



## Milford Central Business District Parking Study



**Dover/Kent County Metropolitan Planning  
Organization**

2019.01.23

**Draft Report**



## Table of Contents

Introduction .....	1
Parking study boundaries .....	1
Existing Conditions.....	2
Parking Inventory.....	2
Off-Street Lots.....	2
On-street parking regulations.....	5
Occupancy.....	7
On-street parking occupancy.....	8
Off-street parking occupancy.....	12
Turnover study.....	18
Turnover in parking lots.....	18
Turnover of on-street parking.....	19
Summary of Existing Parking Conditions .....	21
Public Involvement and Agency Coordination.....	21
Survey.....	22
Downtown Steering Committee Priorities.....	24
Parking Enforcement .....	25
Identified Issues .....	25
Signing.....	25
Parking lot layout.....	29
Employees park in prime location for visitor parking.....	29
Purpose and Need.....	29
Alternatives.....	30
Recommendations .....	42

## Figures

Figure 1: Study Area .....	1
Figure 2: Off-street parking lots in the Milford Central Business District study area .....	2
Figure 3: On-street parking regulations .....	7
Figure 4: Peak utilization of on-street parking.....	11
Figure 5: Peak utilization of off-street public parking lots.....	15
Figure 6: Comparison of weekday and weekend off-street lot occupancy .....	16
Figure 7: Maximum Overall Combined Occupancy in Same Hour .....	17
Figure 8: Existing locations of directional signs to public parking lots .....	27
Figure 9: Combined Library and Parking directional signs.....	28

## Tables

Table 1: Number of spaces in off- street parking lots.....	3
Table 2: On-street overall parking occupancy in study area.....	9
Table 3: Overall combined weekday occupancy of public off-street lots by time of day.....	12
Table 4: Maximum weekday occupancy of individual public lots .....	13
Table 5: Overall combined weekend occupancy of public off-street lots by time of day .....	13
Table 6: Maximum weekend occupancy of individual public lots .....	14
Table 7: Occupancy of centrally located public parking lots, Thursday August 9, 2018.....	18
Table 8: Lot turnover and duration of stay .....	19
Table 9: Occupancy of centrally located on-street parking, Thursday August 9, 2018 .....	19
Table 10: On-street parking turnover and duration of stay.....	20



## Introduction

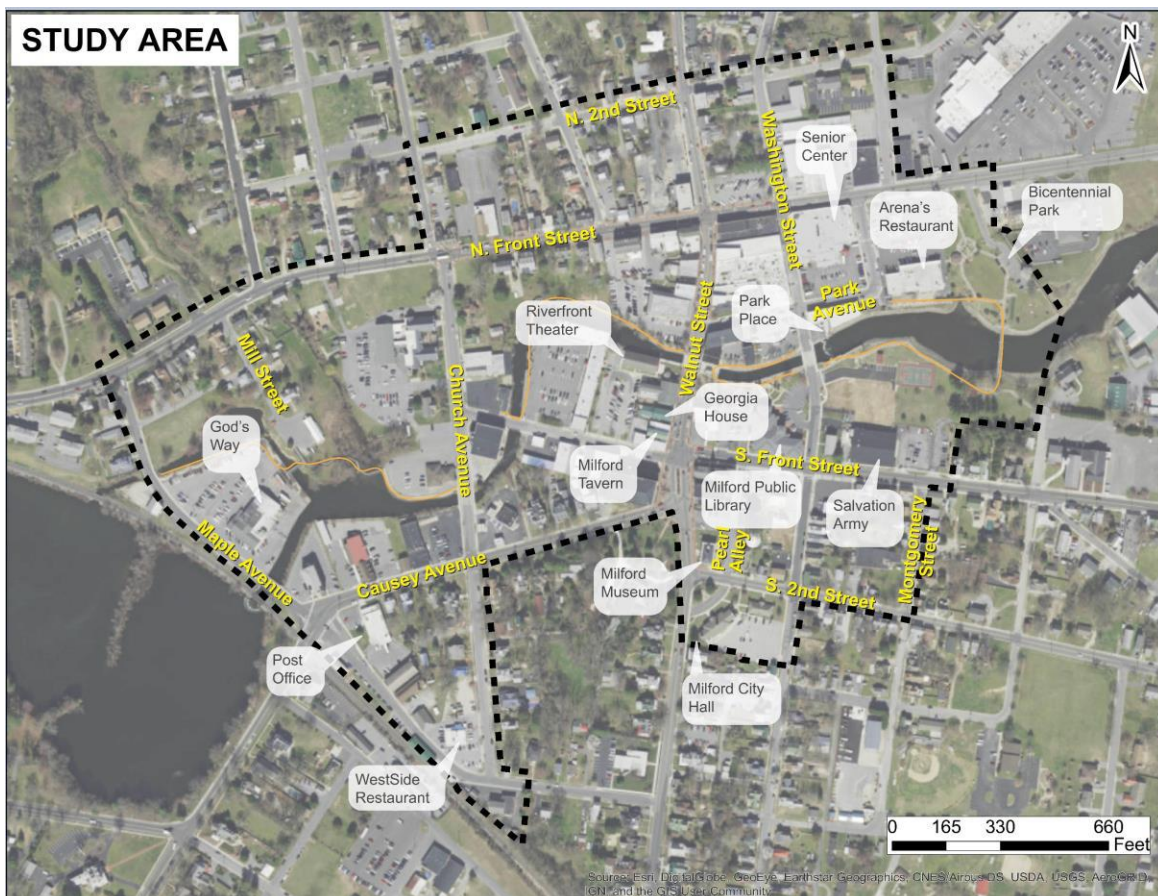
The City of Milford has experienced the challenges brought by success. The development and new uses for spaces downtown has inspired claims of insufficient parking in the central business district. The City of Milford and the Dover/Kent County MPO joined forces to study parking in the downtown area.

The purpose of the Milford Central Business District Parking Study is to determine if the allocation and number of public parking spaces for merchants and their customers is adequate. The study assesses the supply compared with demand for parking, determines parking needs, and evaluates potential improvements the City can make to address needs. The study addresses typical conditions and does not include special event parking.

## Parking study boundaries

The boundaries of the study area include the area zoned C-2 (Central Business District) with the exception of areas west of the Delmarva Central Railroad tracks. The study area is generally bounded by NE/NW Second Street to the north, East Street and Montgomery Street to the east, Maple Avenue to S. Church Street to the west, and Causey Avenue and SE Second Street to the south and includes the City Hall lot.

*Figure 1: Study Area*



## Existing Conditions

The study of existing parking conditions was undertaken in summer and fall of 2018. The study included:

- Inventory (how many parking spaces exist now, what type and where?)
- Occupancy counts (how full is parking?)
- Turnover study (how many different vehicles are served by the parking spaces?)

### Parking Inventory

An inventory was performed of the existing available public and private parking facilities in the study area. Information about public parking lots was provided by the City of Milford. Private parking lots in the study area were located in the field and included in the inventory. Field checks were performed to verify the location and number of on-street and off-street parking spaces. Photos were taken of each street segment and public parking lot. The parking inventory was conducted on July 5, 2018.

There are approximately 1,757 parking spaces within the study area, including 327 on-street spaces, 433 off-street public parking spaces, and an estimated 1,005 off-street private parking spaces.

### Off-Street Lots

A map of the public and private parking lots is shown in Figure 2. The locations in the map are shown in Table 1. Further detailed study of off-street parking focuses on the public lots. There are thirteen City public parking lots (#1-13 in Table 1).

*Figure 2: Off-street parking lots in the Milford Central Business District study area*



Table 1: Number of spaces in off- street parking lots

Lot number (Fig. 2)	Lot description	Total Spaces	ADA Spaces
1	Bicentennial Park Public Lot	10	1
2	Arena's Public Lot (excluding storefront parking #36)	88	0
3	NE Front Street Public Lot	39	4
4	NW Front Street Public Lot	66	3
5	Mill Street - Riverwalk Public Lot	9	2
6	City Hall Public Lot	42	2
7	Pearl Alley Public Lot (Next to Lifecycle)	34	0
8	Riverwalk Public Lot SE Front Street	10	2
9	Riverwalk Public Lot Washington Street	11	0
10	Park Avenue Public Lot	37	2
11	SW Front Street Public Lot	68	2
12	Angled Public Lot south of City Customer Service Center	17	2
13	Water Tower Public Lot on Pearl Alley	3	0
14	Social Services Department / Adopt-A-Family	72	3
15	Noveltea Nook - SW Front St & N Church St	30	0
16	Avenue United Methodist Church	100	10
17	Epic Health Services / Avenue Preschool	62	3
18	Former Firehouse	13	4
19	Liberty Gas Station/Convenience Store	15	0
20	Firestone	19	1
21	Body Canvas Tattoo Shop	24	4
22	God's Way / Fleet Services Lot	208	4
23	Masonic Temple	40	1
24	Post Office	9	1
25	Post Office / First State Dance Academy	21	0
26	West Side Diner	15	0
27	Westside Diner	22	2
28	Hair Cottage	5	0
29	Milford Museum	6	1
30	Lifecycle	11	0
31	Salvation Army	34	2
32	Milford Public Library Lot on S Washington St	22	2
33	Milford Public Library Lot on SE Front St	18	2
34	Houser's Auto	5	0
35	Milford Senior Center	31	4
36	Arena's/Fur Baby's Boutique (storefront parking)	12	2
37	Rite Aid Pharmacy	11	1
38	Reagan Watson Auction	10	0



Lot number (Fig. 2)	Lot description	Total Spaces	ADA Spaces
39	NE 2nd St - Private/Residential (Next to Argo Linoleum)	24	1
40	Argo Linoleum Co Inc	6	0
41	N Washington St - Private/Residential	11	0
42	Ladybug Shop (CLOSED)	10	1
43	NE Front St - Private/Residential (behind Walnut St)	11	0
44	Health & Social Services Department/ Child Development Watch	60	4
45	Berry Short Funeral Home	46	0
46	Governor Tharp House - Private/Residential	15	0
47	Marvel Agency	11	0
48	Good News Natural Foods / Mispillion Art League	6	0



*Park Avenue lot*



*SW Front Street lot*



*Pearl Alley lot*



*NW Front Street lot*

## ADA Parking

Accessible parking spaces are required for each parking facility on a site. At least one of every 6 ADA spaces, or fraction of 6, in each parking facility must be sized to accommodate vans. Accessible spaces required for one parking facility can be located in another if doing so results in substantially equal or better access in terms of travel distance to an accessible entrance or user conveniences. ADA spaces must be designated by a sign.

Total Number of Parking Spaces in Parking Lot	Minimum Total Number of Accessible Parking Spaces Required	Minimum Number of Van Accessible Parking Spaces
1 - 25	1	1
26 - 50	2	1
51 - 75	3	1
76 - 100	4	1
101 - 150	5	1

Comparing the ADA requirements with number of ADA spaces in the public lots, all meet the total space requirements except #2 Arena's, #7 Pearl Alley lot, #9 Riverwalk lot, and #11 SW Front Street lot. The Water Tower lot on Pearl Alley (#13) can be associated with either of the adjacent lots #12 or #29 for purposes of meeting ADA requirements. Some of the ADA spaces were designated by pavement markings only with no sign. No van accessible spaces were observed.

### On-street parking regulations

The total number of on-street parking spaces in the project area was determined to be 327. All on-street parking is free of charge. 231 spaces had no posted regulation. 86 spaces were time-limited parking (usually a 2-hour limit).

2-hour parking is posted on the following streets. The purpose of a time limit is to ensure that spaces become available throughout the day for customers and visitors. It is intended to prevent long term parkers (such as employees) from occupying spaces all day.

- Walnut Street between Causey Avenue and N. Front Street, 8 AM – 6 PM Mon. – Sat.
- SE Front Street between Walnut Street and Pearl Alley, 8 AM – 6 PM Mon. – Sat.
- NW Front Street between N. Walnut Street and N. Front Street, 8 AM – 6 PM Mon. - Fri.
- Park Avenue north side between Walnut Street and Washington Street, 8 AM -6 PM Mon. – Fri.
- Church Avenue west side south of the Avenue United Methodist Church, 8 AM-5 PM Mon. – Fri.

Seven (7) spaces were ADA, reserved for those with disabilities. There are two ADA spaces on Walnut Street southbound just north of N. Front Street; one ADA space on Walnut Street southbound between N. Front Street and Park Avenue; and three ADA spaces on SW Front Street eastbound opposite the parking lot. There is one ADA space on Montgomery Street southbound south of SE Front Street, in front



of 104 Montgomery Street. This is a residential street with detached homes, so the ADA regulation may have been posted for a particular resident. The sign was installed sometime between 2012 and 2015.

Three (3) spaces on S. Maple Avenue were private spaces reserved for employees of Marshall, Wagner & Associates, P.A.

There is one (1) 15-minute Loading-Only space on N. Walnut Street south of N. Front Street, in front of Irish Rose. There is 15-minute time limit parking on the south side of Park Avenue between Washington Street and Denney Row which is not specifically labelled as a loading zone but would serve that purpose. Causey Avenue and Maple Street near the Post Office have time limited parking (15-min. and 30 min.).

A map of the location and regulation of on-street parking is shown in Figure 3.



*Walnut Street, Mispillion River to S. Front Street*



*Walnut Street, Park Avenue to N. Front Street*

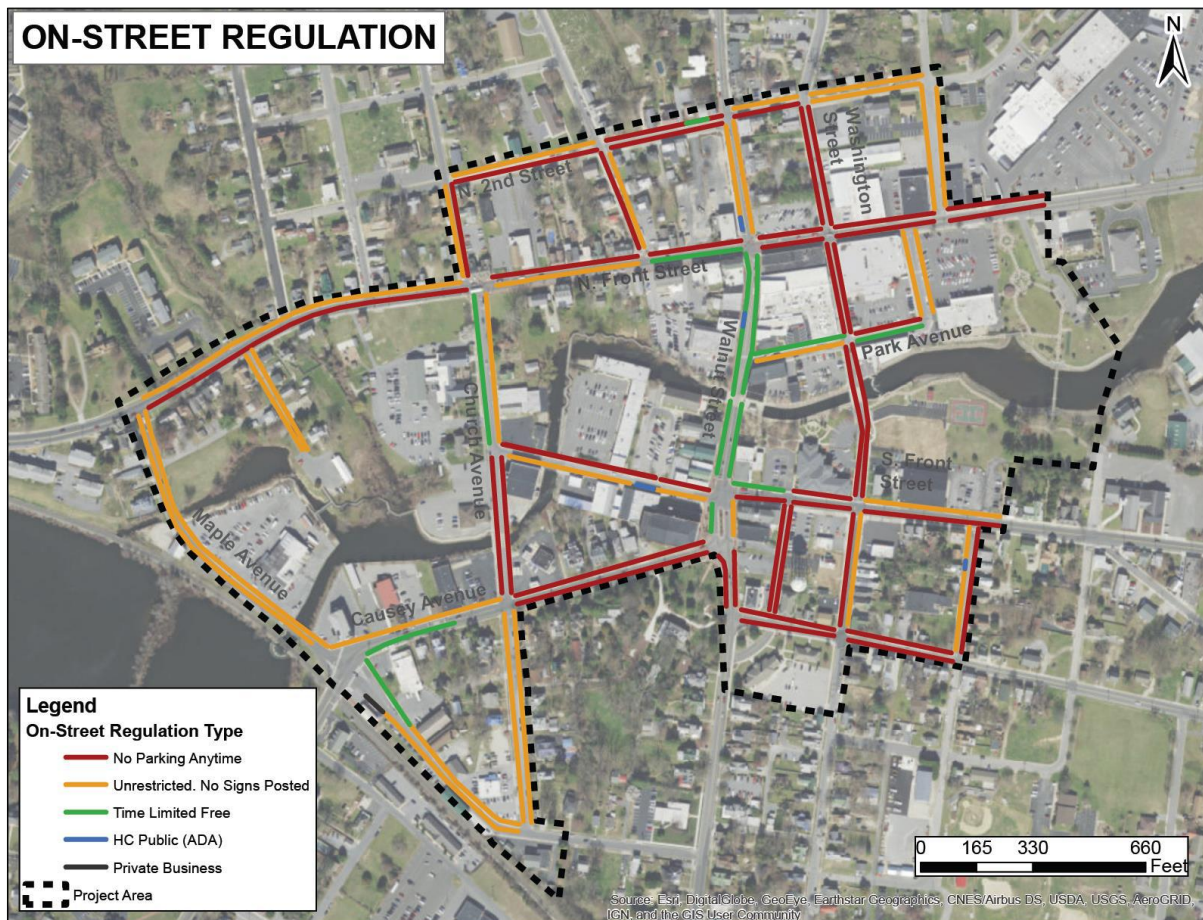


*NW Front Street, North Street to Walnut Street*



*Park Avenue, Washington Street to Walnut Street*

Figure 3: On-street parking regulations



## Occupancy

The next step in the study process was to conduct counts of the numbers of vehicles parked in public parking facilities, both on the street and in the off-street public parking lots. The project team first developed a parking count strategy and data collection forms.

On-street and off-street public parking counts were conducted hourly on the following days:

- Wednesday August 2, 2018 from 10am to 7pm.
- Saturday July 14, 2018 from 12pm to 8pm for a weekend occupancy count. The Riverfront Theater had a performance of Shrek the Musical that evening at 7:00 pm.
- An additional count was conducted on Thursday August 9, 2018 from 10am to 7pm. This count included recording of license plate data for turnover analysis. The on-street counts on this date included just the blocks in the retail core. The off-street counts included the three public lots closest to the retail core (lots 7, 10, 11). Turnover is discussed in a later section of this report.

### On-street parking occupancy

Occupancy (the number of occupied parking spaces compared with the total number of spaces) is an important measure of utilization. In general, an occupancy rate of 85% or lower indicates that parking spaces are available for new arrivals. When occupancy exceeds 85%, parking feels tight.

On-street parking counts were conducted on the following blocks:

- NE/ NW 2<sup>nd</sup> Street
  - N. Church Street to North Street
  - North Street to N. Walnut Street
  - N. Walnut Street to N. Washington Street
  - N. Washington Street to East Street
- NE/NW Front Street
  - Maple Avenue to N. Church Street
  - N. Church Street to North Street
  - North Street to N. Walnut Street
  - N. Walnut Street to N. Washington Street
  - N. Washington Street to East Street
  - East Street to Bicentennial Park driveway
- Park Avenue
  - N. Walnut Street to N. Washington Street
  - N. Washington Street to Denny Row
- SE/SW Front Street
  - N. Church Street to entrance of SW Front Street Public Lot
  - entrance of SW Front Street Public Lot to S. Walnut Street
  - S. Walnut Street to Pearl Alley
  - Pearl Alley to S. Washington Street
  - S. Washington Street to Montgomery Street
- Causey Avenue
  - Maple Avenue to S. Church Street
  - S. Church Street to S. Walnut Street
- SE Second Street
  - S. Walnut Street to S. Washington Street
  - S. Washington Street to Montgomery Street
- Maple Avenue
  - NW Front Street to Causey Avenue
  - Causey Avenue to S. Church Street
- Mill Street
  - NW Front Street to Mill Street Public Lot
- N/S Church Street
  - NW Second Street to NW Front Street
  - NW Front Street to SW Front Street
  - SW Front Street to Causey Avenue
  - Causey Avenue to S. Maple Avenue



- N/S Walnut Street
  - NE/NW Second Street to NE/NW Front Street
  - NE/NW Front Street Mispillion River Bridge
  - Mispillion River Bridge to SE/SW Front Street
  - SE/SW Front Street to Causey Avenue
  - Causey Avenue to SE Second Street
- Pearl Alley
  - SE Second Street to SE Front Street
- N/S Washington Street
  - NE Second Street to NE Front Street
  - NE Front Street to Park Avenue
  - Park Avenue to SE Front Street
  - SE Front Street to SE Second Street
- Montgomery Street
  - SE Front Street to SE Second Street
- Denny Row
  - NE Front St to Park Avenue
- East Street
  - NE Second Street to NE Front St
- North Street
  - NW Second Street to NW Front Street

**Peak Weekday Occupancy Rate of On-Street Parking** – the maximum overall occupancy of on-street parking in the study area occurred during the 12:00pm – 1:00pm hour when 105 of the total 327 spaces were occupied. The overall peak occupancy rate was 32%, as shown in Table 2.

**Peak Weekend Occupancy Rate of On-Street Parking** – the maximum overall occupancy of on-street parking in the study area occurred during the 2:00pm – 3:00pm hour when 98 of the total 327 spaces were occupied. The overall peak occupancy rate was 30%, as shown in Table 2.

Table 2: On-street overall parking occupancy in study area

Weekend			Weekday		
Hour	Occupied	%Occupied	Hour	Occupied	%Occupied
12PM - 1PM	87	27%	10AM-11AM	103	31%
1PM - 2PM	88	27%	11AM-12PM	103	31%
<b>2PM - 3PM</b>	<b>98</b>	<b>30%</b>	<b>12PM-1PM</b>	105	<b>32%</b>
3PM - 4PM	82	25%	1PM-2PM	98	30%
4PM - 5PM	68	21%	2PM-3PM	87	27%
5PM - 6PM	63	19%	3PM-4PM	78	24%

Weekend			Weekday		
Hour	Occupied	%Occupied	Hour	Occupied	%Occupied
6PM - 7PM	59	18%	4PM-5PM	74	23%
7PM - 8PM	66	20%	5PM-6PM	60	18%
			6PM-7PM	59	18%

People generally want to park as close to their destination as possible. Therefore, blocks with a higher concentration of commercial /retail destinations will have greater parking demands. The parking occupancy data was examined on a block by block basis to determine any locations where the existing spaces are filled to capacity.

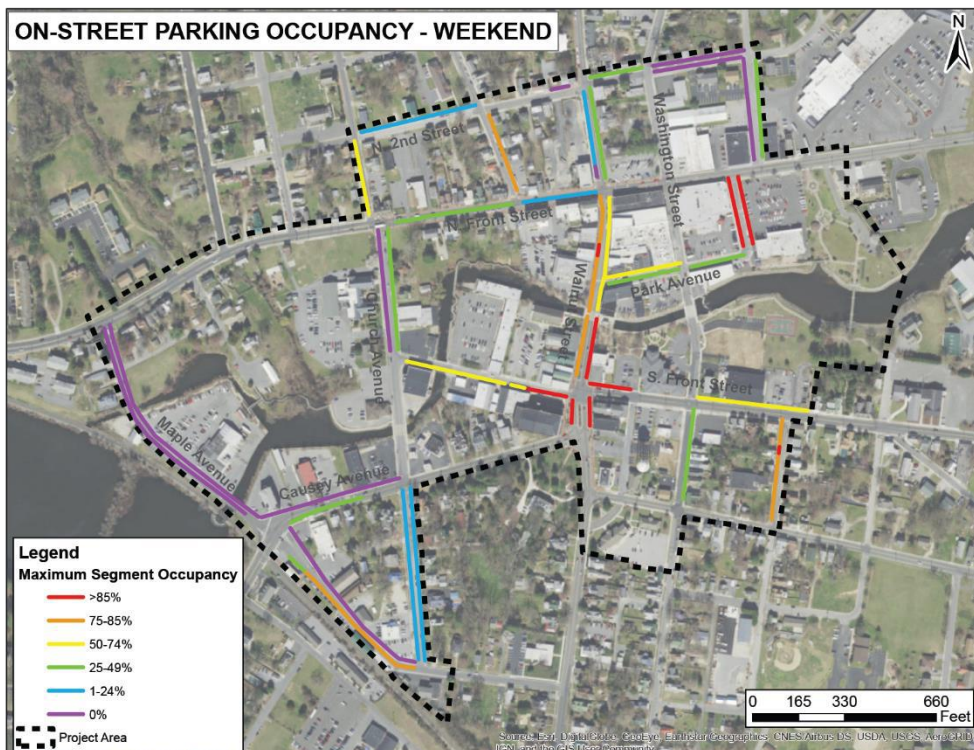
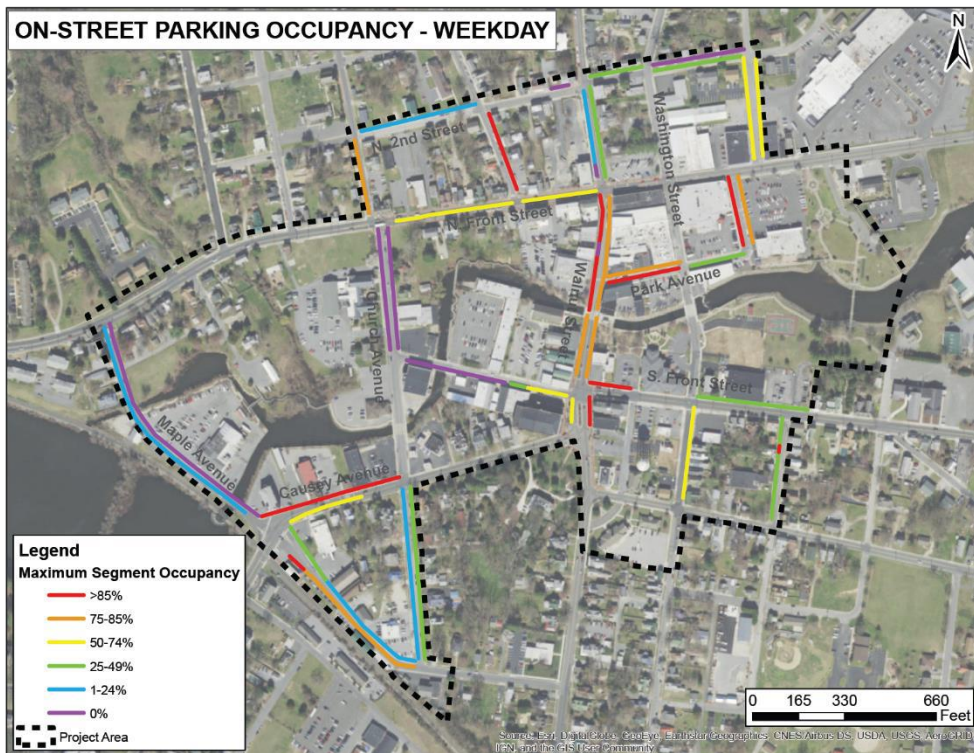
The occupancy rate also provides insight into which blocks have the highest demand. The highest rate of occupancy throughout the day was found on:

- N. Walnut Street from N. Front Street to Mispillion River
- Denney Row from Park Avenue to NE Front Street
- NW Front Street from N. Walnut Street to North Street
- S. Walnut Street from Mispillion River to Causey Avenue

The maps in Figure 4 illustrate utilization of the on-street parking by block. The maps show the peak occupancy of each individual street segment. The maps do not illustrate conditions for a specific hour of the day. Since the street segments peak at different times, occupancy conditions for a specific hour will be lower for some segments than shown on the maps.

On these maps, a block showing occupancy of less than 50% means the block had very low occupancy compared with its capacity during all hours of the survey day. An occupancy of between 50% and 74% indicates that parking was freely available during all hours. An occupancy of 75% to 85% indicates spaces typically are available and the parking was well utilized. An 85% occupancy indicates parking on that block felt tight for at least one hour of the survey day, and on occasion all spaces could be full.

Figure 4: Peak utilization of on-street parking





## Off-street parking occupancy

Off-street parking counts were conducted at the following public parking lots:

- Bicentennial Park Public Lot – located east of Arena’s and Fur Baby Boutique with its entrance on NE. Front Street
- Public Lot in front of Arena’s – located on NE. Front Street in front of Arena’s and Fur Baby Boutique. The public lot excludes the row of spaces directly in front of Arena’s and Fur Baby Boutique; these spaces are on private property and are reserved for these businesses.
- NE Front Street Public Lot – located between N. Washington Street and N. Walnut Street
- NW Front Street Public Lot – located at the corner of N. Front Street and N. Walnut Street
- Mill Street Riverwalk Public Lot – located at the south end of Mill Street
- City Hall Public Lot – located at City Hall building at 2<sup>nd</sup> Street and Washington Street
- Pearl Alley Public Lot – located next to Lifecycle and Milford water tower
- SE Front Street Riverwalk Public Lot – located adjacent to The Salvation Army lot on S. Front Street
- Washington Street Riverwalk Public Lot – located across from Milford Public Library, next to basketball court
- Park Avenue Public Lot – located across Washington Street from Park Place Restaurant
- SW. Front Street Public Lot – located behind Riverfront Theatre and shops and restaurants on S. Walnut Street

The total number of off-street parking spots in these parking lots was determined to be 412, of which 18 were ADA spots reserved for those with disabilities.

**Peak Weekday Occupancy of Off-Street Parking** – The overall peak weekday hour for all lots combined was found to be 1pm – 2pm with 49% occupancy, as shown in Table 3.

*Table 3: Overall combined weekday occupancy of public off-street lots by time of day*

Weekday		
Hour	Occupied	%Occupied
10AM-11AM	171	41%
11AM-12PM	175	42%
12PM-1PM	194	47%
<b>1PM-2PM</b>	<b>201</b>	<b>49%</b>
2PM-3PM	164	40%
3PM-4PM	147	36%
4PM-5PM	142	34%
5PM-6PM	116	28%
6PM-7PM	136	33%

The peak weekday occupancy for individual lots varied, as low as 10% for Bicentennial Park Public lot and as high as 100% at the Riverwalk Public Lot Washington Street. The time of day at which individual lots experienced their peak occupancy also varied, as shown in Table 4.

*Table 4: Maximum weekday occupancy of individual public lots*

Public Parking Facility	Max. Occupied Spaces	Max. %Occupancy	Peak time
Bicentennial Park Public Lot	1	10%	2PM-3PM
Arena's Parking Lot (Excluding Front Row)	55	62%	1PM-2PM
NE Front St Lot (Between N Washington St and N Walnut St)	19	48%	2PM-3PM
NW Front Street Public Lot (Old Bank and Delaware Branding Company Lot)	16	24%	10AM-11AM
Mill St - Riverwalk Public Lot	2	22%	1PM-2PM
City Hall Public Lot	19	45%	11AM-12PM
Pearl Alley Public Lot (Next to Lifecycle)	22	65%	1PM-2PM
Riverwalk Public Lot SE Front St	9	90%	6PM-7PM
<b>Riverwalk Public Lot Washington St (Basketball Courts)</b>	<b>11</b>	<b>100%</b>	<b>12PM-1PM</b>
Park Avenue Public Lot	33	89%	1PM-2PM
SW Front St Public Lot	34	51%	12PM-1PM

**Peak Weekend Occupancy Rate of Off-Street Parking** – The overall peak weekend hour for all lots combined was found to be 7PM-8PM with 41% occupancy, as shown in Table 5.

*Table 5: Overall combined weekend occupancy of public off-street lots by time of day*

Hour	Occupied	%Occupied
12PM - 1PM	110	27%
1PM - 2PM	108	26%
2PM - 3PM	102	25%
3PM - 4PM	114	28%
4PM - 5PM	99	24%
5PM - 6PM	89	22%
6PM - 7PM	139	34%
<b>7PM - 8PM</b>	<b>168</b>	<b>41%</b>

The peak weekend occupancy of the 18 total ADA spaces was three (3) vehicles, or 17%.

The peak weekend occupancy for individual lots varied widely, as low as 11% for the NW Front Street lot and as high as 99% at the SW Front Street lot. The time of day at which individual lots experienced their peak occupancy also varied, as shown in Table 6.

*Table 6: Maximum weekend occupancy of individual public lots*

Public Parking Facility	Max. Occupied Spaces	Max. %Occupancy	Peak time
Bicentennial Park Public Lot	2	20%	6-7 pm
Arena's Parking Lot (Excluding Front Row)	46	52%	7-8 pm
NE Front St Lot (Between N Washington St and N Walnut St)	5	13%	12-1 pm
NW Front Street Public Lot (Old Bank and Delaware Branding Company Lot)	7	11%	1-2 pm
Mill St - Riverwalk Public Lot	2	22%	3-4 pm
City Hall Public Lot	16	38%	2-3 pm
Pearl Alley Public Lot (Next to Lifecycle)	9	28%	1-2 pm
Riverwalk Public Lot SE Front St	9	90%	6-7 pm
Riverwalk Public Lot Washington St (Basketball Courts)	5	45%	6-7 pm
Park Avenue Public Lot	21	57%	12-1 pm
<b>SW Front St Public Lot *</b>	<b>67</b>	<b>99%</b>	<b>7-8 pm</b>

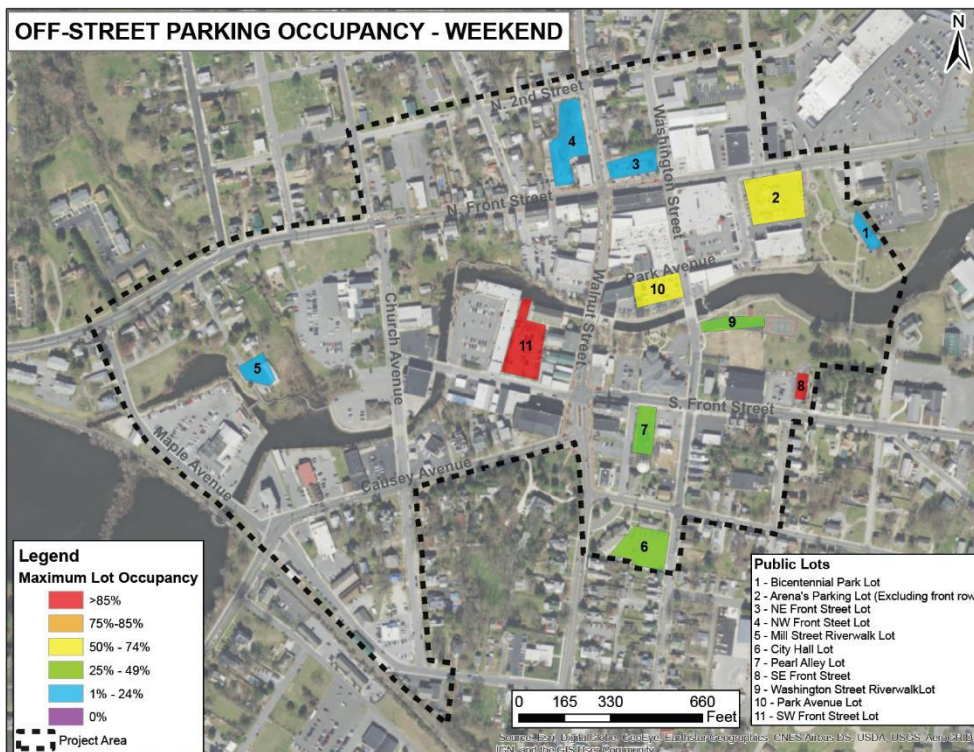
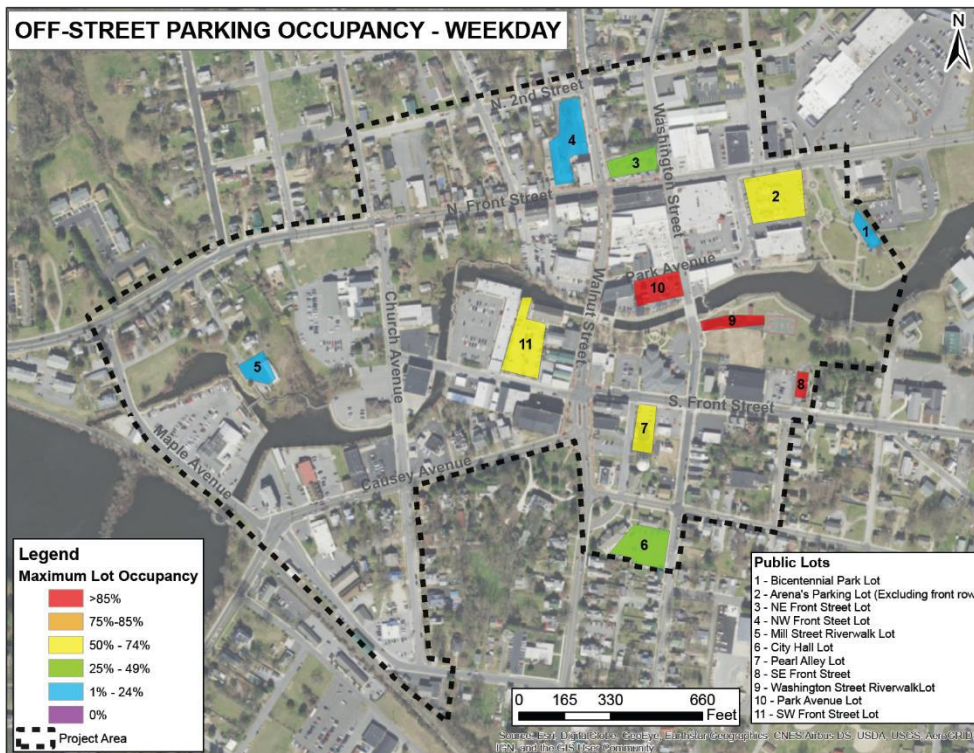
\* Note: A show at the Riverfront Theater started at 7 pm

The maps in Figure 5 illustrate utilization of the off-street public parking lots. The maps show the peak occupancy for each individual lot. The maps do not illustrate conditions for a specific hour of the day. Since the lots peak at different times, occupancy conditions for a specific hour will be lower for some lots than shown on the maps.

On these maps, a lot showing occupancy of less than 50% means the lot had very low occupancy compared with its capacity during all hours of the survey day. An occupancy of between 50% and 74% indicates that parking was freely available during all hours. An occupancy of 75% to 85% indicates spaces typically are available and the parking was well utilized. An 85% occupancy indicates parking in that lot felt tight for at least one hour of the survey day, and on occasion all spaces could be full.

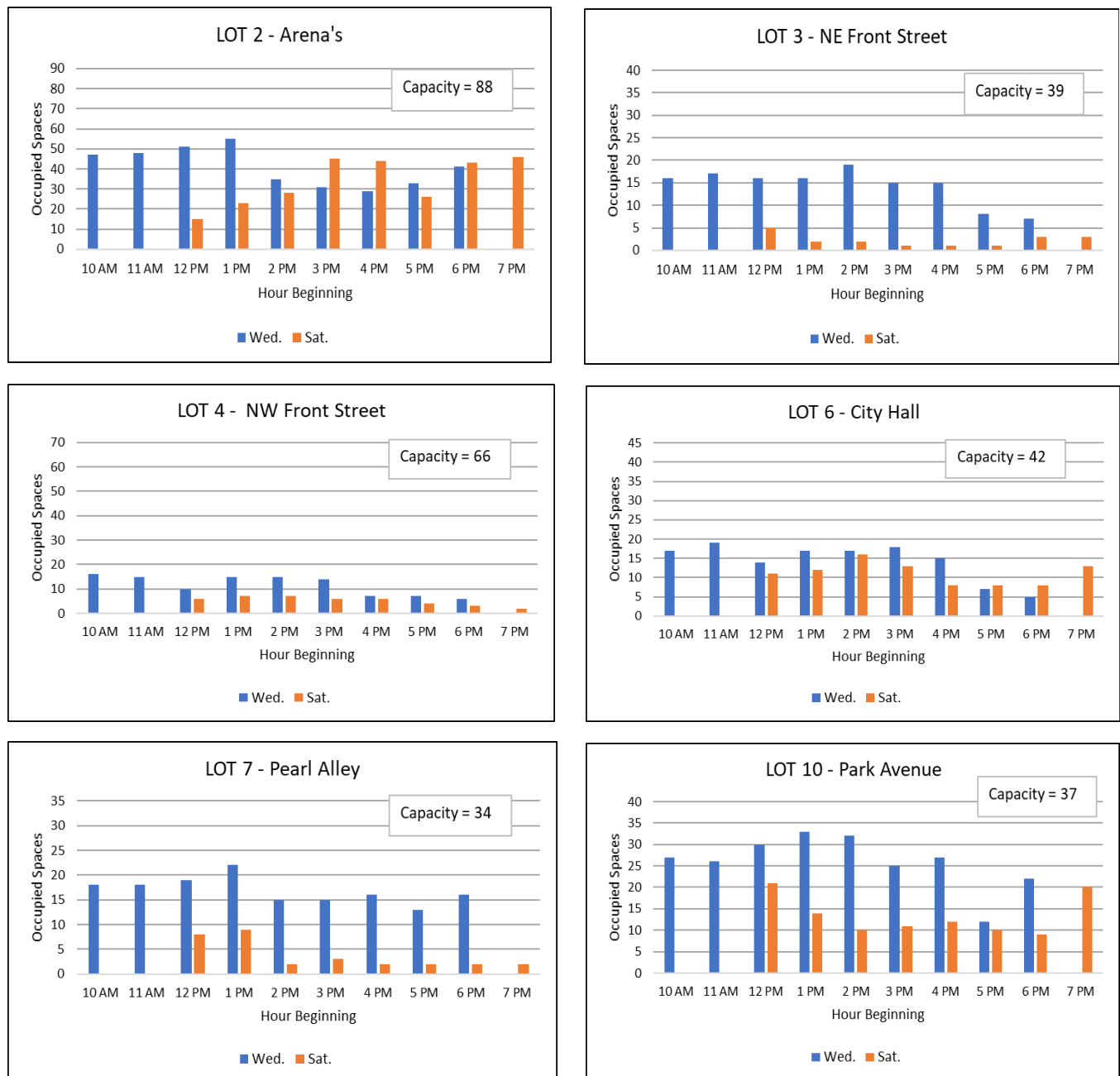


Figure 5: Peak utilization of off-street public parking lots

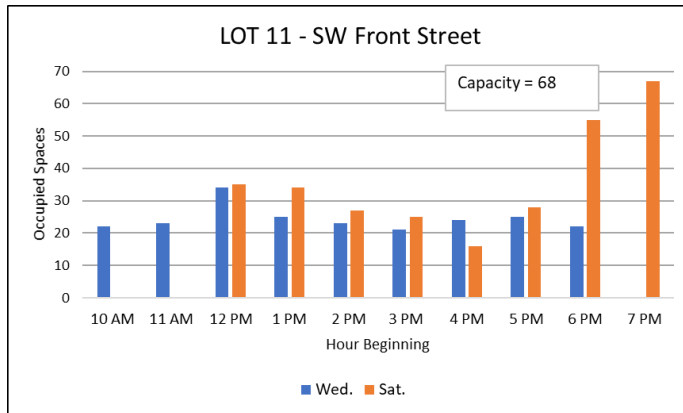


The charts in Figure 6 illustrate the comparison of weekday (Wednesday August 2, 2018) and weekend (Saturday July 14, 2018) hourly parking occupancy for the larger lots.

Figure 6: Comparison of weekday and weekend off-street lot occupancy



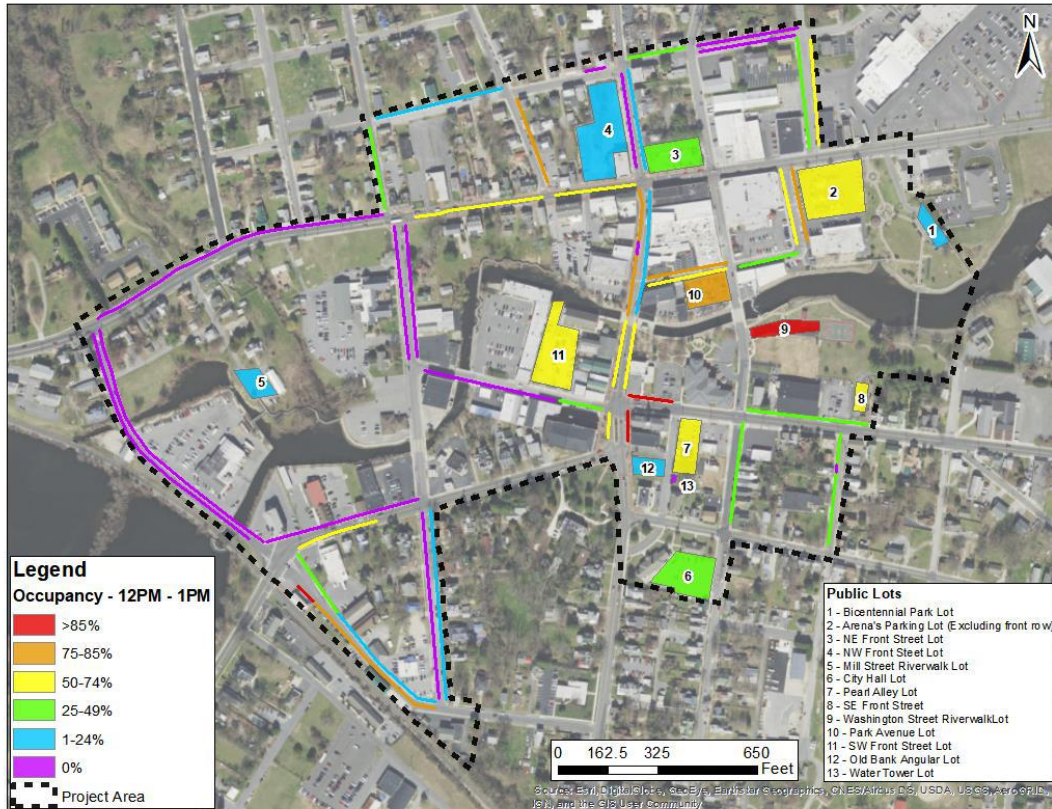




The peak occupancy of individual lots and street segments shown in Figures 4 and 5 occurred at different times of the day. Individual peak occupancies show whether a particular parking facility ever gets filled; it also shows whether a facility is underutilized because its maximum occupancy is low.

To determine the adequacy of the downtown parking supply, we use occupancy conditions for all facilities during the same hour of the day. This is what a visitor arriving downtown experiences when looking for parking. The maximum total number of vehicles parked on the street and in public lots during the same hour occurred on Wednesday, August 1 from 12 pm to 1 pm. Conditions during the overall peak are illustrated in Figure 7.

*Figure 7: Maximum Overall Combined Occupancy in Same Hour*





The occupancy counts show that spaces are generally available, and if one street segment or lot happens to be full, space would be available on an adjacent block or nearby lot.

## Turnover study

Turnover is a measure of the utilization of parking. It is the ratio of the number of individual vehicles parked to the total number of available parking spaces. For example, if there are 10 available spaces and each space is occupied by the same vehicle all day, the turnover is 10/10 or 1.0 vehicles per space. If nine of the spaces are empty all day but the last space is used by 10 individual vehicles, the turnover would also be 1.0 vehicles per space. So turnover needs to be considered along with other measures such as occupancy and duration of stay. A turnover study records the license plate numbers of parked vehicles by space location. It records whether a space is empty, is occupied by a new vehicle, or is occupied by the same vehicle recorded the previous period. This data can be used to determine occupancy, turnover, and duration of stay.

### Turnover in parking lots

A turnover study was conducted of all striped parking spaces in centrally located public lots on Thursday August 9, 2018. License plate numbers were recorded hourly for nine hours starting at 10:00 am. The Park Avenue lot reached >85% occupancy in early afternoon. The Pearl Alley lot peak occupancy was 65% and the SW Front Street Lot peak occupancy was 62%.

*Table 7: Occupancy of centrally located public parking lots, Thursday August 9, 2018*

HOURL	10AM	11AM	12PM	1PM	2PM	3PM	4PM	5PM	6PM
Pearl Alley Lot	56%	50%	53%	53%	56%	59%	65%	38%	35%
Park Ave. Lot	76%	84%	78%	86%	89%	73%	65%	43%	35%
SW Front St. Lot	37%	47%	62%	51%	37%	41%	38%	41%	46%
Overall combined	52%	58%	64%	61%	55%	54%	52%	41%	40%

Table 8: Lot turnover and duration of stay

Lot location	Number of spaces	Turnover (vehicles per space) during 9-hour period	Spaces occ. by same car $\geq 8$ hours	Avg. duration of stay (hours)	% of vehicles staying 1 - 2 hours	% of vehicles staying 3 - 6 hours	% of vehicles staying 7 - 9 hours
Pearl Alley lot	34	1.15	3	4	24%	54%	22%
Park Avenue lot	37	1.78	6	4.5	47%	28%	25%
SW Front Street lot	68	1.26	8	3.4	57%	21%	22%

### Turnover of on-street parking

Turnover counts were conducted on blocks with posted time limits and selected adjacent blocks.

- Five blocks reached >85% occupancy, though not at the same times. Those blocks are highlighted in Table 9 below.
- Two blocks had turnover greater than 3 vehicles/space: Walnut St. from N. Front Street to the river, and Walnut Street from the River to S. Front Street.
- Two blocks had turnover greater than 2 vehicles/space but less than 3 vehicles/space: Park Avenue from Walnut Street to Washington Street, and Denney Row.
- On Walnut Street, compliance of 2-hour time limit was reasonably good, though a few vehicles stayed longer.
- On other streets with a 2-hour time limit, many vehicles stayed longer. Since empty spaces were available, this did not cause a problem. No enforcement or ticketing was observed.
- 22 vehicles arrived in the 6pm hour. 12 of those vehicles parked on Walnut Street between the River and S. Front Street. These might be presumed to be restaurant/bar trips.

Table 9: Occupancy of centrally located on-street parking, Thursday August 9, 2018

Street	Block	HOUR								
		10AM	11AM	12PM	1PM	2PM	3PM	4PM	5PM	6PM
N. Front St.	Church Ave. - North St.	54%	38%	38%	31%	31%	46%	46%	23%	8%
N. Front St.	North St. - Walnut St.	62%	69%	69%	54%	54%	54%	54%	38%	46%
Park Ave.	Walnut St.- Washington St.	62%	62%	69%	85%	62%	77%	62%	77%	69%
Park Ave.	Washington St.- Denney Row	38%	63%	63%	38%	38%	38%	25%	13%	25%
S. Front St.	parking lot drive - Walnut St.	0%	50%	25%	0%	0%	75%	100%	75%	25%

Street	Block	HOUR								
		10AM	11AM	12PM	1PM	2PM	3PM	4PM	5PM	6PM
S. Front St.	Walnut St. - Pearl Alley	0%	0%	100%	50%	100%	50%	100%	50%	50%
Walnut St.	N. Front St. - Bridge	63%	75%	69%	94%	63%	81%	69%	44%	50%
Walnut St.	Bridge - S. Front St.	43%	50%	71%	57%	36%	36%	29%	29%	100%
Walnut St.	S. Front St. - Causey Ave.	25%	0%	25%	25%	0%	0%	0%	0%	25%
Denney Row	N. Front St. - Park Ave.	85%	92%	62%	62%	38%	54%	46%	0%	23%
Overall combined		56%	62%	63%	60%	45%	57%	52%	35%	47%

Table 10: On-street parking turnover and duration of stay

Street	Block	Number of Spaces	Turnover (vehicles /space) during 9-hour period	Spaces occ. by same car ≥ 8 hours	% of vehicles staying 1 - 2 hours	% of vehicles staying 3 - 6 hours	% of vehicles staying 7 - 9 hours	Posted Time Limit
N. Front St.	Church Ave. - North St.	13	1.31	2	76%	12%	12%	-
N. Front St.	North St. - Walnut St.	10	1.29	3**	22%	56%	22%	2 HR
Park Ave.	Walnut St.- Washington St.	13	2.31	0	57%	36%	7%	2 HR
Park Ave.	Washington St.- Denney Row	8	1.13	1	63%	12%	25%	15 min
S. Front St.	parking lot drive - Walnut St.	4	2.00	0	71%	29%	0%	-
S. Front St.	Walnut St. - Pearl Alley	2	2.00	0	50%	50%	0%	2 HR
Walnut St.	N. Front St. - Bridge	16	3.94	1	88%	10%	2%	2 HR
Walnut St.	Bridge - S. Front St.	14	3.07	0	87%	10%	3%	2 HR
Walnut St.	S. Front St. - Causey Ave.	4	0.75	0	100%	0%	0%	2 HR
Denney Row	N. Front St. - Park Ave.	13	2.31	0	70%	30%	0%	-

\*\* Construction materials occupied 3 spaces all day. Not counted in turnover or average duration of stay.

## Summary of Existing Parking Conditions

There are approximately 1,750 parking spaces within the study area, including 327 on-street spaces, 433 off-street public parking spaces, and an estimated 1,000 off-street private parking spaces.

The typical occupancy of the public off-street lots is less than 60% full. The Park Avenue lot is the exception; it reaches >85% of capacity during the weekday between 1pm and 3pm. The lots on NW and NE Front Street have particularly low demand, less than 40% full in all observations. None of the public lots was filled to capacity in any of the weekday or weekend observations except the SW Front Street lot, which was full on Saturday at 7pm on the evening of a Riverfront Theater performance.

On-street parking is generally available. With few exceptions, empty spaces were found on all blocks during all observations. The exceptions are Walnut Street between Mispillion River and Causey Avenue and S. Front Street between the SW Front Street lot driveway and Pearl Alley.

It is possible that on-street parking on some blocks was briefly full in between the hourly observations. However, space would have always been available on an adjacent block or nearby lot.

The Existing Conditions analysis concludes there is not a pervasive parking shortage on typical weekdays or weekends.

## Public Involvement and Agency Coordination

Local stakeholders were consulted regarding their perceptions and observations about parking to determine any specific localized parking issues that the existing conditions field studies may not have observed. In addition, stakeholders were consulted about their ideas for potential improvements.

Outreach effort included:

Meeting with City Director of Planning, Director of Public Works, and Director of Parks and Recreation

Phone interview with City Police Chief

Phone interviews with agencies

- Milford Chamber of Commerce
- Downtown Milford, Inc.
- Milford Public Library
- Milford Senior Center

Meeting with Downtown Milford Inc. Entrepreneur's Group

Public Meeting at City Hall on September 25, 2018 to present existing parking conditions and obtain public input



## Survey

A questionnaire survey was given to participants at the public meeting. Survey questions were aimed at obtaining information about the participant's purpose and frequency of trips to downtown, parking habits, perception of how easy or difficult it is to find parking, and other comments.

The survey was also placed on line on the City of Milford website and the Dover/Kent MPO website. An article in the October 18, 2018 Milford Chronicle reported on the public meeting and gave website information for the survey.

A total of 10 survey responses were received at the public meeting and an additional two on-line. Although the number of responses is too low to make statistical statements about the general Milford community, the responses received do support the conclusion of the existing conditions field studies that there is not a shortage of parking spaces in the downtown. The questions are listed below along with a summary of the responses.

*How many times per week do you travel to downtown?*

- Several times/day 2
- Nearly every day 3
- 4-5 days/week 3
- 2-3 days/week 2
- 1 day/week 2

*What is the primary purpose that brings you downtown most frequently?*

- Multiple purposes 5
- Work 3
- Live here 2
- Shopping 1
- Dining 1

*Do you always park in the same place or do you search?*

- Same place 8
- Search 3
- n/a (walk) 1

*Not including this public workshop, what was your primary purpose for your last trip to downtown?*

- Work 5
- Leisure activity 2
- Shopping 2
- Dining 2
- Live here 1

*How long did it take to find a spot on your last trip to downtown?*

- Immediately 6
- 5 minutes 3
- n/a (walk) 1

*On that trip, did you park in a parking lot or on the street?*

- On-street 8
- Lot 3
- n/a (walk) 1

*On that trip, how close to your destination did you park?*

- Right in front/1 minute walk 6
- 2-4 minute walk 5
- 5-9 minute walk 0
- 10 minutes or more 0
- n/a 1

*What was the name or address of your destination?*

- 11 respondents gave a destination on Walnut Street

*Does availability of parking ever affect your decision on whether to come to downtown businesses, shops or restaurants?*

- No 10 One respondent elaborated: "I know where to park and never have difficulty"
- Yes 1 Respondent elaborated: "If there's no parking when I drive by, I decide whether to stop or not"

*How well do you think public parking lots are signed and properly marked for public use?*

- Poor 2
- Needs Improvement 5
- Adequate 3
- No response 2

*How would you describe yourself and/or your affiliation?*

- Resident 3
- Business owner 2
- Resident, business owner, property owner 2
- Resident, community/civic organization 2
- Media 1
- No response 2

*At this workshop, did you learn of any downtown public parking locations that you were not aware of before?*

- No 7
- Yes, I learned about one or more public lots 1
- No response 4

It is interesting that the person who learned about public lots is one who visits downtown nearly every day. This person always parks in the same lot, a 2-4 minute walk from the destination, so likely had no need to search out other parking locations.

*Please describe any other thoughts you have on parking or parking-related experiences in downtown.*

- New city lot - Need to be able to exit and come back downtown.
- Arena's lot is too tight.
- Park Ave. & Washington - Need to expand 2hr. enforcement time to 9 pm (DBF vehicles after 5:00)
- Angled parking - one way north to south on Walnut Street
- Signs that identify the amount of time it takes to walk to Walnut Street (shopping district)
- Park Ave. lot needs lines on river side. Diagonal as opposed to parallel, signage for compact cars.
- If there's no parking when I drive-by, I decide whether to stop or not
- Most times there is no street parking. On the weekends there is parking in the DHSS lot and that's a comfortable walk. I dislike parking in the municipal lot as the parking lot is not car friendly. Parking spaces are too small, bad lay out and must cross Rt. 14. Crosswalks are not very people friendly. Light changes too quickly and cars drive way too fast.



*Public meeting at City Hall*

## Downtown Steering Committee Priorities

The Downtown Steering Committee is a group of stakeholders convened by the City Planner to review and prioritize improvements recommended in the downtown master plan, Milford Rivertown Rebirth Plan 2025. 32 potential projects were considered including projects for streetscape, transportation and parking, recreation, façade and building improvements. The following parking-related projects were ranked in the Top 10:

- Signs to Current Parking Lots (Rank 2)
- NE Front Street Parking Lot (Arena's) (Rank 3)
- SW Front Street Parking Lot (Rank 8)

Other projects involving parking lots or walking routes to parking were:

- Park Avenue/Denny Row streetscape (Rank 11)
- N. Washington Street streetscape from Mispillion River to NE Front Street (Rank 13)
- N. Walnut Street NE Front Street parking lot (Rank 15)
- Park Avenue parking lot (Rank 16)
- SW Front Street streetscape from S. Walnut Street to Church Street (Rank 17)

## Parking Enforcement

Delaware state law prohibits parking in any area where a curb is marked yellow or where official traffic-control devices (such as signs) prohibit parking. Milford police can enforce that law.

Time-limited parking regulations are up to the local municipality. An incorporated city or town may, by ordinance, establish the amount of a civil penalty for each stopping, standing or parking offense. The City of Milford Code does not mention exceeding a posted time limit as a parking violation subject to a penalty. There is no provision for enforcement of time-limited parking in the Milford code, other than in Chapter 215 Article I which prohibits parking a vehicle in the same location upon any street, alley, public way or public place in excess of 14 consecutive days. Vehicles must be moved (driven) at least once every 14 days. There is a fine for violation and police have the authority to tow the vehicle at the owner's expense.

Posted time limit regulations on Walnut Street, South and North Front Street, and Park Avenue were established administratively. They are not listed in the Milford code.

Milford police do not routinely check for vehicles parking longer than the posted time limit. The Police Department does not have staff availability for routine parking patrols in addition to their other duties. Parking problems come to the attention of the Department when a complaint is made. The Department then works with the individuals involved to resolve the problem.

## Identified Issues

The outreach and interviews confirmed the conclusion of the consultant's existing conditions study regarding the adequacy of public parking supply. There is no shortage of parking spaces on typical days. People prefer to park on the street very near their destination and think there is a parking shortage if they cannot do so. Therefore, the need is not to increase the number of parking spaces, but to improve the parking utility and experience. Several issues were identified.

## Signing

The most frequent comment pertained to the need for better directions to parking and better identification of public parking.

### **Directional signs to parking**

The directional signs to parking in the downtown are somewhat difficult to read.

The signs which currently exist in the downtown were installed sometime within the last five years and replaced green-on-white parking signs that previously existed in the same locations. The former signs were standard in the Federal Highway Administration's MUTCD (Manual for Uniform Traffic Control Devices). Parking is the only message on that sign. Typical dimensions for the sign are 24 inches width and 18 inches height, with a letter "P" 12 inches in height. The current signs incorporate the new Milford logo and new colors. The plans for the signs were not available, but from photos and field views the sign dimensions are 18" width x 24" height. A third of the height is taken by the black band with Milford logo. As a result, when parking is the only message on the current sign, the "P" legend is less than 5"



high after accounting for the arrows and clear space between legends. While the new signs are attractive, they did not improve the sign function of directing drivers to parking.

In the example below on NE Front Street, the building façade provides a plain background and there are no other signs competing for the driver's attention. The parking sign is not in the sun in either photo.



*Eastbound NE Front Street, April 2012*



*NE Front Street, November 2015*

The sign is more visible in direct sunlight, however that will not be the lighting condition for most of the day or on cloudy/rainy days.



*NE Front Street, May 2018*

In many locations, the new signs include directions to the Milford Public Library on the same sign as parking. Previously, the Library and Parking had separate directional signs, closely spaced on the street. While it may be useful to consolidate sign locations to reduce the number of poles, combining two destinations on the sign without increasing the sign size resulted in even smaller legends, with the “P” legend about 3.5 inches high. The direction of the arrow can be hard to read because of the arrow size and design.



*Combined library and parking directional sign on S. Walnut Street*

Finally, directional signs are not provided for two of the City's lots that are closest to the retail area, but that don't have entrances on a major street.

- There are no signs on SE Front Street at Pearl Alley indicating public parking can be reached by turning south on Pearl Alley.
- There are no signs on Walnut Street at N. 2<sup>nd</sup> Street directing parkers to the NW Front Street lot entrance. The sole entrance to this lot is on N. 2<sup>nd</sup> Street.

*Figure 8: Existing locations of directional signs to public parking lots*



Figure 9: Combined Library and Parking directional signs



## Parking lot Identification

Nine of the City's 13 lots do not have any parking lot identification signs. The other four lots have signs as follows:

- The SW Front Street lot has a "P" logo sign at the entrance facing westbound traffic only. Eastbound traffic sees a "P" directional sign with left arrow. At this point all eastbound traffic must turn into the lot or make a U-turn because SW Front Street becomes one-way westbound.
- The Park Avenue lot has a "P" logo sign at the Park Avenue entrance, but not the Washington Street entrance. Directional signs on NE Front Street indicate parking can be found by turning either south or north on Washington Street. However, after making the turn to Washington Street drivers see no further signing.
- The NE Front Street lot has a "P" logo sign at its entrance facing southbound traffic on Washington Street, but no sign facing northbound traffic.
- The NW Front Street lot has a green-on-white sign in the buffer facing the Walnut Street sidewalk with message Public Parking. This sign is visible to pedestrians but is not in a driver's line of vision and is not near the lot entrance.

The other public lots have no identification signs. Comments received about the public lots indicate some people are not clear on whether they can park in a lot and that signs should make clear that it's public parking.



*Park Avenue lot identification sign*

There are some existing signs that can cause confusion over who is allowed to park in the lot. For example, at the City Hall lot, signs at the entrance say “Employee Parking Only”. At the NE Front Street lot, a sign at the entrance says “24 Hour Parking Only. Violators Will Be Towed at Owner Expense”.

### Parking lot layout

Lot layout needs to be adequate for easy circulation and parking maneuvers. When parking dimensions are too tight it causes conflicts within the parking lot and makes circulation difficult. In particular, the Arena’s public lot was cited by both the public and agency staff as being too tight. The Park Avenue lot and the NE Front Street lot have layouts that make circulation uncomfortable.

Several public lots are not in conformance with ADA requirements for number of handicapped-accessible spaces, and some existing spaces are not properly striped or signed.

### Employees park in prime location for visitor parking

The Park Avenue lot is centrally located to serve Walnut Street businesses and other commercial destinations such as Park Place. Employees of adjacent businesses such as Davis, Bowen & Friedel park in the lot, since the lot is free of charge and has no time limit. The Park Avenue lot is the most highly occupied on weekdays of all the city’s public lots, and about 40% of the spaces are occupied by the same vehicle all day until 4 pm or 5 pm. The Park Avenue lot is more valuable as a visitor/customer parking resource.

### Purpose and Need

As a result of the existing conditions study and the input from City agencies, business owners and the public, needs have been identified which define the purpose of proposed improvements.

There is a need to:

- Improve public awareness of downtown public parking resources, by signing and other means.
- Improve parking layouts at identified locations to reduce conflicts and create a more comfortable parking experience.



- Increase availability of spaces in the public lots most convenient to Walnut Street businesses by encouraging employees to park at locations that are in less demand by customers.

**The purpose of parking-related improvement projects in downtown Milford will be to improve public awareness, user comfort, and/or availability of public parking that supports downtown businesses.**

## Alternatives

Several potential actions were reviewed and evaluated.

### **Lot identification and recognition**

Consider naming the municipal lots with short unique names. If the lots are named, the name would be included on the identification sign at the lot entrance. Businesses could identify the most convenient lot to their location and communicate to customers.

### **On-line mapping of public parking lots**

Consider adding the public lots as places on Google maps and Bing maps. There is a “Parking” category. The lot locations would be called “Public Parking”, and If the lots are named, the name would be included. People who use on-line maps or directions can then see parking locations in relation to their destination. They can search for parking on their phone or in-vehicle navigation device and get directions to the lot, much like the search for a store. The street address for a lot will need to use the street with a driveway entrance (e.g. the NE Front Street lot will need to use a Washington Street address) in order to get proper navigation directions.

### **Businesses add parking information to their websites**

Businesses routinely provide directions to their address (often a link to Google maps directions) on their website. Businesses could also add information on their website about Parking, noting that free parking is provided on the street and in public lots. They can include location of the nearest public parking lot(s) and walking distance or time to the business. For example, the Park Avenue and SW Front Street lots are three minutes’ or less walk to Walnut Street shops.

### **Parking signage on the street – direction to lots**

Design new signs that will be more visible and provide more effective direction to the public lots. The size of the message should allow for adequate viewer reaction time (the time frame necessary for a motorist to detect, read, and react with an appropriate driving maneuver). In a low speed environment, the signs should be visible from 150 feet away, giving about 4 seconds viewer reaction time. The existing directional sign size of 18” x 24” is only adequate for a P symbol and arrow. Additional messages would require a larger sign.

Visibility of signs on Walnut Street can be lost in the background of building facades and behind parked cars. Where there is a curb bump out like at Park Avenue and at SW Front Street, the signs can be made more visible by moving them out into the bump out.

Directional signs should be provided to the NW Front Street lot and the Pearl Alley lot, which have none today.



## **Parking signage – at lots**

Each public lot should have a sign at the entrance that identifies it as a public lot. It is recommended that the identification sign be larger than the current sign. The sign could include the message “Free Public Parking”, as well as the lot name if names are used.

If a lot is primarily for Bicentennial Park or the Riverwalk as some of them are, the identification sign should be for the Park and/or Riverwalk rather than for parking. Those lots are discussed individually in a later section.

Existing signs at lots that can cause confusion should be removed. These are described in the discussions of individual lots in subsequent sections.

## **Angle parking on Walnut Street**

Several merchants on Walnut Street have proposed making Walnut Street one-way southbound and changing the parallel parking to angle parking. The reason would be to obtain more parking in front of the stores and/or to make parking easier for customers who have difficulty parallel parking. Some reported that Walnut Street had temporarily been made one way with angle parking at some time in the past during a construction project. This may have been for the DelDOT reconstruction of the Mispillion River Bridge. If so, it dates back to 1987. Details could not be independently verified.

This idea was reviewed for feasibility and possible benefits. No detailed traffic study was performed.

Walnut Street has a functional classification of minor arterial and carries approximately 6,500 vehicles daily. From a traffic capacity perspective, it is probably feasible to divert northbound Walnut Street traffic to Washington Street, which is a local street carrying 2,500 vehicles daily.

Walnut Street curb-to-curb width varies from 32 feet to 42 feet in the area between N. Front Street and S. Front Street. With parallel parking, the road must be at least 36 feet wide for two-way traffic and parallel parking on both sides (eight-foot wide parking stalls and ten-foot wide travel lanes). The variable street width is the reason why parking spaces are striped on both sides only in certain portions of these blocks.

For angle parking (60° angle) on one side with a single lane of one-way traffic, the curb-to-curb width needed is at least 36 feet. Assuming the one-way travel is in the southbound direction, angle parking would be on the east side to keep the southbound Walnut Street travel lane in alignment across the intersections at N. Front Street and S. Front Street. Angle parking would result in the same number of parking spaces as exist today. There are several things to consider regarding angle parking and one-way circulation:

- Two DART Bus Routes travel in both directions on Walnut Street, serving the downtown. The routes are Route 303 - Intercounty Dover/Georgetown and Route 210 - Milford Circulator, with stops in both directions at Park Avenue. Delaware Transit Corporation would need to adjust bus routing. Also, a two-way street makes it easier for bus riders to locate the transit stop for the return trip from downtown—the bus stop is simply located across the street from where they arrived.

- Today, the best practice for angle parking is to have back-in angle parking rather than front-in, for safety reasons. Entering a back-in angle space is more difficult than entering a front-in space, but no more difficult than parallel parking. Exiting a back-in angle space is easier and safer because the driver has good vision to oncoming traffic or bicyclists. DelDOT approved conversion of parallel parking to back-in angle parking on Union Street in the City of Wilmington in 2017.
- Walnut Street is a Statewide Bicycle Route – i.e. a north-south connection between Kent and Sussex County. Conversion to one way would require a rerouting of the State Bicycle Route in one direction. If two-way bicycle travel were to be maintained on Walnut Street, more than 36 feet of road width would be required for angled parking, and the number of parking spaces would be greatly reduced.
- Visibility of Walnut Street shops to drive-by traffic would be cut in half (northbound traffic would be removed).
- Two-way traffic provides greater flexibility of routing, shortens trip length, and increases exposure of shops to potential customers. Visitors driving in a two-way grid network can easily approach their destination from any direction. If Walnut Street is one-way, traffic from the south on Walnut Street or from the east on S. Front Street would have less convenient access to Walnut Street shops. If customers won't stop because there is not a parking space right out front, they may not stop if they must go out of the way around the block to get to the shop.
- DelDOT would need to approve a change in circulation and restriping of Walnut Street. Local authorities within their respective jurisdictions may, by ordinance, permit angle parking on any highway, except that angle parking is not permitted on a federal aid or state highway unless the Department of Transportation has determined that the highway is of sufficient width to permit angle parking without interfering with the free movement of traffic on the roadway.

With regard to this study, no benefit to parking was seen that would justify the disruption caused by changing the traffic pattern to one way on Walnut Street. The parking on the block north of the river was full in only two observations out of 26 total observations over three days, and at those times spaces were always available in the next block.

### **Add street parking on Washington Street**

Currently parking is prohibited on both sides of Washington Street in the study area from NE 2<sup>nd</sup> Street to SE Front Street. Washington Street is 28 feet wide from NE 2<sup>nd</sup> Street to SE Front Street. This is wide enough for two-way traffic and parking on one side. No information was available on why parking is currently prohibited on both sides.

Possible destinations served by adding parking to Washington Street would be City Hall, Milford Public Library, the apartments opposite the Library, Park Place, and Davis, Bowen & Friedel (DBF).

The most benefit in terms of parking would come from adding street parking to between SE Front Street and NE Front Street. Parking could be added to the east side of Washington Street in front of the apartments across from the Library, in front of Park Place restaurant, and along the Senior Center block.

Adding on-street parking on one side of Washington Street would also provide another alternative for employees who now are parking in the Park Avenue lot.

South of SE Front Street, Washington Street is 25 feet wide and parking is allowed on the east side only.

### **Periodically review street parking regulations to see whether changes are warranted**

Over time as conditions change, there may be a need for regulations at new locations. On the other hand, there may be regulations that are no longer needed. An example of a regulation that may be out of date is the 2-hour parking limit on S. Church Street south of Avenue United Methodist Church; there is no apparent reason for the time limit since vehicles were never observed parking there. As another example, the Handicapped Reserved space on Montgomery Street south of SE Front Street may not be needed if the house ownership changes; if not needed the parking restriction may actually cause inconvenience.

### **Work with Davis, Bowen & Friedel to encourage employees to park in the lots north of N. Front Street**

After the engineering firm DBF moved from Walnut Street to the former Skating Rink building on Park Avenue, the Park Avenue lot occupancy increased due to employee parking. Comments received during this study suggested making Park Avenue a time-limited lot to increase the number of spaces left available to visitors and customers. However, the Milford Police Department does not have the staff availability needed to enforce a time limit. They would prefer to work with the employer to modify employee behavior. The parking lots north of Front Street are more appropriate locations for employee parking. Those lots are currently underutilized, and they are in easy walking distance.

### **Improve Arena's Lot**

Public input and field views both confirmed that the Arena's lot is extremely tight and uncomfortable to park in. The City has designed a plan to bring parking stall and drive-aisle dimensions in the Arena's lot up to standards and improve lot circulation. The redesign shown below on the right also increases the number of spaces in the public lot from 88 to 104. The City should consider adding islands at the northern ends of the parking rows for channelization and approximately halfway along the center rows for lighting. Funds for construction are not currently available.



*Arena's Lot – Existing*



*Arena's Lot – Improved layout (Milford Engineer)*



It is noted that the Milford Rivertown Rebirth Plan 2025<sup>1</sup> anticipates development of a mixed-use building on the northwest edge of Bicentennial Park, along NE Front Street. The building would provide more “eyes” on the park and could help better connect Riverwalk Plaza with downtown by filling in one of the development gaps between them. The plan notes that restaurant uses could be incorporated with outdoor dining/gathering areas that face onto Bicentennial Park. A building at this location would likely remove about 25 spaces from the (improved) Arena’s lot.

The Arena’s lot has no signs identifying it as public parking. Street light poles inside the lot are appropriate locations for identification signing.

### **Improve Park Avenue Lot**

The Park Avenue lot has an awkward circulation due to the spaces in the middle of the lot and angled parking on the south side (next to Riverwalk). Angled spaces are not marked so that vehicles park at different angles. For vehicles entering via the Park Avenue driveway, the angled spaces can only be accessed if they immediately turn left and circulate clockwise. Handicapped spaces are present but don’t meet current ADA dimensional requirements.

The lot could be simplified by removing some spaces in the middle of the lot and changing the south side of the lot to 90° spaces, illustrated in concept on the right below. The total number of spaces would be 35 or possibly 36, compared with 37 spaces today.

As indicated previously, this lot needs identification signs at the Washington Street entrance.



*Park Avenue Lot – Existing*



*Park Avenue Lot – Potential layout (not to scale)*

---

<sup>1</sup> Arnett Muldrow, Milford Rivertown Rebirth Plan 2025  
Milford Central Business District Parking Study  
Draft Report – January 23, 2018

## Improve NE Front Street Lot

The NE Front Street lot has a single entry-exit driveway on N. Washington Street. There is a “P” sign facing southbound traffic at the driveway, but it is partially obscured by a tree branch. There is no sign for the northbound direction on Washington Street. Identification of this lot can be improved by adding a back to back sign for northbound traffic and cutting lower limb off the tree. Visibility would be further improved, especially for northbound traffic, by changing the sign to a side-bracket mounting over the sidewalk.

A curbed grass island inside the entrance offers a location for additional sign messages regarding use of the lot.



*Washington Street southbound approaching NE Front Street lot driveway*

An existing sign at the entrance says “24 Hour Parking Only. Violators Will Be Towed at Owner Expense”. This message is confusing and should be removed from the entrance. A sign can be placed inside the lot with a clearer message, such as 24-Hour Limit, or No Overnight Parking.



The NE Front Street lot has a one-way counterclockwise circulation. Exiting the lot is uncomfortable because of the tight turn radius inside the lot, and because the exit aisle is on the perimeter right next to

the sidewalk. There is no driveway throat to turn into. Right turn exits to Washington Street basically require a U-turn.

An improved layout would move the curbed grass island to create easier turns. This lot currently has ten-foot wide spaces. The improved layout shown below at right with ten-foot spaces would reduce the total number of spaces from 39 to 34. However, if nine-foot wide spaces are used for all but the two required ADA spaces, the space count remains 39.

There are currently two pedestrian connections from the lot to Walnut Street but none to Washington Street. A new layout should incorporate a pedestrian connection to Washington Street.



*View toward the exit of NE Front Street lot*



*NE Front Street Lot – Existing*



*NE Front Street Lot – Improved layout (by DBF)*

This lot was not a priority of the Downtown Steering Committee. In addition, this lot is noted as a potential redevelopment site in the [Milford Rivertown Rebirth Plan 2025](#). The Plan states: “Preserve an opportunity to develop a new building at the northeast corner of North Walnut and NE Front Streets, within the existing public parking lot. This corner is too important as an anchor and gateway to downtown to remain as surface parking.” If development is expected to occur in the next 5-10 years,



the City might defer making physical changes to this lot and devote limited resources to other parking improvements.

### **Improve NW Front Street Lot**

The only entrance to the NW Front Street lot is a driveway on N. 2<sup>nd</sup> Street. There is a right turn exit-only driveway on N. Front Street. Two former driveways on Walnut Street were closed off by the City during the recent parking lot improvement project to increase parking capacity and improve general traffic circulation within the lot.

The Milford Rivertown Rebirth Plan 2025 states that the highly visible former bank building at the northwest corner of Walnut and N. Front Street should be considered for reuse, ideally as a restaurant, and infill development can be incorporated to make better use of the site. The plan recommends infill development west of the bank building to create a continuous street edge along NW Front Street. This would eventually remove the existing exit from the parking lot.

In the meantime, the City could seek approval from DelDOT to change the existing driveway on NW Front Street from an exit only to an entry only driveway. Instead of a “Do Not Enter” sign there would be a parking lot identification sign.

The sole existing entrance to the parking lot on 2<sup>nd</sup> Street has no visibility to drivers. An entrance on NW Front Street would increase the visibility of the lot and make it seem less remote to business destinations. Signs would be installed inside the lot to direct exiting traffic to the 2<sup>nd</sup> Street driveway.

If development eventually occurs on this site that closes the Front Street driveway, the owner might seek to reopen a driveway on Walnut Street. However, any change in physical driveway location should be done in conjunction with an overall plan for the site.

Directional “P” logo signs should be installed at Walnut and N. 2<sup>nd</sup> Street with direction to the existing N. 2<sup>nd</sup> Street entrance. The street light pole at the SW corner of Walnut and N. 2<sup>nd</sup> Street provides a sign location with excellent visibility for drivers travelling in both directions on Walnut Street, to direct parkers to turn west on N. 2<sup>nd</sup> Street. A sign is also needed at the actual lot entrance on N. 2<sup>nd</sup> Street.



*Walnut Street northbound approaching N. 2<sup>nd</sup> Street.*





*N. 2<sup>nd</sup> Street westbound. Parking lot is at left behind the shrubbery, the driveway is in front of the white residence.*

Some visitors may perceive a barrier to using parking north of N. Front Street, even though there are good crosswalks and pedestrian signals with countdown timers. However, to the extent employees use the NW Front Street lot it can increase the space availability of visitor parking south of N. Front Street, for example at Delaware Health & Social Services building.

### **Pearl Alley Lot**

The Pearl Alley Lot is directly across SE Front Street from the Library and is often used for Library parking. The lot driveway is on Pearl Alley. There is no sign on SE Front Street at Pearl Alley providing identification of this lot. Back-to-back signs should be placed at the SE corner of SE Front Street and Pearl Alley to provide direction for both eastbound and westbound traffic on SE Front Street.



*Looking east on SE Front Street at Pearl Alley*

The lot has concrete curb stops along the back edge of the SE Front Street sidewalk to prevent drivers from mistakenly trying to exit to SE Front Street. In general, curb stops shouldn't be used where pedestrians might be walking through since the curb stops can be a tripping hazard. There is room for a landscaped edge to this lot. At a minimum, flexible reflective bollards should be attached to the curb stops to increase their visibility.



*View from SE Front Street lot to Library*



*View along SE Front Street sidewalk*

### **SW Front Street Lot**

The SW Front Street lot is only 175 feet from Walnut Street, a very short walk. Signs on approaches to the intersection of Walnut Street and S. Front Street direct traffic to turn west on SW Front Street. The proximity of the lot could be much better advertised by changing the lot entrance sign to make it larger, mounted higher, and bracketed to extend over the sidewalk. The parking lot sign would then be visible from Walnut Street to both motorists and pedestrians. Location of the lot driveway is shown in the photos below.



*View looking west on SW Front Street at Walnut Street*



*View from northbound Walnut Street toward the west at S. Front Street*

There are two pedestrian paths from the SW Front Street lot to Walnut Street. In addition to the SW Front Street sidewalk, there is also a connecting walkway at the Riverfront Theater end of the lot that is not visually apparent. The blank wall of the theater may offer an opportunity to place a sign such as “Walkway to Walnut Street Shops →” . Conversely, to increase customer awareness of the parking lot, a pedestrian-scale sign should be placed at the Walnut Street sidewalk end of the walkway with message such as “ ↑ Walkway to Public Parking “.



*Riverfront Theater viewed from SW Front Street lot.*

## City Hall Lot

This lot has “Employee Parking Only” signs at the lot entrance. Visitors with business at City Hall as well as visitors to nearby destinations such as the Library should be able to park. If there is a need to prohibit long term or residential parking, signs with another appropriate message should be posted.

The City is developing a plan for improving the lot, including adding a driveway to create separate entry and exit. The plan was not available. This improvement was not a high priority of the Downtown Steering Committee.

## Riverwalk Lots

Lots 1, 5, 8 and 9 shown on Figure 2 and listed in Table 1 are small lots (11 spaces or less) that serve the Riverwalk and Bicentennial Park.

Bicentennial Park lot (Lot 1 on Figure 2) has its entrance on NE Front Street just east of the entrance to the Arena’s lot. Blue and white signs in both directions on NE Front Street say “Mispillion Riverwalk” with an arrow. The Bicentennial Park driveway itself is long and narrow and very close to the adjacent driveway for Walls Service Center. It would be helpful to have a confirmation sign with the same blue and white design inside the driveway entrance facing NE Front Street. The parking lot does not serve destinations other than the Park, so separate parking signs are not needed.



*Sign on eastbound NE Front Street to Mispillion Riverwalk*

The Mill Street Riverwalk Lot (Lot 5 on Figure 2) is remote from the business area. The lot serves only the Riverwalk and Parks and Recreation Department office. There was construction equipment in this lot during the period of the parking study. There are no signs on NW Front Street to the Riverwalk. There is no need for separate parking signs at this lot.

The SE Front Street Riverwalk lot (Lot 8 on Figure 2) does not have any identification signing at the driveway entrance. The presence of the Park and Riverwalk is not apparent from the street. This lot could have an identification sign facing SE Front Street. The message would say Bicentennial Park and/or Riverwalk. There is no need for separate parking identification signing.



The Washington Street Riverwalk lot (Lot 9 on Figure 2) is well used and serves destinations other than the Park, including Park Place restaurant and Milford Library overflow parking. The parking lot entrance has only a small pedestrian-scale “Riverwalk” sign at the entrance, which is not legible to drivers. This lot should have a “P” parking identification sign.

## Recommendations

Of the alternative improvements that were developed, the only one that is not recommended is providing angle parking on Walnut Street. After the City has an opportunity to review and comment on the recommendations, priorities and next steps can be developed. The recommendations are listed below:

- Provide improved directional signs to public parking lots
- Install parking lot identification signs and remove other signs that cause confusion
- On-line mapping of public parking lots
- Encourage businesses add parking information to their websites
- Add street parking on Washington Street
- Periodically review street parking regulations to see whether changes are warranted
- Work with Davis, Bowen & Friedel to encourage employees to park in the lots north of N. Front Street
- Physical improvements to Arena’s lot
- Physical improvements to Park Avenue lot
- Physical improvements to NE Front Street lot
- Improve access to NW Front Street lot by changing Front Street driveway to entry-only
- At Pearl Alley lot improve the lot’s boundary with SE Front Street sidewalk by installing landscape buffer. In short term use bollards to increase visibility of curb stops for pedestrians.
- Use signing to improve visibility of SW Front Street lot from Walnut Street