



REVISED TECHNICAL MEMORANDUM No. 3 and 4

Date: July 5, 2007

To: Bruce Woodruff, Project Manager, City of Dover
City of Dover, Transportation Advisory Commission

From: Lansing Melbourne Group, LLC
TFMoran Inc.
DMJM Harris/AECOM

Re: **Downtown Dover Parking Facility and Management Study**
Memo 3 - Peer City – Topics Based Analysis
Memo 4 - Parking System Recommendations

DRAFT RECOMMENDATIONS

This section provides a brief summary of the discussion and resultant draft recommendations included herein. The draft recommendations are not listed in any particular priority.

RESIDENTIAL PARKING PERMIT PROGRAM

Involve citizens in the planning process. In fact, some cities require the neighborhood to take the first step towards creating a residential permit parking program by submitting an application to be considered for a program. The residents are the ones who will experience the impact of a residential parking permit program (program), which has more serious impacts than a typical neighborhood traffic control program, and as a result should be fully informed throughout the process.

Effective enforcement is critical to a successful program. Lax enforcement will doom the program before it gets started. Therefore, coordination with and a mutual understanding by the enforcement agency is critical to success.

Select a suitably sized area. If the program area is too small (four block faces or less) parkers will simply move to the fringe area of the permit parking area which becomes someone else's problem. This is not the intended result. Consequently, the neighborhood must work with its neighbors, the enforcement entity, City parking and so forth to ensure successful implementation and practice.

The programs for the Cities of Madison, Manchester or Lansing (included herein) could be adopted to work in Dover with few modifications. The process is straight-forward, proven and can be a very successful practice if implemented properly and with conviction.

WINTER PARKING BANS

Of the dozen or more "snowbelt" cities evaluated for best practices regarding winter parking and snow emergency bans, from Minneapolis, MN to Milwaukee, WI to White Plains, NY, about 1/2 enacted even/odd side winter parking ban with snow emergencies and about 1/2 of the cities allowed unrestricted on-street parking during the winter season subject to emergency declarations at any time which require removal of parking from all streets. The responsibility of staying informed as to when snow emergencies are announced is the sole responsibility of the parker.

Although there are likely other cities that practice this approach, the City of Worcester, MA had the most unique and flexible plan. Maintaining a permanent winter season snow ban on specific critical circulation arterials and streets while allowing maximum flexibility for residential parking

on non-critical streets appears to meet both the life/safety concerns of Public Works and the Police Department while providing the most convenience and flexibility to residents.

The City of Manchester also has a comprehensive plan that seems to work well and provides relief to residents. All vehicles must be removed immediately from City streets upon the declaration of a Snow Emergency by the Public Works Director or his authorized agent. Snow emergencies are sent out to the news media. Please listen to local radio or TV stations, or call the Highway Department should you have any questions. Any vehicle parked in violation of a Snow Emergency Declaration, will be removed and impounded. Vehicles, which are so impounded, will be stored in one of the City's Vehicle Impoundment lots. Vehicles towed from the West Side will be placed in the lot behind the West Side Arena, and vehicles towed from the East Side will be placed in the lot adjacent to the Bridge Street entrance to Derryfield Park. In order to recover an impounded vehicle, the owner will be required to present proof of ownership and to make payment in cash, certified check or money order, payable to the City of Manchester. This must be done within 24 hours of the time when the vehicle was towed.

Manchester has added an additional item as part of the "Snow Emergency Notification" starting in late fall (early winter) of 2005. A "white strobe light w/ small sign indicating a snow emergency when activated" mounted to the traffic signal mast arm at targeted intersections throughout the city. Original program was 35 intersections for around \$25,000 (materials only, labor by city staff) and is included now in general for intersection upgrades.

Turned on and off by radio frequency. Works well overall, but a few technical problems with the signal activation are still under study in some sections of the City. This program has reduced the number of complaints by residents claiming they did not know there was a snow emergency. The City also has an email list that residents can register on the City's website that issues snow emergency notices to the email subscribers.

This program could be further evaluated for adaptation to the City of Dover as well.

ON-STREET PARKING MANAGEMENT

City leaders, in both the public and private sector, will need to make difficult decisions relative to parking over the next few years as Dover transitions into a more densely developed, urban downtown. Clear direction must be provided to merchants, employees, visitors, developers and all other Stakeholders to ensure that Dover stays competitive with its peers and continues to thrive. The simple alternative to maintaining the status quo is to:

- build more parking at first costs approaching \$18,000 for every new parking space added;
- plus the cost of land;
- plus lost opportunity costs related to business loss;
- plus loss of tax revenue that could be generated from development of higher and better uses on the limited amount of remaining land.

Based on the limited number and variety of solutions available, practice by other cities in similar situations, the Consultant Team recommends the following:

1. The Consultant Team fully supports the Rizzo downtown traffic and parking study recommendation on shuffling and the immediate adoption of the amendment proposed by the Dover Police Department. "In accordance with the provisions of 166-22, it shall be unlawful for the owner or operator of any motor vehicle to park or allow to be parked any motor vehicle for more than two (2) hours in a day in the following described locations, unless the vehicle leaves all of the listed locations for more than two hours." Locations are specified on-street parking in the downtown Central Avenue corridor.

2. The City should obtain a more thorough understanding of the parking needs of downtown part-time and full-time daytime employees. Aggressive outreach will likely be needed to extract the necessary information. This recommendation in combination with increased enforcement may provide the necessary incentive for employees and employers/owners to provide the feedback the City needs to address their needs. If warranted, solutions may involve City lease of private parking and sell permits to employees. Another option is to examine the potential to provide long-term monthly parking permits for on-street parking in areas with limited demand and available daytime parking spaces.
3. The City Code should be revised to uniformly change the on-street hours of enforcement along the Central Avenue corridor beginning at either 8 or 8:30 am and end at 6 pm.
4. The City should investigate the potential to implement the AutoVu Mobile parking system to monitor and enforce abuse of on-street high-turnover premium spaces.

PARKING ADMINISTRATION ORGANIZATION

The Parking Manager would answer directly to the Economic Development Office, but is also given the authority to interact directly with the City Manager. The Parking Divisions should rely on the City's Finance Department for accounting and other services to avoid costly duplication. As the system evolves the overall goal is to integrate parking discussions and decisions into all development and redevelopment proposals. At some time in the future, it may make sense to elevate the Parking Division to a Department so that the position is at the "cabinet level" with other services at the City which encourages communication flow directly to/from the Parking Director and City Leaders. Key components of this organization are:

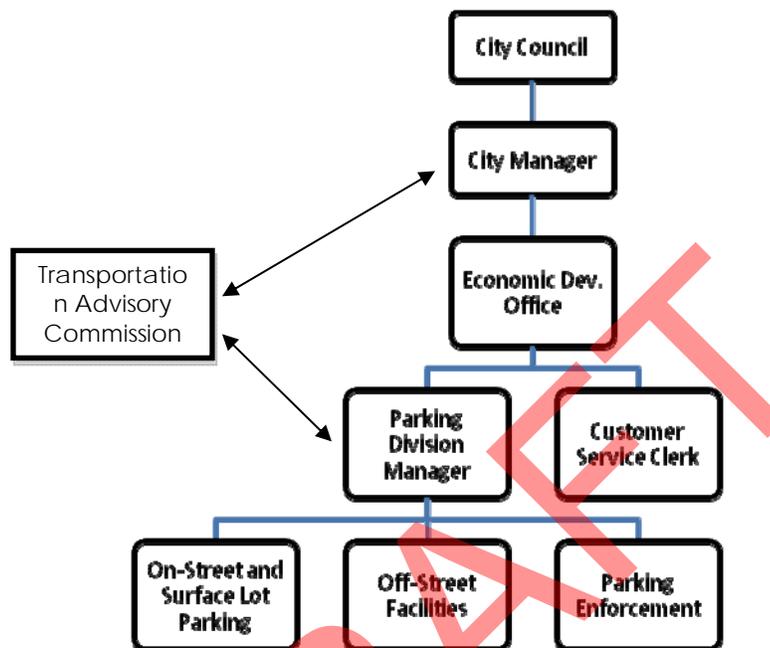
- The Parking Division is operated as an Enterprise Fund and must be financially self-supporting;
- The Parking Division can (eventually) issue revenue bonds;
- The Parking Division has a level of autonomy and independence, but is integrated into City government and therefore creates a stronger presence in terms of economic development directives that come from the Economic Development Office well as the City Manager/City Council;
- City Finance Department maintains checks and balances on the system;
- The Parking Division must have a Master Plan including Goals and Objectives. This Master Plan will have the full support of the City Manager's office and Council and will set the course for the next five to 10 years;
- The Parking Manager should be part of the City Manager's management team; and
- The Parking Manager should be an experienced, well-qualified personnel manager with technical capabilities in the profession of parking system management.

The organization of the City of Dover's parking system is dependent on several key decisions that should be made over the next several months, including:

- Commitment to develop and manage its first parking structure;
- Implementation of funding mechanisms (discussed in the next section); and
- Hiring of a Parking Manager.

The following figure depicts an example of a suitable organization chart for the City of Dover's parking system. The positions indicated below allow specific focus on the different aspects of the system. The Parking Manager develops policy, oversees all functions and reports to the Economic Development Office and City Manager. The front office Clerk, which is the "face" of the Parking Department is a critical customer service position and should entail a positive,

proactive interface with customers. Parking enforcement should reside in the Parking Division rather than the Police Department so that management of parking policies and incenting changes in parking behavior is clearly the driving function behind enforcement and fines. In addition, one position focuses on operations, management and development of off-street garages and one position is responsible for operations and management of on-street and surface lot parking, particularly in the downtown.



City of Dover Parking Division

To the extent possible, the City should rely upon the management expertise and experience of the new Parking Manager before any final decisions are made regarding organization structure and responsibilities. Prior to then, the City can and should implement funding mechanisms which will require participation of the downtown land owners, merchants, businesses, and stakeholders.

OPTIONS FOR FUNDING PARKING IMPROVEMENTS

One of the last steps of the Downtown Dover Parking Facility and Management Study is the development of a financial pro forma for the design, construction, maintenance and operation of a new parking structure over the next ten years. The full costs and revenue associated with a new structure in combination with the on-going costs and revenues of the current parking plus the reorganization of the parking system needs to be further refined before alternative financing options can be specifically identified and recommended. However, the following provides “placeholder” summary of the cost involved and potential revenue to be generated if a new garage is constructed. The example used herein is based on the following example:

- A new garage on a portion of the Orchard Street Lot;
- Loss of 100 spaces displaced due to construction and site modifications for the new garage, the addition of 600 spaces in the garage for a net addition of 500 spaces.
- Total development costs of \$18,000 per space¹ (including design, financing, miscellaneous fees, permits, etcetera);

¹ Development costs could range from \$15,000 to over \$25,000 per space depending on site construction issues, market conditions, design amenities and architectural features.

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- Annual maintenance and repair costs of \$100 per space;
- Annual operating costs of \$250 per space;
- GO Bonds at 20 years at 5 percent interest;
- No land costs; and
- 450 Permits at \$45 per month; and
- 150 Meters at \$1.00 per hour.

A brief example is provided below summarizing order of magnitude of costs and revenue followed by a list of potential financing options that the City will need to consider.

Development Costs

Garage development costs	\$18,000 per space
Total spaces constructed	600 spaces
Total development costs	\$10,800,000
GO Bonds – annual debt service	\$880,000
Annual maintenance, operating and repair costs	<u>\$210,000</u>
<i>Annual Total costs</i>	<i>\$1,090,000</i>
<u>Revenue based on Current Rate Structure</u>	
Estimated revenue – 450 permits	\$240,000
Estimated revenue – 150 meters	<u>\$180,000</u>
<i>Annual Total Revenue</i>	<i>\$420,000</i>
<u>Net Annual Shortfall</u>	<u>\$670,000</u>

As shown the anticipated net annual shortfall in this example is anticipated as about \$670,000. Forthcoming final tasks of the parking study include an Engineering Report that recommends specific parking garage sites as well as financial proformas and applicable financing techniques to fund the improvements.

The following is a list of the financing approaches that will be studied in detail in those tasks.

1. Create a *Tax Increment Finance* District encompassing the Downtown
2. Implement *On-Street Parking Meters*
3. Issue *General Obligation Bonds*
4. Create a *Parking Assessment District* overlay of the Downtown
5. Negotiate *Public/Private Partnerships*
6. *Increase Rates* for parking Fines, Permits and Meters
7. *Payment-in-lieu of Providing Parking*

These techniques will be evaluated in greater detail once a final recommendation for improvements is developed.

INTRODUCTION AND PURPOSE

This memorandum presents an evaluation of "best practices" used by various cities across the country related to implementation of:

1. Residential Permit Parking Programs;
2. On-Street, Time Limited, Parking Management;
3. Parking System Administration and Organization; and.
4. Options for Financing Parking Improvements

In the Request for Proposals for this study the City of Dover asked for a comparison of peer city practices within New Hampshire to determine the range of possible parking management applications that may be useful and successful in Dover. However, upon agreement between the Consultant Team and the City, a decision was made to evaluate successful parking strategies implemented by cities, regardless of whether they are considered "peers", as long as the strategies would be transferable or appropriate in Dover. In addition, the Consultant Team would also provide a comparison of peer cities in New Hampshire as a baseline condition for comparison and completeness.

This memorandum will first present a comparison of New Hampshire peer cities, followed by the best practices, topic-based parking strategies addressing the four items listed above, and finally a summary of the strategies that are recommended for implementation by the City of Dover.

NEW HAMPSHIRE PEER CITY COMPARISON

The 2005 Rizzo Downtown Parking Study² included a peer city comparison in Table 3-17, Comparison of Parking Administration for New Hampshire Cities. An update of this table is shown below in Table 1 and is shown to provide a context to evaluate the reasonableness of recommendations regarding the parking study recommendations of the Downtown Dover Parking Facility and Management Plan.

Cities that listed in Table 1 that are comparable to the City of Dover relative to constructing new parking structures downtown, implementing creative financing solutions, use of public private partnerships, or through market rate pricing of parking fees, are discussed in greater detail below.

City of Manchester³

As shown in Table 1, the City of Manchester, the largest city, has the highest number of surface parking spaces (1,730), the most on-street parking options with both meters and pay and display kiosks, but only one city-owned parking structure and comparatively low rates. The City of Manchester has recently reorganized the parking system as a Parking Division and hired an experienced Parking Manager to manage the system. The City has recently sold two of their garages and is moving to construct up to four new parking facilities through private/public partnerships with varied ownership and management alternatives.

In addition, the City is negotiating to sell City permits in private parking facilities that have excess capacity as well as institute transit shuttle service. The largest challenge the City faces is modifying the historically, city-subsidized, under-market permit parking, currently at between \$45 and \$65/month to market rates, closer to \$75 to \$125/month so that new parking can be attractively financed.

² Downtown / Riverfront Redevelopment Traffic Circulation and Parking Plan / Dover, New Hampshire; February 14, 2005, prepared by Rizzo Associates

³ <http://www.manchesternh.gov/CityGov/parking/home.html>

Currently, the City generates in excess of \$4,000,000 in annual gross revenues from meters and permit sales.

Table 1 – Selected Parking Administration – New Hampshire Peer Cities

	DOVER	CONCORD	MANCHESTER	KEENE	NASHUA	PORTSMOUTH
Pop. (2000)	26,884	40,687	107,006	22,563	86,605	20,784
Employ (2002)	15,077	40,321	65,345	18,878	50,241	27,353
ON-STREET PARKING						
Meters	NA	1, 2, 4,10 hour / pay on foot	2,10 hours /pay & display	2-hour limit	1, 2 hours	15-minute, 2,4 hrs
On-Street spaces	~840	unknown	~2,940	unknown	unknown	>1,100
City Lots	10	4	9	9	15	8
No. of Spaces	950		1,730	1,130		675
City Garages	NA	2 w/1 planned	1	2	2	1 w/2 planned
No. of Spaces	NA		900 spaces	350 spaces	800 spaces	900 spaces
Monthly Permits	Empl. \$20-40; Res. \$5-10	Decks:\$52-\$62; Other: \$45	Decks: \$45-60; On-Street: \$35	Decks: \$40; Surface: \$30	Decks: \$30-45; Surface: \$50	Decks: \$50-100
ADMINISTRATION						
Regulations	Parking and Traffic Bureau – Police Dept.	Parking Control Unit - Police Dept.	Parking Div. – Manchester Econ. Dev. Office	Parking Div. – Police Dept.	Downtown Parking Committee	Parking & Transportation Div. Public Wks Dept.
Annual Gross Revenues	\$303,000	\$1,200,000	\$4,000,000	unknown	unknown	\$3,614,000
Permits / Fees	Parking and Traffic Bureau	Parking Control Div. /Engineering	Parking Div.	Parking Div.	Public Wks Div. / Collections	Parking & Trans. Div.
Enforcement	Parking and Traffic Bureau	Parking Control Div.	Parking Div.	Parking Div.	Public Wks Div. / Collections	Parking & Trans. Div.
Violations & Fees	Parking and Traffic Bureau	Parking Control Div.	Police Dept.	Parking Div.	Public Wks Div. / Collections	Parking & Trans. Div.
Surface Lot Management	Parking and Traffic Bureau	Parking Control Div. /Engineering	Parking Div.	Parking Div.	Public Wks Div. / Collections	Parking & Trans. Div.
Garage Management	NA	Parking Control Div. /Engineering	Parking Div.	Parking Div.	Public Wks Div. / Collections	Parking & Trans. Div.
Parking Manager	Police Sergeant	Civilian Parking Control Unit, PD	Parking Manager	Civilian Parking Div.	Civilian Public Wks Div.	Civilian - Parking & Trans. Div.

City of Portsmouth⁴

The City of Portsmouth is well known for its large 900 space, centrally located parking structure, the High-Hanover Parking Garage. The historic downtown was visited by all Consultant Team members who are in agreement that the parking structure is prominently featured, architecturally pleasant, conveniently located and seems to be very successful and liked by the locals and business community.

⁴ <http://www.cityofportsmouth.com/transportation/index.htm>

One of the reasons that the High-Hanover Garage works well is that the City seized the opportunity to site the facility on an available site that was large enough to accommodate the garage footprint. In addition, the downtown is rather compact and densely developed which results in a near perfect walking service area for the garage in serving both employees and visitors to the downtown. Finally, costs for the garage are supported by short-term parking rates of \$0.75 per hour for both on-street meters in effect from 9 am until 7 pm weekdays and Saturday, Sundays are free. The monthly rates start at \$50 for evening use (residential parking) to \$100 for 24-hour access in the High-Hanover Garage and \$80 per month for day-time use.

The City has a well planned parking program that offers merchants validated parking for their customers, provides free parking a short walk from the downtown for those that prefer not to pay for parking and a free downtown shuttle during the summer season to move people rather than having people move their vehicles.

The City of Portsmouth is the only city that runs their parking system outside the Police Department (with the exception of the recent change in Manchester) in a division of the Public Works Department. However, similar to the other cities, the parking system is managed within a Parking and Transportation Division.

Currently, the City generates in excess of \$3,600,000 in annual gross revenues from meters and permit sales.

City of Concord⁵

The City of Concord has three parking structures, numerous off-street lots and on-street parking. The responsibility for managing the parking system is distributed throughout various departments of the City. Enforcement is provided by the Parking Control Unit of the City's Police Department and parking permits are issued by the Engineering Department. Parking system planning is the responsibility of the City Planning and Economic Development Department / Redevelopment Agency and the financing for the structures is supported through parking revenue bonds issues through the Redevelopment Agency. Tax increment finances act as the primary guarantor for the parking revenue bond along with parking revenue. The City is reviewing a reorganization of the parking system to centralize the various aspects including operations, management, planning, finance and enforcement.

Parking fees range from the equivalent of \$62.00 to \$72.50 per month for garage parking and \$44.75 per month for surface parking and are sold in four month increments. Currently there are no available spaces and a wait list.

The City of Concord generates in excess of \$1,200,000 in annual gross revenues from meters and permit sales and uses tax increment and/or parking revenue bonds to support new construction.

Summary

An obvious common element of the cities that provide structured parking and have vibrant, growing downtowns is the ability to finance the cost of improvements through on- and off-street meters and monthly permit sales. Both Portsmouth and Concord have market rate on- and off-street metered and monthly parking rates from \$65 (Manchester) to \$72.50 (Concord) to a high of \$80 per month (Portsmouth). The City of Concord has created a waiting list for their new garage planned to open in a year or so. Portsmouth, Concord and Manchester can use tax increment financing to back the issuance of revenue or general obligation bonds in addition to parking revenues to finance parking system expansions. In addition, all three cities have negotiated private public partnerships (3P) to co-fund and/or share in the management, and revenue of new parking facilities.

⁵ <http://www.ci.concord.nh.us/POLICE/concordv2.asp?siteindexeasyfind=L01,10>

The three cities highlighted herein have made a commitment to funding parking system improvements either through tax increment financing, parking revenue bonds, meter rates, 3P approaches and/or general obligation bonds. The City of Dover will also need to make that commitment if structured parking is to be constructed downtown. This is further evaluated with specific recommendations in the financing alternatives section of this memorandum.

TOPICS BASED BEST PRACTICES

Based on discussions between the Consultant Team and the City, a decision was made to evaluate successful parking strategies implemented by cities, regardless of whether they are considered "peers", as long as the strategies would be transferable or appropriate in Dover. This approach was referred to as "Topics Based Best Practices" and included the following four topics:

1. Residential permit parking programs;
2. On-street parking management strategies;
3. Parking system administration and organization; and
4. Options for financing parking improvements.

This section is organized into the four topic areas with specific city practices identified under each of the four sections.

SECTION 1. RESIDENTIAL PERMIT PARKING PROGRAMS

A critical element in developing and sustaining a 24-hour, 7-day vibrant downtown is the expansion and maintenance of a stable mixed-income, mixed-age, residential land use component. Today, there are approximately 678 residential units⁶ located within the study area of which about 50 percent are single-family units with the balance apartments.

The parking supply necessary to meet the resultant residential parking demand has been estimated at about 860 spaces⁷. Most of this parking supply, especially for single family units, has been met on-site, in private garages or paved parking areas. However, a substantial amount of the overall residential parking supply is currently satisfied through use of unrestricted on-street parking spaces, in unrestricted City parking lots or in permit parking spaces located in other City parking facilities.

Currently, issuance of parking permits, including residential permits, are subject to space availability and may be purchased on a monthly basis or in some instances for an extended time period. To qualify for a permit, the user must reside within 500 feet of a City facility.

Residential permits must be purchased directly from the Parking Bureau, in the lobby of the Police Department, Monday through Friday between 8:30 am and 4:00 pm.

Table 2 lists the City facilities, both on- and off-street that accommodate residential permit parking. There is a total of between 105 and 118 residential parking permits issued for use in eight of the ten facilities listed in Table 2. Two of the facilities, the Third Street Lot and the Fourth/Chestnut Lot have free, unrestricted parking and have limited residential parking demand as does the First Street Lot.

⁶ Downtown / Riverfront Redevelopment Traffic Circulation and Parking Plan / Dover, New Hampshire; February 14, 2005, prepared by Rizzo Associates

⁷ *ibid.*

Although it appears that the residential parking needs are being met through the issuance of permits and use of free City facilities, several issues have been raised by residents through the conduct of this study, such as

1. Additional parking should be made available on-street; and
2. The winter ban is confusing, unnecessary and difficult to comply with and should be replaced with a snow emergency ban.

The following provides an overview of the requirements of the Winter Parking Ban which directly impact residential parkers and will also be addressed in this section.

Table 2. Residential Permit Parking

Facility	Monthly Rate	No. of Spaces	No. of Permits Issued
Orchard Street Lot	\$10.00	176	capped at 25
First Street	\$5.00	28	35 - 40
First Street Lot	\$5.00	77	undersubscribed
Second Street	\$5.00	56	20 - 25
Third Street Lot	free	82	unrestricted
Fourth/Chestnut Lot	free	40	unrestricted
School Street Lot	\$10.00	69	15 - 25 – overflow from School Street
School Street	\$10.00	11	maximum of 11 – residents only
Portland Street Lot	\$5.00	44	1 - 3
River Street/River Street Lot	\$5.00	160	0

Winter Parking Ban⁸

Parking is restricted on all public streets from December 1st to April 1st between 1 am and 6 am, regardless of the current weather. Overnight parking is available in most municipal lots during the winter months for those residents who do not have adequate off-street parking. This service is available at no charge, but a Winter Parking Permit must be displayed on the vehicle. The permit may be obtained at any time of day or night at the Police Department. No vehicle may be parked without a permit in any City parking lot during the winter months between 1 am and 6 am, regardless of whether a permit is required during the day. This parking ban is designed to ensure that the Dover Public Works and Utilities Division (DPD) can effectively plow any and all streets in the event of a snowstorm. The DPD routinely enforces this regulation, and issues about 2,000 winter parking ban citations in a typical winter season. Occasionally, vehicles are towed for violating the winter parking ban, particularly if located within the downtown area, where plowing is most critical.

Furthermore, those who do park in City lots may be required to move their vehicles for snow removal. The Police Department will attempt to contact vehicle owners in advance. Permit holders are responsible to notify the Parking Bureau to report any change in contact information or vehicle plate number during the season.

⁸ http://www.ci.dover.nh.us/police/park_trafficn.htm

Winter parking permits are available in the following lots. All vehicles must be removed by 8 am, except on Saturdays, Sundays, and Holidays. Vehicles parked in lots marked by an asterisk (*) are not required to remove their vehicle:

- Orchard Street Lot
- Library/McConnell Center Lot;
- First Street Lot;
- Locust Street Lot;
- School Street Lot;
- River Street (permit parking areas only);
- Portland Avenue Lot;
- Belknap (metered) Lot;
- Third Street Lot *; and
- Fourth/Chestnut Street Lot *

An emergency parking ban may be declared at any time which may extend the on-street restrictions listed above.

Next Steps

A recent survey of 69 municipalities conducted by the International Parking Institute indicated that 51 percent of the cities offered a RPPP. Consistent with those findings and based on the direction the City of Dover has chosen, the Consultant Team recommends that a formalized residential permit parking program (RPPP) be implemented to address residential parking issues, as well as, buttress the City's strategic goals to support and incentivize residential development in the downtown. Adoption of an RPPP will ensure a clear and effective program is in-place to not only meet existing resident's needs but to proactively anticipate and support future residential development.

Furthermore, as the downtown continues to transition and densify, parking will become more expensive to provide and user rates will increase accordingly. Another outcome may be that the parking demand spills into the adjacent neighborhood fringe areas of the downtown to avoid more expensive parking in the core areas. Implementation of an RPPP before this is an issue will remove that possible outcome as a future problem. The need to effectively and efficiently manage the private and public parking resources will become an increasingly critical component to sustaining a successful downtown. The adoption of an RPPP is just one aspect of an effective parking management system.

To that end, substantial research was conducted to identify "best practices" for RPPPs and the salient and applicable practices have been summarized below. Following the examples of best practices will be a recommendation for adoption of a specific RPPP by the City of Dover.

City of Lansing, MI - Downtown Residential Parking Program⁹

The following is a summary of the pertinent aspects of the City's guidelines that are provided to residential permit parkers in downtown Lansing, Michigan. The RPPP was developed several years ago to support adaptive reuse of multi-story, zero-lot line buildings to loft style apartments and conversion of historic building stock to apartments/condos in the downtown. As in the case of older downtown building inventory, there is typically no on-site parking.

1. Participants must provide a copy of the current lease documenting residency in the service area and a contact name and phone number for the landlord.
2. A non-refundable replacement fee is charged for lost, damaged, broken or stolen hang tags. The residential hang tag specifies the license plate number pertaining to the vehicle for which the hang tag was issued. The hang tag may not be moved from vehicle

⁹ http://www.cityoflansingmi.com/Lansing/pnd/parking/docs/res_parking_permit.pdf

to vehicle. Residential parking hang tags must be displayed at all times while using City parking areas.

3. Residential parking permits will expire when the loft/apartment lease expires, but can be renewed by providing a copy of the lease renewal with the new lease expiration date.

Long-term Monthly Permit Options:

Discounted monthly permit parking is offered in City parking facilities. Tenants occupying one loft/apartment may be given the following discounts: the 1st monthly permit purchased is given a 50% discount off the full monthly parking permit cost and the 2nd monthly permit purchased is given a 25% discount off the full monthly parking permit cost. Any permit purchased beyond the first two permits, per dwelling unit, will be charged the full monthly permit rate. If one of two monthly permits is canceled, the discount rate on the active permit will be adjusted to the one permit 50% discount rate.

- ♦ The monthly parking permit grants parking privileges in the designated permit area at all times.
- ♦ A \$10.00 deposit is required on each proximity (access) card and hang tag for each monthly permit purchased. This deposit may be refunded when the card is returned.
- ♦ Security of the proximity card and hang tag is the responsibility of the permit holder. A \$10.00 replacement fee is charged for a lost, broken, damaged, or stolen card. A \$25.00 non-refundable replacement fee is charged in gated facilities for a lost, damaged, broken, or stolen hang tag permit.
- ♦ Monthly parking permit payments should be received by the Transportation and Parking Office by the first day of the month for which parking is desired. Delinquent payments may jeopardize parking privileges.
- ♦ If permit holders wish to change their parking location or withdraw from the residential parking program, the hang tag permit and proximity card must be returned to the Transportation and Parking Office.
- ♦ It is important to understand that as long as the hang tag permit and proximity card are outstanding, monthly charges will accrue and are the responsibility of the registered monthly parker.
- ♦ The City offers monthly parking as it is available and reserves the right to cancel it upon 30 days notice or sooner in the event of nonpayment.

Short-term Options:

Hourly parking fees will be waived on the weekends, and Monday through Friday between 4:00 p.m. and 8:00 a.m., for residential parkers displaying a residential hang tag. If a resident in the downtown service area does not have a parking hang tag or residential monthly parking permit, he/she will be responsible for payment of the hourly parking fee.

- ♦ Residential parking permits must be displayed at all times while using City parking areas. The residential parking permit hang tag specifies the license plate number of the vehicle for which the hang tag was issued so the permit may not be moved from vehicle to vehicle.
- ♦ Residential permit customers will be charged regular hourly parking rates for time parked in the hourly areas between 8:00 a.m. - 4:00 p.m. Monday through Friday.
- ♦ Designated residential loading zones will be allocated based on a proven demand and located to maximize convenience to the largest number of participants. These areas will allow on street parking for up to 30 minutes and are designed to accommodate the resident's short-term parking needs such as delivering groceries. The residential parking permit must be displayed when utilizing these areas.

City of Manchester, NH - Residential Parking Program Recommendations

Based on recommendations contained in a recent parking study¹⁰ prepared by Lansing Melbourne Group LLC (LMG), the City's Board of Mayor and Alderman have adopted the following revisions to their current residential permit program. Residential growth in downtown Manchester has been targeted as a key area for improvement. The parking demand associated with residential units has its own unique set of characteristics, different from those of a typical commercial parking system, primarily the provision of 24-hour parking. When accommodating residential parkers, round the clock parking proximate to the residential units becomes a necessity. However, it is essential to prohibit residential parking in on-street spaces which have the highest demand during the day and in some locations, in the evening as well. Therefore, the City should reevaluate its existing programs and policies, to remove parking as a barrier to downtown residential development. To encourage residential development, the following program additions have been recommended.

The City should be in a position to guarantee parking for qualified properties within a designated sub area that creates new residential development. Each permit application would be evaluated against the following criteria to determine their specific solution:

- Allow residents to park in off-street garages or lots free or low cost from 6 pm until 8 am with actual times based upon true demand;
- When no off-street garage parking exists within a reasonable and secure walking distance, allow residents to park in on-street areas that may have high daytime demand from 6 pm until 8 am with times based upon actual demand;
- Allow residents who need daytime parking at their residence to park in facilities that can accommodate their vehicle;
- Residents who need a 24 hour permit will be able to apply for an unrestricted permit (which is the highest priced permit);
- Create 20 to 30 minute on-street residential loading zones where demand warrants. These could be dual purpose loading zones for truck loading restricted from 7 am to 11 am and the balance of the day for residential loading zones; and
- Enforce heavily.

Currently, there are numerous "residential parking zones" in the City and there is no policy limit on the actual number of zones that could be created by the Board of Mayor and Alderman. LMG recommends the creation of one residential zone covering the entire downtown. Enforcement policies, permitting practices and illogical constraints that exist today, such as imaginary parking boundaries, would be removed. Residential parking permit spaces will be located, identified, signed and monitored so that the residential parking needs are met. At the same time, enforcement and compliance will be simplified and safety and security improved while on-street parking management and control is also improved.

City of Madison Parking Utility, WI – Residential Parking Permits¹¹

The purpose of the residential parking permit program is to prevent commuter parking on residential streets.

- People who live in an area covered by the RPPP may purchase permits from the Madison Parking Division Office. These permits allow residents of that area to exceed the posted one or two hour parking limit on the street.

¹⁰ City of Manchester Downtown Parking Study, 2006

¹¹ <http://www.cityofmadison.com/parking/residential.html>

- Several permit parking areas in the CBD are very crowded due to a large number of vehicle owners living in the area and there being only a few streets suitable for residential parking. Therefore, the permits allow residents of an area to park for longer than one or two hours when they find a space.
- An RPPP does not guarantee you a parking place. It allows you the right to park if you find a parking space.
- We suggest that residents of Areas 1, 2, 3, 4, 5, and 9 seek alternatives to on-street parking for their vehicles. The number of permits issued is greater than the number of on-street parking spaces available in these areas.
- The permit cost is \$21.00 for the Sept. 1, 2006 to Aug. 31, 2007 period

How to Apply for a Residential Parking Permit:

- You must live in an area shown on the Residential Parking Permit Boundaries map.
- If the vehicle for which you are requesting a permit is owned by you, it must be properly registered to your permanent home address.
- Outstanding parking tickets must be resolved before you apply for a residential permit.
 - ♦ You must bring the following with you (when you apply for a parking permit:
 - ♦ Your vehicle registration form and driver's license
- Proof of where you are living and a lease signed by the applicant and owner/rental agent is required as proof of residence
- The vehicle for which you are requesting a permit must be owned by you, your child, your parents, legal guardian, spouse or registered domestic partner, or be a leased or company vehicle which is assigned to you. If it is a company vehicle, a letter (on company letterhead) stating that you are the assigned driver of the vehicle is required.
- Permits can be obtained between the hours of 7:30 a.m. and 4:15 p.m., Monday through Friday from the Madison Parking Division.

Residential Permit Program Regulations

- Permits allow you to park only on designated streets in your area. These streets are identified by an area number which is located in the lower left-hand corner of the one- or two-hour parking sign. If there is no number on the one or two-hour sign or a different number than the number on your permit, your permit does not apply to that street.
- Permits do not apply to streets that are metered and do not allow you to park more than 48 hours on a street.
- Permits do not exempt you from alternate side parking regulations, or any other parking restrictions other than the one- or two-hour restriction on designated streets.

Ineligible Addresses - Residential Parking Permits are not presently available at certain addresses because of restrictions placed on the conditional use approvals of the buildings.

To Request Installation of Residential Permit Parking on Your Street...Call the City of Madison Parking Division at (608) 266-4761 for information.

City of Portsmouth Snow Emergency Ban¹²

A citywide parking ban goes into effect during storms that produce 2" or more of snow. Residents are urged to call for an update on the parking ban. Announcements also appear on Portsmouth Government Access Channel 22 and will interrupt regular programming. During snow emergencies:

¹² <http://www.cityofportsmouth.com/transportation/news-101606.htm>

- City residents may park in the High-Hanover Parking Facility for \$3 utilizing a City-issued coupon. Coupons are free and are issued at the Parking Clerk's Office in City Hall upon presenting proof of Portsmouth residency.
- Vehicles may be parked at the facility up two hours before the official start of the parking ban but must be moved within two hours after its official conclusion.
- Upon exiting the garage, residents present the snow ban coupon and identification to the parking attendant to receive the \$3 rate. The coupons are non-transferable and may only be used by the person to whom they were issued.
- Additional parking lot locations listed on the website map are also available for parking during snowstorms.

City of Manchester, NH Winter Parking and Snow Emergency Bans¹³

The City of Manchester practices alternate side parking during the winter season and during a snow emergency, prohibits all on-street parking. The following describes their current policies:

Overnight Winter Parking

The City of Manchester's overnight winter on-street, odd/even parking ordinance goes into effect on the morning of November 15th at 1 am and will run through May 15th. Where parking is normally allowed on a street, the Overnight Winter Parking Ordinance permits vehicles to be parked only on the odd numbered side of a street on odd numbered calendar days and only on the even numbered side of a street on even numbered calendar days beginning at 1 am and until 6 am in the morning.

This means that when you park your car on the evening of November 14th, it should be parked on the odd side of the street, because it will be an odd day (15th) as of 1 am. If parking is presently allowed on only one side of the street during the day, then parking will be permitted on that side of the street every night. No overnight parking will be permitted on the circular portion of dead-end cul-de-sacs.

Snow Emergencies

All vehicles must be removed immediately from City streets upon the declaration of a Snow Emergency by the Public Works Director or his authorized agent. Snow emergencies are sent out to the news media. Please listen to local radio or TV stations, or call the Highway Department should you have any questions. Any vehicle parked in violation of a Snow Emergency Declaration, will be removed and impounded. Vehicles, which are so impounded, will be stored in one of the City's Vehicle Impoundment lots. Vehicles towed from the West Side will be placed in the lot behind the West Side Arena, and vehicles towed from the East Side will be placed in the lot adjacent to the Bridge Street entrance to Derryfield Park. In order to recover an impounded vehicle, the owner will be required to present proof of ownership and to make payment in cash, certified check or money order, payable to the City of Manchester. This must be done within 24 hours of the time when the vehicle was towed.

Manchester has added an additional item as part of the "Snow Emergency Notification" starting in late fall (early winter) of 2005. A "white strobe light w/ small sign indicating a snow emergency when activated" mounted to the traffic signal mast arm at targeted intersections throughout the city. Original program was 35 intersections for around \$25k (materials only, labor by city staff) and is included now in general for intersection upgrades.

Turned on and off by radio frequency. Works well overall, but a few technical problems with the signal activation are still under study in some sections of the City. This program has

¹³ <http://www.manchesternh.gov/CityGov/MPD/Divisions/Traffic/ParkingBan.html>

reduced the number of complaints by residents claiming they did not know there was a snow emergency. The City also has an email list that residents can register on the City's website that issues snow emergency notices to the email subscribers.

City of Worcester, MA Winter Parking and Snow Emergency Bans¹⁴

The City of Worcester has recently implemented a new policy. Public Works has identified a list of arterials and primary routes where permanent even/odd side parking bans are in effect every winter season. All other streets (not listed) are under no restrictions except during a snow emergency, when all on-street parking is prohibited.

Recommendation for Dover Downtown Residential Permit Parking Program

The development of a successful residential permit parking program is not difficult. The idea is not new; there is a wealth of information available as to what works and what does not work. There are several key elements to developing the program¹⁵:

- Involve citizens in the planning process. In fact, some cities require the neighborhood to take the first step towards creating a residential permit parking program by submitting an application to be considered for a program. The residents are the ones who will experience the impact of a RPPP, which has more serious impacts than a typical neighborhood traffic control program, and as a result should be fully informed throughout the process.
- Effective enforcement is critical to a successful program. Lax enforcement will doom the program before it gets started. Therefore, coordination with and a mutual understanding by the enforcement agency is critical to success.
- Select a suitably sized area. If the RPPP area is too small (four block faces or less) parkers will simply move to the fringe area of the permit parking area which becomes someone else's problem. This is not the intended result. Consequently, the neighborhood must work with its neighbors, the enforcement entity, City parking and so forth to ensure successful implementation and practice.

The RPPP for the Cities of Madison, Manchester or Lansing could be adopted to work in Dover with few modifications. The process is straight-forward, proven and can be a very successful practice if implemented properly and with conviction.

Winter and Emergency Parking Bans

Of the dozen or more "snowbelt" cities evaluated for best practices regarding winter parking and snow emergency bans, from Minneapolis, MN to Milwaukee, WI to White Plains, NY, about ½ enacted even/odd side winter parking ban with snow emergencies and about ½ of the cities allowed unrestricted on-street parking during the winter season subject to emergency declarations at any time which require removal of parking from all streets. The responsibility of staying informed as to when snow emergencies are announced is the sole responsibility of the parker.

Although there are likely other cities that practice this approach, the City of Worcester, MA had the most unique and flexible plan. Maintaining a permanent winter season snow ban on specific critical circulation arterials and streets while allowing maximum flexibility for residential parking on non-critical streets appears to meet both the life/safety concerns of Public Works and the Police Department while providing the most convenience and flexibility to residents.

¹⁴ http://www.ci.worcester.ma.us/dpw/seasonal/snow_guidelines.htm

¹⁵ Parking, Eno Foundation, Weant and Levinson

SECTION 2. ON-STREET, TIME LIMITED, PARKING MANAGEMENT

The best practices review for on-street parking management practices is focused specifically on management of limited time, on-street parking and the issue of "shuffling". This practice has been observed by the Consultant Team and the team has heard numerous complaints from a broad spectrum of various Stakeholders in the downtown. The most effective way to manage the availability and turn-over of on-street parking spaces is by charging for parking, especially with the availability of high-tech meter and kiosk systems. However, the City of Dover has to rely on other management practices to discourage employee use of 2-hour limited time parking and maximize the availability of those spaces to visitors.

Historically, the standard approach to enforcing limited time parking is through marking tires and monitoring turnover. The success of this management practice is completely dependent on, either volunteer compliance (which is highly unlikely) or constant monitoring (labor intensive) along with severe penalties for repeat offenders. Usually, shuffling occurs because alternative parking options for employees are inconvenient and/or considered too expensive compared to the risk and cost of paying occasional over-time parking fines and the actual time and effort involved in moving one's car once, twice or three times a day.

In Dover, the permit fees for monthly parking are relatively low and the location and availability of long-term parking is generally within acceptable industry norms. Therefore, the conclusion reached by the Consultant Team, consistent with Rizzo Associates, is that the deterrent of being ticketed is not a strong enough to affect a change in behavior. The Rizzo Associates downtown traffic and parking study¹⁶ specifically recommended a revision to the Dover City Code to discourage shuffling.

Best Practices for On-Street Time Limited Parking Management

Prior to assuming a revision to the City Code is the best solution, the Consultant Team evaluated best practices by other cities for management of downtown time limited parking. The results of that research is discussed below, which is followed by recommendations of the Consultant Team.

Ten cities were evaluated in terms of enforcement practices. All of the cities had time limited parking including seven cities with free on-street, two hour time limited parking and three cities with meters and two-hour time limits, a majority of the cities had some mix of meters and free parking. Each city had recently completed a parking study that, in part, included a discussion and recommendations regarding abuse of on-street time limited parking by downtown employees.

The majority of the downtowns, even in the larger cities, were similar in nature to Dover. The larger city studies focused on secondary and tertiary urban commercial districts. A list of the cities follows:

1. Monterrey, CA
2. Chapel Hill - Market Street, NC
3. Salem, OR
4. Burbank, CA
5. Belmont, MA
6. La Jolla, CA
7. Charlotte Amalie, St. Thomas, USVI
8. West Lake Avenue North, Seattle, WA
9. Little Rock, AK

¹⁶ Downtown / Riverfront Redevelopment Traffic Circulation and Parking Plan / Dover, New Hampshire; February 14, 2005, prepared by Rizzo Associates

10. Jackson, WY

The vast majority of these cities have conducted parking duration and turnover studies for customers and visitors in their respective downtowns as part of the data collection effort in the studies. They have also researched and cited many of the resources cited herein as scholarly and state-of-the-art references on "best practice".

There was a common theme and approach in nearly every city. However, there was also a divergence of approaches in a couple of basic fundamentals. Rather than repeat each approach for every city, a summary has been prepared identifying that the problem is common and there is no break through solution:

1. Nearly every city (that had free on-street parking) recognized the difficulty in managing and maintaining "free" parking including lack of revenue generation and enforcement difficulties. Although, each city had considered it, none of the cities were considering a change to metered parking with the exception of Monterrey, CA. They believe the marketing advantage and convenience of offering free parking to customers was paramount.
2. Every city, that had free or metered on-street parking, was concerned about the abuse of prime parking by employees. Cost estimates to replace the customer parking lost to employees along the Central Avenue corridor are approximated at \$700,000 (assuming 25 spaces and land costs). However, it was mentioned in more than one study or City representative that the cost in lost sales, property value, business attrition and tax revenue could be far higher if taken over a multi-year analysis period.
3. Two or three of the cities were considering changing two-hour limits to three-hour limits near special event centers and restaurants. Several cities were reducing the number of 15 minute limit spaces because they determined they had many more than needed. At least one city was changing two-hour limit parking spaces to one-hour limits in an attempt to reduce employee parking use.
4. The majority of cities have implemented steps to:
 - ♦ Improve, simplify signage;
 - ♦ Market parking more aggressively;
 - ♦ Meet closely with employees and employers to determine why employees are not using fringe parking and try to meet employee needs; and
 - ♦ Step up enforcement through a greater presence, hiring more personnel, eliminating or reducing enforcement in less critical areas to focus more personnel on the downtown.
5. Most cities were changing their hours of enforcement from early in the morning to a start of 8 or 8:30 am until 6pm.
6. Many of the cities were actively evaluating lease agreements with private owners of parking that had pockets of excess parking available.
7. Many cities heavily fined repeat offenders. One city allowed three violations a year at the normal rate. The fine for the next three violations was doubled and the fine for additional violations beyond that was tripled.

Technology for On-Street Time Limited Parking Management

The City of Dover Police Department has upgraded to electronic handheld ticket writing which improves the ability to manage overtime parking and identify scofflaws. A relatively new technology that could vastly improve the City's ability to identify employee abuse of time limited

parking along Central Avenue corridor. The most well-known product is available from a company called AutoVu by Genetec.

AutoVu Mobile Parking¹⁷

AutoVu Mobile reads license plates of vehicles parked in parallel, at 45 and at 90 degrees from a moving vehicle. Combining accurate license plate reading, sophisticated mapping functionality and proprietary positioning technology, AutoVu Mobile provides parking enforcement officials with a powerful tool automating parking enforcement.

Advanced ergonomic design is applied to AutoVu Mobile's interfaces for in-vehicle use by parking officers, ensuring rapid assessment and response to alarms. The interface can be displayed on a touch screen monitor, facilitating system operation.

The hardware and software package incorporates ruggedized hardware that can withstand harsh in-vehicle operation. To maximize license plate read accuracy, AutoVu designed high capture rate cameras equipped with infra-red illumination. These same cameras are designed for easy permanent or temporary installation on the vehicle. Over 19,000 vehicles per hour can be captured in the system and monitored.

All AutoVu solutions can accurately read license plates from any state or province in North America, as well as many European, Middle-Eastern and Asian plates.

Parking officers can identify parking offences and scofflaws without ever having to leave their patrol vehicle with AutoVu Mobile. As officers patrol through city streets and parking facilities, the AutoVu system searches for parking violations by reading vehicle license plates and verifying a city map incorporating parking regulations. The AutoVu system simultaneously crosschecks each license plate to a database of scofflaws. As a result, parking officers no longer need to perform tedious practices such as tire chalking and manual license plate checks.

The AutoVu system provides parking officers with a tool that automates parking permit control. By incorporating a database of license plates associated with city parking permits, not only can parking officers quickly detect vehicles lacking proper permits, but also the system can identify expired parking permits, the use of parking permits in inappropriate areas as well as use of parking permits during restricted hours.

When a parking violation or a scofflaw is detected, the parking officer is alerted and a record is generated containing the parked vehicle's license plate number, a picture of the vehicle as well as the date, time, and precise location of the vehicle provided by AutoVu's sophisticated positioning technology. This provides parking authorities with irrefutable evidence of an offence, reducing contestations by offenders.

The cities of Denver, CO, Wilmington, DE, Aurora, CO, Baltimore, MD and Tampa, FL have invested in AutoVu Mobile systems. Two case study applications are presented below:

City of Wilmington, DE

The City of Wilmington, (population 78,000) has been chosen to receive the International Parking Institute's Award of Excellence for Innovation in a Parking Program. Out of three select partners, AutoVu Mobile, Genetec's state of the art mobile license plate recognition solution was a critical component of the achievement and success Wilmington has acquired.

Established in 1982 the IPI began the Awards for Excellence program to acknowledge and commend functional and architecturally pleasing parking facilities. Genetec, renowned for its innovative solutions had the product of choice for the city of Wilmington

¹⁷ http://www.autovu.com/index.cfm?page=Solutions/AMP/EN_CA/ProductPitch

with AutoVu. Vehicles equipped with the AutoVu solution are capable of scanning license plates and then cross-checking them against the city's scofflaw database.

The AutoVu Mobile solution has aided Wilmington not only have an accolade bestowed upon them, but claim \$500,000 in new revenue for the City. Over 1,300 vehicles have been held responsible for violations which lends insight to AutoVu's accuracy. Without AutoVu's keen abilities in license plate recognition (LPR), the 1,300 vehicles that have been held responsible since the program's inception could have gone undetected.

Such recognition from the IPI denotes AutoVu's state-of-the-art technology and efficiency in detecting scofflaws. Genetics' AutoVu solution is recognized both internationally and by the IPI as "the most accurate parking specific mobile license plate recognition hardware and software" on the market.

City of Baltimore, MD

The City of Baltimore chose the AutoVu Mobile license plate recognition solution to track down scofflaws with three or more 30-day overdue parking tickets. In the past, by inefficient means, parking officers had to manually enter each license plate number individually. Now Baltimore parking officers can patrol the city streets and identify violators instantly without leaving their AutoVu-equipped vehicles.

Ken Strong, Safety Division Chief of the Baltimore Department of Transportation, says "Before buying the AutoVu Mobile solution, we would find approximately 250 violators in two weeks. Now, with AutoVu, we are identifying more than 350 violators over the same time period. This provides an efficient tool in managing on-street parking and eliminating abuse.

The AutoVu Mobile system also allows parking supervisors to monitor officers' activity from the back-office. They can also perform searches and generate reports using the data collected by AutoVu.

Baltimore currently has four vehicles equipped with the AutoVu Mobile solution and plans to acquire additional systems in the coming year in order to identify parking violators in residential areas.

In addition to finding parking violators, AutoVu Mobile makes it possible to locate stolen vehicles. The AutoVu systems installed in Baltimore Department of Transportation vehicles are linked to a national database containing the license plate numbers of reported stolen vehicles. Whenever the system comes across one of these numbers, an alarm is triggered. In March alone, 38 stolen vehicles were identified by the system.

AutoVu may have application for the City of Dover's on-street enforcement program. This may be an efficient method to enforce appropriate use of 2 hour time limited parking. According to preliminary information, a vehicle, necessary equipment and software costs are approximately \$70,000.

Amend City Code

A proposed amendment to Chapter 166 Vehicles and Traffic (Chapter 166-57. Schedule J: Limited Time Parking) was proposed by the Police Department but failed to gain support and was not adopted. The Consultant Team has read the proposed amendment and supports adoption of the amended ordinance. The City's current policy is stated below for reference¹⁸ and followed by the amendment.

166-57. Schedule J: Limited Time Parking, sub-sections B. and F.

¹⁸ City of Dover Code, Chapter 166.57. SCHEDULE J: Limited Time Parking

- B. In accordance with the provisions of 166-22, it shall be unlawful for the owner or operator of any motor vehicle to park or allow to be parked any motor vehicle for more than two (2) hours in the following described locations: (included in Appendix 166-J of this document)
- F. In accordance with the provisions of 166-22, it shall be unlawful for the owner or operator of any motor vehicle to park or allow to be parked any motor vehicles for more than two (2) hours in a day in the following described locations (included in Appendix 166-J of this document), unless the vehicle leaves the listed location for a minimum of 15 minutes. [Added 05-20-92 by Ord. No. 12-92]

The proposed amendment would repeal sub-sections B. and F. in their entirety and replace with the following:

166-57. Schedule J: Limited Time Parking

- B. In accordance with the provisions of 166-22, it shall be unlawful for the owner or operator of any motor vehicle to park or allow to be parked any motor vehicle for more than two (2) hours in a day in the following described locations, unless the vehicle leaves *all* of the listed locations for more than two hours.

Recommendations for Limited Time Parking Management

City leaders, in both the public and private sector, will need to make difficult decisions relative to parking over the next few years as Dover transitions into a more densely developed, urban downtown. Clear direction must be provided to merchants, employees, visitors, developers and all other Stakeholders to ensure that Dover stays competitive with its peers and continues to thrive. The simple alternative to maintaining the status quo is to:

- build more parking at first costs approaching \$18,000 for every new parking space added;
- plus the cost of land;
- plus lost opportunity costs related to business loss;
- plus loss of tax revenue that could be generated from development of higher and better uses on the limited amount of remaining land.

Based on the limited number and variety of solutions available, practice by other cities in similar situations, the Consultant Team recommends the following:

1. The Consultant Team fully supports the Rizzo downtown traffic and parking study recommendation on shuffling and the immediate adoption of the amendment proposed by the Dover Police Department.
2. The City should gain a more thorough understanding of the parking needs of downtown part-time and full-time daytime employees. Aggressive outreach will likely be needed to extract the necessary information. This recommendation in combination with increased enforcement may provide the necessary incentive for employees and employers/owners to provide the feedback the City needs to address their needs.

If warranted, solutions may involve City lease of private parking and sell permits to employees.

3. The City should re-examine the potential to provide long-term monthly parking permits for on-street parking in areas with limited demand and available daytime parking spaces.
4. The City Code should be revised to uniformly change the on-street hours of enforcement along the Central Avenue corridor beginning at either 8 or 8:30 am and end at 6 pm.

5. The City should investigate the potential to implement the AutoVu Mobile parking system.

SECTION 3. PARKING SYSTEM ADMINISTRATION AND ORGANIZATION

The following section addresses the recommended organizational structure for managing the City of Dover's parking system. The following section:

1. The City's role in providing parking for downtown Dover;
2. Describes the current organizational structure for the parking system in Dover; followed by
3. A discussion of successful management systems used by other cities; which is then followed by
4. A recommendation by the Consultant Team for Dover's parking system management structure.

The management and organizational structure of the parking system is dependent on the function and role the City has identified for providing parking. The structure of the system needs to support the City's role and level of involvement in providing parking. On one extreme, if the role of the public sector is develop, own and manage all the off-street parking needs, the organizational and management functions will be different than if the public sector's role is act as a facilitator in ensuring that sufficient parking is provided in cooperation or partnership with the private sector.

The City of Dover's Role in Providing Parking

Many cities similar in size and character of Dover continually struggle with how parking is provided as part of, or in support of, new development and redevelopment. In most downtowns like Dover, where development opportunities are limited by available land, the ability to provide surface parking to support development is extremely limited and does not represent the highest and best use of the property. Consequently, the need to "go vertical" or build multi-level structured parking becomes the most feasible land use alternative to support continued economic development. Once land use, political and economic pressures result in the decision to build structured parking, the most challenging decision becomes how to finance it and who pays for it.

The combined costs of land, construction, on-going maintenance, repair and management of facilities plus the costs of financing create an overwhelming economic barrier to the development community for creating new projects. Furthermore, in cities like Dover, that have already attracted significant redevelopment in the downtown over the past few years, the existing parking infrastructure is already strained. Since Dover generates limited parking revenue, the ability to self-fund and finance new construction from parking revenues is not feasible, other options needs to be explored. Those options are varied and were discussed in greater detailed in the following section, *Section 4. Options for Financing Parking Improvements*, of this document.

The current organizational structure managing parking for the City of Dover Parking and Traffic Bureau is depicted in Figure 1. A brief description of the duties and responsibilities is described below.

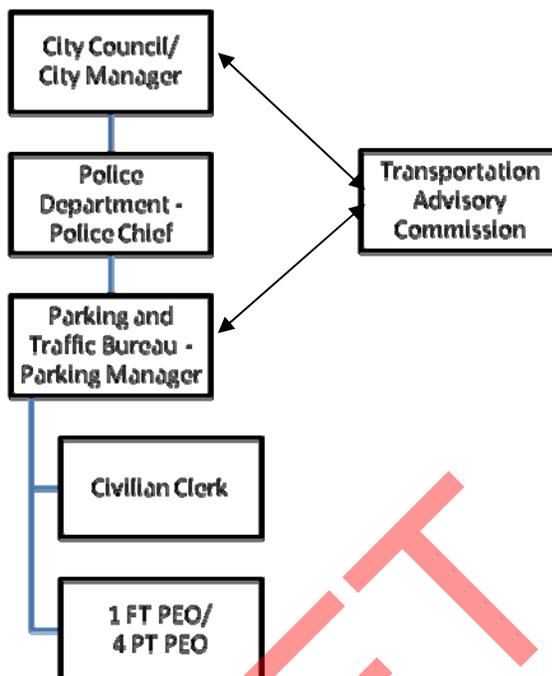


Figure 1. City of Dover Parking and Traffic Bureau

City of Dover Parking and Traffic Bureau¹⁹

The mission statement of the Dover Police Department Parking Bureau is to promote the safe and orderly flow of vehicle traffic by supervising all municipal parking lots and public parking areas, and by enforcing all appropriate parking related laws and ordinances. The Parking Bureau is responsible for maintenance of all city parking meters and is responsible for collection of all permit, meter, and fine revenue for deposit into a special City account. The Parking Bureau is supervised by a full time sworn police officer (Parking Manager) who is responsible for the overall administration of the bureau's function and who also serves as the designated Hearings Officer for parking ticket appeals. A full time Parking Clerk (35 hrs/wk) collects and accounts for revenue, supervises the issuance of parking permits, and handles most administrative duties associated with collection. A full time civilian Parking Enforcement Officer (35 hours per week) responds to parking-related calls for service throughout the City, performs maintenance on all city-owned parking meters, and distributes equipment as necessary for temporary parking and traffic restrictions. Three part-time Parking Enforcement Officers (20 hrs/wk) conduct foot patrol in the Dover downtown area on weekdays and early evenings to ensure the appropriate turnover of timed (two hour and thirty minute) parking zones, which is key to the viability of Dover's various retail merchants and restaurants. The Parking and Traffic Bureau has one direct reporting function and that is to the Police Chief.

The Parking and Traffic Bureau is supported by the City's Transportation Advisory Commission (TAC) for specific expertise, long-term planning, coordination with other City transportation initiatives and direction in regard to policy-making and planning functions.

City of Dover Transportation Advisory Commission

The TAC was created by Council in 2001 to review of all transportation policy and safety matters in the City. Additionally, the TAC reviews policies concerning all forms of transportation affecting the City such as conventional vehicles, parking, transit, alternative modes (i.e.

¹⁹ http://www.ci.dover.nh.us/Police/park_trafficn.html

pedestrian and bicycles), commercial vehicles, and attendant amenities. A core responsibility is to act as a sounding board for citizens' traffic, pedestrian and safety issues and making recommendations to Council or staff for appropriate action. The TAC studies issues such as the City of Dover Master Plan as they relate to transportation and parking and makes recommendations to Council and/or the Planning Board and studies and prepares report to aid in the development, implementation and general improvement of the Master Plan relating to the transportation and parking.²⁰

The TAC has nine members, one representative each from the Police Department (Parking Manager), Planning and Community Services plus one representative each from Council, Coast Public Transit plus four City residents, all, designated by the City Manager.

The TAC serves as an intermediary between Council and the Parking Manager on parking issues that require revisions to or adoption of new ordinances. An example would be vetting a proposal that would change the time limit restrictions or type of parking allowed on a specific street in the downtown. Issues related to life-safety can be directed implemented by the Parking Manager and reported to the TAC, who in turn, would communicate it to Council.

Traffic and Parking Bureau Budget

Table 3 provides a summary of the last four years (2003 through 2004) of parking revenues and expenses for management of the on- and off-street parking system. Technical memorandums 1 and 2 provide a detailed discussion of the parking system inventory and demand characteristics.

Revenue

As shown in Table 3, parking revenue is tracked in three categories; 1) meters - comprising about 10 percent of total revenue; 2) permits comprising about 30 percent of total revenue; and 3) fines comprising about 60 percent of total revenues. These percentages are typical and comparable to other cities (once adjustments are made for metered on-street parking).

Total revenue has remained relatively constant since FY01 (last year of data reviewed) except for a significant increase in FY06, primarily due to a \$35,000 increase in fines (not related to booting).

Meter revenue has remained fairly consistent ranging between a low of \$26,568 in FY04 to a high of \$32,457 in FY05 with FY06 at \$30,361. With the exception of FY04 of \$100,114, annual permit revenue has remained fairly stable at about \$92,000. FY06 has permit revenues of \$91,276, a 1.5 percent drop from FY05.

Fines revenue has jumped significantly in FY06 from \$143,085 in FY04 to \$181,165. This is likely a result of three factors: 1) most parking ticket fines were increased from \$10 to \$15, effective March 2005; 2) increased demand for on-street parking by employees; and 3) more efficient enforcement resulting in a higher number of tickets written and paid.

Expenses

Parking system expenses support the personnel and duties of the Parking Bureau described earlier. Expenses are tracked in four categories; 1) personnel services which account for about 84 percent of total expenses; 2) purchased services which account for about five percent of total expenses; 3) supplies which account for about 10 percent of total expenses; and 4) capital outlay which account for less than two percent of total expenses.

Total expenses have remained relatively constant since FY03 (last year of data reviewed) when adjusted for the consultant parking study fee for 2007. The balance of the increase in FY07 of about \$25,000 is due to an increase in personnel costs. The majority of this

²⁰ <http://www.ci.dover.nh.us/planning/TAC/index.htm>

increase is due increased costs of personnel benefits rather than an increase in labor hours.

Personnel services have escalated over the past four years from \$206,357 in FY03 to \$228,105 in FY06. The budgeted FY07 amount is \$244,041 reflecting an increase in the costs of personnel benefits rather than increased labor hours. Purchased services vary from year-to-year depending on needs of the Bureau or request for specific information or services received by the TAC or Council such as hiring consultants. The FY07 budgetary item for this expense increased to \$87,291 reflecting the inclusion of the Consultant Team parking study fee.

The supplies line item varies from year-to-year, but is not a large line item and the variation can be managed. The last five years (adding in FY07) ranged from a low of \$25,009 in FY06 to a high of \$35,893 in FY05. The supplies budget for FY07 is \$27,298. The fourth line item is for capital outlay and is typically a varying nominal amount year to year from a low of \$2,185 in FY05 to a high of \$14,050 in FY07. The FY07 increase is due to the purchase of additional electronic ticket writing equipment.

Table 3. Parking and Traffic Bureau Budget

	FY06 Actual	FY05 Actual	FY04 Actual	FY03 Actual	No. of Spaces	No. of Permits Sold	FY06 \$/space
REVENUES							
Meters							
Belknap Lot	\$6,065	\$8,348	\$7,137	\$8,254	20	n/a	\$303
Orchard Lot	\$24,296	\$24,109	\$19,431	\$24,156	62	n/a	\$392
subtotal	\$30,361	\$32,457	\$26,568	\$32,410	82	n/a	\$370
Free off- and on-st.							
Orchard/deeded	n/a	n/a	n/a	n/a	45	n/a	n/a
First St	n/a	n/a	n/a	n/a	28	n/a	n/a
Second St	n/a	n/a	n/a	n/a	56	n/a	n/a
Third St	n/a	n/a	n/a	n/a	82	n/a	n/a
Fourth/Chestnut	n/a	n/a	n/a	n/a	40	n/a	n/a
School St	n/a	n/a	n/a	n/a	11	n/a	n/a
subtotal	n/a	n/a	n/a	n/a	262	n/a	n/a
Permits							
Portland Lot	\$130	\$40	\$35	\$30	44	44	\$3
Orchard Lot	\$50,725	\$50,070	\$47,591	\$45,775	69	63	\$805
First St Lot	\$14,331	\$18,800	\$26,108	\$24,735	77	77	\$186
Second St	\$955	\$785	\$675	\$2,070	above	22	44
School St Lot	n/a	n/a	n/a	n/a	69	60	n/a
Library	\$4,540	\$3,095	\$3,825	\$2,890	212	106	\$43
Locust Lot	\$2,960	\$1,995	\$2,720	\$800	29	29	\$102
Water St	\$4,800	\$4,400	\$5,350	\$5,200	20	20	\$240
River St/Lot	\$12,800	\$13,455	\$13,600	\$13,150	160	100	\$128
Misc Res.	\$35	\$-	\$210	\$-	included	n/a	n/a
subtotal	\$91,276	\$92,640	\$100,114	\$94,650	680	521	\$175
Fines							
Original	\$99,895	\$72,470	\$71,301	\$83,762	n/a		
Notice	\$79,700	\$72,016	\$70,363	\$74,805	n/a		
Boot Fee	\$1,570	\$1,240	\$1,421	\$1,025	n/a		
subtotal	\$181,165	\$145,726	\$143,085	\$159,592	n/a		
Revenues Grand Total	\$302,802	\$270,823	\$269,767	\$286,652	1,024		\$296
EXPENSES							
Personnel Services	\$228,105	\$225,109	\$214,329	\$206,357			
Purchased Services	\$12,649	\$10,014	\$11,506	\$14,285			
Supplies	\$25,009	\$35,893	\$30,985	\$26,331			
Capital Outlay	\$5,647	\$2,185	\$3,739	\$4,949			
Expenses Grand Total	\$271,410	\$273,201	\$260,559	\$251,922			\$265
NET OPERATING INC.	\$31,392	(\$2,378)	\$9,208	\$34,730			\$31

Organizational Models and How Parking is Financed

There will likely be significant annual increases in expenses over the next few years, particularly if the City reorganizes the Bureau in an effort to expand the parking system and proactively improve the operations and management. The following discussions illustrate the standard approaches other cities have taken in reorganizing and improving the way in which parking services are provided. Each approach is dependent on the adoption of a city policy based on characteristics and needs of the constituents in the downtown that will be served (political realities), the economic realities of how to finance the system and who benefits, or both.

Based on the information contained in the Rizzo downtown Dover parking supply and demand and confirmed by the Consultant Team, there are limited pockets of available existing parking that might serve to accommodate some additional growth, particularly if the on-street management issues can be resolved. However, in the very core of the downtown, a significant parking expansion is necessary to support meaningful economic development, and in fact, may be necessary to maintain the current business community. This presents an opportunity for Dover to formally organize a proactive approach to providing parking, likely in a public private partnership, based on the recommendations derived from this report as well as strong leadership by the private and public sectors.

Prior to making a commitment to expand the parking supply, the City should ensure that the parking infrastructure already in-place is used at the highest possible efficiency, this speaks again to the on-street parking abuse by employees. Because "parking" touches numerous departments and issues before the City, it is critical that an organizational system be created that assigns responsibility for the implementation of an adequate parking system, to meet the myriad of goals for the viability of downtown, to one identifiable entity.

There are several organizational arrangements that are commonly used to manage parking resources. However, as mentioned previously, it is critical for the system to have management control, operational control, and cost and revenue control of each component of the system including the:

- On-street parking system;
- Off-street surface parking lots;
- Off-street parking structures; and
- Parking violation fine revenue.

The parking system, however organized should be charged with carrying out several main functions outlined in a business or Parking Master Plan (PMP), including:

- Parking program Goals and Objectives;
- Policies and plans;
- Program standards and performance criteria;
- Zoning requirements for parking (Note: The PMP would include recommendations that would be submitted to Planning and Zoning staff for consideration and adoption.);
- Regulation of commercial parking;
- Parking for specific public uses (parks, transit, public-gathering places);
- Management and regulation of on-street parking;
- Input and coordination enforcement of laws, regulations, and codes concerning parking and how offenses are adjudicated; and
- Support of economic growth is critical and should be the driving goal of the parking system; and
- Development of coalitions and partnerships with business community organizations and major stakeholders.

Accomplishment of these goals will require a reorganization of current practices so that an experienced parking professional (new hire) can develop and implement policy in addition to running the day to day operations. The items listed above are critical roles for the City to play regardless of who actually builds and owns the parking supply. This is to ensure that the parking infrastructure, private and public, supports community goals and economic development. Implementation of this approach may require the City to pass new laws or authorities to institute a particular parking action. The actual implementation of these administrative functions is beyond the scope of this study. The following are the most common practices used by municipalities and represent best practices in the industry. *Maintaining the status quo is not a solution and should not be a choice.*

Existing City Departments

This is the approach taken by numerous cities that are struggling with the transition from small town to an urban destination. The previous City of Manchester parking model epitomized what can happen to the parking system over time as parking services are expanded yet not formally organized. The City had more than 16 different divisions involved in various aspects of providing parking services and the problems that can result. However, the City has reorganized the parking system and all functions reside in a new Parking Division located in the Economic Development Department with the exceptions of fines collections.²¹ Prior to the reorganization, the City split parking functions into several departments and divisions, including Public Works (parking structures), Traffic Department (on-street parking and off-street meters, Police Department (fines) and Finance Department (accounting, budgeting, and capital needs).

Once a city reaches a certain size (usually cities with population over 100,000 or with robust retail, commercial and tourism, like Dover), parking needs become more complicated. Since the functions of the parking system was not integrated, inconsistent technical or management decisions were made that had unintended impacts system wide.

In this type of a system, partisan political and short-term decisions tend to play a more significant role and may, unintentionally, result in band-aid approaches that may not serve the community long-term, best-interests.

Separate Department

A separate department raises the level of visibility and authority of a parking department to that of all other departments, essentially a "cabinet level" arrangement. A separate department provides the opportunity to develop clear roles, responsibilities, budgets, goals and objectives. Other benefits include the ability to attract top-level parking experienced personnel to the position. This approach also staffs the department with full-time, experienced, and qualified personnel that can give parking issues the attention and expertise required. Like all departments, a separate parking department will require close interaction with other departments such as Police, Planning, Economic Development Office, and Finance to coordinate efforts and proposals. This arrangement also clearly identifies budgets and responsibilities to decision makers.

The City of Dover Parking and Traffic Bureau does not require reorganization as a separate department, at least over the next several years. The City's goal would be better served if the Bureau is reorganized as a Parking Department, likely under the Economic Development or Office, so that all of the parking assets, management, and operations are located in one place where clear lines of authority and responsibility can be implemented.

²¹ The City's Ordinance Violations Bureau collects fines. The Ordinance Violations Bureau is technically part of the Police Department and a decision was made to maintain their role in fines collection due to concerns the City had regarding minimizing access to confidential records associated with fines.

Parking Utility or Enterprise Fund

Some states allow formation of parking utilities or enterprise fund for parking. The entity operates the same way as any other municipal agency, but with a separate corporate structure. This arrangement requires the creation of a legal entity of local government with the power to enter into contracts, and to manage its own operations. As an example, Madison and Green Bay, Wisconsin, and Buffalo, New York have parking utilities and many cities operate parking as an enterprise fund.

As an example, the City of Madison (population approximately 200,000) has a Parking Utility and although this arrangement appears straightforward, there are numerous ways to implement the actual functions. Paid parking in Madison is a unified system administered by the parking utility. Parking in downtown Madison is provided by city, county, state, and the private sector. The utility has control over the amount of parking provided by the public or the private sector, however, the utility has limited control over the management and operation of non-city public and private facilities. There are eight different city and county agencies and committees share parking management responsibilities. These include the Parking Division of the Madison DOT, the Parking Utility Committee, the Transportation Commission, the Police Department, the Data Processing Department, the City Treasurer, the City Attorney, and the Dane County Court.

The Transportation Commission acts as the Parking Utility System according to state law and advises the Common Council on parking policy. The commission has complete jurisdiction over off-street parking time limits and rates although Common Council has veto power. A six-member Committee functions as an advisory body to the Transportation Commission and the Parking Committee Chair is a member of the Transportation Commission. The committee supervises the assets and operation of the parking system.

The Parking Utility is fully financed through system revenues. The utility also makes a payment in-lieu of taxes to the city's general fund each year. It also pays the costs for ticket-writing enforcement personnel. The Police Department is also involved in parking management through a group of civilian ticket-writing force of parking monitors. The Police Department pays the Data Processing Department an annual fee to process tickets. The City Treasurer collects parking ticket payments and counts parking facility revenues. The Dane County courts adjudicates parking tickets. Finally, the City Attorney writes parking ordinances and opinions on the implementation of ordinances and statutes. The same approach can be used for a parking enterprise fund.

Parking Board or Commission

Another type of arrangement is creation of a board or commission. Typically, the Mayor and/or City Council appoint a board of interested business people and community leaders who are well aware and perceptive with regard to parking. In addition, the Council usually reserves a seat or two for council member(s). The board then has the power to contract with outside vendors, operators, and consultants to operate and maintain the parking system. Basic ingredients include:

- Escrow financial support of bonds by business community;
- City financing of parking investment;
- Strong control of parking operations by Board of Parking;
- Careful operation of facilities by specialists;
- Careful planning of expansion opportunities by specialists;
- Strong support for improvements; and
- Unilateral Board decisions with minimal to no political influence.

This approach may be useful as a short-term arrangement to organize parking assets, develop policies, goals, and objectives and to determine the next step of growth for the parking system. While a Parking Board or Commission can develop momentum and public support because of the integrated structure, the arrangement still requires the city to finance improvements and the Board has little or no real authority. There are also complications involved with interaction with city departments, contracting with consultants and operators, perceptions of conflicts of interest and the personalities and possible agendas of the Board members themselves.

This arrangement is most commonly seen integrated within the downtown development authority (DDA) or business improvement district (BID). This is an arrangement favored by the International Downtown Association (IDA).

As an example, in Spokane, Washington and Kalamazoo, Michigan, the parking functions were organized under the DDA so that the major emphasis would be towards economic development. It also relied upon the city's financing ability to issue GO bonds and then on parking revenue to support the debt service. In this case, the board hired an expert to manage the parking system, hired staff to provide expertise, and managed parking violations in concert with the Police Department. The mandate of the system is to maintain a financially self-supporting system through parking revenue. In addition, the DDA may also proactively acquire land, create parking or enter into development deals and fund those improvements from revenues from the tax increment finance (TIF) district or BID when parking revenues do not cover the full costs of development. An economic analysis is conducted with each development project to ensure the new tax increment will cover the development costs.

Parking Authority

A Parking Authority is established as a separate entity corporation with board members under most state statutes. An authority is autonomous (to varying degrees) and is responsible for administering, operating, managing, planning, financing, and development of the on-street and/or off-street parking system. An authority can acquire property with eminent domain, purchase, construct, improve, and operate parking facilities. The authority can also borrow money, issue revenue bonds, regulate use of facilities, set rates independently, and enter into contracts and all necessary actions to conduct business.

Five members are usually appointed to a board by the Mayor to serve in volunteer positions, usually for staggered terms to maintain continuity in decisions. This is critical when working with the financial community and setting bond ratings. The authority hires a director and consequently approves staffing by the director.

The major advantages of an authority is that it can provide an agency, staff capabilities, and legal authority needed to manage a parking system. In addition, there is a central location for all information, responsibility, authority, management, planning and operations; little political pressure; avoids many bureaucratic governmental regulations; enables users to pay the cost of parking and keeps the cost from negatively affecting the city budget. Finally, it can finance and fund its own capital improvements through the issuance of revenue bonds.

On the minus side, in order to support the economic growth of the city, the authority has to have an external perspective rather than an internal focus. This could be a negative aspect of a parking authority. Although the goal would be to have a self-supporting authority, it may have to rely upon the city to share some costs depending on the objectives of the city. Furthermore, there are potential negative issues associated with interaction between municipal leaders (a Mayor and/or Council) and an Authority can lead to distraction of the main mission of parking.

Recommended Parking Organization

As mentioned previously, the City of Dover Parking and Traffic Bureau does not require reorganization as a separate department, at least over the next several years. The City's goal would be better served if the Bureau is reorganized as a Parking Division, likely under the Economic Development Office, so that all of the parking assets, management, and operations are located in one place where clear lines of authority and responsibility can be implemented.

The following section describes the system as organized in Manchester, New Hampshire, a city whose parking system is transitioning to a new more sophisticated structure that can better respond to and promote economic growth. Manchester's parking system has been consolidated and relocated under a newly hired Parking Manager as a division in the Department of Economic Development. The organization recommended for Dover would be different than Manchester's, but follows the same concept. In Dover, the likely home would be the Economic Development Office.

Manchester's Parking Division is currently organized into four functional sections: 1) Administration (Parking Manager, Parking Administrator/Operations Manager, Parking Shift Supervisor, and Customer Service Representative); 2) Enforcement (Parking Control Officers); 3) Parking Garage Employees (Cashiers, Custodians, and Security Officer), and 4) Meter Technicians. The organizational chart shown herein as Figure 2 is the Consultant Team's generalization of the Manchester Parking Division and may differ in some details from how Manchester's implementation.

However, the functional roles are similar to what would be needed when the City of Dover transitions into developing, owning and managing their own municipal garages in addition to lots and on-street parking. The City of Manchester has also created an Enterprise Fund that resides in the Parking Division. This provides another tool that allows the Parking Manager to be proactively responsive and provides broad discretion to make decisions and implement policy and improvements in support of economic development. The Manchester Board of Mayor and Alderman (BMA) have an opportunity and the on-going responsibility to act as a partner in setting policy, facilitating change and supporting implementation of system goals.

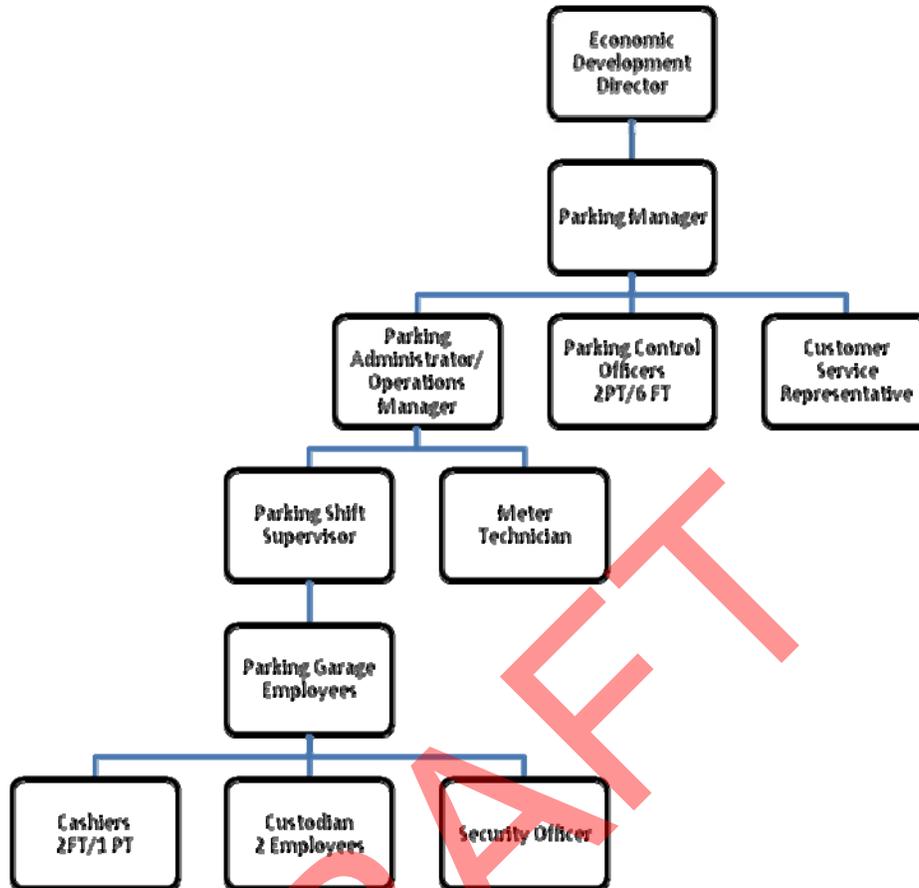


Figure 2. City of Manchester Parking Division

The Parking Manager answers directly to the Economic Development Director, but is also given the authority to interact directly with the BMA. Currently, the Manchester Parking Division relies on City Finance Department for accounting and other services to avoid costly duplication of services. As the system evolves the overall goal is to integrate parking discussions and decisions into all development and redevelopment proposals. At some time in the future, at least in Dover, it may make sense to move the parking system into an independent Department so that the position is at the “cabinet level” with other services at the City and communication flows directly to/from the Parking Director from City Leaders.

Key components of this organization are:

- The Parking Division is operated as an Enterprise Fund and must be financially self-supporting;
- The Parking Division can (eventually) issue revenue bonds;
- The Parking Division has a level of autonomy and independence, but is integrated into City government and therefore creates a stronger presence in terms of economic development directives that come from the Economic Development Department as well as the BMA;
- City Finance Department maintains checks and balances on the system;
- The Parking Division must have a Master Plan including Goals and Objectives. This Master Plan will have the full support of the BMA and will set the course for the next five to 10 years;

- The Parking Manager should be part of the BMA’s management team; and
- The Parking Manager should be an experienced, well-qualified personnel manager with technical capabilities in the profession of parking system management.

The organization of the City of Dover’s parking system is dependent on several key decisions that should be made over the next several months, including:

- Commitment to develop and manage its first parking structure;
- Implementation of funding mechanisms (discussed in the next section); and
- Hiring of a Parking Manager.

Figure 3 depicts an example of a suitable organization chart for the City of Dover’s parking system. The positions indicated below allow specific focus on the different aspects of the system. The Parking Manager develops policy, oversees all functions and reports to the Economic Development Office and City Manager. The front office Clerk, which is the “face” of the Parking Department is a critical customer service position and should entail a positive, proactive interface with customers. Parking enforcement should reside in the Parking Division rather than the Police Department so that management of parking policies and inciting changes in parking behavior is clearly the driving function behind enforcement and fines. In addition, one position focuses on operations, management and development of off-street garages and one position is responsible for operations and management of on-street and surface lot parking, particularly in the downtown.

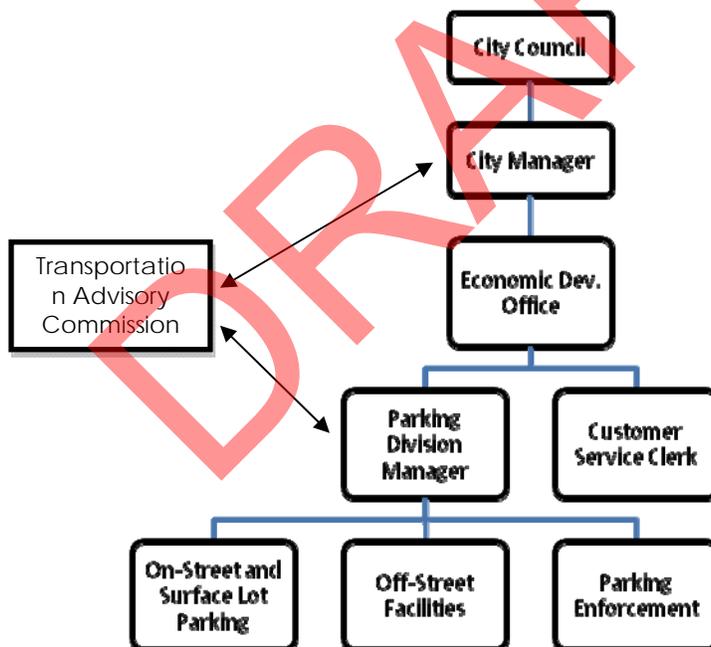


Figure 3. City of Dover Parking Division

To the extent possible, the City should rely upon the management expertise and experience of the new Parking Manager before any final decisions are made regarding organization structure and responsibilities. Prior to then, the City can and should implement funding mechanisms which will require participation of the downtown land owners, merchants, businesses, and stakeholders.

SECTION 4. OPTIONS TO FINANCING PARKING IMPROVEMENTS

The cost of parking has increased dramatically over the past decade and this increase has had an enormous impact on development projects. There are two methods for financing the cost associated with new parking structures; private financing; and public financing. The following is a brief description of both approaches. This information is provided as a means of identifying available options for the City when exploring the financing new structured parking and to provide a comparison between what approaches to parking are available to the private sector and what is available to the public sector. Different arrangements will have varying financing options available.

The financial community (bonding agencies and lenders) are looking much closer at the 1984 IRS rulings and being very careful when it comes to taxable financing and private use as it relates to the 10 and 25 percent rules. As an example, the revenue bonds being floated at the time of this writing by the City of Columbia, SC will be 50 percent taxable financing. Taxable financing will be used for the new convention center garage because it serves a convention center hotel almost exclusively even though it is completely open to the public. Recently, the City of San Antonio decided to reissue their latest parking revenue bonds with taxable financing because of lease agreements for bulk parking negotiated with the private sector. The taxable aspect increases borrowing costs slightly, and likely represent an abundance of caution by bond counsel and legal advisors as opposed to the reality of the use of the facility. However, these are real factors affecting the ability of cities to borrow and must be considered in any future capital programs. These factors need to be carefully evaluated in future financing approached because taxable bonds provide significantly more freedom to manage a parking system like a private business in terms of entering into agreements with the development community.

Privately–Owned Facilities

There are several standard approaches the private sector takes when financing either stand-alone garages, single-use development with parking (residential), or mixed-use development with parking.

Bundled Parking

The cost of parking is passed through to tenants in their lease rates, who in turn, pass the cost through to customers (lease-pass through) in the form of higher consumer prices.

Parking Fees

Rather than defray the cost of parking completely in a lease pass-through to a tenant and on to the consumer, the owner charges the user directly. In this case, the consumer pays directly for parking in a facility, usually by the hour (customers) or through monthly permits (tenants). The owner/developer sets rates relative to demand for the services and market conditions and may or may not defray part of the cost in tenant rates to reduce the cost to the user.

Lease and/or Sell Space

Developers can integrate garage spaces, or commercial uses into the garage, commonly referred to as mixed-use development, to offset the costs of constructing and operating the parking component. In addition, developers can sell development rights, lease or sell parking spaces, as well as lease “garage” space built out as tenant space, and lease air-rights.

The City of East Lansing, Michigan, Downtown Development Agency (DDA) created a hybrid application of this process when it agreed to a forward commitment to purchase 200 parking spaces constructed as a component of a mixed-use residential/commercial development. The developer used the forward commitment as equity and the DDA will use the mixed-use development’s new tax increment plus parking fees to pay the debt on the parking spaces.

Commonly, a city or city agency will subsidize or provide incentives to developers in the form of parking relief or density increases. Most often, a municipality will combine one or more of the following tools in a development package. The following are the most common.

Reduced Minimum Parking Requirements

Local jurisdictions can reduce parking requirements for projects that require or integrate structured parking to help offset the cost. This is only feasible if the overall surrounding parking supply is adequate to meet the development needs. This would not be a solution in Dover unless combined with a payment-in-lieu fee.

Density Bonuses

The local jurisdiction grants a density bonus in the way of increased floor area ratios (FAR) to offset the cost of structured parking by increasing the development profitability²². As an example, the cities of Suffolk, Virginia, San Antonio, Texas and Charlotte, NC offer a density bonus as an incentive for converting surface parking to structured parking. As an example, for each 100 spaces converted from surface to structured parking on an area not exceeding 20 percent of the site area, an additional 20,000 square feet (SF) of new building area may be constructed.

Payment in Lieu of Parking

A payment in lieu of providing parking is allowed in many cities. The payment is usually determined in two ways: 1) a fixed amount that is set below a cost that discourages development but at a level that represents a meaningful contribution towards constructing a city-owned off-street parking garage; or 2) the actual cost of the developer providing their own on-site structured parking, usually a higher amount. Usually, developers will choose a fixed amount because they need certainty in their financing package for the development. This approach can be problematic unless the city has already provided the parking or has the ability to construct coincident with the development proposal.

The moderate sized city in Florida, with no existing parking structures, has a payment in lieu of providing parking provision in their City Code. However, since the payment was relatively low and few developers had exercised the option, the City had not yet built a large enough fund (based on the payment in lieu program) to offset the cost of building a parking structure. However, the City had recently decided to replace the existing City Government Building with a new parking structure and committed to using the payment in lieu funds to add an additional level to the garage for dedicated short-term public purpose.

Payment in lieu of parking can also be combined with tax abatements to help the developer recapture costs and encourage development. Partial recapture of the payment is typically negotiated based on the increment of new taxes generated by the new development activity or value. More about this will be discussed in the recommendations part of this section.

Private Activity Bonds

Private activity bonds are taxable bonds issued by a governmental entity to provide financing for projects. The bond proceeds are used by a private developer or non-governmental agency for project development. Usually the bonds are backed by project related tax revenues. Some private activity bonds such as those used for enterprise zone facilities may be tax-exempt. This approach is probably not applicable in Dover.

Publicly-Owned Facilities

There are a number of approaches to financing parking structures. The most commonly used approach for an Enterprise Fund, Parking Authority or Parking Utility would be Revenue Bonds.

²² A density bonus also creates additional parking demand.

Revenue Bonds

Revenue bonds are taxable or tax-exempt bonds that rely upon parking revenues or other parking related fees and/or commitments to repay the bonds. In principle, revenue bonds would not need the backing of an entity beyond the parking enterprise fund, authority or utility (assuming revenues are sufficient), however, it is quite common to require the full faith and credit of the city as well. Revenue bonds have higher risk associated with them which is generally reflected in a higher interest rate than general obligation (GO) bonds (unless the city fully backs the bonds). The revenue sources used to pay the bond debt can be comprised of several different income streams such as:

- Parking fees and fines. Although parking fines revenue cannot be used to calculate the debt service coverage, they can be used to offset costs. Otherwise, all parking meter revenue and permit fees can be used to service the debt.
- Leases and/or Negotiated Payments. Like the private sector, revenue generated from leased commercial space, lease of parking spaces, payments in lieu, or air rights can be used to service the debt.
- Parking Taxes. A tax can be levied on privately owned facilities to generate an additional source of revenue. In the City of Baltimore, the Parking Authority collects a tax equivalent to 11 percent of the gross transactions and a flat rate of \$14 per month per monthly permit. Pittsburgh currently has a 50 percent tax on parking fees. It is quite common for the public facilities to set aside an equivalent amount of revenue so that the private sector is not put in an uncompetitive position in the market.

GO Bonds

GO Bonds can be issued by a municipality for parking improvements and repaid with revenue generated by the parking system. This form of financing typically has the lowest interest rate since they are backed by the full faith and credit of the public entity. This approach can be used by the City of Dover with repayment from negotiated payments, leases, tax increment funds, special or parking assessment fees assessed on the private sector by the City and pledged towards bond debt.

Special or Parking Assessments Bonds

Special assessment or parking assessment bonds are also backed by the full faith and credit of the local entity, but derived from a special tax levied on specific taxpayers that benefit directly from the public improvements financed by the special assessment bonds. Some cities create one or more Parking Assessment Districts where a tax is levied on taxpayers within that district (typically non-residential uses) and reinvested into the parking system for improvements that benefit businesses in that specific district. This can be one of several combined sources of revenue used by the City of Dover and is subject to existing New Hampshire laws.

Tax Increment Finance Bonds

The construction of parking structures is usually an authorized use for tax increment financing (TIF) since the improvement is generally viewed as an economic development generator that will spark or support commercial development which will increase property values and contribute towards generating the tax increment. The City of Dover has not implemented tax increment financing, but it is recommended as one of the financing tools that should be reassessed to pay for parking improvements. Many cities use this approach including the City of Manchester.

Alternative Financing

There is a growing source of institutional and private investors that are looking for opportunities to invest in parking systems and parking assets. These investments usually require the full faith and credit of the local entity as well as a reasonably high credit rating.

Lease-Purchase Financing

In this approach, a private entity finances the cost of an improvement and leases it back to the local government over some period of time long enough to generate a fixed return on investment. The lease can be determined as a revenue sharing agreement once minimum returns are earned on the development of the garage. At some period in time, usually 30 to 99 years, the asset can be purchased back from the private entity at fair market value. The City of Manchester is pursuing a similar approach, using a developer to construct new garages on a ground lease from the City. The City is subsidizing a portion of the costs so that the developer is incentivized to partner with the City on the development. This transfers the development risk to the developer (from the City) while creating needed parking at "less than market rates" initially so that the development can garner public support from local businesses. This is similar to the strategy the City of East Lansing DDA is taking to add new parking supply to the downtown. In some cases, such as Pasadena, California, the investment required is generated through sales of Certificates of Participation (COP) to multiple investors who buy shares of the anticipated lease revenues rather than purchasing a bond secured by lease payments.

Public Private Partnerships

Somewhat self-explanatory and also difficult to define because of the infinite possibilities, this approach is comprised of a legal relationship created between the local public entity and a private developer to advance a project that neither may be able to accomplish independently. In the cities of Arlington Heights, Illinois, Miami Beach, Florida, Lansing, Michigan, a request for qualifications (RFQs) was issued by the city requesting land owners and developers to design a public/private partnership that involved a parking component that benefited more than just the "project". Once teams are deemed "qualified" then the city entered into negotiations with each of the development teams to identify the commitment of the developer, the level of support and participation needed from the city as well as the benefit returned to the city. In some instances, the city was able to expedite the development process, in others the city contributed land and still others, the city participated by providing a new revenue source or density bonuses or commitments to lease space. In all cases, the partnerships were very successful. One major benefit is that the development community typically understands what to bring to the market better than the public sector, which is one of the reasons for success in this approach.

Sale-Leaseback Financing

In this approach, an investment group provides capital in the form of a sale-leaseback agreement to an entity. The amount of capital available is based on the ability of the parking system to service the repayment. The investment group typically uses the entity's parking assets as collateral and requires the full faith and credit of the entity to guarantee the repayment. As an example, a net revenue stream of \$2,000,000 per year will generate \$30,000,000 or more in capital to the entity for improvement projects. In reality, the entity sells a 20-50 year revenue stream to an investment group at a discount rate and uses the funds typically for parking improvements. The parking system then repays the capital through lease payments over time. The advantage of this approach is that it can be executed far faster than revenue bonds, the proceeds have no restrictions like bond caveats, the net cost of money is very close to the cost of money in tax exempt financing. Washington, DC is one of many public entities negotiating a similar arrangement with private investment groups. The City of Chicago implemented this idea when they entered into a 99-year sale-leaseback of the Chicago Skyway toll facility. Since the City of Dover has limited existing revenue, this is not a viable option.

Vehicle Registration Fees

Vehicle registration fees are a consistent and likely source of funds to finance improvements in the parking system such as acquisition and installation of new meter equipment. However, there is a maximum amount that can be added to registration fees under New Hampshire law. That amount is \$5.00 per registration, generating about \$125,000 to \$135,000 per year, which is committed as the required local match for Federal Transit Authority funds designated to support new and expanded transit functions in Dover. The local match is required for the next two or three years. After that, the City may direct the registration surcharge to a Transportation Improvement Fund to support on-going transit costs. City Council has the authority to direct those funds to alternate uses.

Recommended Options for Financing Parking Improvements

One of the last steps of the Downtown Dover Parking Facility and Management Study is the development of a financial pro forma for the design, construction, maintenance and operation of a new parking structure over the next ten years. The full costs and revenue associated with a new structure in combination with the on-going costs and revenues of the current parking plus the reorganization of the parking system needs to be further refined before alternative financing options can be specifically identified and recommended. However, the following provides “placeholder” summary of the cost involved and potential revenue to be generated if a new garage is constructed.

The example used herein is based on the following example:

- A new garage on the Orchard Street lot;
- Loss of 100 spaces displaced due to construction and site modifications for the new garage, the addition of 600 spaces in the garage for a net addition of 500 spaces.
- Total development costs of \$18,000 per space (including design, financing, miscellaneous fees, permits, etcetera);
- Annual maintenance and repair costs of \$100 per space;
- Annual operating costs of \$250 per space;
- GO Bonds at 20 years and 5 percent;
- No debt service coverage required;
- No land costs; and
- 450 Permits at \$45 per month; and
- 150 Meters at \$1.00 per hour.

A brief example is provided below summarizing order of magnitude of costs and revenue followed by a list of potential financing options that the City will need to consider.

Development Costs

Garage development costs	\$18,000 per space
Total spaces constructed	600 spaces
Total development costs	\$10,800,000
GO Bonds – annual debt service	\$880,000
Annual maintenance, operating and repair costs	<u>\$210,000</u>
<i>Annual Total costs</i>	<i>\$1,090,000</i>

Revenue based on Current Rate Structure

Estimated revenue – 450 permits	\$240,000
Estimated revenue – 150 meters	<u>\$180,000</u>
<i>Annual Total Revenue</i>	<i>\$420,000</i>
<u>Net Annual Shortfall</u>	<u>\$670,000</u>

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Date: July 5, 2007

As shown the anticipated net annual shortfall in this example is anticipated as about \$670,000. Forthcoming final tasks of the parking study include an Engineering Report that recommends specific parking garage sites as well as financial proformas and applicable financing techniques to fund the improvements.

The following is a list of the financing approaches that will be studied in detail in those tasks.

1. Create a *Tax Increment Finance* District encompassing the Downtown
2. Implement *On-Street Parking Meters*
3. Issue *General Obligation Bonds*
4. Create a *Parking Assessment District* overlay of the Downtown
5. Negotiate *Public/Private Partnerships*
6. *Increase Rates* for parking Fines, Permits and Meters
7. *Payment-in-lieu of Providing Parking*

These techniques will be evaluated in greater detail once a final recommendation for improvements is developed.

DRAFT