience, at least one vendor, Parcxmart Technologies, Inc., located in Hampton Falls, offers a loading program that incorporates local merchants. Under their program, local merchants purchase a dual-purpose terminal that can not only load value onto smart cards but also allows purchase of products at their store with smart cards. Holders of smart cards enter the participating merchant store and uses cash or credit card to load value onto the smart card. The revenue is retained by Parcxmart and later distributed electronically, using existing fund transfer networks. Parcxmart provides marketing, auditing, and merchant support services in return for a commission.

The City of Portsmouth received a proposal from Parcxmart in May 2004. Under the terms of that proposal, the City would install new meter mechanisms that would accept the Parcxmart smart cards. Parcxmart would provide management of the smart card program including distribution of smart card revenue and merchant participation. For an initial three-month testing period, Parcxmart would receive 5% of smart card parking revenue.

After reviewing the proposal as part of this report, we establish two issues that required further investigation. Representatives of Parcxmart responded to our inquiry concerning these issues.

The Consulting Engineers Group, Inc.

1. Who determines if the program is a success after the trial period?

The company indicated that a set of performance criteria would be mutually agreed upon prior to the start of the trial period. It would then be possible to determine the success of the program by both parties.

2. What happens after the initial three-month period?

If the program is not successful, the City could abandon the program or extend the trial. Neither the City nor Parcsmart would be under any further obligation to the other party.

If the program were successful, it would continue for a term to be negotiated. The fee for Parcsmart's services would, according to the firm, be comparable to the fee established for similar-sized cities. The firm indicated a willingness to establish a maximum fee in advance of any trial period.

Since its inception in 2003, Parcsmart has working programs in three cities.

New Haven, Connecticut

After a trial period with 550 on-street meters, the City decided to convert its entire parking inventory of 3,000 metered spaces to accept the Parcsmart smart card. The conversion was completed in early September of 2006. The meter rate was also increased at the same time from \$0.75 per hour to \$1.25 per hour. According to Parcsmart, after only 60 days, the use of their smart card represents about 10% of the market. Nearly 50 merchants have joined the program and more are on a waiting list.

Bridgeport, Connecticut

This has started with a trial program but the City expects to begin employment of the Parcsmart technology through its downtown area within the next few months.

Truckee, California

This city has installed Pay & Display units that incorporate the Parcsmart smart card as a payment option.

Parcsmart reports active discussions with at least three other cities and expansion of its smart card into other parking control equipment.

Downtown Portsmouth offers the ideal mix of businesses for the Parcsmart program. The fact that they are located in the area is also an advantage for the City. It is not necessary, however, for the City to enter into an agreement with a Parcsmart to administer a smart card program. It can be done in-house with equipment supplied by parking equipment vendors.

Our research into the use of smart cards in parking environments within the United States shows mixed results. The Washington Metropolitan Area Transit Authority only accepts its smart cards at its parking facilities. Philadelphia started a smart card option in October 2003 for their meters. After nine months, smart cards represented only 1.5% of the parking meter revenue. In Miami Beach, after four years of use, smart cards represent only 9% of the parking meter revenue. After one year of use, the City of Nashua reports that 36% of its parking meter revenue is from smart cards. Outside the U.S., particularly in Europe and Asia, smart cards are more widely accepted. More than 40 million French citizens carry a smart card for banking and debit card purchases. In the United States, however, smart cards have not yet been widely accepted as a substitute for cash or credit card.

To date, single-space meters cannot accept credit cards because of the power drain on their battery. In cities with only single-space meters and rates exceeding \$1.00 per hour, the smart card is a viable payment option, particularly for frequent visitors. Tourists will likely use cash for on-street parking since obtaining a smart card for a few transactions is not realistic. Pay & Display or similar units that monitor multiple spaces can accept credit cards. For cities with this type of equipment, the acceptance of a smart card is likely to be limited, in our estimation, since most residents and tourists already have a credit card and will use it to purchase time. What is more convenient – Using ones credit card or acquiring a smart card and retaining it primarily for parking purposes? In general, while smart cards represent a convenient payment option, it is unlikely they will replace cash or credit cards in the near future if this type of equipment is used.

Recommendations

Parking Organization

7. Consider centralizing the parking functions as much as possible. With new parking facilities likely in the near future, opportunities to combine services at fewer locations may appear. In the next year, the staff should conduct a survey of space requirements to determine the actual space requirements.
8. Commence funding a capital budget program to replace/upgrade both on-street and off-street equipment. The Parking Division should make annual contributions to a dedicated fund for equipment replacement.

Off-Street Parking

9. Upon completion of the new bus loading/unloading center in front of the High/Hanover Parking facility, evaluate the need for mirrors and warning lights for the two exit lanes. A mirror strategically located in each exit lane will assist drivers in locating oncoming pedestrians. A rotating or flashing light mounted on the exterior of the Garage that operates each time a barrier gate is raised will alert pedestrians to vehicles exiting the facility.
10. Eliminate on-street parking on the north side of Hanover Street across the Garage westward to High Street after 7:00 PM, at least on weekends. This will improve traffic flow on the street during peak periods.
11. Modify the exit on Fleet Street to accommodate transient customers. We recommend consideration of a Pay-In-Lane unit.

12. With another transient exit on Fleet Street, provide an alternate route for vehicles exiting from Levels 2-4 to use that exit. This can be accomplished by eliminating a few spaces on Level 2 in the area circled in the picture. Staff can then divert traffic, as necessary, to the lower level to reduce exiting time.



13. Establish a permanent plan to assist outbound traffic from the Garage onto Hanover Street during peak exiting periods. A traffic signal is the preferred method but, if its installation does not meet legal requirements, then the use of trained traffic control personnel is recommended.

14. Adopt a Special Event mode of operation on weekend evenings and whenever 200 or more customers would be expected to exit at one time. This will require the following changes to the current operation:
 - Staffing to collect fees at all entry lanes
 - Counters to monitor sales during Special Event periods
 - Signage to inform arriving customers of the fee (We suggest variable message signs that can display the fee and other information.)
 - Directing exiting vehicles to available lanes
 - Modifications to revenue reporting forms
 - Regular communications with Downtown venues to project attendance

15. Explore new equipment for the High/Hanover Parking Facility. The parking equipment hardware and software is nearing the end of its typical life span. Future support of the existing software by the current vendor is uncertain due to recent changes in the manufacturer's (Amano-Cincinnati) relationship with the software developer (McGann). New software and/or hardware will not improve the ability of Attendants to process tickets. The newer equipment will enable the City to better monitor parking operations. The City is pursuing the construction of a new parking garage as part of the expansion of the Sheraton Hotel/Conference Center. This facility, projected to open in the near future, will have parking revenue control equipment. This would be an ideal time to upgrade or replace the equipment in the High/Hanover Parking Facility with equipment fully compatible with the equipment at the new garage. This would enable the City to monitor both facilities in a coordinated manner.

On-Street

16. Investigate and test Pay & Display equipment. Since the current parking meters are well maintained, there is no need to seek immediate replacement. Assuming maintenance continues at its current level, two to five more years of service can be expected. In the meantime, the City should purchase or lease equipment from one or more vendors to determine their potential use throughout the City.

17. Monitor the Parcxmart program in other cities. While the integration of local merchants is appealing, the program has not been tested on a city-wide basis for an extended period of time. There is also the issue of municipal funds being collected and managed by a private vendor. The City has the option of selling smart cards at locations (municipal offices, garages, fire stations, etc.) A visit to one of the smart card cities in Connecticut in the near future and talking to city officials and merchants there is suggested.

Section Three: Parking Program Development

As the regional center of commerce, culture, and community, Portsmouth exhibits an enviable vitality. The success of the City in attracting employees, shoppers, and visitors to the Downtown area is creating new development opportunities. While each new development project adds to the vitality of the City, each project also increases parking demand. To ensure long-term prosperity, it is important for the City have an adequate parking supply to meet the increased demand or offer alternate transportation systems to enable people to conveniently visit Downtown destinations.

Already, there are indications that the current parking demand is greater than the supply, particularly during the months of May through September. Last year, the High/Hanover Parking Facility reached capacity not only on many weekend evenings, but also on some weekday afternoons. Residents living on streets surrounding the core Downtown district are reporting difficulties in finding parking near their homes. Downtown businesses report customer frustration over a lack of convenient parking.

This section of the report examines the impact of new development on the parking assets of the City and offers assistance in developing programs for residential and valet parking.

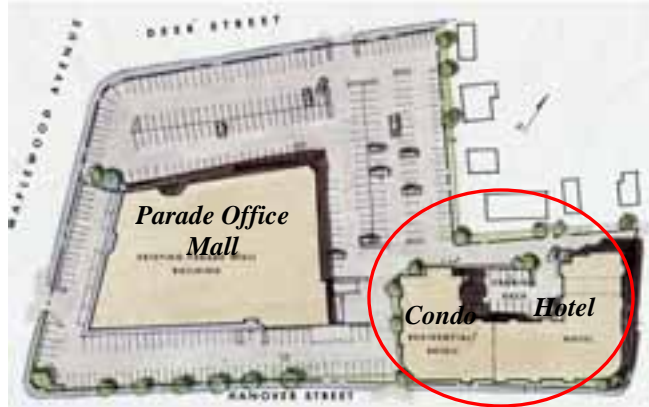
Parking Asset Analysis

The existing parking supply in Downtown Portsmouth consists of approximately 2,600 spaces. While there are occasions when the demand for parking exceeds the supply, we will assume for this analysis that the existing parking supply is adequate to meet the existing demand with no surplus of spaces. We begin by examining recently completed, current, or planned development projects. For each project, we will indicate the impact on the parking supply.

The Portsmouth Gaslight Company, adjacent to the High/Hanover Parking Facility, recently completed an extensive renovation. The facility now includes two separate restaurants and an entertainment venue. An outdoor garden area is also available during warmer months. Maximum capacity of the building is now 499. The renovation did not include any parking spaces. We estimate that the renovation created a new demand for 125 parking spaces.



A new Hilton Garden Inn is now opened at the eastern edge of the Parade Office Mall property. This hotel includes 131 rooms with a dining facility. An adjacent residential building includes 20 condominiums. Total parking demand for this development is 278 spaces. Currently there are 38 spaces on-site leaving a shortage of 240 spaces. The footprint of the development previously was a parking lot with 128 spaces. Therefore, this project will result in a parking deficit of 368 spaces.



The City has entered into a development agreement to expand the Sheraton Hotel. The expansion would include 215 rooms, 11,000 square feet of ballroom space, and 6,800 square feet of meeting rooms. The development will also include a municipal garage with approximately 670 spaces and 6,300 square feet of retail. Based upon data from Table #25, the entire project will create a demand for 716 parking spaces.

agreement to expand the Sheraton Hotel. The



Table 25
Projected Parking Demand – Sheraton Expansion

Project Element	Quantity	Rate	Parking Demand
Rooms	215 room	1.25/room	269
Meeting Room	11,000 sq ft	20/1,000 sq ft	220
Ballroom	6,800 sq ft	30/1,000 sq ft	204
Retail	6,300 sq ft	3.3/1,000 sq ft	23
TOTAL			716

The hotel expansion and garage will be built on a site currently used as a parking lot. The lot has 224 spaces so the entire development will result in a deficit of 270 spaces.

The Eagle Photo Supply site on Market Square has been converted into a mixed-used development with retail (8,520 square feet), office (10,523 square feet), and housing (18 units). This project generates a parking demand for 91 spaces. It supplies 25 spaces on-site leaving a deficit of 66 spaces.



These four projects, when completed, represent an unmet parking demand of 829 spaces as reflected in Table #26.

Table 26
Parking Impact of Development Projects

Project	New Parking Demand	New Parking Supply	# Existing Spaces Lost	Unmet Parking Demand
Gaslight Company	125	0	0	125
Hilton Garden Inn	278	38	128	368
Sheraton Hotel Expansion	716	670	224	270
Eagle Photo Site Development	91	25	0	66
TOTAL	1,210	733	352	829

The City has proposed to further increase the parking supply in 2008 by converting the existing Worth Avenue Lot into a parking garage. A feasibility study conducted in 2003 recommended a facility with 440 spaces. Since the lot currently accommodates 110 vehicles, the garage will result in a net gain of 330 spaces.



The City's zoning regulations require developers of new buildings to provide parking or pay into a fund that is intended to finance transportation related improvements.

Until recently, the payment for each parking space not provided was \$500. From 1997 to October 2004, developers paid \$263,000 in lieu of 526 spaces. At the end of October 2004, the fund had a balance of \$150,600 - enough for about 10-15 garage spaces. Currently, the payment for parking spaces not provided is \$1,200. The payment amount is adjusted annually for inflation. Since the fee is significantly less than the cost of a typical parking space, and user fees alone are not sufficient to meet all expenses, extensive subsidies will be required for any future City parking facilities.

With the development scheduled to occur over the next three years, parking demand is likely to exceed supply by 300 to 600 spaces. The actual parking shortage will depend upon the occupancy of existing commercial property, modifications to plans for the Sheraton expansion, preservation of the existing parking supply, use of public transportation, and new development or redevelopment. At least three sites have been identified for potential development in the near future. Each of these sites, if developed, offer opportunities to expand the parking supply to meet the higher demand. They include:

- Offices currently at the Federal Building will move to a new location in 2008 at which time the City will acquire the property. At this time, the future use of this site has not been determined.
- Seacoast Newspapers, publishers of the Portsmouth Herald, will consolidate its offices at a new facility leaving the existing site on Maplewood Avenue available for redevelopment. No future plans for the site have been released.
- The Parade Office Mall currently has 85,000 square feet of office space with 322 on-site parking spaces. The site has the potential for a mixed-use development with integrated parking.



Two other development projects are not expected to have any measurable impact on the parking conditions. They include:

- Centrix Bank's conversion of a former coffee shop into a banking office
- Strawberry Banke Visitor Center

As Downtown Portsmouth grows, it is not only important that its future parking supply expand, it is also critical that its existing parking supply remain. During our observations of parking conditions, we noted several maintenance issues (leaking expansion joints, rusted support beams) in the High/Hanover Garage that, if not addressed, will decrease the useful life of the facility and/or result in major capital expenditures to repair. We encourage the City to evaluate the parking garage and develop a plan to address the known issues and increase the annual allocation for maintenance.

Residential Parking Permit Program

Background

We live in a society where the automobile is the dominant form of personal transportation. Nearly 92% of Portsmouth residents have at least one vehicle. Over 46% have two or more vehicles. People drive to work, to school, to shop, to visit, to conduct business, and to attend entertainment activities. Over 80% of Portsmouth residents drive to work alone. It is estimated that the average American spends 412 hours each year in a car. A year, however, has 8,760 hours. So what does that car do for the other 8,348 hours when it is not on the road? It's parked! About half of those hours, the car is parked at a residential setting.

While the two-car garage is a standard on new residential homes, nearly 93% of residential units in Portsmouth were built before 1980, prior to the age of the multi-car garage. About 40% of the residential units in Portsmouth were constructed before 1940 when even off-street parking was not standard. For some Portsmouth residents, the use of on-street parking is a necessity.

Unfortunately, some streets in Portsmouth, particularly those in historic areas, reflect standards established long before the age of the automobile. Their narrow width restricts or even prevents their use for on-street parking. This condition is aggravated in areas adjacent to Downtown or near visitor attractions where residents must compete with visitors and workers to find parking.



As a result of these conditions, residents must fight a daily “parking war.” Each day they battle for a parking space near their homes. Sometimes, residents will go on the offensive by distributing pamphlets to parkers to discourage their use of the spaces. Residents have also been known to take a defensive posture by keeping their vehicles parked for extended periods to discourage some visitors.

Cities facing these conditions often adopt a Residential Parking Permit Program (RPPP) to assist the residents. A recent survey of 69 municipalities conducted by the International Parking Institute indicated that 51% of the cities offered a RPPP. The City of Portsmouth currently has a section of Hanover Street designated for residential parking only. Enforcement of the zone, however, is not practical since vehicles are not registered and there is no way for parking enforcement personnel to identify the vehicles of residents.



A formal RPPP program requires the issuance of permits to registered vehicles. The permit authorizes vehicles to remain parked in the zone for more than a specified duration (normally one or two hours). Those vehicles parked without a valid permit are subject to citation and/or impoundment.

The establishment of a RPPP enhances the quality of life for residents but it does not guarantee a parking space for each resident. It simply restricts the number of people who may park in the zone in excess of two hours thereby enabling residents to more likely find parking near their homes. A RPPP zone often reduces vehicular traffic in the area once people realize they can no longer park in the area for more than two hours.

Those who are no longer eligible to park within an area because of their non-residency status will either seek another on-street location to park (transferring the problem to an adjoining neighborhood), cease to visit their destination (causing an adverse impact on the local business), find an off-street facility to park (reducing the overall supply of parking), or seek an alternative transportation method.

Vehicles parked within a RPPP zone, even with a permit, must still comply with existing ordinances. A residential parking permit does not authorize parking in a crosswalk or adjacent to a fire hydrant. In addition, vehicles must comply with snow emergency regulations and street cleaning restrictions.

It is important for the citizens considering a RPPP to fully understand the program's advantages and disadvantages.

Typical Procedures For Establishing a Residential Parking Permit Program

The following outlines a typical procedure for the establishment of a RPPP:

1. A resident or organization representing residents requests the establishment of a RPPP from the City's Parking Division. The resident or organization must indicate the boundaries of the proposed RPPP and the effective hours for the RPPP.

2. The Parking Division provides the resident or organization detailed information concerning the establishment of a RPPP. In addition to the detailed information, the City provides a sufficient supply of informational pamphlets to the resident or organization for distribution to residents. The pamphlet summarizes the RPPP including the requirements and cost for the residents.
3. Within a 30-day period, the resident or organization distributes the pamphlets and circulates a petition that must be signed by at least 25 residents who reside within the proposed zone and are over the age of 18. The resident petition is then submitted to the City's Parking Manager.
4. The City's Parking Manager, in conjunction with the City Traffic Engineer, commences a study that:
 - Verifies the formatting, dates, and signatures on the petition
 - Confirms the proper zoning of the area (The area must be zoned residential.)
 - Investigates the ability of streets to have on-street parking (The streets must be wide enough to allow parking and the passing of emergency vehicles.)
 - Examines possible options (off-street lot, transit, etc.) to eliminate or reduce the need for the RPPP
 - Determines the number of on-street spaces in the area
 - Conducts two one-day utilization surveys of the area (Each survey must indicate that at least 75% of available on-street spaces are occupied during peak period(s) and that 50% of vehicles parked during those peak periods belong to non-residents.)
5. The Parking Manager and Traffic Engineer prepare a report to the resident or organization concerning their study. A copy of the report is forwarded to the City Manager. If the report concludes that the area does not meet the criteria for a RPPP, then no further action is required. If the report concludes that the area does meet the criteria for a RPPP, then the Parking Manager and resident or organization establishes a place and time for a community meeting. Both parties should make a concerted effort to notify residents of the community meeting.
6. At the community meeting, the Parking Manager or his/her representative outlines the RPPP. The public has an opportunity to ask questions. Additional pamphlets are made available.
7. At the conclusion of the community meeting, the resident or resident organization then has 60 days to secure the written approval of the RPPP on a petition by at least 76% of the residents within the proposed zone. The petition must clearly indicate that the resident received a copy of the of RPPP pamphlet and agrees to the establishment of the RPPP. The petition is then submitted to the Parking Manager.

8. The Parking Manager reviews the petitions and verifies their authenticity. Once accepted as valid, he/she acknowledges receipt of the petition and informs the resident or resident organization of the effective date of the program and the location where residents can obtain permits. A copy of that acknowledgement is forwarded to the City's Traffic Engineer and City Manager.
9. The Parking Manger and Traffic Engineer then take the necessary administrative steps to install signs, make public announcements of the RPPP, sell permits, initiate enforcement, etc.
10. The RPPP remains in effect for a period of ten years unless a resident or resident organization presents to the Parking Manager a petition signed by at least 76% of the residents requesting that the RPPP be discontinued. At the end of the ten-year period, a resident or organization may request a renewal of the RPPP subject to meeting criteria then in effect.

While these ten steps outlined above represent procedures used by many communities to establish a RPPP, local conditions may alter some of these criteria. For example, some cities required approval of only 50% of the residents to establish a RPPP while other cities demand as much as an 80% approval rate. What is important is that all residents clearly understand the requirements of the RPPP.

Permits

Besides issuing permits for residents, there must also be provisions for guests, delivery vehicles, service personnel etc. Often, cities exempt emergency vehicles, marked government vehicles, marked delivery vehicles (Post Office, Fed-Ex, retail stores,), and repair/service vehicles from the provisions of the RPPP. That leaves residents and guests who must obtain permits.

To obtain a permit, the follow steps are common:

- The resident appears at City Hall (or some other location) and completes an application. (Applications can be made available on the Internet as an option.)
- The resident submits the application, presents a vehicle registration, and proof of residency (rent receipt, utility bill, etc.). If the resident drives a company vehicle, the resident must present a letter from the company indicating the assignment of the vehicle to the resident. At the time of the application, the City may conduct a check to ensure the applicant is not delinquent in the payment of any parking fines, local assessments, or taxes.
- Only non-commercial vehicles and passenger vehicles qualify for a permit. Trailers, recreational vehicles, trucks, and busses are not eligible for a permit.
- Only one permit per vehicle is issued.
- The permit is valid for one year.
- The permit must be permanently affixed to the lower right side of windshield.
- The permit is not transferable. If the vehicle is sold, the resident must remove the permit and return the pieces to the City for a replacement.

Residents must also purchase permits for guests or temporary vehicles. To obtain a permit for a guest, the following steps are common:

- The resident appears at City Hall (or some other location) and completes an application. (Applications can be made available on the Internet as an option.)
- The resident submits the application and proof of residency (rent receipt, utility bill, etc.). Only non-commercial vehicles and passenger vehicles qualify for a permit. Trailers, recreational vehicles, trucks, busses are not eligible for a guest permit.
- The City may impose a limit on the number of guest permits within a year.
- Each guest permit is valid only for one 24 hour period beginning at 9:00 AM. The guest or resident must scratch off the appropriate day and date on the permit and display it on lower right side of the dashboard.

Fees and Fines

The establishment of a RPPP creates expenses for the City. Signs must be installed and maintained. There are administrative costs associated with reviewing applications, handling customer inquiries, issuing permits, etc. A significant expense is the enforcement of the RPPP.

In most RPPP districts, enforcement is required from 9:00 AM to 11:00 PM, Monday through Saturday. This represents 84 hours of enforcement activity each week. In terms of personnel, it represents 2.5 FTE. Depending upon the size of the RPPP area and its proximity to other RPPP zones, one enforcement officer can patrol multiple zones. When multiple RPPP zones exist within the City, the number of enforcement personnel required at one time is determined by the time required to patrol each street within the posted time limit for non-residents.

In addition to the enforcement personnel, a clerical position (Account Clerk) and supervisor (Office Manager) position must be established for permit issuance and program oversight. For budgeting purposes, we recommend .2 FTE (Account Clerk) and .1 FTE (Office Manager) for each RPPP zone. For all of these positions, it is also necessary to calculate the cost of benefits.

Non-personnel costs for a RPPP include signage; printing of pamphlets and forms; vehicle expenses; uniforms; training; communication equipment, etc.

Using FY 2005 budgetary numbers, we project the total annual cost of providing one to three RPPP's at \$150,000. The cost will increase annually with inflation and as more RPPP zones are implemented.

Most cities impose a fee for residents who use a RPPP. The fee usually factors the cost of the program, the ability of the city to absorb the cost of additional services, and local political realities of the city. The City of Portsmouth currently charges \$50 each month (\$600 annually) for residents using the High/Hanover Garage. Parking in a RPPP zone offers no protection from the elements and the users must still tolerate occasional inconveniences (snow emergencies, street cleaning, etc.). For these reasons, a fee less than the garage fee would be appropriate.

We recommend the following presented in Table #27.

Table 27
Recommend Fees

Permit	Fee
Residential Parking Permit (Annual)	\$300.00
Residential Parking Permit (Replacement)	\$ 25.00
Residential Parking Permit (Temporary) (One 24-hour period)	\$ 5.00

The City currently imposes a \$25.00 fine for unauthorized parking in a residential zone. We recommend that the same fine be imposed for violating the RPPP. Like other parking violations in the City of Portsmouth, the fine would double after 30 days.

Valet Parking Zones

Background

The vitality of Downtown Portsmouth is reflected in its variety of unique retail and dining establishments – many of which operate during evening hours. Meeting customer expectations is important to these businesses. For some, assisting patrons with parking is part of their customer service program. A few businesses have off-street parking for their customers on site or adjacent to their business. Other businesses issue validation coupons to reduce or eliminate parking fees for their customers.

Valet parking is another customer amenity that can encourage patronage of a particular business. Most Downtown businesses, unfortunately, do not have the space to provide valet parking. To assist local merchants, cities will often grant the exclusive use of an asset (public street) for valet parking. Generally, the city, for a fee and indemnity coverage, grants a business the use of a designated section of a street as a porte cochere (a vehicle drop-off and pick-up point). Vehicles are actually parked off-site. Often, an existing metered parking or truck loading zone is designated as a valet zone during non-peak periods.



Currently, one business has an agreement with the City to lease a loading zone during evening hours for a valet parking program. The City has received other inquiries about the establishment of valet parking zones. This section of the report proposes guidelines for the formal establishment of valet parking permit programs using the public right-of-way.

Typical Procedures For Establishing a Valet Parking Zone

The following outlines a typical procedure for the establishment of a RPPP:

1. A property owner or business operator submits a letter to the City's Parking Manager requesting the establishment of the valet parking zone. The letter must contain the following information:

- Desired location of valet zone
 - Desired days of week and time of day for valet parking zone
 - Address of site where valet cars are to be parked (The location must be zoned for commercial purposes and licensed to permit the storage of vehicles. If the site is not owned by the property owner or property operator, a lease or written agreement for the use of the site for parking of vehicles must be included.)
 - Name of firm providing valet parking services if different from the requesting firm
2. The Parking Manager, along with the City's Traffic Engineer, reviews the information contained in the letter, visits the proposed site, evaluates options, contacts adjacent businesses if applicable, and conducts other analyses as necessary.
3. If the proposed site is not appropriate for a valet parking zone, the Parking Manager informs the applicant of the reasons for the denial and, if applicable, offers alternatives. If the site is appropriate, the Parking Manger grants tentative approval of the site and notifies the applicant of conditions of its use. Conditions typically include:
- The fee for the lease of the public space
 - The exact location of Valet Parking Zone
 - The times it may be used by the valet parking service provider
 - The Valet Parking Zone shall be valid for two years. During that two-year period, the City may revoke the Valet Parking Zone temporarily (for repair/maintenance/upgrade purposes) or permanently (for non-compliance with the terms and conditions of the Valet Parking Zone, misrepresentation or false statements during the application process, loss of required insurance, or performance of an unlawful act). Ninety days prior to expiration of the Valet Parking Zone, the valet parking service provider may re-apply for another two-year term.
 - Valet parking service provider must display a rate sign at the Valet Parking Zone clearly indicating the fee for the valet service.
 - For each vehicle using the valet parking service, the valet parking service provider shall issue a Claim Check upon vehicle drop-off.
 - Each employee of the valet parking service provider employed at the Valet Parking Zone must be at least 18 years of age, possess a valid license to operate a motor vehicle in the State of New Hampshire, and wear a uniform with an ID badge.
 - Prior to working at the Valet Parking Zone, employees of the valet parking service provider must undergo a satisfactory background check that includes, as a minimum, a driving record check and a criminal conviction check. Employees of the valet parking service provider may not have been convicted of any felony crime or convicted of any crime related to theft, moral turpitude, assault, sexual misconduct, deception, illegal use or sale of drugs, driving under the influence, or related offenses.

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- Valet parking service operations must not hinder pedestrian access on the sidewalk.
 - Valet parking service provider shall comply with provisions of the Americans With Disabilities Act and all local regulations governing valet parking.
 - Employees of the valet parking service provider shall promptly move vehicles to the designated off-street parking location(s) upon drop-off.
 - Valet parking service provider shall keep the Valet Parking Zone free of litter during the operating hours of the valet service.
 - The Valet Parking Zone shall not be valid during snow emergencies.
 - The valet parking service provider shall agree to indemnify, protect, and hold harmless the City from and against all losses, damages, injuries, claims, demands, and expenses, including legal expenses, of whatsoever nature, which might be caused by, or in any way connected with, or arising out of applicant's use of the valet parking zone and any other activities related to the valet parking service. Furthermore, the valet parking service firm shall also agree to assume the settlement of, and the defense of any suit or suits or other legal proceedings brought to enforce all such losses, damages, injuries, claims, demands and expenses and shall pay all judgments entered in any such suit or suits or other legal proceedings related to the valet parking zone.
 - The valet parking provider shall procure and maintain at all times during the term of Valet Parking Zone general liability insurance with minimum coverage of \$250,000 per occurrence, property liability insurance with minimum coverage of \$100,000 per occurrence, and garage keepers' liability insurance with minimum coverage of \$100,000 per occurrence. The policies purchased by the valet parking service provider shall name the City as an additional insured. The policy or policies of insurance shall contain a provision prohibiting the insurer from canceling the policy or policies of insurance without notifying the City, in writing, at least thirty (30) days prior to cancellation. The valet parking service provider shall submit copies of all insurance policies, declaration statements, or certificates of insurance to the City.
4. Upon written acceptance of the conditions and receipt of the required insurance forms, the Parking Manager shall forward all pertinent documents to the City Traffic Engineer and the City Manager's Office for final review.
 5. The City Manager, upon review and approval, shall request an Agreement from the City's Legal Department for the establishment of a Valet Parking Zone.
 6. Upon execution of the Agreement by all parties, the Parking Manager and City Traffic Engineer shall request the installation of appropriate signage.

Fees

We recommend the fees in Table #28 for valet parking zones.

Table 28
Valet Parking Zone Fees

Location of Valet Parking Zone	Annual Fee	Signage Fee ¹	Total
Metered Parking Spaces	\$500.00	\$175.00	\$675.00
Loading Zone	\$250.00	\$175.00	\$425.00

1. The fee for signage is for the initial establishment of a Valet Parking Zone. If the Valet Parking Zone is continued after the initial two-year period, the signage fee may be waived provided new signage is not required.

There is no need to establish a fine for parking in violation of the valet parking zone since the zone is actually leased to a firm. The firm may take any enforcement action it deems necessary provided it complies with local ordinances.