John M. Burke, PE, CAPP
Independent Consulting
Parking, Transit & Downtown Development

December 27, 2018

Michael Stankovich
Director of Public Works
500 Primrose Street
Haverhill, MA 01830-2660

RE: 2018 Haverhill Parking Program Review & Update

Dear Mike:

Attached, please find the *2018 Haverhill Parking Program Update* that is a result of a comprehensive review of the City's parking program and includes recommended improvements, strategies and measures to the current parking program to:

- improve operational efficiency, system performance and customer service;
- better accommodate pending new developments; and
- achieve more balanced use of the on- and off-street parking system.

I would be happy to meet with you to discuss these recommendations and answer any questions you may have.

Sincerely,

John M. Burke, CAPP, Consultant
Parking, Transit & Downtown Development

PO Box 1177, Marion, MA 02738 • 413.627.7902 • jburke3142@gmail.com

Introduction, Background and Purpose & Need

It has been four years since the City last conducted a comprehensive performance review of its paid parking program. As a result of the *2014 Paid Parking Program Review*, the City implemented several recommended parking management and technology improvements to reduce parking system costs while improving service and convenience to its customers. However, few recommended demand-based changes - whether they be pricing, policy or regulatory in nature – have been implemented to balance use of the parking system by influencing and shifting demand away from parking areas of excessive use to areas of greater supply. As a result, areas of high demand, such as the Washington Street corridor, continue to experience parking shortages during much of the day while underused parking spaces are available in areas just north and east of the corridor. This imbalance results in customer complaints and a perception that there is a parking shortage.

Since the 2014 Program Review, the City has been busy with a steady pace of new development and redevelopment that has both re-energized and begun to transform the downtown riverfront area. Vacant buildings are steadily filling, bringing new activity in the form of more residents, employees, customers and cars. In general, these private development projects are providing for their tenant parking either by constructing it onsite or securing off-site parking agreements at the MVRTA Intermodal Parking Garage or the Goecke Deck - where ample parking is available. Customer parking, generated from first-floor retail and other commercial space, will in most cases be served by the on-street parking supply.

As occupancy grows in recently constructed and redeveloped vacant buildings, and as additional approved development projects come on line, there will be an increasing need to better balance use of the City's long- and short-term parking assets in a financially sustainable manner. Most approved new development activity will occur within the Merrimack and Washington Street corridors. Customer/visitor demand for short-term on-street parking spaces within the corridor, which is already quite high in certain sections, will increase significantly. Customers and visitors will seek available spaces nearest the new developments - that may become harder to find. Achieving appropriate turnover and availability of important high-demand customer parking will be a challenge.

Parking Program Update Methodology

The study methodology for evaluating and updating the parking program includes the following general tasks:

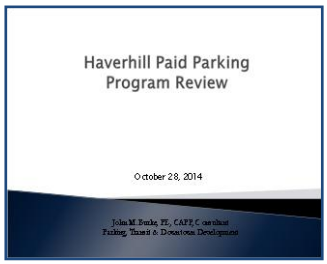
1. Review the *2014 Haverhill Paid Parking Program Review*
2. Review current and approved future building development projects, programs and parking plans.
3. Obtain and collect parking/permit utilization, enforcement, sales and pricing data and compare to 2014 program levels.

4. Evaluate current parking system performance based on established industry standards/performance measures and present key findings.

5. Recommend parking improvements, strategies, policies and management practices in consideration of current and approved development projects to achieve more:

   - balanced-use of the on- & off-street parking within a 5-minute walk of the Merrimack and Washington Street Corridors;
   - appropriate on-street turnover and compliance with posted time limits; and
   - efficient, convenient, customer-friendly and financially-stable parking system.

1. 2014 Paid Parking Program Review



The 2014 Haverhill Paid Parking Program Review included a comprehensive review of the on- and off-street parking system that included a customer-intercept stated-preference survey, a full on- and off-street parking utilization study and an audit of service delivery, management and technology. It resulted in several recommended key management and technology improvements being implemented including:

✓ <u>Bid out mgt. & operation of the paid parking system</u> – In 2015, the City replaced its parking management firm through competitive procurement and leveraged cost efficiencies of LAZ Parking who was already operating the MVRTA Intermodal Parking Garage. Through structural changes to the contract scope of work, the City was able to realize tens of thousands of dollars in annual cost savings.

✓ <u>Implemented Pay-by-Phone Parking Service</u> – In 2016, the City contracted for pay-by-phone service through competitive procurement with Passport to allow customers to bypass use of the parking kiosks altogether and instead pay for and extend their parking sessions remotely by phone. Today, pay-by-phone transactions are growing - and can top 1,500/month, which amounts to about 10% of all meter revenue.

✓ <u>Replaced handwritten citations with electronic handheld tickets</u> In 2016, the City contracted with Kelly & Ryan for electronic handheld ticket-writers that were wirelessly integrated with the parking kiosks, pay-by-phone service and enforcement software to improve performance and increase cost efficiencies and savings. On November 1, 2017, the City transferred responsibility for parking citations issuance in the Central Business District only from the Police Department to LAZ Parking.

There were several recommendations from the 2014 Paid Parking Program Review that were not implemented, including:

- Standardizing on- & off-street paid parking hours 10a.m.–8p.m. (M-Sat) to eliminate customer confusion and increase parking availability and turnover on street - especially during the early afternoon weekday and Saturday evening peak periods.
- Standardizing on- & off-street payment systems to eliminate customer confusion between off-street "pay-by-space" parking and on-street "pay-and-display" parking and customer frustration and inconvenience with "pay-and-display" parking.
- Standardizing informational, regulatory & parking lot entry signage to eliminate customer confusion and better brand municipal lots and parking decks.
- Increasing meter rate from $0.50/hour to $1.00/hour to cover meter operational & replacement costs and credit card transaction fees.
- Implementing tiered pricing based on parking permit locations and proximity to demand centers to incentivize long-term parkers to use underutilized parking lots.
- Converting parallel parking spaces to angle spaces on south side of Bailey Boulevard adding about 19 new parking spaces downtown
- Expanding Haverhill Place Parking Lot near Police Station adding about 21 new parking spaces downtown. (The Haverhill Public Works Dept. has completed design of the expanded lot and plans to bid the project shortly).

These recommendations will be further reviewed and considered later in this report.

2. Downtown Development Projects

Recently constructed and approved development and redevelopment projects are serving as a catalyst for the successful revitalization of the City's historic downtown and riverfront area. The complimentary mixed-use nature of these projects are supporting the expansion of investment in local businesses by providing upper level housing, office, educational and other uses with first floor retail to ensure street-level activity and commerce.

Complimentary mixed-use development also encourages shared parking, where for example, an individual parking space occupied by a resident in the evening may be used by a student, employee or customer by day. The City has been diligent in seeking and supporting this type of sustainable development mix while encouraging developers to secure appropriate long-term parking for their future tenants. A key objective of this program review and update is to also ensure that appropriate turnover of on-street parking spaces is occurring for the growing base of tenant customers.

Typically, it is the on-street parking system that primarily serves the parking needs of the customer. This is why parking planners emphasize the importance of on-street turnover and time limit compliance. Just like quality, first-floor retail results in vibrant sidewalks,

parking turnover on-street is a key component to the success and profitability of abutting businesses. This review and update will review on-street turnover and compliance particularly in the Washington and Merrimack Street corridors.

The following is a brief description of recently constructed and approved building development projects in the downtown riverfront area.

Harbor Place, 2-60 Merrimack Street

The first two phases of the Harbor Place development have been constructed. Phase I includes a 7-story, 81,500 s.f., commercial building with a 145-space underground parking garage to support the overall development. It includes ground floor retail and restaurant space with a pedestrian corridor to a Merrimack River boardwalk and public plaza as well as a mix of educational (UMass Lowell Satellite Campus), cultural and commercial spaces above. There are currently four commercial spaces available for lease including a 9,000 square foot commercial space on the 5th floor. Phase II is a 6-story, 80-unit residential building with ground floor residential lounge, retail and commercial space. A private fitness club will be opened on the 1st floor.

Development Parking: In addition to the 145-space underground parking garage for residents and tenants, the City entered into a license agreement with the developers of Harbor Place for 100 parking permits at Goeck Deck for employees, students/faculty of UMass Lowell, and residents of the new development. The City reports that the 100 parking permits have been issued by LAZ Parking to Harbor Place as follows: 30 to UMass Lowell for students/faculty, 20 for customers of the new private fitness club, 26 for apartment tenants, and 24 not yet committed and for potential use in Phase III (see below). The City has designated 26 spaces in the Goecke Deck on the back wall of the 1st floor for the apartment tenant permit holders.

Harbor Place Phase III will construct a 3rd building at 60 Merrimack St. on the vacant lot adjacent to the Phase II Harbor Place Building and will include an additional 55 residential units with 41 additional underground parking spaces. Phase III is scheduled to break ground in Spring 2019 and is projected to take 12 to 18 months to complete.

Redevelopment/Re-use Projects

2-12 Washington Street is a renovation by Lee Properties of the 5-floor Prescott Building that housed the former Haverhill Music Centre. The redevelopment plan includes 14 market rate rental apartments (13 one-bedrooms and one studio) with renovated first floor commercial retail space. A contract is in place with the MVRTA for 18 leased, undesignated parking spaces with 24/7 access to the parking garage. The Haverhill City

Council required a 20-year lease with MVRTA and a loading zone in front of the renovated building. Renovations are expected to be completed in 2019.

24 Essex Street is a conversion of mostly vacant industrial wharehouse space in the former Ted's Leather Goods Building into 56 market rate, studio, 1- and 2-bedroom apartments with 6,000 s.f. of ground floor retail. Tenant parking is provided by contract between the developer, Chinburg Properties, and the MVRTA for up to 68 undesignated spaces secured for use over a 20-year period. The Agreement allows monthly permits to be issued for 24/7 tenant use for years 1 – 5 and then converted to nights and weekends use only for years 6 - 20. MVRTA advises that the 24/7 permits can be issued in the near term due to relatively low (current) occupancy levels and projected space availability. However, in the longer-term, occupancy levels are expected to rise, which is why MVRTA shifted the 24/7 permits to nights and weekends use only after year 5. This action is meant to ensure that there is sufficient parking availability for regular, daytime commuter rail passengers.[1]

98 Essex Street, also known as the Chen Building, is being renovated by Peabody Properties into 62 units of primarily 1- and 2-bedroom apartments for a range of incomes. The 8-floor building, which is the former home of the Shoe and Leather Association, will include 6,000 square-feet of 1st floor retail that will be physically connected to the MVRTA public parking garage. A contract is in place with the MVRTA for 15 leased, undesignated spaces in the parking garage with the same basic terms outlined for the Chinburg development above. The project is expected to be completed in late 2019.

87 Washington Street is a major rehab and conversion by Traggorth Development of the 4-floor historic building that formerly housed the Trattoria Al Forno Restaurant, into 24 market-rate, loft-style, rental apartments on the upper three floors with an additional 3,500 s.f. of renovated first floor retail/restaurant space. A contract is in place with the MVRTA for 24 leased, undesignated spaces in the parking garage with the same basic terms outline above for the Chinburg developmente. Traggorth was also the developer of the 18-unit, JM Loft Apartments development at 37 Washington St. that opened in 2016. The first floor commercial space at JM Lofts is now fully leased.

<u>The Heights, 192 Merrimack Street</u>

"The Heights" project, a 10-floor, 65,000 s.f., luxury high-rise, mixed-use development at 192 Merrimack St., recently broke ground. It will be constructed on the former Riverside Promenade Municipal Lot. This Lupoli Companies' project is proposed to include 1st floor restaurant/retail use. Floors 2 & 3 will house the Northern Essex Community College Culinary Institute and incubator space. 42 luxury apartments are

[1] Providing commuter rail passenger parking iin the garage is a requirement of the Federal Transit Administration funding secured to construct the MVRTA Intermodal Parking Garage.

planned for floors 4 - 9 with a roof-top restaurant/sky lounge. The Heights development is anticipated to be completed in 2019. This public-private partnership includes an extension of the City's riverfront boardwalk and construction of a 59-space parking deck.

3. Data Collection

The data collection effort focused on updating 2014 parking & permit utilization rates and sales data, as well as enforcement and citations data. 2017 utilization count data was available and supplemented with 2018 counts as needed. Off-street parking space and permit utilization rates were then calculated for both designated multi-use spaces (meter paying customers & permit holders) and meter only spaces.

A few changes in the parking supply have occurred since the 2017 parking counts were conducted. The 28-space Locust Street Permit Lot reverted back to private hands and is no longer available for public use. Walnut Street is now a free, unregulated street instead of a permit parking street. Finally, as mentioned earlier, the Riverfront Promenade Lot was closed for public use in September 2018 when construction of the Heights project began but after the 2018 counts were collected.

A limited on-street license plate survey was also conducted within the Washington-Merrimack St. Corridor to determine parker's average duration-of-stay on 2-hr. time limited streets (metered & unmetered) and in the 2-hr. Goecke Parking Lot. Turnover of on-street spaces was assessed and non-compliance rates with posted time limits calculated.

Use of Long-Term Parking Facilities
Weekday and Saturday Parking & Permit Utilization Rates

Parking utilization counts for long-term parking areas in off-street public parking facilities and unregulated, free on-street parking spaces were collected. The counts were conducted from 9 a.m. to 7 p.m. on Thursday, May 18, 2017 and then again on Saturday, May 20, 2017. Weather conditions both days were dry with a mix of sun and clouds. The parking counts were collected for the multi-use, meter-only and handicapped space sections of each paid off-street parking lot. Parking utilization rates were then calculated for each facility.

Tables 1 & 2 below show calculated utilization rates for each parking facility for the Thursday and Saturday condition, respectively. Facilities with utilization rates exceeding 85% - considered "*effective capacity*" are shown in **red**; between 60% and 85% - considered in the "*balanced range*" are shown in black; and less than 60% - considered an "*underutilized*" parking asset shown in **blue**. Utilization rates and categories for designated multi-use, meter-only and handicapped space sections of the paid lots are also shown. **Table 3** shows the number of permit-holders versus cash-payers parking in the multi-use sections of the off-street paid parking lots on the Thursday and Saturday counted.

Supplemental parking counts were conducted on Friday, July 27, 2018 of additional long-term parking facilities, including the upper & lower sections of the Goecke Deck, the How St. and Riverfront Promenade Lots and Bailey Boulevard. The weather that day was sunny, hot and dry. Parking utilization rates for these facilities are shown in **Table 4** below.

Table 1 – Potential Long-Term Parking Facilities

Parking Utilization - Select facilities within 5-min. walk of Washington-Wingate Parking Lot

City of Haverhill, MA

Thursday, May 18, 2017

PARKING FACILITY	# of Spaces	9 am	11 am	1 pm	3 pm	5 pm	7 pm	Avg. Daily Use Rate
Washington Square Lot	**43**	34	34	37	30	32	38	**79.5%**
Multi-Use	30	29	30	29	27	27	28	94.4%
Meter Only	11	5	4	8	3	5	10	53.0%
Handicapped	2	0	0	0	0	0	0	0.0%
Phoenix Row Lot	**84**	38	39	51	53	79	79	**67.3%**
Multi-Use	23	21	23	23	22	23	23	97.8%
Meter Only	56	17	16	28	31	56	56	60.7%
Handicapped	5	0	0	0	0	0	0	0.0%
Washington-Wingate Lot	**81**	62	70	78	76	80	81	**92.0%**
Multi-Use	33	30	32	33	30	33	33	96.5%
Meter Only	39	25	32	39	37	39	39	90.2%
Permit Only	5	5	5	5	5	5	5	100.0%
Handicapped	4	2	1	1	4	3	4	62.5%
Essex St. Lot	**44**	32	31	32	24	17	36	**65.2%**
Multi-Use	27	24	23	23	18	15	22	77.2%
Meter Only	16	8	8	9	5	2	14	47.9%
Handicapped	1	0	0	0	1	0	0	16.7%
MVRTA Parking Garage*	**315**	139	158	156	154	139	117	**45.7%**
MBTA Lot	**159**	55	61	60	58	55	38	**34.3%**
Locust St. Lot (Permit Only)	**28**	15	15	15	15	9	5	**44.0%**
Locust Street Essex to Walnut	**15**	6	6	6	3	4	4	**32.2%**
Free Spaces	10	6	6	6	3	4	4	48.3%
Permit Only	5	0	0	0	0	0	0	0.0%
Walnut St. (Permit Only) Locust to Emerson	**15**	12	7	4	4	5	8	**44.4%**
Orchard St. (Free Parking) Locke to Emerson	**42**	7	6	7	5	11	19	**21.8%**
Locke St. (Free Parking) Essex to Orchard	**27**	23	22	22	21	21	26	**83.3%**
Locke Street Lot (Free Parking)	**115**	42	44	50	51	58	70	**45.7%**

Counts provided by LAZ Parking

J. Burke Consulting - 5/30/2017

Key

- **Effective Capacity** - exceeds 85% use.
- **Balanced Range** - 60% to 85% use.
- **Underutilized** - less than 60% use.

Table 2 – Potential Long-Term Parking Facilities

Parking Utilization - Select facilities within 5-min. walk of Washington-Wingate Parking Lot

City of Haverhill, MA

Saturday, May 20, 2017

PARKING FACILITY	# of Spaces	9 am	11 am	1 pm	3 pm	5 pm	7 pm	Avg. Daily Use Rate
Washington Square Lot	**43**	35	37	41	36	36	37	**86.0%**
Multi-Use	30	28	28	29	28	29	30	95.6%
Meter Only	11	7	9	10	7	6	7	69.7%
Handicapped	2	0	0	2	1	1	0	33.3%
Phoenix Row Lot	**84**	26	43	57	76	76	78	**70.6%**
Multi-Use	23	8	7	12	23	20	23	67.4%
Meter Only	56	18	36	42	51	54	55	76.2%
Handicapped	5	0	0	3	2	2	0	23.3%
Washington-Wingate Lot	**81**	72	77	79	78	78	80	**95.5%**
Multi-Use	33	31	32	33	32	33	33	98.0%
Meter Only	39	34	38	39	39	38	39	97.0%
Permit Only	5	5	5	5	5	5	5	100.0%
Handicapped	4	2	2	2	2	2	3	54.2%
Essex St. Lot	**44**	20	25	44	37	16	40	**68.9%**
Multi-Use	27	14	19	27	24	10	23	72.2%
Meter Only	16	6	6	16	13	6	16	65.6%
Handicapped	1	0	0	1	0	0	1	33.3%
MVRTA Parking Garage*	**315**	112	108	102	94	93	117	**33.1%**
MBTA Lot	**159**	5	4	8	17	14	13	**6.4%**
Locust St. Lot (Permit Only)	**28**	7	6	11	9	7	8	**28.6%**
Locust Street Essex to Walnut	**15**	5	5	7	7	6	8	**42.2%**
Free Spaces	10	5	5	7	6	5	8	60.0%
Permit Only	5	0	0	0	1	1	0	6.7%
Walnut St. (Permit Only) Locust to Emerson	**15**	8	8	6	5	6	12	**50.0%**
Parking) Locke to Emerson	**42**	4	7	7	11	10	20	**23.4%**
Locke St. (Free Parking) Essex to Orchard	**27**	24	22	26	27	21	25	**89.5%**
Locke Street Lot (Free Parking)	**115**	61	60	63	67	69	82	**58.3%**

Key

- **Effective Capacity** - exceeds 85% use.
- **Balanced Range** - 60% to 85% use.
- **Underutilized** - less than 60% use.

**Counts provided by LAZ Parking*

J. Burke Consulting - 5/30/2017

Table 3

Permit Parking in Designated Multi-Use Spaces in Select Downtown Lots
City of Haverhill, MA

	Saturday, May 20, 2017								*Thursday, May 18, 2017*							
	# of Multi-Use Spaces	9:00 AM	11:00 AM	1:00 PM	3:00 PM	5:00 PM	7:00 PM	% Use	# of Multi-Use Spaces	9:00 AM	11:00 AM	1:00 PM	3:00 PM	5:00 PM	7:00 PM	% Use
Washington Square Lot	30	28	28	29	28	29	30	95.6%	30	29	30	29	27	27	28	94.4%
# of Permits		14	12	13	12	12	8			22	23	26	18	16	16	
Cash Payers		14	16	16	16	17	22			7	7	3	9	11	12	
Phoenix Row Lot	23	8	7	12	23	20	23	67.4%	23	21	23	23	22	23	23	97.8%
# of Permits		6	6	7	7	7	5			18	22	23	21	19	15	
Cash Payers		2	1	5	16	13	18			3	1	0	1	4	8	
Washington-Wingate Lot	33	31	32	33	32	33	33	98.0%	33	30	32	33	30	33	33	96.5%
# of Permits		17	12	12	10	14	16			24	28	27	24	21	16	
Cash Payers		14	20	21	22	19	17			6	4	6	6	12	17	
Essex St. Lot	27	14	19	27	24	10	23	72.2%	27	24	23	23	18	15	22	77.2%
# of Permits		10	8	8	8	7	7			21	20	20	15	11	6	
Cash Payers		4	11	19	16	3	16			3	3	3	3	4	16	

Onstreet meters go into effect

Onstreet meters go into effect

Table 4: Utilization Rates for Other Long-Term Parking Facilities

Friday, July 27, 2018

Parking Facility	# of Spaces	9 a.m.	11 a.m.	1 p.m.	3 p.m.	5 p.m.	Avg. %
Goecke Deck Upper Permit Section	130	47.7%	57.7%	53.8%	49.2%	16.9%	45.1%
Goecke Deck Upper Pay Section	101	26.7%	39.6%	24.8%	34.6%	7.9%	26.7%
Goecke Deck Lower	245	24.5%	30.6%	29.0%	21.5%	14.3%	24.0%
How Street Lot	41	12.2%	31.7%	31.7%	35.0%	24.4%	27.0%
Riverfront Promenade Lot	57	52.6%	68.4%	77.2%	78.9%	71.9%	69.8%
Bailey Boulevard	102	--------	54.9%	66.7%	55.9%	36.4%	53.5%

The MVRTA Garage is showing higher occupancy levels in 2018 than what was counted in 2017 according to LAZ Parking. Max weekday parking utilization rates collected in 2018 were approximately 55%[2] as compared to just over 50% in 2017. At a maximum occupancy rate of 55%, the MVRTA Parking Garage still has 142 available parking spaces.

[2] Occupancy rates can be much higher on snow days.

Use of Short-Term Parking Facilities (2-Hour Time Zones)
Weekday Parking Utilization Rates

A license plate survey was conducted in the 2-hour time zones on Friday, September 14, 2018 between the hours of 9:00 a.m. and 6 p.m. The weather that day was sunny and dry. Parking utilization rates from the survey are provided in **Table 5** below.

Table 5: Parking Utilization Rates - 2-Hour Time Zones
Friday, September 14, 2018

Parking Facility	# of Spaces	9 a.m.	11:15 a.m.	1:30 p.m.	3:45 p.m.	6 p.m.	Avg. %
Goecke Parking Lot	47	----------	74.4%	60.0%	44.7%	46.8%	56.5
Merrimack Street Main to Emerson	54	----------	44.4%	40.1%	46.3%	53.7%	46.1%
Emerson Street Merrimack to Walnut	25	----------	100.0%	88.0%	88.0%	92.0%	92.0%
Washington Street Essex to Railroad Sq.	36	----------	85.7%	95.2%	95.2%	97.6%	93.4%
Washington Street Railroad Sq. to River St.	21	----------	71.4%	100.0%	95.2%	90.5%	89.3%

Weekday Parking Turnover Assessment

The license plate survey allowed for a general assessment of how 2-hour on-street spaces are turning over. The parker's average duration-of-stay, non-compliance rates with posted 2-hour limits, number of all-day parkers in 2-hour spaces, and assessment of turnover are provided in **Table 6** below.

Table 6: Parking Turnover Assessment – 2 hour Zones
Friday, September 14, 2018

Parking Facility	# of Spaces	Avg. Duration of Stay	2-Hour Non-comply rate	# of All Day Parkers Observed	Turnover Assessment
Goecke Parking Lot	47	1 hr. 49 min.	32.4%	6	Poor
Merrimack Street Main to Emerson	54	1 hr. 10 min.	8.2%	1	Good
Emerson Street Merrimack to Walnut	25	2 hr. 9 min.	42.4%	5	Poor
Washington Street Essex to Railroad Sq.	36	1 hr. 24 min.	19.5%*	2	Good
Washington Street Railroad Sq. to River St.	21	2 hr. 25 min.	71.4%	6	Poor

*Non-compliance with 2-hour time limits on Washington Street between Essex St. and Railroad Square was 26.6% for the period before meters went into effect (3 p.m.) and 12.4% after. Turnover of parking spaces improved significantly after meters went into effect.

Parking Pricing and Sales Data

Off-Street Hourly and Daily Parking Rates are shown in **Table 7** below.

Parking Facility	Hourly Rate	Daily Rate (8 hours)
MVRTA Garage	$1.00	$4.00
City Lots/Deck	$0.50	$4.00
MBTA Commuter Rail Lot	-------	$2.00*

* Changed from $4/day to $2/day on September 1, 2018.

Hourly parking meter rates in nearby cities and towns are shown in **Table 8** below.

City/Town	Hourly Meter Rate
Salem, MA	$1.50
Newburyport, MA	$1.50
Lowell, MA	$1.50
Lawrence, MA	$1.00
Haverhill, MA	**$0.50**

Monthly Parking Permits/Rates through June 30, 2018 are presented in **Table 9** below.

Parking Facility	Total Spaces	# of Active Permits	Monthly Rate
MVRTA Garage	315	309*	$80**
City Lots/Deck	587***	749****	$20*****
MBTA Commuter Rail Lot	159	unknown	$35

*288 are 24/7 monthly permits and 21 are day-time only permits issued to one employer.
**MVRTA group permit rate (more than 5 permits) is $65/month.
***Permit-allowed designated spaces only.
****Active permits as of June 30, 2018 reported by LAZ Parking
*****Increased from $15 to $20/month in 2018

It is not unusual for the total number of active permits issued for use of a parking garage to be at or greater than the total number of spaces in the facility because different user groups use the garage at different times. For example, many of the 24/7 permit holders really only use their permits on weekdays. Also, not everyone uses their permit every day (ex. employee vacations, sick leave, travel, etc.). The same can be said for the City's parking lot permit program.

It is important however, that the parking operator continuously monitor overall utilization rates to make sure they are not over-issuing monthly permits. With peak-use rates of just 55%, the number of permits currently active at the MVRTA Garage is not an issue today, but it must be monitored. And while weekday and Saturday evening permit spaces in parking lots serving the Washington Street corridor are at or approaching capacity, there are still plenty of available parking permit spaces within a 5-minute walk distance at the Goecke Deck and city lots along the Merrimack Street corridor.

Total annual parking sales revenue for Fiscal Year 2018 compared to Fiscal Year 2014 levels are shown in **Table 8** below.

	FY 2018		FY2014	
	Annual Revenue	% of Total Revenue	Annual Revenue	% of Total Revenue
Meters	$119,230	43.6%	$142,482	55.1%
Pay-by-Phone	$ 15,039	5.5%	$ 0	0.0%
City Permits	$139,175	50.9%	$116,217	44.9%
Total Annual Sales Revenue	$273,444	100.0%	$258,699	100.0%

60% of all payments for use of metered parking spaces are now made by credit card with the remaining 40% by cash. This includes all parking kiosk (meter) and pay-by-phone payments. The City currently has 44 Luke II Kiosks on-street and in the lots/deck. The kiosks, which are now over 7 years old, are experiencing significant maintenance issues according to LAZ Parking, and need to be replaced. The fully depreciated useful life of these units is 7 years.

Citation Issuance and Revenue

LAZ Parking took over responsibility for issuing parking citations with the electronic handheld units as of November 1, 2017. For the period January 1, 2018 to June 30, 2018, 2,536 total citations were issued with a total value of $61,710. Of the 2,536 citations issued, 2,059 (81.2%) were for expired meters and 225 (8.9%) were for overtime (time-zone) violations. The remaining 9.9% were issued for various safety violations. Based on current and historic monthly issuance rates, t*otal annual citations issuance* is projected to be just over 5,000 with a total fine amount of $125,000.

Fines for both expired meter and time zone violations are $25, which is a fairly common fine amount found in other New England municipalities including the cities of Newburyport and Salem, MA.

4. Parking Performance Evaluation and Key Findings

There are several *key planning principals* that were used in this performance evaluation of the Haverhill parking system. A brief description of each is provided below.

Walk Distance and its Relationship to Parking

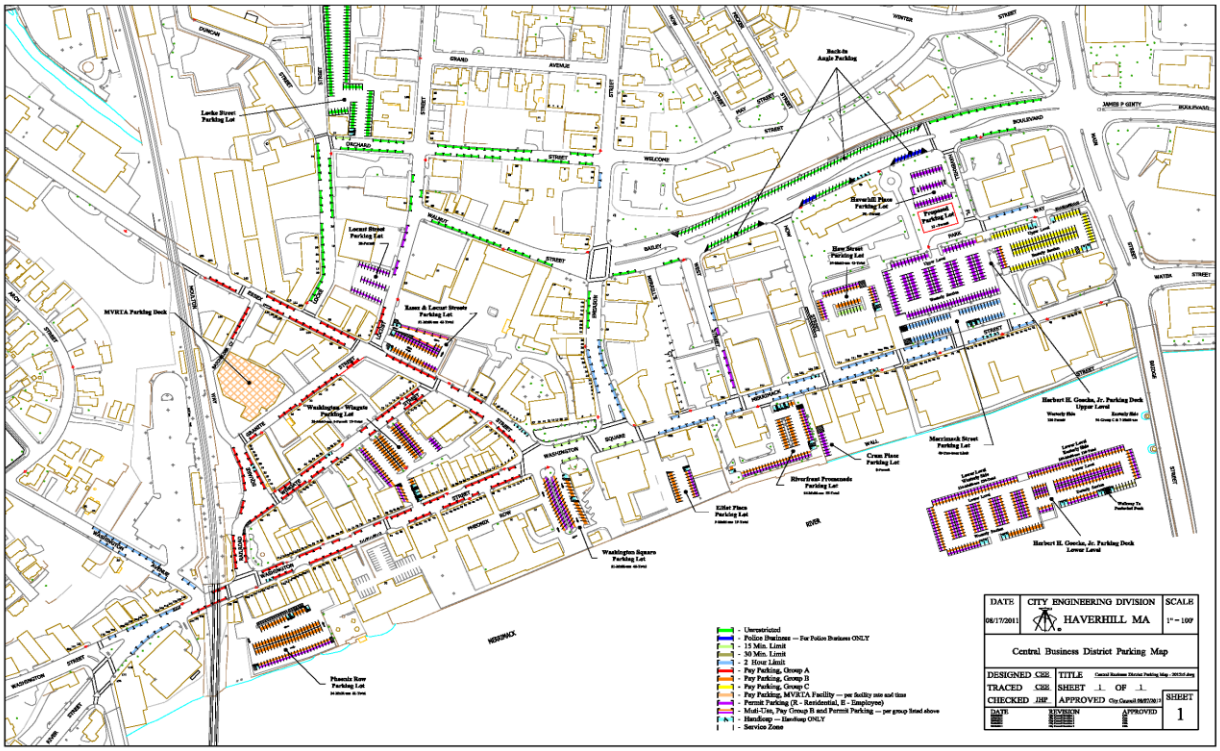
For small city downtowns with modest parking rates, urban planners typically consider a 5-minute walk (about ¼ mile) as a reasonable distance to long-term parking available to serve the downtown commercial core. For Haverhill, a 5-minute walk from the busy Washington Street Corridor may get you to the Locke Street Lot, Orchard Street or Bailey Boulevard near its intersection with Main Street. The approximate 5-minute walk area from the heart of the core commercial area, Washington Square, is depicted in the Central Business District (CBD) Parking Map below.

Outside of price, safety, and individual health, “trip purpose” is the most important factor in determining how far an individual parker will be willing to walk to their destination. For example, a long-term parker such as an employee will generally find it reasonable to walk a

much longer distance to their destination than a retail customer. Based on pricing, a long-term parker storing their car for 8 hours or more may find it acceptable to walk 750 feet or more to/from a paid parking space and a ¼ mile (approx. 5-minutes) to/from a free or deeply-discounted parking space, while a retail customer parking for 20 minutes, may be unwilling to walk more than 300 feet from a paid parking space to their destination.

Parking systems become unbalanced and businesses suffer when long-term parkers (employees, business owners, residents, etc.) consume too many of the prime parking spaces within a few hundred feet of the commercial/retail core and displace retail customers and visitors. In most of these cases, under market/out-of-balance parking rates and/or insufficient enforcement/regulations are key contributing factors.

Central Business District Parking Map



Target Occupancy Rates and the 85% Rule

Urban planners typically strive for a balanced parking system in Central Business Districts where all on- and off-street parking assets are well used but still provide some level of availability to the parker. In general, *a 60 to 85% occupancy range is considered acceptable in achieving "balance" with a target-occupancy of 85% for each parking asset* as the goal. Why 85%? Planners use the 85% "ideal" occupancy threshold because at 85% use, there should be 1 or 2 parking stalls available per block face, giving the parker a reasonable expectation of finding a space on a desired street segment or facility. 85% occupancy achieves efficient use of a parking asset while still offering sufficient availability to would-be parkers. Above 85% occupancy, you will begin to see cars circling with people hunting

for spaces - leading to a perception that there is not enough parking. If occupancy rates remain above 85% for long periods of the day or evening, customers may decide to avoid an area altogether. Conversely, a parking facility or street with occupancy levels below 60% should be considered an underutilized public asset – especially when there are nearby facilities exceeding the 85% occupancy threshold.

Therefore, the following occupancy standards will be used in the evaluation:

Underutilized Occupancy Rate:	**Under 60%**
Acceptable Occupancy Rate:	**60% to 85%**
Target Occupancy Rate:	**85%**
Effective Capacity Occupancy Rate:	**Over 85%**

Demand-Based Parking Pricing

The demand-based pricing concept, which is based on basic supply and demand theory, states that if a parking asset is priced too low, it will be quickly consumed to capacity and would-be parkers will be displaced. If it is priced too high it may become unattractive and underutilized. So, if a parking lot is at or near 100% occupancy through peak periods of the day and a nearby lot is underutilized during those times, it likely points to a pricing imbalance problem. The demand-based pricing concept is directly linked then to the 85% occupancy rule. For the above-example, a municipality using demand-base pricing and the 85% occupancy rule might increase the parking rate at the overused lot relative to the underused lot until attaining equilibrium at or near 85% occupancy for both lots. While pricing imbalances and under-market pricing are very common in small municipal parking programs, more communities are adopting demand-based pricing policies to allow more responsive rate adjustments based on demand and the 85% occupancy target.

The Impact of Parking Meters on Turnover and Time-Zone Compliance

On-street parking is the life-blood for commercial and retail business. If it is not appropriately turning over then businesses are quite simply losing customers. Again, considering the short distances that retail customers are willing to walk, if on-street spaces are not turning over or available, even "drive-by" customers may seek other destinations for their desired goods or services. The following on-street parking performance targets were used for evaluation:

Time Zone Non-Compliance:	**Target 5% or less but not more than 15%**
Average Duration-of-Stay in Time Zone:	**Not more than 75% of posted time-limit** (1 hr. 30 min. for 2-hour time limit)

Numerous studies show that non-metered streets, with posted time limits, result in lower turnover, more streets at capacity, and more parkers in non-compliance with posted times than do streets with parking meters. *The Parking Handbook for Small Communities* indicates the following reasons for installing parking meters:

- Promotes parking turnover;
- Distributes limited on-street parking time equitably;

- Provides space for the short-term shopper and business client;
- Maximizes the economic viability of the downtown by providing opportunities for more people to park conveniently; and
- Generates revenue for the municipality to reinvest in their paid parking areas.

2-hour free, time-limited parking that does not meet thresholds for occupancy, time-zone compliance, and duration-of-stay/turnover shall be recommended for meter installation. The enforcement levels associated with attaining these thresholds without parking meters can be cost prohibitive.

The Top 10 Findings of the Program Review

1. **While public parking within the Washington St. Corridor is often at effective capacity, there is still plenty of available parking within just a 5-minute walk.**

   The paid parking supply regularly exceeds effective capacity (85% or greater) on weekdays and Saturdays in the Washington Street Corridor - both on-street and in lots off Washington St. However, during those times, there was still a good supply of available parking within a 5-minute walk at the 315-space MVRTA Garage (145 available spaces), 476-space Goecke Deck (265 available spaces) and on unregulated streets peripheral to the downtown, which include:

   - Walnut Street – Locust St. to Emerson St.
   - Bailey Boulevard – Emerson St. to Main St.
   - Orchard Street – Locke St. to Emerson St.
   - Locke Street Lot

2. **A parking meter rate increase is warranted.**

   It has been 7 years since Haverhill introduced paid parking downtown and there has never been an increase to the 50 cents/hour parking meter rate. Metered parking in the Washington Street Corridor often exceeds effective capacity (see locations below) as it did back in 2014, which in and of itself warrants a rate increase.

   Washington-Wingate Lot (most weekday & Saturday periods)
   Phoenix Row Lot (primarily after 5 p.m. weekdays; earlier on Saturdays)
   Washington Square Lot (a few weekday & Saturday time periods)
   Washington Street - Essex St. to Railroad Sq. (most weekday & Saturday periods)

   The metered parking rate in Haverhill is too low to cover standard parking kiosk operating costs that include credit card transaction fees, software system fees, maintenance and replacement of the units when they reach the end of their useful life. The kiosks are now over 7-years old, beginning to experience significant maintenance issues, and need to be replaced.

The Haverhill parking rate is 2 to 3 times lower than rates found in the nearby cities of Lowell, Lawrence, Salem and Newburyport. Stated preference surveys show that customers of busy commercial districts like Haverhill expect to pay a reasonable meter rate for convenient access to businesses they patronize. A $1.00/hr. meter rate is certainly reasonable considering it would still be lower than three of the neighboring cities listed above, equal to the fourth (Lawrence), and at the lower end of meter rates found in New England cities and towns.

3. **On-street turnover and compliance with posted time limits improves significantly once parking meters go into effect.**

Non-compliance with 2-hour time limits on Washington Street between Essex St. and Railroad Square was 26.6% prior to 3 p.m. when on-street parking is free and 12.4% after, as shown in Table 6. Turnover also increased once the meters went into effect. This is because parking meters are to some extent "self-enforcing" of posted time limits. This documents the need to advance the 2014 recommendation to extend metered parking hours from 3 p.m. - 8 p.m. to 10 a.m. - 8 p.m.

4. **Multi-use permit parking spaces in the Washington-Wingate and Washington Square parking lots are at effective capacity from 9 a.m. to 7 p.m. both on weekdays and Saturdays; and during the weekday and Saturday evenings in the Phoenix Row lot. When this occurs, employee & downtown resident permit holders are displacing downtown customer use of these lots.**

The City increased monthly permit fees in 2018 from $15 to $20, but because the $20 monthly rate at the high-demand Washington Street lots is still so much lower than the monthly rates at the lower-demand MVRTA garage ($80/month) and MBTA commuter rail lot ($35/month), the multi-use permit parking spaces are filled or close to filled nearly every weekday and Saturday hour in the Washington-Wingate and Washington Square Lots. The employee and downtown resident permit demand for these spaces far exceeds the existing supply.

5. **The MBTA's recent rate cut for daily parking at its Commuter Rail Lot downtown has increased utilization of this once poorly used lot by drawing some parkers from the busier parking facilities located east of the rail line.**

The 159-space MBTA Commuter Rail Parking Lot, which had just a 38.3% peak weekday occupancy rate in 2017, is now achieving occupancy rates over 80% some weekdays thanks to a September 1, 2018 MBTA daily rate cut from $4 to $2. It appears some downtown employees (non-rail passengers) and other parkers have relocated to the lot, which should reduce demand somewhat for off-street parking facilities east of the MBTA rail line that are serving the Washington Street Corridor. In the first full month following the rate cut, the MVRTA reported a 25% decrease in transient customers at the parking garage. However, it appears that transient customer use of the garage increased in subsequent months, perhaps with colder weather and winter approaching.

6. **The MVRTA Parking Garage has the capacity to accommodate the tenant parking contracts secured for new development and redevelopment approved by the City and set to open in 2019.**

   Peak weekday occupancy at the MVRTA Parking Garage has increased somewhat since 2014 when it was near 50%. In 2018, peak weekday occupancy rates were calculated at just over 55%. There are several development contracts in place with the MVRTA for future leased parking in the garage that will begin being used when the developments come on line in 2019. These agreements include a total of 125 monthly permits for 24/7 use that will increase the total number of 24/7 permits in the garage from 288 to 413. Due to the relatively low peak occupancy levels and the good mix of daytime & evening permit and transient use, the MVRTA believes there is sufficient garage capacity to accommodate this new demand.

7. **The following non-metered streets with 2-hour time limits meet warrants for the installation of parking meters:**

   - Emerson Street – Merrimack St. to Walnut St.
   - Washington Street – Railroad Square to River St.

   These street segments meet warrants by exceeding effective capacity and exhibiting poor turnover and unacceptable rates of time-limit non-compliance. A high number of all-day parkers used both 2-hour time-limited street segments.

8. **Locke Street from Essex Street to Orchard Street is a non-metered, unregulated street that** exceeds effective capacity **a few times during the weekday and Saturday count period.** It appears the vast majority of parkers on Locke Street are employees and residents. These occupancy rates should be regularly monitored as developments like the Chen Building come on line.

9. **The Merrimack Street Corridor, including Merrimack Street itself and the Goecke Deck, are significantly underused (under 60% occupancy) and will be able to accommodate increased demand from approved new development projects in the corridor**. All Merrimack Street parking facilities had lower occupancy rates in 2017/18 than they did in 2014. Obviously, parking occupancy rates will increase once all phases of Harbor Place and the Heights are fully constructed and occupied – at which time, warrants for parking meters on Merrimack Street will likely be met.

10. **Despite enforcement, parker non-compliance of posted 2-hour parking time limits is extremely high on several non-metered streets and in the Goecke Parking Lot**. It is extremely difficult to achieve acceptable levels of compliance with 2-hour time limits in high-demand, non-metered, parking spaces. The level of manual "chalking" required to accomplish this can be labor intensive and cost prohibitive. It can also result in a perception that enforcement is overly aggressive.

5. Recommended Improvements

Based on the performance evaluation and findings, previous parking studies, and pending/approved building development projects, the following parking improvements, strategies, policies and management practices are recommended:

1. Standardize on- & off-street paid parking hours: 10 a.m. to 8 p.m. (M-Sat) to eliminate customer confusion and increase parking availability & turnover on street – especially running up to, and during the lunch-time period. Prior to 10 a.m. there are generally plenty of available downtown parking spaces. However, by 10:30 a.m. or so, Washington Street, the Washington-Wingate Lot and Washington Square Lot all exceed effective capacity. With this change, the City may need to consider overnight parking restrictions in spaces adjacent to "early-morning" restaurants and other businesses to ensure parking availability in those locations prior to 10 a.m.

2. Replace on-street "pay & display" parking kiosks with single-space meters – As the on-street parking kiosks are retired, the City should consider replacing them with electronic, credit-card enabled, double-headed, single-space meters. Currently, a customer parking along the curb must find and walk to the closest on-street parking kiosk to make payment (often in the opposite direction of where they are going). Then they must return to their car to affix the parking receipt to their dashboard/windshield. With the single-space meter, the customer can make payment directly at their parking space and simply go on their way. The single-space meter is also easy to enforce as it displays a bright red or green LED light indicator showing whether a parking session is paid or expired. It is also more cost efficient than the kiosk for on-street segments where there are only a few paid parking stalls. The single-space meters could be transitioned-in over time, with the kiosks used for spare parts. The City could also opt for a free, no obligation 90-day trial of the single-space meters offered by vendors before purchase.

3. Increase meter rate from $0.50/hour to $1.00/hour to cover meter operational and replacement costs. It has been seven (7) years without a rate increase. $0.50/hour is well below market rates and simply insufficient to cover credit card transaction and processing fees, vendor data storage, hardware and software fees, power, maintenance, replacement parts and supplies not to mention the cost of replacing the units. This is why there are almost no towns and cities in New England still at this rate. The City's parking kiosks are now 7 years or older and ready for replacement. At $1.00/hour, Haverhill would still have the lowest meter rate of any nearby City and be at the lower end of meter rates in New England.

4. Standardize and upgrade informational, regulatory & parking lot entry signage to eliminate customer confusion and better brand municipal parking lots and decks. Many of the municipal parking lots are located behind buildings making them difficult for the infrequent visitor to find and/or discern from other private lots.

Better directional and lot-entry signage is needed. There is also a need to better sign the 2-hour on-street zones and in the Goecke Deck lot. Some all-day parking appears to be occurring in spaces where there are no 2-hour parking signs in sight. Also, additional pay-by-phone signs should be provided by Passport (at no charge) and installed.

5. Eliminate permit hangtags and replace with "virtual" permits purchased on-line – There is no longer the need to absorb the cost of printing and administering parking permit hangtags to customers. Permits can be applied for, and purchased by the customer directly from the City's parking website through the City's pay-by-cell provider. The customer's license plate is the permit. The list of permit holder license plates is automatically loaded and updated daily to the enforcement officer's handheld units so that they can determine in real-time whether or not a parker is a permit holder. This recommendation will reduce administrative costs; eliminate the problem of hangtags dropping from rear view mirrors; and increase customer convenience. It will also eliminate the problem of customer's forgetting to hang permits from their rear view mirrors and the use of expired hangtags.

6. Install 2-hour meters on Washington Street between Railroad Square and River St. – This 21-space commercial section of Washington St. meets meter warrants based on very high parking occupancy, low turnover and high non-compliance rates with posted time limits. It is recommended the City continue to provide businesses along this street section with an ample supply of free, 2-hr. parking on the lesser-used side street (Washington Ave.). A 90-day no obligation single-space meter trial could be considered for this section (Recommendation #2 above).

7. Better sign the free, 2-hour zone on Washington Ave. and issue parking permits to abutting residents – This 2-hour zone that extends well north of the MBTA commuter lot driveway is poorly signed. A properly marked 2-hour zone will provide a free, short-term parking option to Washington Street businesses while eliminating all-day MBTA commuter rail customer and employee parking, which was observed. A free/low-cost permit issued to abutting residents would allow them to park in excess of the 2-hour posted limit.

8. Encourage the MVRTA to develop a more flexible monthly parking pass program at the Haverhill Intermodal Parking Facility – MVRTA currently only offers an $80 monthly pass ($65 for blocks of 5 or more) to the general public for 24/7 access. This one-size-fits- all approach to monthly parking is very limiting considering the different needs of the downtown resident, employee, business owner and commuter. It is recommended that it addition to this "24/7 Pass" at $80/month, the MVRTA offer a:

   - "Weekday Pass" targeted at employees & business owners for weekday access to the garage say Monday – Friday, 6 a.m. to 6 p.m. at say, $55/month; a

- "Nights & Weekends Pass" targeted at downtown residents who may not work downtown for nights and weekend access to the garage at say, $45/month; and a

- "Downtown Premium Pass" good for 24/7 use of the Intermodal Parking Garage, as well as the Goecke Deck and perhaps certain specified City lots at say, $90/month. This pass would require an interagency agreement between the City and the MVRTA to address administration services and revenue sharing.

This type of monthly pass structure is very common at municipal parking garages in U.S. Cities. It allows the parking garage operator to maximize revenue, occupancy, and shared-use of the facility, while at the same time offering the customer multiple products so they can choose the one that best suits their individual needs. The monthly pass hours and discounted prices listed above are just suggestions for discussion purposes only. An actual rate structure would need to be evaluated and agreed-upon based on current and projected garage occupancy and hourly use by the different user groups, and other factors.

9. Shift employee parking from the paid parking lots in the Washington and Merrimack Street corridors to the Goecke Deck, MVRTA Garage, MBTA Lot, Bailey Boulevard and other unregulated streets within a 5-minute walk distance of the riverfront – There are simply not enough spaces in the City's paid parking lots to accommodate current demand from customers and visitors, as well as permitted downtown residents, business owners and employees. This condition will worsen in 2019 as Harbor Place Phase III, the Heights and other developments come on line.

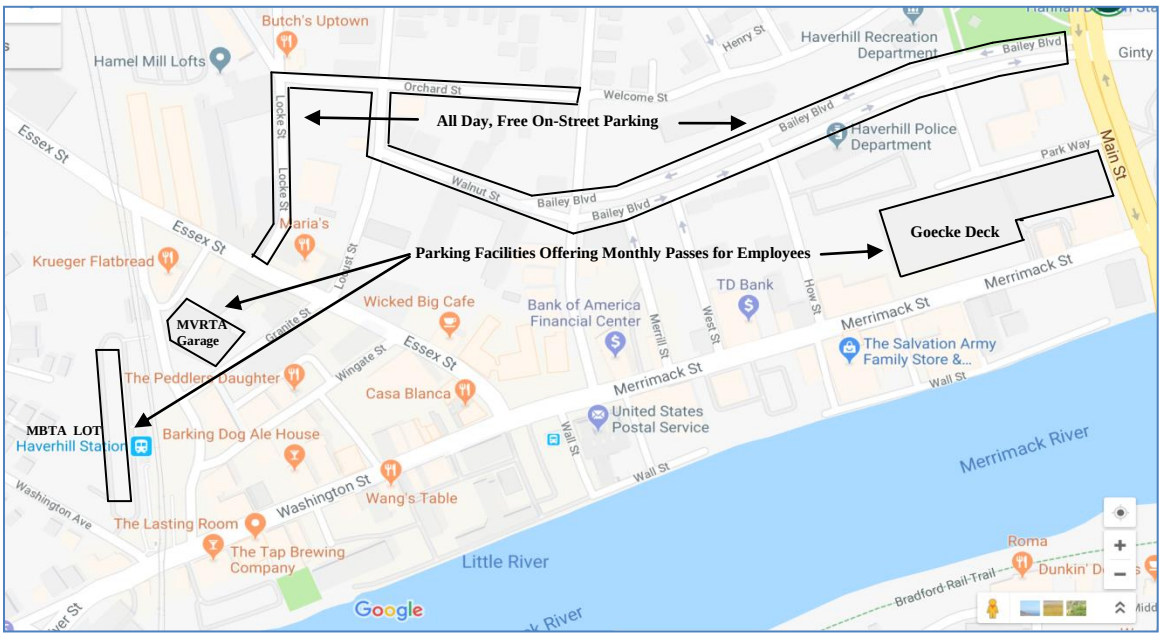
Of all the noted user groups, it is the employee that is typically the least sensitive to walk distances from their parking space to destination. It is one of the most important reasons cities build parking garages and decks in the first place – to store employees cars within a reasonable walk of the commercial core, thereby freeing-up the most convenient, high-demand, on- and off-street parking spaces for customers and visitors. It simply does not make good economic sense to displace would-be customers and visitors by storing employee cars all day in convenient, high-demand spaces that are most needed by downtown businesses.

Currently, multi-use permit parking spaces in several lots are either full or near full the entire day or at certain times of the day. Cash-paying customers and visitors are being displaced by permit parkers. They can be seen circling lots regularly looking for available spaces that don't exist. The City also receives regular complaints from downtown resident permit holders that they are unable to find a permit space when coming home from work or bringing in groceries. By restricting permit-eligible lot spaces to resident permit holders, there will be better parking availability to abutting residents as well as downtown customers and visitors[3].

[3] The City may also want to continue to allow business owners with permits to park in the paid lots to provide them better access to their businesses throughout the day.

As for employees, there could be several parking options provided at different price points all within a 5-minute walk distance of the riverfront as presented below.

$55/mo. for a "Weekday Pass" at the 315-space MVRTA garage (see rec. #8);
$35/month for a 24/7 pass at the 159-space MBTA lot;
$20/month for 24/7 pass of the 476-space Goecke Deck; and
$ 0/month for 24/7 use of 102-spaces on Bailey Boulevard and numerous other spaces on unregulated streets nearby (Walnut St., Orchard St., Locke St., etc.).



10. <u>Consider implementing on- and off-street space sensor technology with space availability tracking</u> – smart parking guidance and sensor technology allows cities to keep track of, and post on mobile apps and solar-powered, electronic, variable message signs (VMS) for off-street facilities, the number and location of available on- and off-street parking spaces in real time. This type of parking guidance system involves ongoing wireless communication between each system element – the wireless sensors, which can, for example, be installed in the dome of the single-space on-street meters or in the pavement at the entrance/exits to off-street lots - the VMS, and the management/mobile app.

Metered space sensors identify when a vehicle enters and leaves a space. They are integrated with the parking management software to allow parking enforcement to remotely monitor all spaces, see which spaces are in violation, and direct enforcement resources accordingly. The sensors also work with the meter to

disallow a parker from paying to stay in a space beyond the posted time limit. They are also able to provide real-time parking utilization data to the City while notifying customers in real time of parking space availability via a mobile app.

If rates are increased to cover costs, space sensor tracking technology could be implemented with space availability signs posted at key lots and garages to provide parkers with advanced notice of when a facility is full – preventing unnecessary entry, search and exit traffic. The system would provide the City with continuous occupancy data for adjusting rates and regulations while allowing customers to track and find available parking spaces in real time via mobile app. This technology has gotten much more affordable in recent years and some vendors are offering 90-day, no obligation, free trial, which should be considered.

11. Install 2-hour meters on Emerson Street between Merrimack St. and Walnut St. - This 25-space commercial street in the heart of the downtown meets meter warrants based on high parking occupancy, low turnover and high non-compliance rates with posted time limits. A 90-day no obligation single-space meter trial could be considered for this section (see Recommendation #2 above).

12. Extend 2-hour metered parking on Locust Street to its intersection with Walnut St. - 2-hour meters are already located on Locust Street near its intersection with Essex Street. This recommendation would simply extend the 2-hour metered section 10 spaces to the end of the street (Walnut Street) and would require striping the 10 parking stalls since not all the spaces are curbed. This recommendation will move all-day parkers out of these 10 spaces to either the paid Essex Street Lot, which has some availability, or to the abundant available free spaces on Walnut or Orchard Streets just a block away.

13. Consider future parking meter installation on Merrimack St. and in the Goecke Parking Lot in coordination with the opening of the Heights & Harbor Place Phase III – Merrimack Street and the Goecke Lot do not currently meet warrants for parking meters. Merrimack Street in particular exhibits low occupancy rates, high turnover and good compliance with posted 2-hour parking limits. However, given the amount of commercial space yet to be occupied in the Harbor Place project, and planned for the Heights project, it is likely that warrants will be met once these projects are fully on line in 2019/2020. It is recommended that a parking meter warrants evaluation be conducted annually in consultation with the City.

14. Implement Licensed Valet Parking Program - If done correctly, valet parking can expand the effective supply of public parking downtown when parking is needed the most – weekend evenings. By parking cars in tandem, roughly 50% more vehicles can be parked in a lot by a valet operator than if it were a public self-park lot. Valet also shifts cars that would typically park in a high-demand corridor and moves them to a lower-demand area. Typically a few on-street metered spaces are “bagged” and taken out of service to allow for drop-off/pick-up of restaurant patrons. Most cities

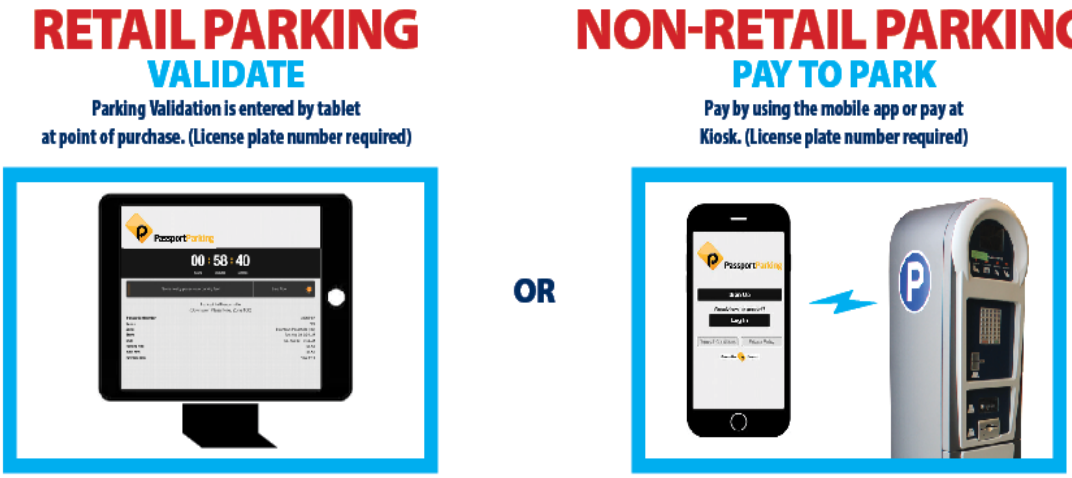
find that the loss of these few on-street spaces is well worth the additional parking realized off-street.

With first-floor restaurants planned for the Heights and Harbor Place, these developments are prime candidates for valet parking on Merrimack Street. One half of the top level of the Goecke Deck, which is extremely under-utilized at night, could be dedicated in the evening to a valet operator. Bailey Boulevard would also be a candidate location but car stacking would not be an option there. Similarly, a sectioned-off portion of the MBTA Commuter Rail Lot under a shared lot agreement with the City, could serve any restaurants within the Washington Street Corridor interested in valet. As parking demand grows, the Locke Street lot could provide a similar benefit to restaurants located north of Essex Street.

15. Implement Merchant Validation of Customer Parking in the Goecke Deck – By eliminating hangtags and issuing virtual permits based on customer license plates, the City can provide merchants the ability to validate their customer's parking in the Goecke Deck. Through secure online access, the merchant can pay for, and validate, their customers parking.

Here is how it works. Lets say a local gym wants to validate its customer's parking at the Goecke Deck. The customer parks in a numbered space and heads directly to the gym. Upon arrival at the gym, the customer provides the parking space number to the front desk at the gym, who enters it into a secure online portal registered to the Gym by the City. Alternatively, the gym can allow the customer to enter the space number directly at an automated computer/terminal. The customer is then provided two free hours of parking in that space through validation and the information becomes available in real time to LAZ parking enforcement personnel through their electronic, wireless handheld units. Parking enforcement provides a 15-minute grace period prior to validation allowing the customer to park and walk from the space to the gym to obtain validation. On a monthly basis, LAZ bills the gym for their validations. Some cities allow retailers to pay for these validations at 50% off the hourly parking rate to encourage customer loyalty and participation in the validation program.

This improvement would allow the City to discontinue issuing Goecke Deck hangtags to Harbor Place for their distribution to tenant's customers such as students at UMass Lowell and customers of the new gym that is opening soon. It will also eliminate the need for allowing 2-hours of free parking to all customers on the easterly side of the top level of the Goecke Deck just to provide free parking to the Pentucket Medical lab patients. In this case, Pentucket Medical would be registered with secure online access to validate patient's parking and the City could eliminate 2-hour free parking to be consistent with the practice on the first floor of the deck and in its paid parking lots.



16. Convert parallel parking spaces to angle spaces on south side of Bailey Boulevard adding about 19 new parking spaces downtown. The City's experiment with back-in, angled spaces on the north side of Bailey Blvd. was successful. The same conversion opportunity is available on the south side of the street west of Haverhill Place. This low cost improvement requires little more than striping and signs.

17. Expand Haverhill Place Parking Lot near Police Station adding about 21 new parking spaces on the adjacent grassed-area on the south-side of the lot. The City has already developed design plans for this improvement. Efficiently laid-out surface parking typically costs in the range of $5,000 to $7,500/space, which is far less expensive than structured parking, which often exceeds $25,000/space in historic downtown locations.

18. Consider installing electric vehicle charging stations in the Goecke Deck - due to the increasing use of electric charged vehicles, the City should consider installing charging stations in the deck – similar to what is done in the MVRTA parking garage. There are several state and federal grant funding programs that could be tapped to help offset purchase and installation costs.