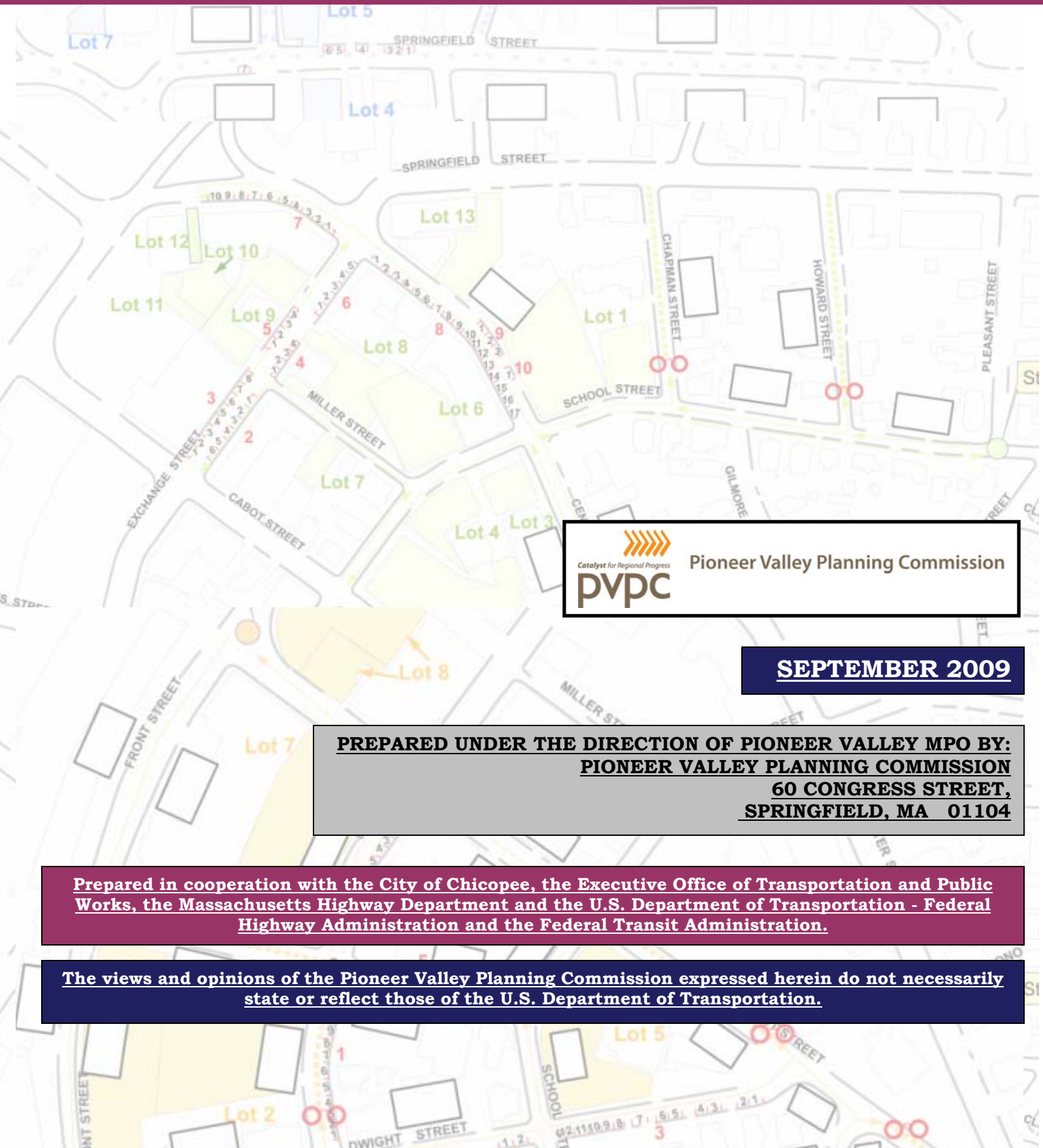


CHICOPEE CENTER PARKING STUDY



**Pioneer Valley Planning Commission**

SEPTEMBER 2009

**PREPARED UNDER THE DIRECTION OF PIONEER VALLEY MPO BY:
PIONEER VALLEY PLANNING COMMISSION
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Prepared in cooperation with the City of Chicopee, the Executive Office of Transportation and Public Works, the Massachusetts Highway Department and the U.S. Department of Transportation - Federal Highway Administration and the Federal Transit Administration.

The views and opinions of the Pioneer Valley Planning Commission expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

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I. INTRODUCTION

The City of Chicopee requested that a study of parking conditions be conducted by the Pioneer Valley Planning Commission (PVPC) as a part of the FFY 2009 Unified Planning Work Program (UPWP). This study summarizes the existing demand for parking in the downtown section of Chicopee, Massachusetts. The downtown area is characterized by a variety of commercial, retail and institutional uses. Changes in land use such as the relocation of the Holyoke Catholic High School campus to the downtown area had an impact on existing parking conditions. Transportation improvement projects such as the reconstruction of Front Street have also necessitated temporary parking restrictions and resulted in a shift in parking usage in the downtown area.

This report presents a summary of the existing parking supply available in the downtown section of Chicopee and the results of a weekday parking accumulation and turnover survey. The study focused on identification of over and under utilized parking areas, the evaluation of the effectiveness of existing controls on parking such as time limits and no parking area, and the development of recommendations to improve parking and foster growth in the downtown area.

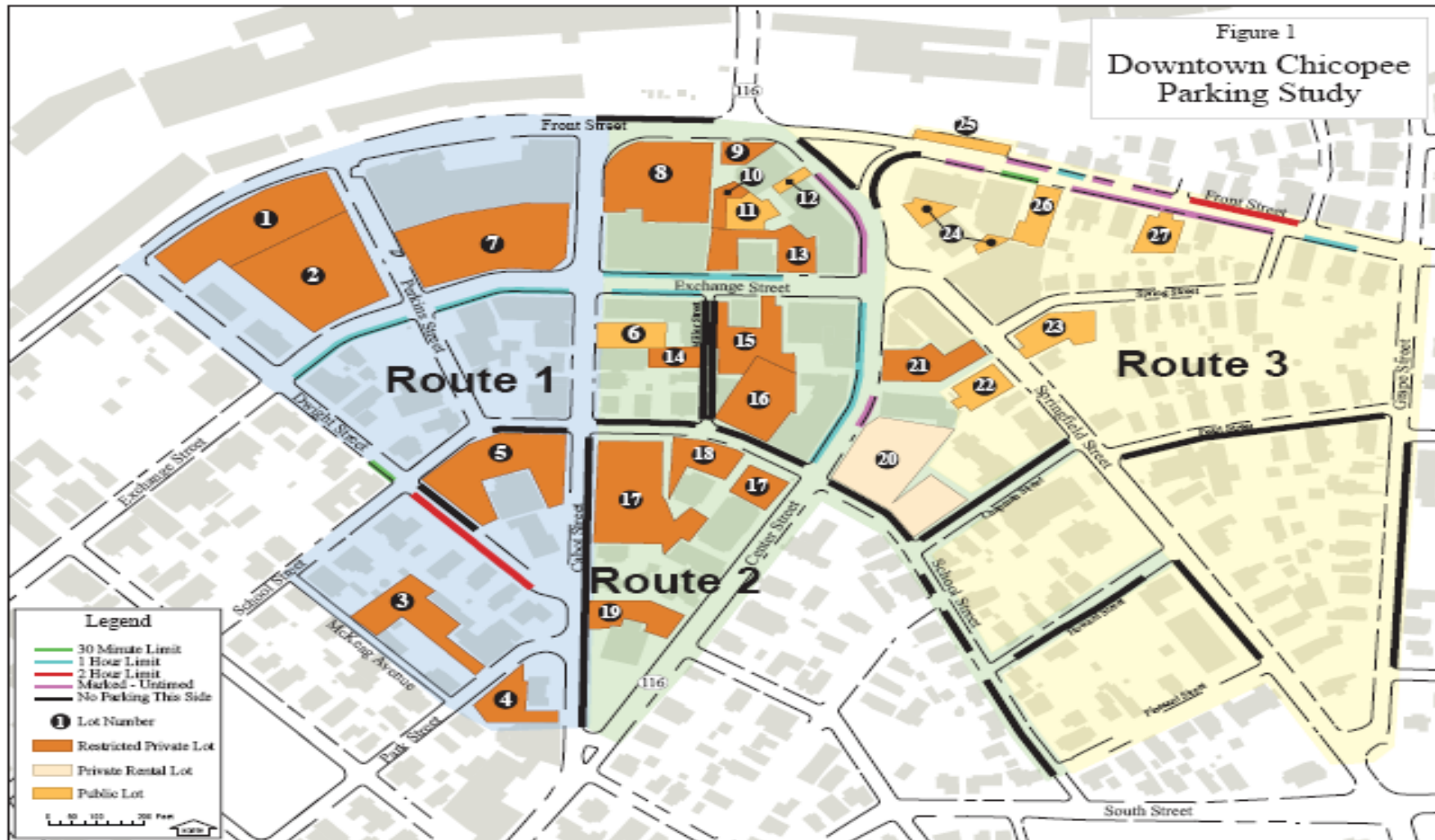
A. STUDY AREA

The study area for the Chicopee Parking Study, shown on Figure 1, includes public parking facilities, on-street parking, and private parking lots located in the Central Business District (CBD). The major streets in the study area include Front Street, Dwight Street, Exchange Street, Cabot Street, School Street, Center Street, Springfield Street, and Grape Street. On-street parking (or curb parking) is allowed at most of the locations in the study area. Off-Street public parking spaces (or parking lots) are located on Front Street, Cabot Street and Springfield Street. There are 27 parking lots in the CBD; 8 public, 17 private, 1 privately owned pay and park lot and 1 alley wherein three vehicles can be parked.

The study area encompasses City Hall, restaurants, local businesses, churches, a school, a fire station, a post office, the Cabotville industrial complex and a few residential streets. Some of the roads are restricted to one way traffic. There is ample on-street parking and the downtown does not have any metered on-street parking spaces. On-street parking spaces are defined with pavement markings on only two streets: Center Street and Front Street. Time restrictions for parking are marked with signs along Dwight Street, Center Street, Grape Street, Exchange Street, and Springfield Street. Parking lot numbers 11 and 23 have a few parking spaces with 2 hour time restrictions.

At the time of the parking survey, some of the spaces on Front Street and some spaces within the parking lots on the Front Street were not available for parking because of the ongoing construction activities in these areas.

Figure 1: Downtown Chicopee Study Area



II. METHODOLOGY

1. *Occupancy and Turnover Rates*

Parking inventories are intended to gather information on the existing parking supply and include observations of the number of parking spaces, their location, time restrictions, and type of parking facility. In order to facilitate the recording of parking data in the City of Chicopee, the study area was divided into three separate routes each containing both on-street parking and off street parking areas. A numbering scheme combining all three routes was then developed to allow for a comprehensive method of evaluating the data. Figure 1 highlights the three different Survey Routes.

Accumulation checks (or occupancy) and license plate checks (or turnover rates) are the two types of data collected for this study. Parking accumulation is the total number of vehicles parked at any give time. The purpose of accumulation checks is to establish hourly variations and peak parking demand. The information for the occupancy study was gathered by 12 surveyors who simultaneously covered the three separate routes in four shifts for the 12.5 hours of the survey from 7:00 a.m. to 7:30 p.m. The surveyors referenced maps and field sheet tables, which contained information such as the location and number of legal spaces in each parking area within the route. The number of parked cars was recorded on the field sheet tables at 30-minute intervals.

License plate checks are the technique used to observe turnover rates for parking usage studies. A turnover rate is defined as the amount of time a vehicle occupies a specific parking space. The turnover parking, or license plate checks, targeted only the on-street marked parking spaces or timed parking locations. Turnover rates are determined by recording the last three digits of a license plate in each specific parking space. This data was collected for consecutive intervals throughout the day to estimate the length of time vehicles occupy at select on-street parking spaces. This information is useful to identify areas in which people exceed the posted parking time limits.

2. *Data Collection Time Period*

The parking survey was performed on Thursday May 14th, 2009, from 7:00 a.m. to 7:30 p.m. for 12.5 hours. Parking turnover information was collected at the locations with timed parking restrictions marked on pavement or by signage. This information was collected for the duration of the parking survey. Most of the restricted parking spaces had time restrictions in affect from 8:00 a.m. to 5:00 p.m. on weekdays.

3. *Chicopee Parking Inventory*

As part of the initial component of the parking survey, an inventory of the number of both on-street and off-street parking spaces in the study area was conducted. The total number of Legal Spaces is included in Tables 1 and 2. Some curb spaces were not marked; therefore it was assumed that each space would occupy 20 feet of curbing within the study area. The average observed maximum occupancy level also influenced the amount of Legal Spaces. A total of 1358 parking spaces were identified in the downtown study area. This includes 679

public spaces (on-street and inside parking lots), 598 private spaces, and 81 pay and park spaces privately owned. It is important to note that the total of private parking spaces and privately owned pay and park spaces is almost balanced by the total of public parking spaces.

Table 1: Parking Lots

Lot No.	Type	Parking Spaces	Handicap Spaces	Total
1	Private	60	0	60
2	Private	Fenced	Fenced	Fenced
3	Private	35	1	36
4	Private	12	1	13
5	Private	72	2	74
6	Public	18	0	18
7	Private	94	6	100
8	Private	65	2	67
9	Private	6	0	6
10	Private	4	2	6
11	Public	8	2	10
12	Alley	3	0	3
13	Private	21	2	23
14	Private	9	0	9
15	Private	26	2	28
16	Private	40	1	41
17	Private	77	4	81
18	Private	22	1	23
19	Private	11	0	11
20	Pay and Park	81	0	81
21	Private	19	1	20
22	Public	18	0	18
23	Public	18	1	19
24	Restricted CityHall	7	0	7
25	Public	16	0	16
26	Public + Restricted CityHall	24	2	26
27	Public	13	0	13
TOTAL		778	30	809

Source: PVPC

Table 2: On-Street Parking

Restriction	No Restriction	Marked	2 Hours	1 Hour	30 Minutes	Handicap	Total
Street							
Dwight	40	-	12	-	2	-	54
Perkins	27	-	-	-	-	4	31
Cabot	32	-	-	-	-	-	32
Center	38	13	-	16	-	3	70
Grape	25	-	12	-	-	-	37
Front	30	25	8	6	3	-	72
Exchange	30	-	-	40	-	-	70
Springfield	42	-	-	-	6	1	49
School	36	-	-	-	-	-	36
Park	14	-	-	-	-	-	14
Chapman	13	-	-	-	-	-	13
Howard	13	-	-	-	-	-	13
Pleasant	23	-	-	-	-	-	23
Spring	19	-	-	-	-	-	19
Pearl	16	-	-	-	-	-	16
Total	398	38	32	62	11	8	549

Unmarked Parking Spaces were estimated by PVPC Staff.

Source: PVPC

The Parking lots were numbered according to the survey route alignment. The lot numbers and the survey routes are shown in Figure 1. Public and private parking lots included in the study were selected in consultation with the representatives from the City of Chicopee. The available on-street parking spaces have been estimated assuming a curb length of 20 feet per vehicle. There are no metered parking spaces in downtown area. The short-term parking spaces have been designated with regulatory signs. Only two streets Center Street and Front Street have parking spaces marked on the pavement. There are a few locations on Center Street and Front Street which also have marked parking spaces that are not restricted. Short-term parking spaces are located on Dwight Street, Center Street, Grape Street, Front Street, Exchange Street and Springfield Street. Approximately 19% of the on-street parking spaces surveyed are designated for short-term use.

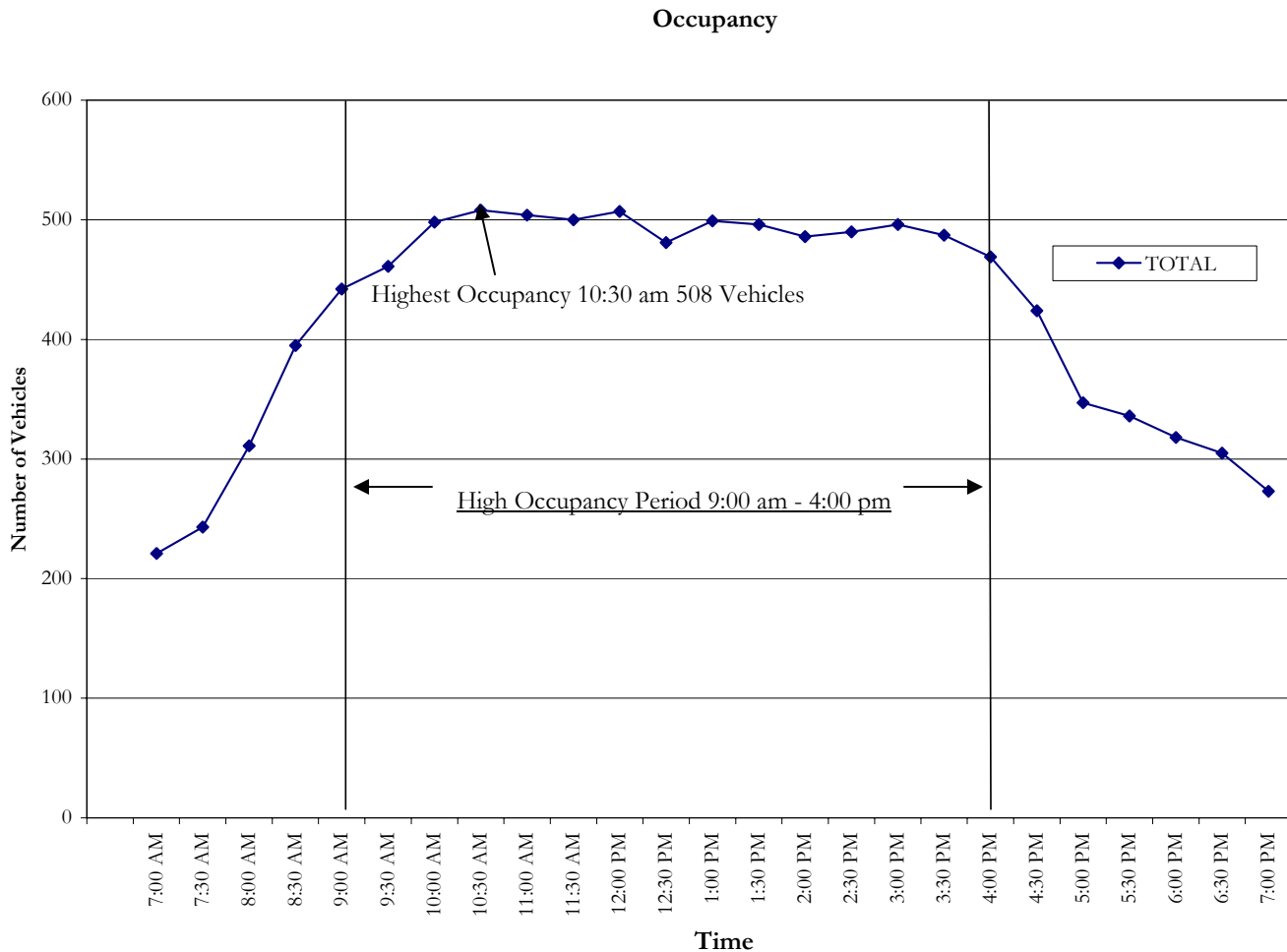
III. PARKING SURVEY RESULTS

A. OCCUPANCY

1. Summary of Data

A Parking Occupancy Survey shows the number of vehicles parked in pre-defined areas over a set period of time. Figure 2 presents a summary of the parking accumulation data for the duration of the survey. As can be seen by this Figure, the maximum occupancy for the study area was reached at 10:30 A.M. when 508 vehicles were parked. Parking levels remained very consistent from 10:00 A.M. to 3:00 P.M.

Figure 2: Parking Survey Data Combined

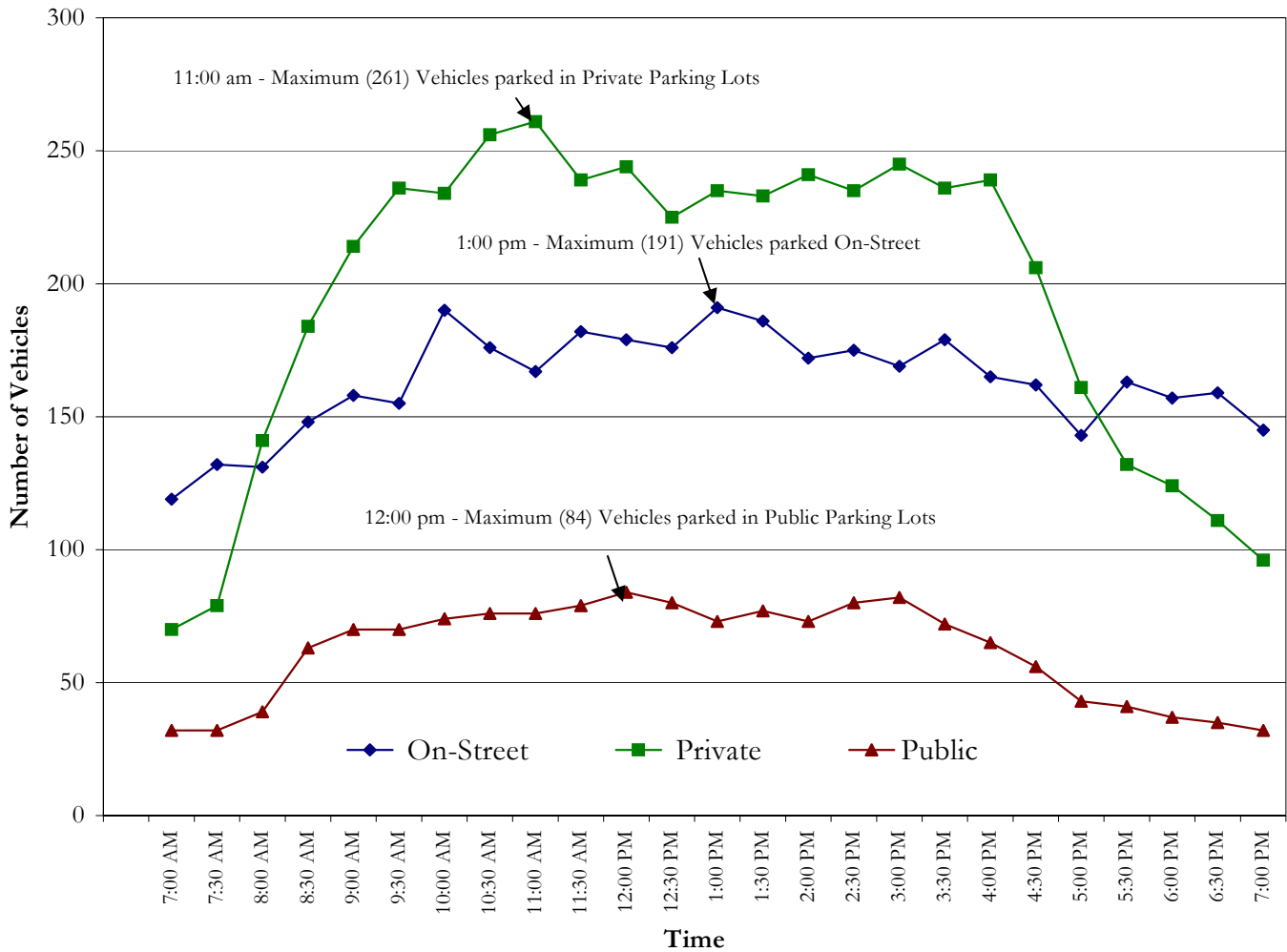


Source: PVPC

2. Summary of Data by Parking Type

The different parking trends are relative to the type of parking. Figure 3 presents the parking usage data for public, private and on-street parking.

Figure 3: Chicopee Parking Survey Data by Parking Type



Source: PVPC

As shown on this figure, the peak demand for private spaces was observed at 11:00 A.M. when 261 vehicles were parked. Private parking includes local businesses such as shops, restaurants, banks, etc. Peak demand for on-street parking occurs at 1:00 P.M. with 191 vehicles parked but the level of occupancy does not vary a lot throughout an average work day for both on-street parking and public parking lots. Peak demand for public parking spaces (excluding on-street) occurred at 12:00 P.M. with 84 vehicles parked within the public parking lots.

B. UTILIZATION

Parking occupancy data also describes the average utilization, or the percentage of spaces in use, throughout the day. Utilization is useful in identifying parking areas in need of redesign or other minor improvements. It is important to note that lower amounts of legal spaces will produce higher percentages of utilization due to the low occupancy needed to establish 100% capacity. Also, because illegally parked vehicles were recorded, some lot numbers may exceed 100% utilization. These illegally parked vehicles were usually parked in no-parking zones and assumed to be utilizing the same services of the legally parked cars.

The following pages list the utilization tables created for this study each representing a different parking type. Because parking usage varies throughout the day, the utilization percentages that were calculated are time specific with information collected between the hours of 7:00 A.M. through 7:30 P.M.

1. *Public Parking Utilization*

There are a total of 130 public spaces available in the parking lots in the downtown area of Chicopee. Table 3 presents the average percentage utilization during the peak utilization hours of a day. As can be seen from the table, all the public parking areas have similar trends in usage during the different hours of the day.

Public parking lot number 25 in front of City Hall on Front Street was not open to the public for parking at the time of survey because of on-going construction activities along Front Street. Parking lot number 26 has public parking spaces as well as restricted City Hall parking spaces. Table 3 shows that parking spaces in lot number 24 behind City Hall are over 100% occupied for certain time periods during the day. This lot has 7 marked and restricted City Hall spaces but vehicles were observed to park in areas besides the marked spaces which increased capacity by one or two vehicles. There is an alley connecting parking lot number 11 to Front Street. Vehicles were observed to be parked there and therefore the alley has been included in the parking survey. Parking lot number 11 has 10 parking spaces signed for a maximum 2 hours of parking and parking lot 23 on Springfield Street has 8 spaces signed for a maximum of 2 hours. Parking lot number 23 was utilized for the City Hall parking on the day of the survey due to the construction activities and therefore turnover counts were not performed for this location.

2. *Private Parking Utilization*

There are a total of 679 private parking spaces in the downtown area of Chicopee, the highest level of legal spaces within the study area. These include a total of 81 spaces in Lot number 20 that charge a fee for parking. Table 4 presents the percentage utilization of these spaces over the course of a typical day. Lot number 2 on Exchange Street/Perkins Street was cordoned off at the time of survey by the owner and therefore was not available for parking.

As can be seen from the table there are several lots operating at less than 40% utilization throughout the entire day. In addition, some private lots in the study area such as lot number 3 on McKeag Avenue/Park Street and lot number 5 on School Street were observed to be unoccupied throughout the day. Parking lot number 18 on School Street which belongs to a night club had very little occupancy during morning and early afternoon hours. The highest utilization rates for private parking areas occurred during the 11:00 A.M. to

11:30 A.M. time periods with an average utilization rate of 40.2%. Some private parking areas were observed to have an increase in utilization during the afternoon hours.

3. On-Street Parking Utilization

There are a total of 549 on-street parking spaces available in the downtown area of Chicopee. Only 2 of 17 streets in the study area, McKeag Avenue and Miller Street, do not have permitted on-street parking. Center Street and Front Street provide some unrestricted marked parking spaces. Restricted short-term parking spaces are located on Dwight Street, Center Street, Grape Street, Front Street, Exchange Street and Springfield Street. As shown in Table 2, in total there are about 11 parking spaces with 30 minutes time limit, 62 spaces with 1 hour time limit and 32 with 2 hour time limit.

As can be seen in the Table 5, the utilization rates vary slightly. Higher on street parking utilization rates are observed throughout from 10:00 A.M. to 3:00 P.M. At the time of the survey, many locations on Front Street were not available for parking because of the ongoing construction activities. This has resulted in low utilization of Front Street parking spaces and increased utilization in other areas. High utilization was observed on Howard Street, Park Street and Spring Street. Overall the on street parking availability on the streets besides Front Street seems to be underutilized in present circumstances. Only few streets have utilization above 50% during certain time slots of the day.

4. Parking Utilization Tables

Percentage Utilization for complete survey time period and actual utilization numbers are attached as the Appendices. As stated, the following pages only summarize the percentage utilization rates by parking type for the peak utilization hours of 10:00 am to 3:00 pm as can be seen in Figure 2. These numbers are important in identifying peak hour utilization rates for the study area.

Low occupancy rates are common in the early morning hours. The highest occupancy level for the entire study area occurred at 10:30 A.M. when there were 508 vehicles parked. The average utilization at this time was 37.44%. Overall there is adequate parking capacity in the study area to support the current demand.

Table 3: Public Parking Percentage Utilization

Lot No.	Location	Legal Spaces	Percentage Utilization for Peak Hours											AVG%
			10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	
6	Cabot Street	18	50.00%	55.56%	38.89%	38.89%	61.11%	38.89%	38.89%	50.00%	50.00%	66.67%	66.67%	50.51%
11	South of Front Street	10	80.00%	80.00%	70.00%	90.00%	100.00%	100.00%	100.00%	90.00%	70.00%	90.00%	70.00%	85.45%
12	Alley on Front Street	3	66.67%	33.33%	33.33%	33.33%	66.67%	66.67%	33.33%	66.67%	66.67%	33.33%	66.67%	51.52%
22	Springfield Street West	18	72.22%	94.44%	100.00%	88.89%	100.00%	100.00%	83.33%	83.33%	83.33%	100.00%	100.00%	91.41%
23	Springfield Street East	19	94.74%	89.47%	94.74%	100.00%	100.00%	100.00%	89.47%	94.74%	94.74%	84.21%	84.21%	93.30%
24	Behind Town Hall	7	114.29%	114.29%	114.29%	114.29%	114.29%	100.00%	71.43%	85.71%	71.43%	114.29%	114.29%	102.60%
25	In front of Town Hall	16	-	-	-	-	-	-	-	-	-	-	-	0.00%
26	Front Street	26	19.23%	15.38%	15.38%	26.92%	19.23%	26.92%	30.77%	34.62%	15.38%	15.38%	30.77%	22.73%
27	Front Street	13	100.00%	100.00%	100.00%	100.00%	100.00%	26.92%	84.62%	92.31%	100.00%	100.00%	100.00%	91.26%

Source: PVPC

Table 4: Private Parking Percentage Utilization

Lot No.	Location	Legal Spaces	Percentage Utilization for Peak Hours											AVG%
			10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	
1	Front Street	60	23.33%	23.33%	23.33%	25.00%	20.00%	25.00%	25.00%	26.67%	25.00%	25.00%	23.33%	24.09%
2	Exchange Street	Fenced	-	-	-	-	-	-	-	-	-	-	-	0.00%
3	McKeag Avenue	36	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%
4	Park Street	13	38.46%	53.85%	30.77%	30.77%	38.46%	30.77%	30.77%	38.46%	30.77%	30.77%	30.77%	34.97%
5	School Street	74	0.00%	1.35%	1.35%	1.35%	1.35%	4.05%	0.00%	2.70%	2.70%	4.05%	4.05%	2.09%
7	Perkins/Cabot Street	100	46.00%	42.00%	49.00%	41.00%	39.00%	35.00%	42.00%	42.00%	42.00%	36.00%	46.00%	41.82%
8	Front Street	67	86.57%	80.60%	80.60%	77.61%	76.12%	61.19%	71.64%	67.16%	79.10%	79.10%	80.60%	76.39%
9	Front Street	6	0.00%	0.00%	16.67%	50.00%	66.67%	33.33%	50.00%	0.00%	33.33%	16.67%	33.33%	27.27%
10	South of Front Street	6	100.00%	100.00%	100.00%	100.00%	66.67%	50.00%	120.00%	100.00%	100.00%	80.00%	80.00%	90.61%
13	Exchange Street	23	60.87%	47.83%	60.87%	56.52%	86.96%	78.26%	56.52%	47.83%	43.48%	43.48%	47.83%	57.31%
14	Miller Street	9	88.89%	55.56%	55.56%	55.56%	44.44%	44.44%	55.56%	55.56%	55.56%	55.56%	44.44%	55.56%
15	Miller Street	28	17.86%	25.00%	35.71%	21.43%	35.71%	21.43%	21.43%	28.57%	35.71%	39.29%	46.43%	29.87%
16	School Street	41	51.22%	53.66%	56.10%	39.02%	48.78%	53.66%	39.02%	46.34%	51.22%	46.34%	29.27%	46.78%
17	School Street-Bank	81	38.27%	39.51%	0.00%	33.33%	29.63%	27.16%	30.86%	33.33%	30.86%	35.80%	28.40%	29.74%
18	School Street-Club	23	0.00%	0.00%	121.74%	0.00%	0.00%	0.00%	0.00%	0.00%	4.35%	17.39%	26.09%	15.42%
19	Cabot Street	11	72.73%	63.64%	63.64%	54.55%	63.64%	54.55%	54.55%	54.55%	54.55%	72.73%	72.73%	61.98%
20	Center Street-Rental	81	34.57%	14.81%	35.80%	14.81%	16.05%	14.81%	37.04%	35.80%	32.10%	30.86%	34.57%	27.38%
21	Center Street	20	45.00%	60.00%	70.00%	60.00%	65.00%	60.00%	60.00%	65.00%	55.00%	35.00%	50.00%	56.82%

Source: PVPC

Table 5: On-Street Parking Percentage Utilization

Street	Side	Possible Spaces	Percentage Utilization for Peak Hours										AVG %	
			10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	2:00 PM	2:30 PM		3:00 PM
Dwight Street	West	34	20.59%	20.59%	17.65%	26.47%	23.53%	23.53%	20.59%	17.65%	20.59%	23.53%	29.41%	22.19%
	East	20	30.00%	30.00%	30.00%	35.00%	20.00%	25.00%	25.00%	25.00%	25.00%	40.00%	30.00%	28.64%
Perkins Street	West	16	0.00%	37.50%	0.00%	0.00%	0.00%	0.00%	0.00%	12.50%	0.00%	6.25%	6.25%	5.68%
	East	15	20.00%	20.00%	20.00%	20.00%	13.33%	20.00%	26.67%	33.33%	33.33%	33.33%	26.67%	24.24%
Cabot Street	West	25	40.00%	28.00%	32.00%	36.00%	28.00%	36.00%	48.00%	32.00%	32.00%	40.00%	32.00%	34.91%
	East	7	42.86%	57.14%	42.86%	57.14%	57.14%	71.43%	57.14%	28.57%	28.57%	28.57%	71.43%	49.35%
Center Street	West	49	61.22%	63.27%	67.35%	67.35%	59.18%	42.86%	65.31%	59.18%	53.06%	53.06%	51.02%	58.44%
	East	21	47.62%	47.62%	52.38%	61.90%	57.14%	47.62%	52.38%	33.33%	28.57%	38.10%	33.33%	45.45%
Grape Street	West	25	28.00%	32.00%	32.00%	28.00%	32.00%	32.00%	40.00%	40.00%	40.00%	36.00%	32.00%	33.82%
	East	12	8.33%	0.00%	8.33%	8.33%	8.33%	8.33%	16.67%	0.00%	0.00%	0.00%	0.00%	5.30%
Front Street	North	33	12.12%	12.12%	9.09%	15.15%	12.12%	6.06%	12.12%	24.24%	15.15%	24.24%	27.27%	15.43%
	South	39	30.77%	30.77%	33.33%	25.64%	20.51%	28.21%	23.08%	25.64%	25.64%	23.08%	28.21%	26.81%
Exchange Street	North	33	27.27%	21.21%	21.21%	21.21%	36.36%	33.33%	27.27%	30.30%	27.27%	33.33%	33.33%	28.37%
	South	37	35.14%	21.62%	27.03%	37.84%	32.43%	35.14%	56.76%	32.43%	32.43%	29.73%	37.84%	34.40%
Springfield	Northeast	35	42.86%	40.00%	40.00%	40.00%	40.00%	48.57%	48.57%	45.71%	40.00%	31.43%	25.71%	40.26%
	Southwest	14	14.29%	14.29%	21.43%	35.71%	42.86%	42.86%	28.57%	35.71%	14.29%	7.14%	14.29%	24.68%
School Street	North	22	31.82%	18.18%	22.73%	18.18%	18.18%	36.36%	18.18%	31.82%	27.27%	27.27%	27.27%	25.21%
	South	14	21.43%	28.57%	21.43%	21.43%	28.57%	21.43%	21.43%	7.14%	21.43%	21.43%	21.43%	21.43%
Park Street	North	7	28.57%	14.29%	14.29%	71.43%	57.14%	42.86%	42.86%	42.86%	42.86%	57.14%	28.57%	40.26%
	South	7	42.86%	14.29%	28.57%	28.57%	28.57%	42.86%	57.14%	42.86%	42.86%	57.14%	42.86%	38.96%
Chapman Street	North	0	0	0	0	0	0	0	0	0	0	0	0	0
	South	13	38.46%	23.08%	23.08%	23.08%	38.46%	38.46%	23.08%	30.77%	23.08%	23.08%	30.77%	28.67%
Howard Street	North	13	69.23%	61.54%	46.15%	53.85%	53.85%	69.23%	53.85%	69.23%	76.92%	30.77%	30.77%	55.94%
	South	0	0	0	0	0	0	0	0	0	0	0	0	0
Pleasant Street	North	11	18.18%	18.18%	18.18%	18.18%	18.18%	9.09%	9.09%	9.09%	54.55%	27.27%	27.27%	20.66%
	South	12	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	16.67%	8.33%	29.55%
Spring Street	North	19	57.89%	63.16%	47.37%	63.16%	52.63%	57.89%	57.89%	68.42%	47.37%	73.68%	63.16%	59.33%
	South	0	0	0	0	0	0	0	0	0	0	0	0	0
Pearl Street	North	16	25.00%	25.00%	12.50%	12.50%	12.50%	12.50%	31.25%	25.00%	25.00%	6.25%	6.25%	17.61%
	South	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: PVPC

C. PUBLIC / PRIVATE PARKING COMPARISON

The utilization of public and private lots was compared to see the overall trend for the study area. There are a total of 9 public parking lots (including the alley on Front Street) and 18 private parking lots (including the pay and park lot). All of these lots are located in close proximity to each other; however the eastern part of the survey area does not have any major private parking lots. This part of survey area is characterized by the City Hall and other municipal offices on Front Street.

There are 130 public parking spaces in the study area. This total also includes the 16 spaces in parking lot number 25 on Front Street which was not available for parking at the time of survey. In this comparison the utilization percentage does not include those 16 spaces. Highest utilization of 75.44% was observed for public spaces at 12:00 P.M. The utilization does not go beyond 80% at any time of the day, therefore it can be said that there is ample supply under present circumstances.

It can be seen from Table 6 that the private parking lots are under utilized for most part of the day. The utilization of the private parking lots does not go beyond 40% at any given time.

Table 6: Public and Private Parking Lots Comparison

Type	Total Spaces	Morning Utilization											
		7:00 AM	7:30 AM	8:00 AM	8:30 AM	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM
Public	130	32	33	40	63	69	71	76	78	76	80	86	82
Private	679	70	79	143	184	214	235	254	233	260	220	228	206

Type	Total Spaces	Afternoon Utilization												
		1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM	6:30 PM	7:00 PM
Public	130	74	80	73	81	84	77	67	61	44	43	38	35	33
Private	678	232	234	239	235	243	236	219	214	167	133	116	110	104

Type	Total Spaces	Percentage Morning Utilization											
		7:00 AM	7:30 AM	8:00 AM	8:30 AM	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM
Public	114	28.07%	28.95%	35.09%	55.26%	60.53%	62.28%	66.67%	68.42%	66.67%	70.18%	75.44%	71.93%
Private	679	10.31%	11.63%	21.06%	27.10%	31.52%	34.61%	37.41%	34.32%	38.29%	32.40%	33.58%	30.34%

Type	Total Spaces	Percentage Afternoon Utilization												
		1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM	6:30 PM	7:00 PM
Public	114	64.91%	70.18%	64.04%	71.05%	73.68%	67.54%	58.77%	53.51%	38.60%	37.72%	33.33%	30.70%	28.95%
Private	678	34.22%	34.51%	35.25%	34.66%	35.84%	34.81%	32.30%	31.56%	24.63%	19.62%	17.11%	16.22%	15.34%

Source: PVPC

D. TURNOVER

Turnover rates were collected for marked on-street parking spaces with and without time restrictions. There are also 2 hours time restricted parking spaces within lots number 11 and 23. Turnover rates were collected for the spaces in lot number 11. Lot number 23 was utilized for City Hall parking at the time of survey and was not included as a part of turnover survey. Recording the length of time a vehicle remains on a time restricted parking space identifies potential areas where vehicles are exceeding the posted time limits.

Table 7 gives the locations where turnover rates were collected within the parking lots and on-street.

Table 7: Parking Turnover Locations

Number	Location	Total Spaces	Turnover Counts Performed			
			Marked Untimed	Spaces with Time Limit		
				2 Hours	1 Hour	30 Minutes
1	Public Lot Number 11	10		10		
2	Public Lot Number 23	19				
3	Dwight Street	54		12		2
4	Center Street	70	13		17*	
5	Grape Street	37		12		
6	Front Street	72	25	8	6	3
7	Exchange Street	70	9		40	
8	Springfield Street	49				6
		Total	47	42	63	11
			163			

* Includes one Handicap Space

Source: PVPC

As can be seen from the above table, turnover counts were collected for 163 spaces within the study area to locate the spaces with vehicles parking beyond the time restriction and to determine the average time that vehicles are parked on-street marked locations.

Table 8 gives list of time slots when the vehicles were found to park beyond time restrictions.

Table 8: Parking Spaces with observed breaking of Time Restrictions

Location	Description	Time Restriction	Spaces Available	Parking Spaces with observed breaking of Time Restrictions			
				7:00 am to 10:00 am	10:00 am to 1:00 pm	1:00 pm to 4:00 pm	4:00 pm to 7:30 pm
On-Street	Dwight Street	30 Minutes	2	1	1	-	-
		2 Hours	12	-	1	1	1
	Grape Street	2 Hours	12	-	1	-	-
	Springfield Street	30 Minutes	6	-	2	-	-
	Exchange Street	1 Hour	10	3	3	2	3
			12	-	5	6	3
			6	-	1	2	3
	Center Street	1 Hour	17	6	8	10	7
	Front Street	1 Hour	4	-	1	1	2
		2 Hours	7	-	2	3	4
Parking Lot	Public Lot Number 11	2 Hours	10	5	5	3	4

Source: PVPC

Most of the restriction breaking occurred between the hours of 10:00 A.M. to 4:00 P.M. The majority of these were on Exchange Street, Center Street, Front Street, and Parking Lot number 11.

On-street parking is the preferred method of parking due to the easy access to local businesses. Most on-street parking in the study area is unrestricted. The City of Chicopee may want to consider an educational outreach program geared to the people and business community in the downtown to avoid breaking time restrictions.

The turnover counts were also affected by the Front Street reconstruction project and therefore it is required to collect the data again after the construction is complete.

IV. CONCLUSIONS AND RECOMMENDATIONS

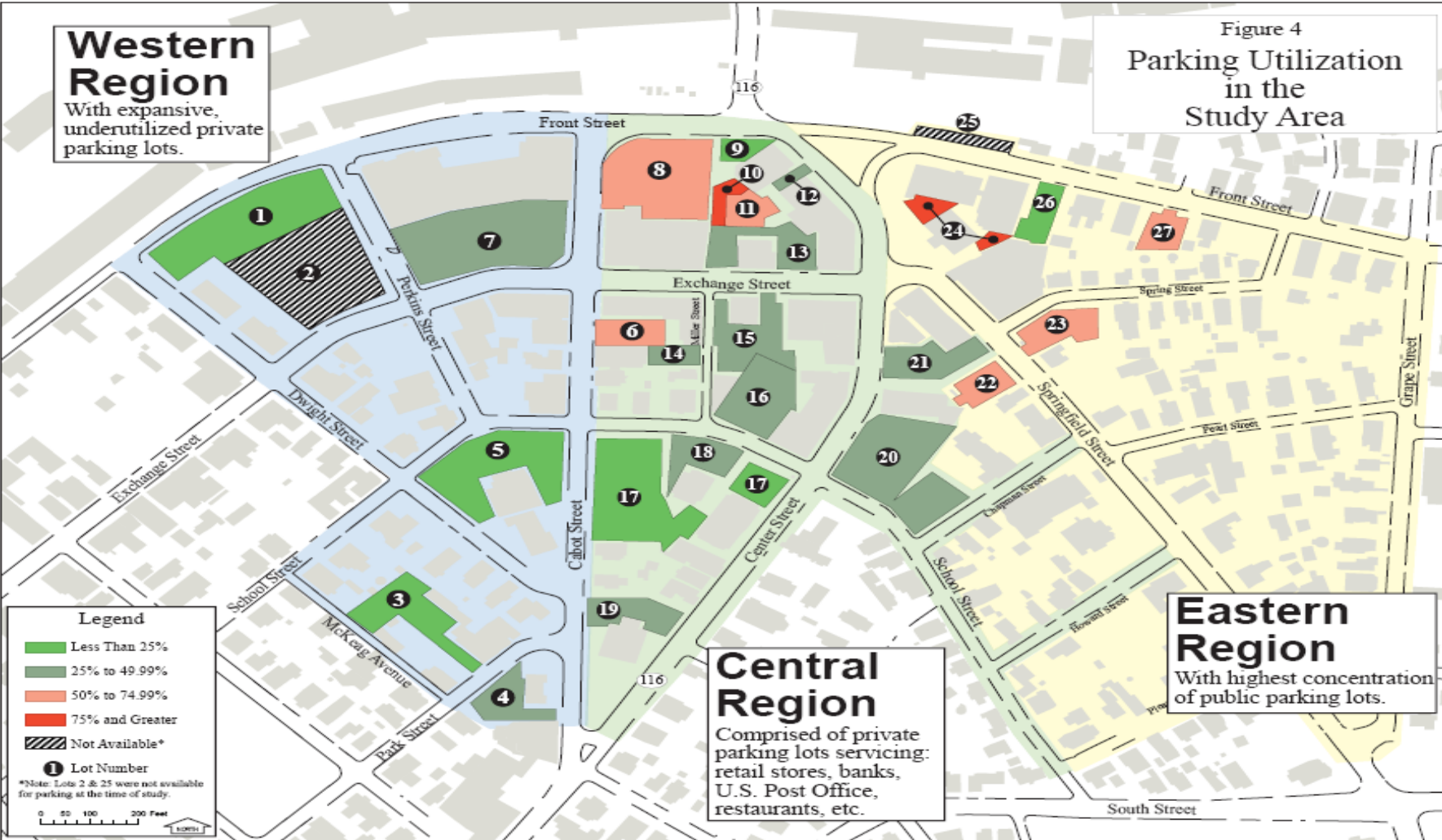
The data collected as part of this parking study suggests that the current parking supply in the downtown area of Chicopee sufficiently meets the current parking demand. Peak parking demands typically occur during the late morning to early afternoon hours. Lot 10 and lot 19 are the highest utilized parking areas with a utilization rate over 60%. However, the results of the survey demonstrate that many other parking areas fail to reach a 50% utilization rate during a typical day. The City of Chicopee should consider the following recommendations to further improve the parking conditions in the downtown area.

A. PARKING DISTRIBUTION

The eastern region of the study area is where the highest concentration of public parking spaces are located. These facilities include Lot numbers 22 – 27 and on-street public parking. These are comparatively well utilized and it can be seen that in the absence of the ongoing construction activities on Front Street, these areas would have more demand. The central region of the study area in Route 2 of the survey is comprised of private parking lots servicing various retail stores, banks, the post office, restaurants, etc. It also has a privately owned pay and park lot which is not highly utilized during the day. This area has the most on-street parking spaces which are utilized more than those in the western region of the study area (Route 1.) The western part of the study area has large private parking lots which are not highly utilized with the exception of lot number 7 which is the parking lot for a shopping complex and has an average utilization of approximately 35%. One of the private parking lots in this region was cordoned off and not available for parking at the time of study. This section also has many on-street parking spaces. Figure 4 shows the parking distribution and average percentage utilization of parking lots throughout the study period of 12.5 hours.

The utilization rate of Lot number 20 (Pay and Park) never exceeded 40% during the survey. The public parking lots had a maximum utilization of more than 70% during afternoon hours. In the future as the demand for parking increases, the City of Chicopee should consider options to enter into an agreement with the owners of currently underutilized private parking lots in order to increase the number of available public parking spaces.

Figure 4: Parking Distribution and Average Percentage Utilization



Pioneer Valley Planning Commission - July, 2009.

B. STRATEGIES FOR FUTURE DEVELOPMENT

Presently there is enough short term parking on Front Street, Center Street and Exchange Street to serve the City Hall, post office, and other businesses in the study area. It is important that on-street parking for these locations is utilized for short term parking only as that will best facilitate customers and visitors. This can help in downtown revitalization by attracting new businesses as well as more consumers who find it easy and convenient to park on-street in close proximity to their destination. The City of Chicopee should work with existing business owners to encourage employees to park in parking lots rather than in on-street spaces. There are some marked parking spaces on Center Street which have not been time restricted and some other time restricted spaces on Exchange Street which do not have timely turn over. The reason behind this could be the utilization of these parking spaces by long term parked vehicles belonging to downtown employees or business owners. It is recommended that the City of Chicopee also consider increasing the enforcement of existing time limits on short term on-street parking to provide more opportunities for businesses and retailers to thrive in the downtown.

While the existing parking supply currently meets the existing demand, changes in land use or future development in the downtown area could require the need for additional or modified parking. Locations such as the former public library and Rivoli Theater are two examples of potential redevelopment that would have an impact on the existing parking supply. Potential new development projects or significant expansion projects should be required to demonstrate how they will accommodate vehicle parking.

Additional demand could be served by generating parking options at the underutilized locations in the downtown away from the actual core. The City should target streets which have the best potential for generating new development and the required parking supply should be provided at an appropriate walking distance from these locations. The City of Chicopee should also consider opportunities as appropriate to expand the existing public parking supply. This could include the acquisition of private land for use as public parking areas, and the development of satellite parking areas for municipal employees and vehicles. Parking development should essentially follow and not precede the generated demand. Developing new parking areas should not hinder the progress of the urban core by creating huge vacant lots with very few trip generating sources.

As development occurs, the City of Chicopee is encouraged to approach the owners of the surrounding underutilized privately owned parking lots to try and develop an agreement to allow for additional public parking. The City could consider negotiating with the owners of underutilized private parking lots in the central region like the Chicopee Savings Bank parking lot number 17, rental parking lot number 20, and the night club parking lot number 18 which is nearly empty during the day time. A typical agreement would indicate the location and number of parking spaces available for public use. In return, the City could agree to provide some service such as routine general maintenance for these areas. The main advantage of an official parking agreement would be the ability to increase parking enforcement, have designated overflow parking areas to direct vehicles, and reduce illegal parking in private lots by providing additional public parking convenient to local business.

C. PUBLIC AWARENESS CAMPAIGN

It is recommended that the City of Chicopee develop additional information on public parking in the downtown area. It is recommended that a parking map be developed and made available on the City's website. This could include information on preferred public parking areas, the dangers of illegally parking in private parking areas and identify overflow parking areas. This map should clearly identify the existing time restrictions on parking.

It is also recommended that the City of Chicopee inspect vehicles parked within different parking lots in the downtown area to check whether or not the vehicles are inoperable, abandoned or disassembled and increase public awareness regarding public safety hazards or the nuisance generated by such vehicles.

D. TIME RESTRICTIONS

The City of Chicopee should consider the possibility of conducting another turn over survey after the construction in downtown area is completed. This information will be useful to determine if it is required to impose time restrictions on the unrestricted marked on-street spaces on Center Street and Front Street.

A number of on-street parking areas were identified as having a high potential for exceeding posted time restrictions. In the short term, it is recommended that the City of Chicopee consider issuing warning to vehicles that exceed posted time limits. These warnings could include information on existing long term parking areas. In the long term, it will be important to issue citations to vehicles that continue to disobey the posted parking time limits.

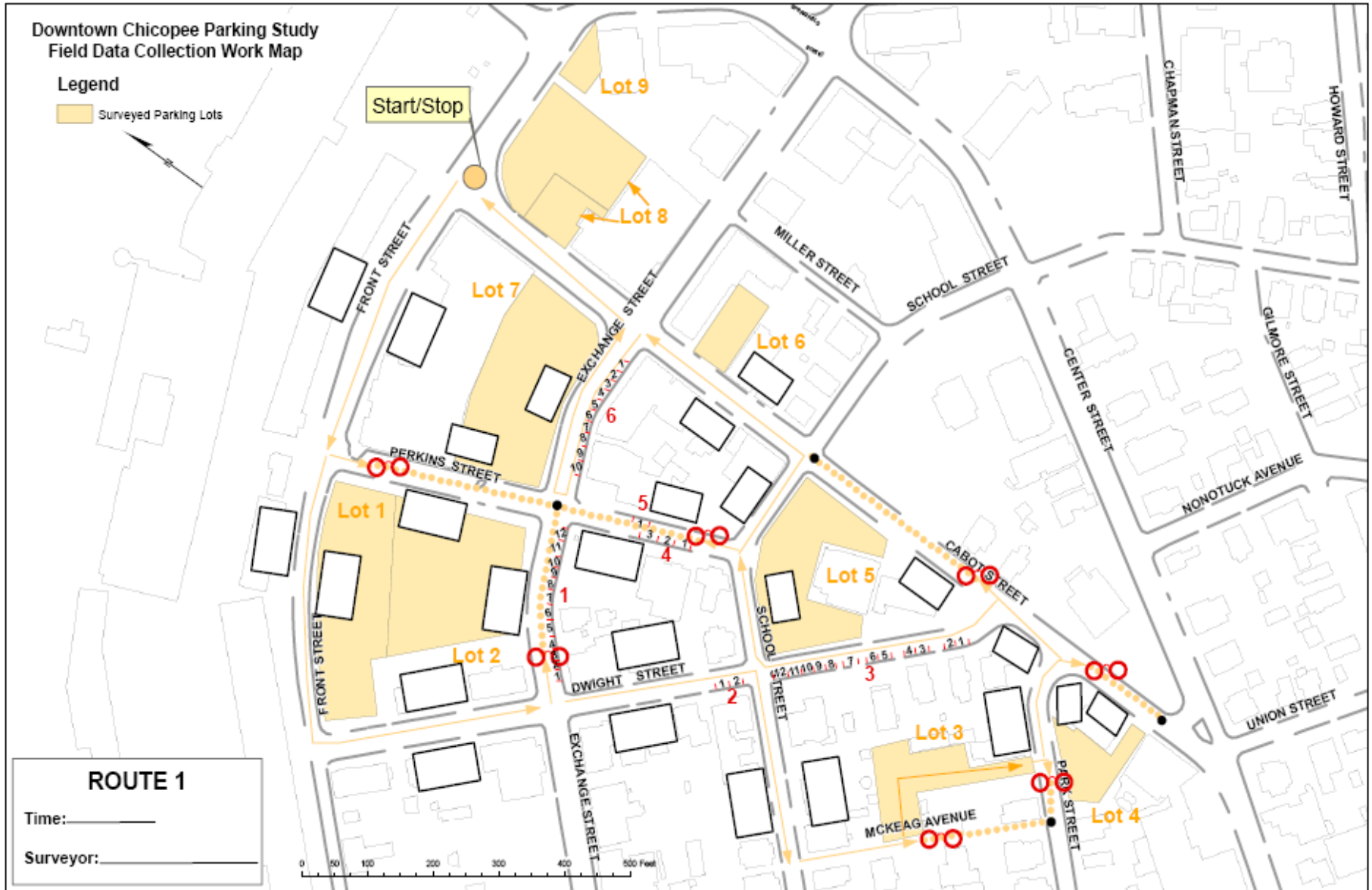
As the demand for parking continues to increase in the future, the City of Chicopee may want to consider installing parking meters or machines for their short term on-street parking spaces. Parking machines print a receipt that is displayed on the dashboard of the parked vehicle. These receipts show the date and time when legal parking expires. Meters and machines both assist with parking enforcement and discourage long term parkers from using the short term on-street spaces.

E. SIGNS

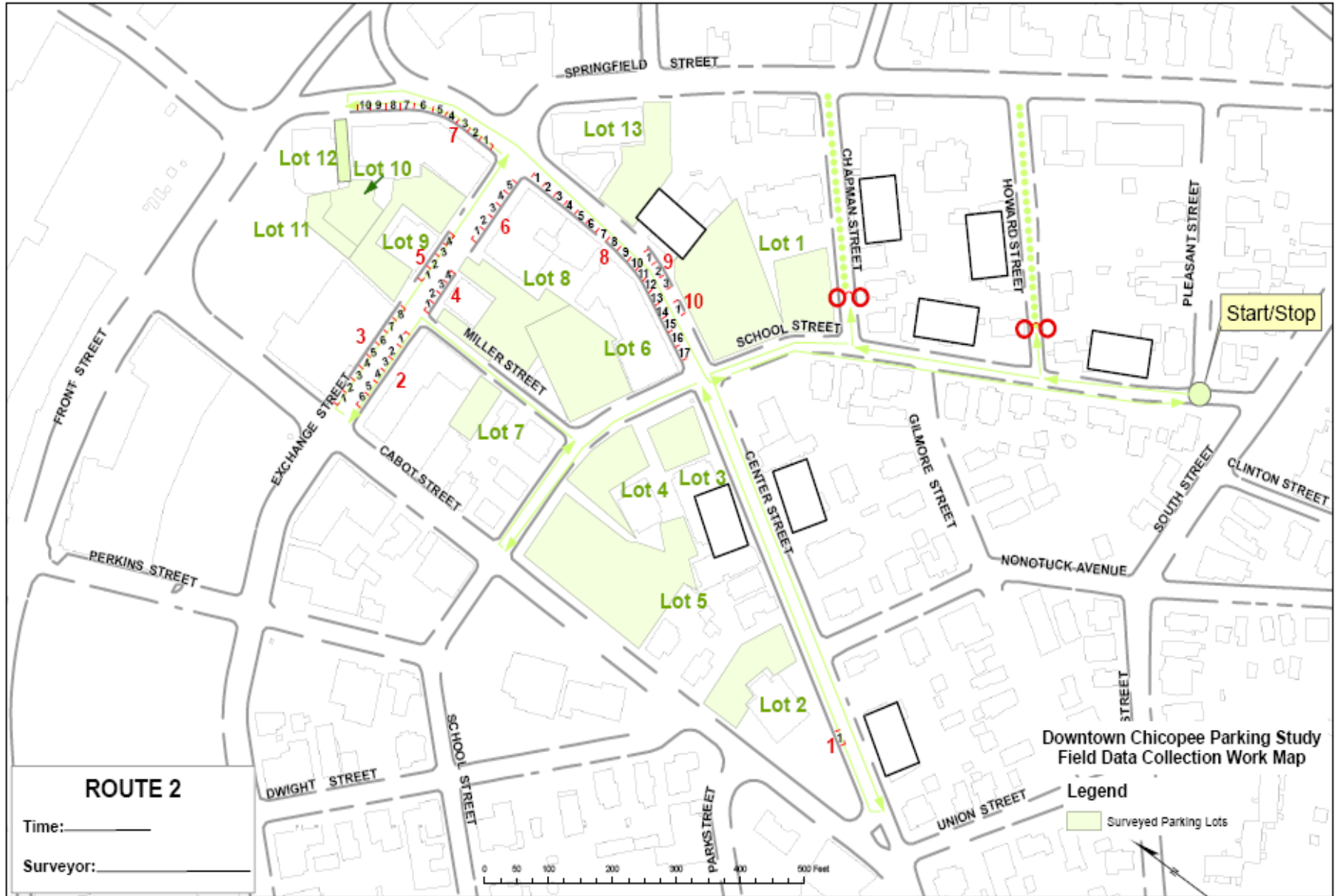
The existing on-street parking time restriction and regulatory signs are insufficiently located throughout the study area. As a result, the City should consider installing more signs as well as replacing damaged signs. Some streets do not have 'No Parking' signs at the corners or near their intersection with other streets. As a result, some illegal parking right next to an intersection was observed during the survey. The City should consider performing a survey of the streets which do not have adequate parking signs and install them at appropriate locations. Guidelines for installation of these signs and some examples are given on Pages 2B-37 to 39 of the Manual on Uniform Traffic Control Devices (MUTCD), Millennium Edition.

APPENDICES

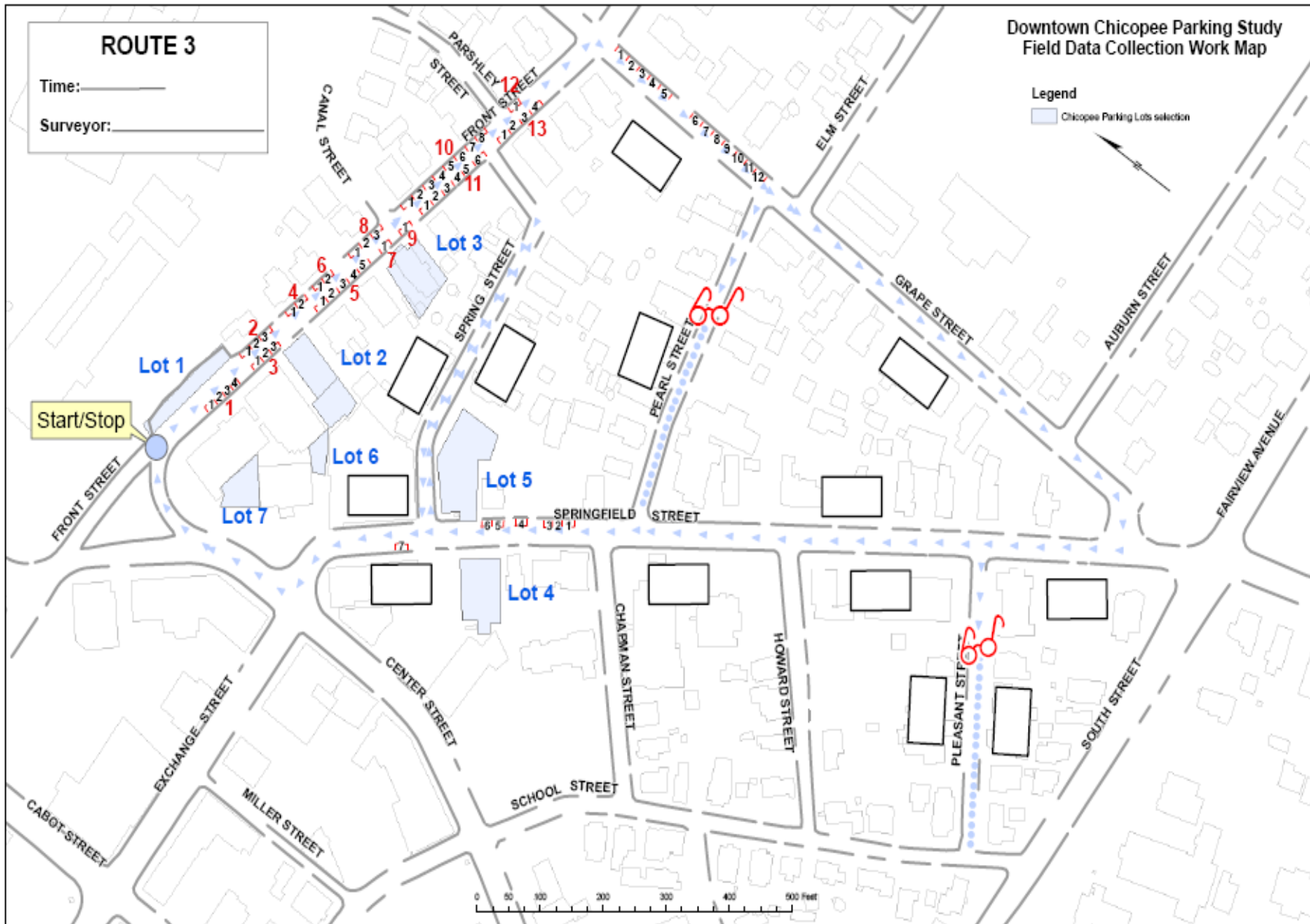
1. GRAPHICAL SURVEY SHEET FOR ROUTE 1



3. GRAPHICAL SURVEY SHEET FOR ROUTE 2



5. GRAPHICAL SURVEY SHEET FOR ROUTE 3



6. TURNOVER SURVEY TABLES FOR ROUTE 3

ROUTE 3

TIME:

SURVEYOR:

Front Street								
Block No./ Side	Parking Spot Number							
	1	2	3	4	5	6	7	8
1 Right								
2 Left								
3 Right								
4 Left								
5 Right								
6 Left								
7 Right								
8 Left								
9 Right								
10 Left								
11 Right								
12 Left								
13 Right								

Grape Street												
Side	Parking Spot Number											
	1	2	3	4	5	6	7	8	9	10	11	12
LEFT												

Springfield Street							
Side	Parking Spot Number						
	1	2	3	4	5	6	7 Handicap Left
RIGHT							

7. PUBLIC PARKING UTILIZATION

Lot No.	Location	Legal Spaces	Morning Utilization											
			7:00 AM	7:30 AM	8:00 AM	8:30 AM	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM
6	Cabot Street	18	12	8	7	9	9	9	9	10	7	7	11	7
11	South of Front Street	10	6	7	8	7	8	7	8	8	7	9	10	10
12	Alley on Front Street	3	0	1	1	0	0	1	2	1	1	1	2	2
22	Springfield Street West	18	4	4	5	19	13	12	13	17	18	16	18	18
23	Springfield Street East	19	2	5	9	9	19	18	18	17	18	19	19	19
24	Behind City Hall	7	4	5	5	6	6	7	8	8	8	8	8	7
25	In front of City Hall	16	-	-	-	-	-	-	-	-	-	-	-	-
26	Front Street	26	1	1	2	3	2	4	5	4	4	7	5	7
27	Front Street	13	3	2	3	10	12	13	13	13	13	13	13	12

Source: PVPC

Lot No.	Location	Legal Spaces	Afternoon Utilization												
			1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM	6:30 PM	7:00 PM
6	Cabot Street	18	7	9	9	12	12	13	11	13	9	15	13	12	12
11	South of Front Street	10	10	9	7	9	7	7	6	7	6	5	4	5	4
12	Alley on Front Street	3	1	2	2	1	2	1	1	0	1	2	1	1	1
22	Springfield Street West	18	15	15	15	18	18	13	12	8	9	8	8	6	6
23	Springfield Street East	19	17	18	18	16	16	16	13	12	3	2	2	2	2
24	Behind City Hall	7	5	6	5	8	8	9	7	7	5	4	5	5	5
25	In front of City Hall	16	-	-	-	-	-	-	-	-	-	-	-	-	-
26	Front Street	26	8	9	4	4	8	5	5	3	3	2	1	1	1
27	Front Street	13	11	12	13	13	13	13	12	11	8	5	4	3	2

Source: PVPC

8. PUBLIC PARKING PERCENTAGE UTILIZATION

Lot No.	Location	Legal Spaces	Percentage Morning Utilization												AVG %
			7:00 AM	7:30 AM	8:00 AM	8:30 AM	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	
6	Cabot Street	18	66.67%	44.44%	38.89%	50.00%	50.00%	50.00%	50.00%	55.56%	38.89%	38.89%	61.11%	38.89%	44.87%
11	South of Front Street	10	60.00%	70.00%	80.00%	70.00%	80.00%	70.00%	80.00%	80.00%	70.00%	90.00%	100.00%	100.00%	73.08%
12	Alley on Front Street	3	0.00%	33.33%	33.33%	0.00%	0.00%	33.33%	66.67%	33.33%	33.33%	33.33%	66.67%	66.67%	30.77%
22	Springfield Street West	18	22.22%	22.22%	27.78%	105.56%	72.22%	66.67%	72.22%	94.44%	100.00%	88.89%	100.00%	100.00%	67.09%
23	Springfield Street East	19	10.53%	26.32%	47.37%	47.37%	100.00%	94.74%	94.74%	89.47%	94.74%	100.00%	100.00%	100.00%	69.64%
24	Behind Town Hall	7	57.14%	71.43%	71.43%	85.71%	85.71%	100.00%	114.29%	114.29%	114.29%	114.29%	114.29%	100.00%	87.91%
25	In front of Town Hall	16	-	-	-	-	-	-	-	-	-	-	-	-	-
26	Front Street	26	3.85%	3.85%	7.69%	11.54%	7.69%	15.38%	19.23%	15.38%	15.38%	26.92%	19.23%	26.92%	13.31%
27	Front Street	13	23.08%	15.38%	23.08%	76.92%	92.31%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	26.92%	65.98%

Source: PVPC

Lot No.	Location	Legal Spaces	Percentage Afternoon Utilization												AVG %	
			1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM	6:30 PM		7:00 PM
6	Cabot Street	18	38.89%	50.00%	50.00%	66.67%	66.67%	72.22%	61.11%	72.22%	50.00%	83.33%	72.22%	66.67%	66.67%	62.82%
11	South of Front Street	10	100.00%	90.00%	70.00%	90.00%	70.00%	70.00%	60.00%	70.00%	60.00%	50.00%	40.00%	50.00%	40.00%	66.15%
12	Alley on Front Street	3	33.33%	66.67%	66.67%	33.33%	66.67%	33.33%	33.33%	0.00%	33.33%	66.67%	33.33%	33.33%	33.33%	41.03%
22	Springfield Street West	18	83.33%	83.33%	83.33%	100.00%	100.00%	72.22%	66.67%	44.44%	50.00%	44.44%	44.44%	33.33%	33.33%	64.53%
23	Springfield Street East	19	89.47%	94.74%	94.74%	84.21%	84.21%	84.21%	68.42%	63.16%	15.79%	10.53%	10.53%	10.53%	10.53%	55.47%
24	Behind Town Hall	7	71.43%	85.71%	71.43%	114.29%	114.29%	128.57%	100.00%	100.00%	71.43%	57.14%	71.43%	71.43%	71.43%	86.81%
25	In front of Town Hall	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	Front Street	26	30.77%	34.62%	15.38%	15.38%	30.77%	19.23%	19.23%	11.54%	11.54%	7.69%	3.85%	3.85%	3.85%	15.98%
27	Front Street	13	84.62%	92.31%	100.00%	100.00%	100.00%	100.00%	92.31%	84.62%	61.54%	38.46%	30.77%	23.08%	15.38%	71.01%

Source: PVPC

9. PRIVATE PARKING UTILIZATION

Lot No.	Location	Legal Spaces	Morning Utilization											
			7:00 AM	7:30 AM	8:00 AM	8:30 AM	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM
1	Front Street	60	9	10	12	13	14	12	14	14	14	15	12	15
2	Exchange Street	Fenced	-	-	-	-	-	-	-	-	-	-	-	-
3	McKeag Avenue	36	1	1	1	1	1	1	1	1	1	1	1	1
4	Park Street	13	2	2	1	4	4	4	5	7	4	4	5	4
5	School Street	74	0	0	0	0	0	0	0	1	1	1	1	3
7	Perkins/Cabot Street	100	13	14	22	23	26	31	46	42	49	41	39	35
8	Front Street	67	1	3	44	52	55	57	58	54	54	52	51	41
9	Front Street	6	0	0	0	0	0	0	0	0	1	3	4	2
10	South of Front Street	6	3	3	4	6	7	6	6	6	6	6	4	3
13	Exchange Street	23	1	4	3	4	8	12	14	11	14	13	20	18
14	Miller Street	9	4	4	4	3	4	4	8	5	5	5	4	4
15	Miller Street	28	0	0	4	5	8	9	5	7	10	6	10	6
16	School Street	41	5	5	10	16	21	22	21	22	23	16	20	22
17	School Street-Bank	81	7	10	11	22	28	31	31	32	0	27	24	22
18	School Street-Club	23	0	0	0	0	0	0	0	0	28	0	0	0
19	Cabot Street	11	8	8	7	8	7	8	8	7	7	6	7	6
20	Center Street-Rental	81	14	14	13	18	21	25	28	12	29	12	13	12
21	Center Street	20	2	1	7	9	10	13	9	12	14	12	13	12

Lot No.	Location	Legal Spaces	Afternoon Utilization												
			1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM	6:30 PM	7:00 PM
1	Front Street	60	15	16	15	15	14	14	9	5	5	4	4	2	2
2	Exchange Street	Fenced	-	-	-	-	-	-	-	-	-	-	-	-	-
3	McKeag Avenue	36	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Park Street	13	4	5	4	4	4	4	6	3	2	2	2	1	3
5	School Street	74	0	2	2	3	3	0	1	5	8	6	4	4	5
7	Perkins/Cabot Street	100	42	42	42	36	46	42	46	39	34	31	34	33	26
8	Front Street	67	48	45	53	53	54	52	33	42	14	3	0	0	0
9	Front Street	6	3	0	2	1	2	0	1	1	3	1	1	0	0
10	South of Front Street	5	6	5	5	4	4	4	3	4	4	4	4	4	3
13	Exchange Street	23	13	11	10	10	11	11	7	6	4	4	3	2	0
14	Miller Street	9	5	5	5	5	4	4	5	3	3	3	4	4	3
15	Miller Street	28	6	8	10	11	13	13	10	6	7	5	4	5	4
16	School Street	41	16	19	21	19	12	13	15	13	10	5	3	5	6
17	School Street-Bank	81	25	27	25	29	23	24	26	29	15	8	9	4	12
18	School Street-Club	23	0	0	1	4	6	5	6	5	4	7	7	7	6
19	Cabot Street	11	6	6	6	8	8	7	7	6	5	4	4	4	4
20	Center Street-Rental	81	30	29	26	25	28	30	31	42	42	37	22	25	20
21	Center Street	20	12	13	11	7	10	12	12	4	6	8	10	9	9

Source: PVPC

10. PRIVATE PARKING PERCENTAGE UTILIZATION

Lot No.	Location	Legal Spaces	Percentage Morning Utilization												AVG %
			7:00 AM	7:30 AM	8:00 AM	8:30 AM	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	
1	Front Street	60	15.00%	16.67%	20.00%	21.67%	23.33%	20.00%	23.33%	23.33%	23.33%	25.00%	20.00%	25.00%	19.74%
2	Exchange Street	Fenced	-	-	-	-	-	-	-	-	-	-	-	-	-
3	McKeag Avenue	36	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.56%
4	Park Street	13	15.38%	15.38%	7.69%	30.77%	30.77%	30.77%	38.46%	53.85%	30.77%	30.77%	38.46%	30.77%	27.22%
5	School Street	74	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.35%	1.35%	1.35%	1.35%	4.05%	0.73%
7	Perkins/Cabot Street	100	13.00%	14.00%	22.00%	23.00%	26.00%	31.00%	46.00%	42.00%	49.00%	41.00%	39.00%	35.00%	29.31%
8	Front Street	67	1.49%	4.48%	65.67%	77.61%	82.09%	85.07%	86.57%	80.60%	80.60%	77.61%	76.12%	61.19%	59.93%
9	Front Street	6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	16.67%	50.00%	66.67%	33.33%	12.82%
10	South of Front Street	6	50.00%	50.00%	66.67%	100.00%	116.67%	100.00%	100.00%	100.00%	100.00%	100.00%	66.67%	50.00%	76.92%
13	Exchange Street	23	4.35%	17.39%	13.04%	17.39%	34.78%	52.17%	60.87%	47.83%	60.87%	56.52%	86.96%	78.26%	40.80%
14	Miller Street	9	44.44%	44.44%	44.44%	33.33%	44.44%	44.44%	88.89%	55.56%	55.56%	55.56%	44.44%	44.44%	46.15%
15	Miller Street	28	0.00%	0.00%	14.29%	17.86%	28.57%	32.14%	17.86%	25.00%	35.71%	21.43%	35.71%	21.43%	19.23%
16	School Street	41	12.20%	12.20%	24.39%	39.02%	51.22%	53.66%	51.22%	53.66%	56.10%	39.02%	48.78%	53.66%	38.09%
17	School Street-Bank	81	8.64%	12.35%	13.58%	27.16%	34.57%	38.27%	38.27%	39.51%	0.00%	33.33%	29.63%	27.16%	23.27%
18	School Street-Club	23	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	121.74%	0.00%	0.00%	9.36%
19	Cabot Street	11	72.73%	72.73%	63.64%	72.73%	63.64%	72.73%	72.73%	63.64%	63.64%	54.55%	63.64%	54.55%	60.84%
20	Center Street-Rental	81	17.28%	17.28%	16.05%	22.22%	25.93%	30.86%	34.57%	14.81%	35.80%	14.81%	16.05%	14.81%	20.04%

Lot No.	Location	Legal Spaces	Percentage Afternoon Utilization													AVG %
			1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM	6:30 PM	7:00 PM	
1	Front Street	60	25.00%	26.67%	25.00%	25.00%	23.33%	23.33%	15.00%	8.33%	8.33%	6.67%	6.67%	3.33%	3.33%	15.38%
2	Exchange Street	Fenced	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	McKeag Avenue	36	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%	2.78%
4	Park Street	13	30.77%	38.46%	30.77%	30.77%	30.77%	30.77%	46.15%	23.08%	15.38%	15.38%	15.38%	7.69%	23.08%	26.04%
5	School Street	74	0.00%	2.70%	2.70%	4.05%	4.05%	0.00%	1.35%	6.76%	10.81%	8.11%	5.41%	5.41%	6.76%	4.47%
7	Perkins/Cabot Street	100	42.00%	42.00%	42.00%	36.00%	46.00%	42.00%	46.00%	39.00%	34.00%	31.00%	34.00%	33.00%	26.00%	37.92%
8	Front Street	67	71.64%	67.16%	79.10%	79.10%	80.60%	77.61%	49.25%	62.69%	20.90%	4.48%	0.00%	0.00%	0.00%	45.58%
9	Front Street	6	50.00%	0.00%	33.33%	16.67%	33.33%	0.00%	16.67%	16.67%	50.00%	16.67%	16.67%	0.00%	0.00%	19.23%
10	South of Front Street	6	120.00%	100.00%	100.00%	80.00%	80.00%	80.00%	60.00%	80.00%	80.00%	80.00%	80.00%	80.00%	60.00%	83.08%
13	Exchange Street	23	56.52%	47.83%	43.48%	43.48%	47.83%	47.83%	30.43%	26.09%	17.39%	17.39%	13.04%	8.70%	0.00%	30.77%
14	Miller Street	9	55.56%	55.56%	55.56%	55.56%	44.44%	44.44%	55.56%	33.33%	33.33%	33.33%	44.44%	44.44%	33.33%	45.30%
15	Miller Street	28	21.43%	28.57%	35.71%	39.29%	46.43%	46.43%	35.71%	21.43%	25.00%	17.86%	14.29%	17.86%	14.29%	28.02%
16	School Street	41	39.02%	46.34%	51.22%	46.34%	29.27%	31.71%	36.59%	31.71%	24.39%	12.20%	7.32%	12.20%	14.63%	29.46%
17	School Street-Bank	81	30.86%	33.33%	30.86%	35.80%	28.40%	29.63%	32.10%	35.80%	18.52%	9.88%	11.11%	4.94%	14.81%	24.31%
18	School Street-Club	23	0.00%	0.00%	4.35%	17.39%	26.09%	21.74%	26.09%	21.74%	17.39%	30.43%	30.43%	30.43%	26.09%	19.40%
19	Cabot Street	11	54.55%	54.55%	54.55%	72.73%	72.73%	63.64%	63.64%	54.55%	45.45%	36.36%	36.36%	36.36%	36.36%	52.45%

Source: PVPC

11. ON-STREET PARKING UTILIZATION

Street	Side	Possible Spaces	Morning Utilization											
			7:00 AM	7:30 AM	8:00 AM	8:30 AM	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM
Dwight Street	West	34	9	7	7	7	6	6	7	7	6	9	8	8
	East	20	9	9	10	7	7	7	6	6	6	7	4	5
Perkins Street	West	16	1	0	0	0	0	0	0	6	0	0	0	0
	East	15	1	1	1	1	1	1	1	3	3	3	3	2
Cabot Street	West	25	4	3	3	5	6	4	10	7	8	9	7	9
	East	7	0	0	0	0	2	1	3	4	3	4	4	5
Center Street	West	49	10	13	14	28	30	23	30	31	33	33	29	21
	East	21	0	0	0	6	10	11	10	10	11	13	12	10
Grape Street	West	25	11	11	10	10	9	9	7	8	8	7	8	8
	East	12	1	1	0	0	0	0	1	0	1	1	1	1
Front Street	North	33	4	2	0	0	1	0	4	4	3	5	4	2
	South	39	6	6	4	3	7	9	12	12	13	10	8	11
Exchange Street	North	33	4	2	1	2	6	6	9	7	7	7	12	11
	South	37	4	5	10	13	9	10	13	8	10	14	12	13
Springfield	Northeast	35	10	13	15	16	16	17	15	14	14	14	14	17
	Southwest	14	5	7	2	2	3	2	2	2	3	5	6	6
School Street	North	22	8	5	3	3	3	3	7	4	5	4	4	8
	South	14	7	7	8	6	5	2	3	4	3	3	4	3
Park Street	North	7	2	1	1	1	1	1	2	1	1	5	4	3
	South	7	1	1	1	1	2	1	3	1	2	2	2	3
Chapman Street	North	0	0	0	0	0	0	0	0	0	0	0	0	0
	South	13	4	5	4	4	4	6	5	3	3	3	5	5
Howard Street	North	13	6	11	10	9	8	8	9	8	6	7	7	9
	South	0	0	0	0	0	0	0	0	0	0	0	0	0
Pleasant Street	North	11	3	2	3	3	2	3	2	2	2	2	2	1
	South	12	3	6	5	5	5	5	4	4	4	4	4	4
Spring Street	North	19	8	11	11	10	12	13	11	12	9	12	10	11
	South	0	1	0	0	0	0	0	0	0	0	0	0	0
Pearl Street	North	16	2	4	4	4	3	4	4	4	2	2	2	2
	South	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: PVPC

Street	Side	Possible Spaces	Afternoon Utilization												
			1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM	6:30 PM	7:00 PM
Dwight Street	West	34	7	6	7	8	10	10	9	13	14	14	10	13	10
	East	20	5	5	5	8	6	6	7	5	7	8	14	11	10
Perkins Street	West	16	0	2	0	1	1	0	0	0	0	1	4	5	4
	East	15	4	5	5	5	4	4	4	4	4	3	3	3	2
Cabot Street	West	25	12	8	8	10	8	4	4	10	9	7	7	7	5
	East	7	4	2	2	2	5	4	1	4	4	3	3	5	4
Center Street	West	49	32	29	26	26	25	24	20	16	16	16	15	14	25
	East	21	11	7	6	8	7	8	7	8	7	5	7	6	1
Grape Street	West	25	10	10	10	9	8	10	9	8	8	11	13	13	11
	East	12	2	0	0	0	0	0	0	0	0	0	0	0	0
Front Street	North	33	4	8	5	8	9	10	12	9	6	7	10	9	8
	South	39	9	10	10	9	11	13	13	13	7	7	9	5	4
Exchange Street	North	33	9	10	9	11	11	11	6	6	6	7	5	7	6
	South	37	21	12	12	11	14	16	13	14	13	8	7	9	5
Springfield	North	35	17	16	14	11	9	10	6	6	5	5	7	1	5
	South	14	4	5	2	1	2	2	3	3	3	3	3	3	4
School Street	North	22	4	7	6	6	6	7	9	8	7	12	9	10	12
	South	14	3	1	3	3	3	5	3	4	6	8	4	6	6
Park Street	North	7	3	3	3	4	2	3	2	2	3	3	2	4	3
	South	7	4	3	3	4	3	4	4	2	3	3	3	2	4
Chapman Street	North	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	South	13	3	4	3	3	4	4	4	2	2	3	3	3	3
Howard Street	North	13	7	9	10	4	4	4	5	4	4	6	5	5	3
	South	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pleasant Street	North	11	1	1	6	3	3	3	1	0	1	1	2	2	2
	South	12	4	4	4	2	1	1	0	0	1	3	3	0	0
Spring Street	North	19	11	13	9	14	12	12	12	11	7	6	3	5	6
	South	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pearl Street	North	16	5	4	4	1	1	1	1	1	2	2	2	2	4
	South	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: PVPC

12. ON-STREET PARKING PERCENTAGE UTILIZATION

Street	Side	Possible Spaces	Percentage Morning Utilization												AVG %
			7:00 AM	7:30 AM	8:00 AM	8:30 AM	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	
Dwight Street	West	34	26.47%	20.59%	20.59%	20.59%	17.65%	17.65%	20.59%	20.59%	17.65%	26.47%	23.53%	23.53%	21.32%
	East	20	45.00%	45.00%	50.00%	35.00%	35.00%	35.00%	30.00%	30.00%	30.00%	35.00%	20.00%	25.00%	34.58%
Perkins Street	West	16	6.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	37.50%	0.00%	0.00%	0.00%	3.65%
	East	15	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	20.00%	20.00%	20.00%	20.00%	13.33%	20.00%	12.78%
Cabot Street	West	25	16.00%	12.00%	12.00%	20.00%	24.00%	16.00%	40.00%	28.00%	32.00%	36.00%	28.00%	36.00%	25.00%
	East	7	0.00%	0.00%	0.00%	0.00%	28.57%	14.29%	42.86%	57.14%	42.86%	57.14%	57.14%	71.43%	30.95%
Center Street	West	49	20.41%	26.53%	28.57%	57.14%	61.22%	46.94%	61.22%	63.27%	67.35%	67.35%	59.18%	42.86%	50.17%
	East	21	0.00%	0.00%	0.00%	28.57%	47.62%	52.38%	47.62%	47.62%	52.38%	61.90%	57.14%	47.62%	36.90%
Grape Street	West	25	44.00%	44.00%	40.00%	40.00%	36.00%	36.00%	28.00%	32.00%	32.00%	28.00%	32.00%	32.00%	35.33%
	East	12	8.33%	8.33%	0.00%	0.00%	0.00%	0.00%	8.33%	0.00%	8.33%	8.33%	8.33%	8.33%	4.86%
Front Street	North	33	12.12%	6.06%	0.00%	0.00%	3.03%	0.00%	12.12%	12.12%	9.09%	15.15%	12.12%	6.06%	7.32%
	South	39	15.38%	15.38%	10.26%	7.69%	17.95%	23.08%	30.77%	30.77%	33.33%	25.64%	20.51%	28.21%	21.58%
Exchange Street	North	33	12.12%	6.06%	3.03%	6.06%	18.18%	18.18%	27.27%	21.21%	21.21%	21.21%	36.36%	33.33%	18.69%
	South	37	10.81%	13.51%	27.03%	35.14%	24.32%	27.03%	35.14%	21.62%	27.03%	37.84%	32.43%	35.14%	27.25%
Springfield	Northeast	35	28.57%	37.14%	42.86%	45.71%	45.71%	48.57%	42.86%	40.00%	40.00%	40.00%	40.00%	48.57%	41.67%
	Southwest	14	35.71%	50.00%	14.29%	14.29%	21.43%	14.29%	14.29%	14.29%	21.43%	35.71%	42.86%	42.86%	26.79%
School Street	North	22	36.36%	22.73%	13.64%	13.64%	13.64%	13.64%	31.82%	18.18%	22.73%	18.18%	18.18%	36.36%	21.59%
	South	14	50.00%	50.00%	57.14%	42.86%	35.71%	14.29%	21.43%	28.57%	21.43%	21.43%	28.57%	21.43%	32.74%
Park Street	North	7	28.57%	14.29%	14.29%	14.29%	14.29%	14.29%	28.57%	14.29%	14.29%	71.43%	57.14%	42.86%	27.38%
	South	7	14.29%	14.29%	14.29%	14.29%	28.57%	14.29%	42.86%	14.29%	28.57%	28.57%	28.57%	42.86%	23.81%
Chapman Street	North	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	South	13	30.77%	38.46%	30.77%	30.77%	30.77%	46.15%	38.46%	23.08%	23.08%	23.08%	38.46%	38.46%	32.69%
Howard Street	North	13	46.15%	84.62%	76.92%	69.23%	61.54%	61.54%	69.23%	61.54%	46.15%	53.85%	53.85%	69.23%	62.82%
	South	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pleasant Street	North	11	27.27%	18.18%	27.27%	27.27%	18.18%	27.27%	18.18%	18.18%	18.18%	18.18%	18.18%	9.09%	20.45%
	South	12	25.00%	50.00%	41.67%	41.67%	41.67%	41.67%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	36.81%
Spring Street	North	19	42.11%	57.89%	57.89%	52.63%	63.16%	68.42%	57.89%	63.16%	47.37%	63.16%	52.63%	57.89%	57.02%
	South	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pearl Street	North	16	12.50%	25.00%	25.00%	25.00%	18.75%	25.00%	25.00%	25.00%	12.50%	12.50%	12.50%	12.50%	19.27%
	South	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: PVPC

Street	Side	Possible Spaces	Percentage Afternoon Utilization													AVG %
			1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM	6:30 PM	7:00 PM	
Dwight Street	West	34	20.59%	17.65%	20.59%	23.53%	29.41%	29.41%	26.47%	38.24%	41.18%	41.18%	29.41%	38.24%	29.41%	29.64%
	East	20	25.00%	25.00%	25.00%	40.00%	30.00%	30.00%	35.00%	25.00%	35.00%	40.00%	70.00%	55.00%	50.00%	37.31%
Perkins Street	West	16	0.00%	12.50%	0.00%	6.25%	6.25%	0.00%	0.00%	0.00%	0.00%	6.25%	25.00%	31.25%	25.00%	8.65%
	East	15	26.67%	33.33%	33.33%	33.33%	26.67%	26.67%	26.67%	26.67%	26.67%	20.00%	20.00%	20.00%	13.33%	25.64%
Cabot Street	West	25	48.00%	32.00%	32.00%	40.00%	32.00%	16.00%	16.00%	40.00%	36.00%	28.00%	28.00%	28.00%	20.00%	30.46%
	East	7	57.14%	28.57%	28.57%	28.57%	71.43%	57.14%	14.29%	57.14%	57.14%	42.86%	42.86%	71.43%	57.14%	47.25%
Center Street	West	49	65.31%	59.18%	53.06%	53.06%	51.02%	48.98%	40.82%	32.65%	32.65%	32.65%	30.61%	28.57%	51.02%	44.58%
	East	21	52.38%	33.33%	28.57%	38.10%	33.33%	38.10%	33.33%	38.10%	33.33%	23.81%	33.33%	28.57%	4.76%	32.23%
Grape Street	West	25	40.00%	40.00%	40.00%	36.00%	32.00%	40.00%	36.00%	32.00%	32.00%	44.00%	52.00%	52.00%	44.00%	40.00%
	East	12	16.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.28%
Front Street	North	33	12.12%	24.24%	15.15%	24.24%	27.27%	30.30%	36.36%	27.27%	18.18%	21.21%	30.30%	27.27%	24.24%	24.48%
	South	39	23.08%	25.64%	25.64%	23.08%	28.21%	33.33%	33.33%	33.33%	17.95%	17.95%	23.08%	12.82%	10.26%	23.67%
Exchange Street	North	33	27.27%	30.30%	27.27%	33.33%	33.33%	33.33%	18.18%	18.18%	18.18%	21.21%	15.15%	21.21%	18.18%	24.24%
	South	37	56.76%	32.43%	32.43%	29.73%	37.84%	43.24%	35.14%	37.84%	35.14%	21.62%	18.92%	24.32%	13.51%	32.22%
Springfield	North	35	48.57%	45.71%	40.00%	31.43%	25.71%	28.57%	17.14%	17.14%	14.29%	14.29%	20.00%	2.86%	14.29%	24.62%
	South	14	28.57%	35.71%	14.29%	7.14%	14.29%	14.29%	21.43%	21.43%	21.43%	21.43%	21.43%	21.43%	28.57%	20.88%
School Street	North	22	18.18%	31.82%	27.27%	27.27%	27.27%	31.82%	40.91%	36.36%	31.82%	54.55%	40.91%	45.45%	54.55%	36.01%
	South	14	21.43%	7.14%	21.43%	21.43%	21.43%	35.71%	21.43%	28.57%	42.86%	57.14%	28.57%	42.86%	42.86%	30.22%
Park Street	North	7	42.86%	42.86%	42.86%	57.14%	28.57%	42.86%	28.57%	28.57%	42.86%	42.86%	28.57%	57.14%	42.86%	40.66%
	South	7	57.14%	42.86%	42.86%	57.14%	42.86%	57.14%	57.14%	28.57%	42.86%	42.86%	42.86%	28.57%	57.14%	46.15%
Chapman Street	North	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
	South	13	23.08%	30.77%	23.08%	23.08%	30.77%	30.77%	30.77%	15.38%	15.38%	23.08%	23.08%	23.08%	23.08%	24.26%
Howard Street	North	13	53.85%	69.23%	76.92%	30.77%	30.77%	30.77%	38.46%	30.77%	30.77%	46.15%	38.46%	38.46%	23.08%	41.42%
	South	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Pleasant Street	North	11	9.09%	9.09%	54.55%	27.27%	27.27%	27.27%	9.09%	0.00%	9.09%	9.09%	18.18%	18.18%	18.18%	18.18%
	South	12	33.33%	33.33%	33.33%	16.67%	8.33%	8.33%	0.00%	0.00%	8.33%	25.00%	25.00%	0.00%	0.00%	14.74%
Spring Street	North	19	57.89%	68.42%	47.37%	73.68%	63.16%	63.16%	63.16%	57.89%	36.84%	31.58%	15.79%	26.32%	31.58%	48.99%
	South	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Pearl Street	North	16	31.25%	25.00%	25.00%	6.25%	6.25%	6.25%	6.25%	6.25%	12.50%	12.50%	12.50%	12.50%	25.00%	14.42%
	South	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%

Source: PVPC