

City of Annapolis



Parking Utilization Analysis

June 30, 2017



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EXECUTIVE SUMMARY

Introduction

City leaders have long recognized that both the on and off-street public and private parking capacity often does not appear to adequately meet demand. The City does, however, understand there are “peak” demand periods where any increase in parking supply would not completely meet demand. However, occupancy data also suggests routine weekday, weekend, and seasonal demand in the core areas has reached capacity levels on-street and in prime off-street facilities. Subsequently, this can result in driver frustration, contribute to traffic congestion, illegal parking actions affecting public safety, and abuses of the nearby Special Residential Parking Districts as motorists are searching for parking. The effects of the current parking conditions are not limited to any one user group. The City has acknowledged concerns from residents, merchants, downtown employees, customers, and visitors. The focus of this parking analysis is to review how the current system is being utilized in order to provide specific user-based recommendations to develop a path to better maximize the City’s parking asset. Conclusions and recommendations were developed based on specific data collection that reflects all user groups. Analysis of the system will be ongoing.

Scope and Objective

SP+ has performed a parking utilization analysis for the City of Annapolis’ Residential Parking Districts, and the Downtown / Inner West Street business overlay zones. The analysis provides specific recommendations of how to better manage the City’s on-street parking asset by addressing the concerns of residents, merchants / employees, and visitors.

Goals

- Benchmark block-by-block parking space inventory (on-street, off-street both public and private)

This level of benchmark data helps support changes to the system. For example, knowing that on average, the customer overflow parking only extends 3 blocks along the cross streets of Main Street to the North and 2 blocks to the south provides the support to make changes to the pay parking in this particular area.

- Evaluate capacity by RPP District

Another example of how the data support recommendations for adjustments is in the RPP program rules and regulations. For example, the City does not currently have limits to the

number of permits issued in the RPP zones. When evaluating the capacity, if the number of permits is double the capacity, we can forecast operational concerns at the forefront. Further, the City may consider limiting the number of permits issued and offer long-term or remote parking for vehicles that are not used as often, or other similar alternatives.

- *Determine occupancy trends by area*

Once the specific occupancy rates and trends are gathered we will be able to review the problem areas by either day of the week and/or time of day. For example, we may find that the residential parking located immediately north and south of West Street does not have a turnover problem until after 5 PM (by non-residents). The next step in this example is to identify the destination of these motorists. This would require further research through surveys and public meetings to gather input on the issues and possible solutions.

- *Review existing conditions and provide recommendations to address the variety of parking needs for each user group identified in the scope.*

Findings and Recommendations

- ***Impact Parking Capacity*** through increased and dedicated enforcement, hourly rate adjustments, long-term parking options, shared parking alternatives, and restricting non-metered regulated spaces. For example, there is one major parking garage in very close proximity to the commercial districts which allows public parking during weekday nights and weekends at ***No Charge***. Publicizing this information through all available channels and enhancing the way-finding signs will improve utilization levels of this facility.

- ***Provide Merchant / Employee Parking Options***

Provide discounted parking at the City's off-street parking assets as demand allows, particularly in the facilities west of Church Circle, incorporating the Circulator into the plan. The program would be open to current merchants and employees of the downtown area while working. This is an option that needs merchant support and perhaps some type of financial partnership with their staff.

- ***Expand Pay Parking (RPP)***

Expand pay parking into RPP areas that are adversely affected by the commercial / event spillover parking, provide the proposed quantity of pay stations required and / or **pay-by-phone only zones**, and replace “timed” parking with pay parking. This will require dedicated parking enforcement.

Non-metered / timed parking enforcement is a drain on resources and forces compliance through punitive measures. It is the goal of the parking system to manage the parking assets through compliance and providing pay parking does that more successfully than through enforcement of time limited parking alone.

Free/timed parking for a maximum of two hours once per day is very time consuming to enforce. Even with LPR it requires staff to drive the same pattern every two hours. With a vast area to cover, one-way pair street configuration, and traffic congestion, it is very difficult to enforce the RPP districts effectively.

Motorists tend to pay more attention to a pay parking option with a 2 hour limit than non-metered parking with time limits. The pay parking option is less labor intensive as the enforcement staff knows which vehicles are in violation on the initial pass. There is no need to make multiple pass to verify the vehicle has not been parked more than two hours.

Next Steps

- SP Plus to present the City with the recommendations and include a proposed budget for additional costs to the program (additional parking enforcement positions and the addition of additional pay stations).
- Occupancy trend data will be collected at various intervals to assess changing conditions. These reports will supplement the recommendations moving forward.

1 INTRODUCTION

BACKGROUND

The City of Annapolis has long recognized that the combined on and off-street public parking capacity, as well as the private inventory, does not appear to adequately meet demand a significant portion of the time. Subsequently, this results in driver frustration, contributes to traffic congestion, illegal parking actions affecting public safety, and abuses of the nearby Special Residential Parking Districts.



The effects of the parking conditions are not limited to any one user group. The City has acknowledged concerns from residents, merchants, downtown employees, customers, and visitors. For example, many residents who participate in the Residential Permit Parking (RPP) program experience constant struggles locating available parking when they return home from work. Some concerns expressed by the businesses include: employees arriving late to work when they cannot find an affordable parking space nearby, and product deliveries and pick-ups are often inconsistent resulting in disruptions to the merchants' operations. Visitors, customers, and clients visiting the City become frustrated as they cannot readily find available parking and often times risk receiving a parking ticket based on their parking choices.

Annapolis, the State Capital, possesses unique charm, historical character, and is an attractor for the world-class sailing community. These attributes joined with the presence of the United States Naval Academy and its many associated special events suggest Annapolis not only attracts visitors but residents from the regional area.

The impact to the parking capacity has created challenges in order to meet the varying demands.



United States Naval Academy

SCOPE & APPROACH

SP+ was retained by the City to assume the management of the off and on-street parking programs effective March 1 and July 1, 2016, respectively. The management contract includes professional parking consulting services to analyze parking utilization for the City's five (5) special residential parking districts, and the Downtown and the Inner West Street business overlay zones. This draft focuses on Districts 1, 2, and 3. Districts 4 and 5 will be addressed in the final draft.

Study Goals

1. Establish a true and accurate block-by-block **benchmark space inventory** for each of the Special Districts, the off-street lots & garages, as well as certain identified "overlay" areas. This information will assist with analyzing the Residential Permit Parking Program to determine what management changes might be best to maximize the parking and ensure the goals of the program are being addressed.
2. Determine **occupancy trends** in the same areas. The LPR (license plate recognition) vehicles will be used to collect the data for the on-street inventory. This information is to be collected during various days of the week, times of the days, seasons, and event periods. Where applicable, the same data for the off-street locations will be collected for off-street locations, using PARCS (parking access and revenue control systems) reports and observations for assets not under SP+ Management. The inventory collection phase of the study will help determine recommendations for more specific time periods (dates / times) for the local team to collect the data for occupancy trends.
3. The utilization analysis will allow SP+ to review and present **recommendations** to address the variety of parking needs for all of the user groups by maximizing the current parking supply based on existing conditions.

Study Approach

The block-by-block inventory will involve manual data collection in some cases. The City Ordinance regulating the Special Residential Parking Districts includes a listing of streets for each of the five districts. Each of the streets will be walked and the inventory as well as the “type” of parking spaces will be identified (i.e., metered, timed, Handicap, Loading Zones, No Parking, etc.).

The occupancy trend data collection portion of the study will be addressed using technology already in place. Typically, this type of granular data is very labor intensive as it would require a survey team to walk each defined area collecting license plate numbers from parked vehicles. Multiple passes of the same survey area would be required to collect the same data, thereby determining occupancy rates.

The use of the LPR vehicles is more efficient and will allow the team to broaden the areas being surveyed. The system will collect the plate inventory on the first pass which will provide the baseline occupancy. The data from the second pass will provide the updated inventory by plate which is used to determine trends.

2 EXISTING CONDITIONS

HISTORICAL TRENDS

Prior to SP+ commencing operations for the Annapolis on-street parking program, it is our understanding that there was an overwhelming consensus from the end-user that “peak” conditions existed frequently in the downtown and waterfront areas. Residents, business owners, employees, and customers continue to share these same concerns with City Officials.

In some cases, utilization data may suggest differently in that peak conditions occur less often than what is believed. However, a municipal parking administration is often managing customers concerns about adequate parking capacity. In this case, perception is reality until the operation is able to manage the asset through educational, and promotional efforts.

Over the years there have been a variety of studies the City has commissioned that include parking related matters. Examples include:

- **Way finding & Signage Master Plan (2013)**
(“ . . . Being a small, historic city with small streets and traffic circles, it will be important to focus on way finding issues related to parking. There are plenty of garages in the downtown area, but many are under-utilized. . .”)
- **Comprehensive Plan 5-Year Update (2014)**
This study included an update to the five principles of Chapter 4: Transportation; Principle 5 – Parking is key to the transportation system operation and funding.
(“ . . . The introduction of the new Circulator, market pricing for parking garages, upgraded parking meters to accept credit cards. . .”)
- **West Annapolis Sector Study (2015)**
(“ . . . a lack of clear way-finding and coordinated, distinct signage within the business district. . .”)

Many of the recommendations have been completed, however further review and enhancement of way finding for all parking facilities (public and private) will provide an advantage for the motorist in locating off-street parking facilities, both public and private.

ON-STREET METER REVENUE

In addition to traditional parking occupancy and turnover studies, analyzing meter revenue is an alternate means of estimating parking occupancy levels. This data can also provide support for rate adjustments, hours of operation, RPP program restrictions and guidelines, and overall management of the on-street parking asset.

Section 4 identifies recommendations focused on RPP Districts #1 , #2 , and #3 as areas to expand pay parking. This will address the high parking demand in specific areas and encourage overall program compliance.

The historic revenue data for these areas suggests average annual per space revenue increases of approximately 13% in District #1, 12% in District #2, and 9% in District #3, year-over-year from 2014 to 2015. Additionally, moving forward, each district is trending to increase by 10% - 12% as shown in **Figure #1 – On-Street Meter Revenue** below. These increases are attributable to an uptick in compliance, the roll-out of the *Parkmobile* pay-by-phone app as an alternate payment option (May 11, 2016), and a general increase in parking demand.

REVENUE PER SPACE

The revenue per space for Main Street is consistently higher than any other street surveyed. The high demand for parking was evident during the inventory collection process. No matter what time of day or night every parking nearly every space was full and vehicles were waiting for available parking. With this high level of visible demand, calculating per space occupancy based on revenue figures alone, the vacancy rate would be < 2%. Taking an even more conservative approach by using the same actual revenue figures but reducing the hours of operation by half, the vacancy levels remain at < 5%. Again, those estimates are based on revenue vs. potential revenue if all of the spaces in use were paid for the entire time parked.

The actual occupancy trends will be collected throughout the year will provide more specific and detailed results.

Figure #1 – On-Street Meter Revenue

Annapolis On-Street Meter Revenue Calendar Year (Includes ParkMobile)

District #1, #2 & #3 - By Street

District	# Spaces 2014 – 2015	2014 Actuals	Avg Annual Rev / Space	2015 Actuals	Avg Annual Rev / Space	2016 Actuals	Avg Annual Rev / Space	TOTAL AVG ANNUAL REV PER SPACE (District)
District #1								
Cornhill St.	2	\$3,206	\$1,603	\$3,521	\$1,761	\$2,624	\$1,312	\$1,559
Francis St.	9	\$27,701	\$3,078	\$33,267	\$3,696	\$33,843	\$3,760	\$3,512
Main St. (N. Side)	42	\$144,923	\$3,451	\$162,793	\$3,876	\$164,162	\$3,909	\$3,745
Prince George St.	7	\$21,218	\$3,031	\$23,788	\$3,398	\$23,479	\$3,354	\$3,261
Maryland Ave.	25	\$74,343	\$2,974	\$82,308	\$3,292	\$79,250	\$3,170	\$3,145
TOTAL	85	\$271,391	\$3,193	\$305,677	\$3,596	\$303,358	\$3,569	\$3,453
District #2								
Conduit St.	7	\$25,175	\$3,596	\$27,943	\$3,992	\$25,298	\$3,614	\$3,734
Green St.	2	\$7,611	\$3,806	\$8,224	\$4,112	\$8,573	\$4,287	\$4,068
Main St. (S. Side)	53	\$184,447	\$3,480	\$207,191	\$3,909	\$208,932	\$3,942	\$3,777
TOTAL	62	\$217,233	\$3,504	\$243,358	\$3,925	\$242,803	\$3,916	\$3,782
District #3								
Franklin St.	6	\$15,870	\$2,630	\$17,205	\$2,868	\$17,692	\$2,949	\$2,815
West St.	28	\$102,850	\$3,673	\$112,532	\$4,019	\$115,756	\$4,134	\$3,942
TOTAL	34	\$118,630	\$3,489	\$129,737	\$3,816	\$133,448	\$3,925	\$3,743
Market Space	39	\$142,034	\$3,642	\$169,517	\$4,347	\$159,410	\$4,087	\$4,025
Dock Street	66	\$227,423	\$3,446	\$252,014	\$3,818	\$231,194	\$3,503	\$3,589
<p><i>Note: Dock St 2016 Bulkhead Construction and transition from SSM to MSM (May 2016). Parkmobile began May 2016</i></p>								

TRANSACTIONS PER SPACE

The data shown below in **Figure #2 – Average Annual On-Street Payment Activity** for the amount of time purchased (per transaction) is slightly higher year-over-year. The success of the *Parkmobile* program indicates patrons purchase approximately twice as much time than when paying at the meter.

A summary of the Per Space Transaction highlights include:

- Average time purchased per transaction is < 1 hour when paid at the meter.
- Average time purchased per transaction is 1.5 hours with Parkmobile.
 - Unknowns that affect occupancy:
 - ~ Motorist may have purchased a second parking session.
 - ~ Motorist may have remained parked in a “violation” status.
 - ~ Motorist may have vacated the space prior to time expiring.
 - ~ Motorist did not make any payment and received a parking citation.

Figure #2

Average Monthly On-Street Payment Activity

(Data from IPS Monthly Statistics Enhanced Reports & Park Mobile Activity Reports)

Average Monthly On-Street Payment Activity Transactions & Time Purchased			
	2014	2015	2016*
SINGLE SPACE METERS			
Transactions Per Meter	192	193	211
Transaction Amount	\$1.39	\$1.45	\$1.49
Time Purchased (minutes)	42	44	45
Parkmobile			
Transactions Per Space	N/A	N/A	19
Transaction Amount	N/A	N/A	\$2.95
Time Purchased (minutes)	N/A	N/A	89
NOTES:			
<i>Parkmobile began 5/11/16</i>			

PARKING INVENTORY

SP+ was on site Monday July 11th through Thursday, July 14th to collect inventory data. The inventory was collected block-by-block for each of the 5 Residential Permit Parking (RPP) Districts and is shown in the summary below. The spaces listed in the off-street overlay areas are already included in the District counts and are only shown separately for planning purposes. **Figure #3 – Parking Inventory Summary** provides each district summary for on-street and off-street public & private parking.

[See Appendix A - District Block-by-Block Inventory. Includes Maps]

Figure #3 Parking Inventory Summary

PUBLIC PARKING ON-STREET					
RPP District	TOTAL SPACES				
	Regular	Handicap (H/C)	Loading Zone (L/Z)	Timed/ Metered	TOTAL
District #1	490	27	29	100	646
District #2	406	14	15	79	514
District #3	1,078	8	13	52	1,151
District #4	238	11	6	4	259
District #5	174	1	21	0	196
Total	2,386	61	84	235	2,766
*Downtown Business Overlay					134
*Inner West Street Overlay					72
*West Annapolis					196
*Eastport					1,600
Total (Excluding * spaces)					3,921
Off-Street Inventory (Public and Private)					10,124
Grand Total					14,045

**Spaces already included in District counts and shown separately above as overlays for planning purposes.*

Note: Dock Street Included in Metered space inventory. City Dock Lot, Donner Lot, Fleet Reserve (Public) Lot are included in Off-Street inventory.

TYPES OF PARKING

The total number of paid (metered), non-metered or timed spaces, and the total number of spaces dedicated to specific uses such as Handicap Parking, Loading / Taxi zones, and No Parking were recorded. Additionally, off-street spaces potentially available for use to support were recorded from the Annapolis Harbor (East) to the Park & Ride on Harry S. Truman Parkway (West).

While collecting the inventory there were specific areas noted as high demand. These observations included utilization, based on time of day and specific area.

[NOTE: The data collected was not intended to be sufficient to determine hourly occupancy or turnover rates for individual areas or spaces.]

RESIDENTIAL PERMIT PARKING PROGRAM

The City offers a residential permit parking program governed by the *Annapolis City Code of Ordinances Chapter 12.32 – Special Residential Parking Districts*. Residential Parking Permits allow Annapolis residents to park their vehicles on-street in one of the five (5) designated Special Parking Districts where they reside. The purpose of the program is to maximize the availability of parking for Annapolis residents in order to obtain adequate parking adjacent to or close by their places of residence while discouraging long-term parking on residential streets near or within commercial areas.

NON-RESIDENT PARKING RULES

In most areas, parking is limited to two (2) hours per day between the hours of 8 AM - 12 AM seven (7) days per week unless the vehicle parked displays the special residential parking permit. The parking in District #3 is limited to two (2) hours per day between the hours of 8AM – 6PM (Monday – Friday) with the exception of Dean Street, Shaw Street, City Gate Lane, Water Street, Larkin Street, and German Street which are restricted to two (2) hours per day between the hours of 8AM – 12 AM seven (7) days per week unless the vehicle parked displays the special residential parking permit.

PERMITS ISSUED BY DISTRICT

The following chart represents the number of permits currently issued for 2016 compared with total available parking.

District	Permits Issued	Total Spaces Available	Variance (+/-) Permits vs. Spaces
District #1	803	538	+ 265
District #2	599	406	+ 193
District #3	805	1,078	- 273
District #4	143	238	- 95
District #5	17	174	- 157
Total	2,367	2,434	- 67

Source: Park Annapolis (October 2016) Annual RPP

As shown above the number of 2016 valid RPP permits exceeds the total available on-street parking capacity by a nearly 50% in Districts 1 & 2. This is not uncommon and due to fluctuations in usage, it is not a driver of space saturation.

PARKING OCCUPANCY TRENDS

Purpose

The operational analysis of on-street parking and off-street parking facilities is typically based on two performance measures: occupancy and average duration (length-of-stay). Occupancy is defined as the percentage of occupied spaces and is typically examined on a hour-by-hour basis. To provide for the safe and efficient circulation of traffic, occupancy should not exceed approximately 85%. Length-of-stay should be restricted to the posted time limits.

Methodology (On-Street)

A field survey for on-street occupancy trends was conducted over a period of two typical weekdays in January, March, and May, 2017. A total of twenty-two (22) of these spaces are pay parking with single-space parking meters. A representative sample of streets from RPP Districts #1, #2, and #3 were chosen in an attempt to address perceived parking capacity issues in the high demand areas as routinely expressed by multiple stakeholders. It is our opinion the specific streets surveyed are indicative of these critical areas or known hot spots, as well as the overall parking utilization trends that currently exist.

The survey was primarily based on data collection through the use of the parking enforcement vehicles equipped with License Plate Recognition (LPR) technology. Morning, afternoon, and evening “passes” were conducted. In addition to actual data collection, field observations were noted during the surveys, SP+ staff’s experience and familiarity with trends was also noted.

Methodology (Off-Street)

A field survey for off-street occupancy was conducted across all public and private assets over a typical Wednesday, Friday, and Saturday in September, 2016. Data collection for City-Owned garages is done on an ongoing basis using both system generated reports and observations.

Parking Survey Data By District (On-Street). *Maps for each can be found in Appendix A*

The Streets surveyed by District include:

District #1

Cornhill Street (Circle to Fleet)

East Street (Circle to King George)

Maryland Avenue (Circle to King George)

Prince George Street (College to Waterfront)

North Street (Circle to College)

District #2

Duke of Gloucester Street (Circle to Compromise)
Green Street (Duke of Gloucester to Main)
Conduit Street (Main to Cathedral)
Cathedral Street (Conduit to West)
South Street (Cathedral to Shaw)

District #3

City Gate Lane (West to Shaw)
Dean Street (Cathedral to Shaw)
Lafayette Avenue (West to Shaw)
Larkin Street (Lafayette to City Gate)
West (Church to Southgate)

District #4

West Street
Northwest Street
W Washington Street
Madison Place
Hill Street
Jefferson Place

District #5

Giddings Street
Forbes Street
Monterey Avenue
Annapolis Street

Parking Survey Data By District

	Jan 2017	Mar 2017	May 2017
Total Average Occupancy			
District #1	82%	85%	87%
District #2	67%	67%	67%
District #3	65%	68%	72%
District #4	N/A	69%	80%
District #5	N/A	18%	65%
% Vehicles w/ Permit			
District #1	38%	51%	45%
District #2	35%	40%	38%
District #3	29%	40%	37%
District #4	N/A	39%	30%
District #5	N/A	18%	8%
% Vehicles w/o Permit			
District #1	62%	50%	55%
District #2	65%	60%	62%
District #3	71%	60%	63%
District #4	N/A	58%	69%
District #5	N/A	82%	92%
Avg % Vehicles In Violation (> 2 Hrs)			
District #1	36%	50%	48%
District #2	29%	45%	40%
District #3	32%	45%	34%
District #4	N/A	46%	39%
District #5	N/A	25%	36%
Peak Hour Occupancy			
District #1	88% (8:00 PM)	94% (4:00 PM)	89% (2:00 PM)
District #2	72% (11:00 AM)	81% (8:00 PM)	66% (8:30 AM)
District #3	70% (8:00 PM)	81% (6:00 PM)	66% (4:00 PM)
District #4	N/A	82% (9:00 PM)	82% (10:00 AM)
District #5	N/A	40% (12:30 PM)	66% (12:30 PM)

Low Demand Hour Occupancy

District #1	70% (9 AM)	81% (5:00 PM)	70% (9:00 AM)
District #2	62% (8:30 AM)	54% (11:00 AM)	51% (4:30 PM)
District #3	56% (9:30 PM)	57% (12:00 PM)	61% (9:30 AM)
District #4	N/A	55% (6:00 PM)	53% (4:30 PM)
District #5	N/A	10% (6:30 PM)	14% (3:00 PM)

Parking Duration

A sampling of data from each District was analyzed for parking duration with an emphasis on vehicles without permits parked beyond the 2 hour time limit.

District	% Parked 3-6 Hrs
D-1	51%
D-2	43%
D-3	41%
D-4	39%
D-5	23%

For example, in District #1:

- Total average occupancy: 82%
- 62% surveyed did not have a RPP Permit
- 51% surveyed were parked 3.0 - 6.0 hours
- 36% of those parked 3.0 - 6.0 hours were in Violation (Non-Permitted Vehicles)

Since the start of the LPR program there have been multiple resident complaints that **Dean Street (District 3)** was experiencing transient parkers exceeding the 2 hour limit on a regular basis.

Dean Street was identified as a representative example of a typical RPP street affected by nearby commercial demand. Therefore, further analysis was conducted with the following results:

- **55% of the Vehicles stayed parked between 3.0 – 6.0 hours.**
Approximately 63% of those vehicles were not on the active RPP permit list and were therefore in Violation. ⁽¹⁾
- **36% of the vehicles stayed parked between 6.0 – 9.0 hours.**

Approximately 42% of those vehicles were not on the active RPP permit list and were therefore in Violation.⁽¹⁾

- **18% of the vehicles stayed parked more than 9.0 hours.**

Approximately 50% of those vehicles were not on the active RPP permit list and were therefore in violation⁽¹⁾

⁽¹⁾ In Violation of the 2 hour time limit.

Eastport

The findings of the Nelson\Nygaard & Associates (NNA) “Eastport Traffic Study” suggest a thorough parking utilization analysis for the high demand commercial areas were recently completed (2016). Eastport has a large on-street capacity with slightly over 1,600 spaces but is not part of the City’s RPP program. For purposes of the SP+ study, this prevented the License Plate Recognition (LPR) system from being used for data collection.

While conducting the survey counts for the RPP areas several trips were made to observe and gauge the utilization in Eastport.

March site visits

March 17th 9:00 PM

March 18th 2:00 PM and 4:00 PM

March 19th Noon

May site visits

May 8th 5:00 PM

May 9th 1:00 PM and 7:30 PM

Average occupancy figures were derived through observations and counts were estimated for the following sampling of streets:

Severn (2nd thru 6th)

4th Street (water to Chester)

Chesapeake Avenue (2nd to 5th)

The observations confirm the accuracy of the NNA report with the following highlights.

Saturday afternoon	85%
<i>Sunday mid-day</i>	<i>90% - 100%*</i>
Weekday Evening	80%

*Notes:

1. There were multiple vehicles noted cruising the blocks to locate parking.
2. Riders in the vehicles were dropped closer to establishments along Severn while the drivers left to find parking.
3. Most vehicles did not drive South of Chesapeake but a few were observed parking well into these areas and walking to the destination near the water.

The short-term recommendations of the NNA report include two additional targeted parking studies that will help determine strategies for improved parking management. These studies are intended to validate the resident parking concerns as expressed in Section 7.1 of the NNA report. The first study is intended to review parking turnover for each commercially-oriented block face and the second study focuses on evaluating the capacity and utilization of existing private off-street parking.

The long-term recommendations of the NNA report suggest a phased paid parking program and a Resident Permit Parking (RPP) program be developed.

It is the opinion of SP+ that if the City of Annapolis determines the resident concerns documented in

the NNA report warrant further analysis and a paid parking program is pursued, it is strongly suggested that public stakeholder meetings be held to discuss and evaluate the variety of paid parking programs and RPP options.

Off-Street Parking Occupancy

Below is a summary from counts in September, 2016, March, 2017, and May, 2017. Further detail by each period counted can be found in **Appendix A**.

City of Annapolis
Public & Private Parking Inventory (Off Street)
Summary: September, 2016 / March, 2017 / May, 2017

No	Location	Address	Capacity	Occupancy					
				Wednesday, 9/7/16		Friday 9/9/16		Saturday, 9/10/16	
				Wednesday, 3/22/17		Friday 3/24/17		Saturday, 3/25/17	
				Wednesday, 5/10/17		Friday 5/12/17		Sunday 5/14/17	
Sector 1 - East of Church Circle				12PM-2PM	8PM-10PM	12PM-2PM	8PM-10PM	12PM-2PM	8PM-10PM
1	Hillman Garage	150 Gorman Street	425	81%	41%	97%	93%	87%	67%
2	Marriott Waterfront	80 Compromise Street	156	40%	50%	79%	81%	61%	74%
3	Basil Lot (Formerly Newman)	Compromise & Newman Streets	28	44%	81%	61%	87%	85%	68%
4	City Dock Lot	Dock Street- Beyond Harbormaster	128	65%	34%	92%	91%	99%	81%
5	Donner Lot	120-199 Compromise Street	18	56%	100%	67%	87%	100%	81%
6	Fawcetts Lot	110 Compromise Street	40	53%	30%	85%	50%	98%	98%
7	Annapolis Elem. School (Private)	180 Green Street	49	93%	5%	86%	8%	5%	3%
8	Fleet Reserve Club Lot (Private)	100 Compromise Street	24	67%	31%	68%	92%	19%	86%
9	Yacht Basin Public Parking	2 Compromise Street	70	87%	40%	89%	89%	90%	77%
10	Annapolis Yacht Club (Private)	2A Compromise Street	60	84%	20%	57%	81%	42%	38%
11	South Street Lot	138 South Street	50	97%	45%	94%	23%	29%	34%
Sector 1 Total			1,048	73%	40%	88%	82%	74%	65%
Sector 2- West of Church Circle				12PM-2PM	8PM-10PM	12PM-2PM	8PM-10PM	12PM-2PM	8PM-10PM
12	Gott's Court Garage	25 Northwest Street	540	59%	41%	74%	80%	59%	67%
13	Visitor's Center Lot	25 Northwest Street	20	75%	23%	72%	48%	72%	40%
14	BB&T Lot	36 West Street	15	73%	7%	76%	49%	67%	67%
15	60 West Street	60 West Street (enter on Calvert)	160	76%	14%	67%	0%	0%	0%
16	Whitmore Garage	25 Clay Street	826	84%	4%	47%	13%	5%	4%
17	Loews Annapolis	126 West Street	180	52%	53%	79%	47%	69%	74%
18	Larkin Lot	Larkin Street / City Gate Lane	50	99%	31%	81%	18%	60%	32%
19	West Garrett Garage	275 West Street	288	70%	4%	42%	9%	7%	8%
20	209 West Lot	209 West Street	73	26%	4%	41%	5%	16%	20%
21	O'Callaghan Hotel	174 West Street	52	45%	77%	72%	81%	83%	91%
22	Knighton Garage	1A Colonial Avenue	278	67%	15%	53%	15%	24%	13%
23	Park Place Garage	One Park Place	750	86%	41%	62%	48%	22%	17%
Sector 2 Total			3,232	74%	24%	59%	35%	26%	25%
Sector 3- Northwest of Church Circle				12PM-2PM	8PM-10PM	12PM-2PM	8PM-10PM	12PM-2PM	8PM-10PM
24	Calvert Street Garage	19 St. Johns Street	726	84%	12%	61%	50%	49%	51%
25	MD State Lot	22 Calvert Street	96	45%	6%	60%	11%	5%	6%
26	Calvert & NW Lot	Calvert Street	20	30%	5%	35%	7%	7%	10%
27	Harry S. Truman Park & Ride	Truman Parkway & Riva Road	808	68%	2%	77%	4%	6%	18%
28	Germantown Elemen. School	200 Windell Road	134	71%	3%	78%	16%	13%	37%
29	NMCMS - Lot A (Blue Side)	550 Taylor Avenue	2,000	0%	0%	0%	0%	33%	33%
30	NMCMS - Lot B (Blue Side)	550 Taylor Avenue	660	37%	10%	46%	18%	35%	33%
31	NMCMS - Lot C (Gold Side)	550 Taylor Avenue	1,000	22%	0%	31%	0%	34%	33%
32	NMCMS - Lot D (Gold Side)	550 Taylor Avenue	225	61%	16%	81%	16%	35%	33%
33	NMCMS - Lot E (Gold Side)	550 Taylor Avenue	175	9%	0%	7%	1%	33%	33%
Sector 3 Total			5,844	33%	4%	35%	10%	31%	33%

*NMCMS is Navy-Marine Corp Memorial Stadium.

Total without NMCMS	6,064	73%	22%	67%	40%	34.00%	34.02%
Total with NMCMS	10,124			48%	25%	34.0%	33.7%

Notes:

1. Weather was fair on Wed, 9/7 and Friday 9/9. Weather was heavy rain on 9/10.
2. There was a game at NMCMS 9/10/16. Lots not counted but contact indicated that permits were sold to capacity.
3. Weather was fair 3/22-3/25.
4. Maryland Day - 3/24.
5. Weather was fair on Wed, 5/10 and Sunday 5/14. Weather was rain on 5/12.
6. Fawcett's Lot closed after count in September, 2016.



Off-Street Parking Occupancy – City Garages

Hillman Garage

Revenue Type	Parker Group	Current Occupancy								
		Vol	Weekday		Weeknight		Wknd Day		Wkend Eve	
			%	#	%	#	%	#	%	#
Transient	Weekday	326	44%	144						
Transient Validation	Weekday	138	44%	61						
Transient	Weeknight	111			80%	89				
Transient	Weekend	314					55%	173		
Transient Validation	Weekend	79					55%	43		
Transient	Wkend Eve	416							80%	333
Monthly	City	184	43%	80	3%	5	3%	5	3%	5
Monthly	7a -7p	56	71%	40	11%	6	4%	2	2%	1
Monthly	24/7	121	73%	88	10%	12	9%	11	7%	9
Total			92%	413	25%	112	52%	234	77%	348
		Total Spaces:		450						

Note

Evening and Weekend occupancy levels fluctuate significantly depending on weather and events.

Gotts Court Garage

Revenue Type	Parker Group	Current Occupancy								
		Vol	Weekday		Weeknight		Wknd Day		Wkend Eve	
			%	#	%	#	%	#	%	#
Transient	Weekday	472	43%	203						
Transient Validation	Weekday	90	43%	39						
Transient	Weeknight	84			80%	67				
Transient	Weekend	463					55%	255	0%	
Transient Validation	Weekend	79					55%	43		
Transient	Wkend Eve	119							80%	95
Monthly	City	36	14%	5	14%	5	14%	5	14%	5
Monthly	7a -7p	99	70%	69	6%	6	2%	2	1%	1
Monthly	24/7	117	74%	87	10%	12	9%	11	8%	9
Total			75%	403	17%	90	59%	316	20%	110
		Total Spaces:		540						

Note

Evening occupancy levels are significantly higher during events along West Street (ex: Ram's Head).
Weekday occupancy levels are significantly higher during MD Legislative session.

Knighton Garage

Revenue Type	Parker Group	Current Occupancy								
		Vol	Weekday		Weeknight		Wknd Day		Wkend Eve	
			%	#	%	#	%	#	%	#
Transient	Weekday	158	38%	60						
Transient Validation	Weekday	15	40%	6						
Transient	Weeknight	17			80%	14				
Transient	Weekend	128					31%	40		
Transient Validation	Weekend	19					31%	6		
Transient	Wkend Eve	121							80%	97
Monthly	City	23	17%	4	9%	2	4%	1	0%	0
Monthly	7a -7p	86	59%	51	5%	4	1%	1	1%	1
Monthly	24/7	56	75%	42	21%	12	16%	9	14%	8
Total			59%	163	11%	32	20%	57	38%	106
		Total Spaces:		278						

Summary Observations

- During the data collection process Main Street and Prince George were driven during the route patterns and it was noted that the spaces were 90% - 100% occupied at all times.
- January may typically be a lower demand month, however, it was noted that the state legislature was in session generating an increase in demand.
- State Circle was at capacity and beyond during multiple trips through the circle.
- Overall, the on-street occupancy trends tend to validate concerns that transient parking exceeds the 2 hour limit. This behavior supports the recommendation of dedicated parking enforcement and a potential change from non-paid to paid parking in Residential Districts.
- Off-street facilities, particularly west and northwest of Church Circle have capacity to support longer-duration parking.

Notes:

- There is a 3% - 5% margin of error with the LPR system when collecting data. During the survey vehicles not picked up by the system had a variety of possible explanations why the plates were not read. For example: bent plates, non-reflective materials, less than 4 characters, trailer hitch covering or partially covering plate, pedestrians standing in front of tag, trunk open and plate not visible, vehicles parked too close together, etc.
- There may be times when an occupancy rate exceeds 100% (on-street). This is due to illegal parking when a vehicle is parked on-street but not in a legal space. This can also be attributed to vehicles detected at an intersection or in a driveway along a residential street.

OBSERVATIONS

HIGH DEMAND AREAS

1. **State Circle** is adjacent to the Maryland State House which is the oldest state capital still in continuous legislative use. The Maryland General Assembly convenes at the State House for 90 days each year (2nd Wednesday of January thru 90 days) and the elected officials – governor, lieutenant governor, speaker of the House of Delegates and president of the Senate all have offices in the building.



Maryland State House

The on-street parking in State Circle (inner circle) is reserved for these officials at all times. This is state controlled land and the City does not enforce this parking. However, the parking in the outer circle is City right-of-way and the parking is under the control of the City of Annapolis. Currently, this parking is 2 hour timed parking, not metered parking. During the four days of data collection the Circle area was observed multiple times and the parking was at capacity. There was a consistent amount of traffic congestion as motorists waited for spaces to empty when it was imminent. Waiting for a space and then maneuvering to parallel park held up traffic. At one point a passenger got out of their vehicle to stop the traffic so the driver could safely park. Driver frustration was clearly evident.



State Circle - Parking at Capacity Right Side – Outer Circle

2. **Maryland Avenue** is a highlight for many visitors due to its historic nature. Visitors can relive



Maryland Avenue

history with a stroll along Maryland Avenue from the Maryland State House to the gate of the United States Naval Academy, a historic path that was often frequented by Thomas Jefferson.

The three-block path includes many custom jewelers, antique shops, galleries, boutiques, and restaurants. Maryland Avenue is known as the America's Oldest Shopping District. Needless to say, parking is at a premium. During the data collection it was noted that approximately 40% of the vehicles parked were non-residents.

3. **Prince George Street (East St to Maryland Ave)** This stretch of Prince George Street

typically always has a very high demand ($\geq 85\%$) There are a few metered spaces on Prince George Street closer to Maryland Avenue.



Prince George Street

However, during the inventory review it was noted that these spaces were only 60%

occupied. Maryland is one-way North and Prince George is one-way West making it difficult to navigate the metered spaces.

4. **Dean Street (RPP District #1)** While conducting the inventory data collection there was a complaint from a resident on Dean Street concerning no available parking when they return home for the day after working, typically between 4 PM & 6PM. This is a common complaint



Dean Street

from residents that live within 2 to 3 blocks of the commercial areas.

Dean Street was observed on multiple occasions during the study period. During each observation the street was 100% occupied. On average, 50% of the parked vehicles had either valid annual residential or

“day” permits displayed. The day permits were primarily being used by construction companies or home improvement providers.

Overall, the majority of the residential streets within 1 to 3 blocks of the commercial areas were at capacity as observed. It is important to note that the City (or the residents) does an excellent job of maintaining the red curbs. There were no “red curb” violations observed while conducting the inventory counts.

5. **Main Street** The enforcement hours along Main Street do not begin until 10:00 AM. This is considered an unusually late start of the enforcement day for such a peak high demand area.

While conducting the data collection it was noted that the on-street parking was than 75% - 80% full before 8:30 AM. With a 10:00 AM beginning hour most vehicles will not be marked in the LPR system until sometime near 11 AM at best.



Main Street

Service vehicles for package pick-up and product delivery were also observed on a regular basis including the noon lunch time peak. Some double parking was occurring at the East end of Main Street.

Enforcement concludes at 7:30 PM (Monday through Saturday). Sunday enforcement hours are 12:00 noon until 7:30 PM. Hourly rates are \$2.00 for a maximum of 2 hours and motorists must move their vehicles after parking 2 hours or they will be subject to ticketing even if their parking meter is not in violation.

EXISTING CONDITIONS FINDINGS

Parking in any urban environment is always difficult. The City of Annapolis (under 7 square miles) is considered a smaller City, but the draw for permanent residents and visitors is not small. The unique architectural elements that add to the charm of the city also include an historic infrastructure of roadways and curbside parking which is a continual challenge. The downtown is a growing hub of activity that provides shopping, dining, art galleries, boutiques, special events, the State House, the U.S. Naval Academy, and many other historic sites.

In summary, the predominant existing conditions affecting parking capacity include:

1. Non-Residents Use of RPP Spaces

The long-term successes of the City's distinctive attributes have resulted in multiple parking challenges affecting all user groups. In particular, non-residents parking more than 2 hours in the RPP districts within close proximity to the commercial areas have become a common occurrence.

2. Merchant / Employee Parking Options

The restaurant, retail, and hospitality sector employees often work varying shifts and struggle



to consistently locate available parking. Many times members of this user group park illegally and risk being cited. Conversely, early morning and late afternoon employees will park in prime on-street spaces, thereby reducing capacity for customers and visitors.

Example of Congestion on State Circle

3. Customer/Visitor Parking Availability

Locals know where the best chances of finding a parking space may be but visitors typically have much less knowledge. When driving into the city as a first-time visitor there are many distractions such as: unfamiliar roadways, heavy vehicular and pedestrian traffic, and the stress of where to park. Needless to say, this is not a positive experience. *Parking is the first and last impression a visitor has with a City, as every trip begins and ends with parking.*

In many urban locations, parkers have grown accustomed to using parking facilities a block or two away from their destination [or the hub of activity] as it is less stressful and easier to navigate. Maximizing the City's entire parking inventory, both public and private, can significantly impact the available parking capacity.

3 MANAGING ON-STREET PARKING

PARKING PRINCIPLES FOR MANAGING CURB SPACE

TIME LIMITS, HOURLY RATES, AND TURNOVER

On-street parking is a municipal asset that must be managed to meet “short-term” parking demand.



Short-term, as a rule, normally does not exceed 90 – 120 minutes. Municipal on-street parking programs are generally considered to be effectively full when curb parking spaces reach an occupancy rate of 85% or greater. As a result, an 85% occupancy rate for each block of curb parking typically leaves one or two spaces available on each side of the block.

Time restrictions can help redirect parkers to appropriate parking facilities based on their intended lengths of stay. Long-term parkers (typically employees or commuters) are redirected to parking spaces that have less priority of serving short-term business needs, especially short-trip retail and commercial parking needs. This type of regulation assists with preventing long-term parkers from parking in high-demand spaces all day long. This must be coupled with effective enforcement to ensure the parking time limits or regulations are followed.



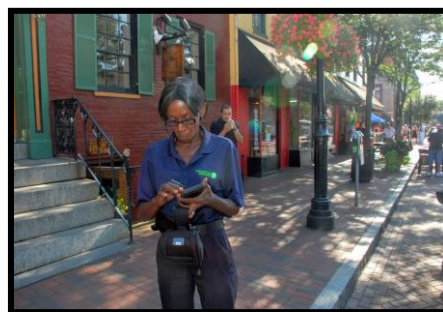
On-street capacity is often strained at the point when daytime demand converges with the start of nighttime demand. For example, in an entertainment district this occurs mid-afternoon when staff is arriving to work in preparation of dinnertime crowds. As a result, this is when parking enforcement begins to see illegal parking; such as parking in loading zones, no parking areas, or even double parking as the demand has exceeded the capacity for that time period.

Other strategies suggest static time limits are unnecessary to create parking turnover. Instead, turnover will be naturally created through the economics of the established **parking rates**. This strategy, also referred to as congestion pricing, involves variable pricing based on demand. Parking technologies such as real-time space sensors and pay parking is needed to institute this strategy. Additionally, adjusting pricing and policies to encourage use of off-street parking will support on-street turnover to keep on-street capacity at acceptable levels.

Tracking parking utilization rates including **occupancy and turnover** by area, time of day and day of the week provides a valuable management tool to address and fine-tune various parking management programs, including enforcement.

PARKING ENFORCEMENT

As strategies are implemented to improve parking, a greater level of enforcement will be necessary to uphold the regulations. The level of enforcement will vary from area to area, depending on what strategies are implemented. For instance, an area with paid parking and time limits will



SP+ Parking Enforcement

experience a heavier enforcement presence than an area with the simple designation of marked (non-metered) spaces to control parking.

Timed (non-metered) parking is very rarely implemented as it is less efficient to maintain consistent enforcement. As an example, two-hour timed parking requires enforcement presence to first “mark” the vehicle’s location. Albeit, this is accomplished with License Plate recognition (LPR), it then requires a second pass to ensure compliance.

Time management through enforcement leaves a negative impression with the motorist. The goal of a successful parking program is compliance and offering the parker the ability to pay for parking in lieu of receiving a parking ticket if their visit extends beyond the time limit should be the goal of any parking system.

4 RECOMMENDATIONS

The following three recommendations are presented to improve the Annapolis on-street parking program. First, in order to create a parking utilization rate of no more than 85%, turnover must be improved. This alone will enhance available capacity and address the motorists' perception that parking is not readily available, provide a favorable parking experience, help to reduce traffic congestion, and most important, opens up short-term parking for quick trips to the local businesses. Second, long-term affordable parking options and/or strategies to meet the needs of the employees and merchants are presented. Last, and of significant concern, options to mitigate the impact of the non-residents use of the Special Residential Parking Districts through the expansion of pay parking into Residential Permit Districts. These recommendations were presented in draft form to the public through a combined Transportation Board and Committee meeting, as well as community meetings with the Resident and Business Associations, as well as individuals and other organizations. A number of questions were raised through these discussions. A summary of these questions and responses are compiled in **Appendix C – Draft Recommendation Q&A**.

1. IMPACT ON-STREET PARKING CAPACITY TRENDS

ON-STREET TRENDS

Short of expanding the on-street footprint to increase available capacity; parking duration times must be improved to help improve on-street parking availability. This effort could require a combination of changes around rates, time limits, enforcement hours and staffing levels.

A. PARKING RATES

To encourage parkers who are staying longer to use off-street facilities, it is recommended that on-street hourly rates work in conjunction with off-street parking rates to encourage shorter duration parking sessions curbside, increasing turnover and available space. Consider a **Graduated Rate Structure** which increases the hourly rate for longer duration sessions beginning, for example, in the

fourth hour of parking. This change would lift the time limit in place for on-street parking, enabling more choices and managing durations through rate rather than in a punitive enforcement action. The economics of the lower rates at the off-street facilities for longer parking sessions typically results in more motorists choosing those facilities over on-street parking. This adjustment will naturally improve available on-street capacity. **A sample Rate Structure is included in Appendix A.**

B. ENCOURAGE LONG-TERM PARKING OPTIONS

Shared Parking Opportunities

- Develop relationships with surrounding parking facilities to promote owners interest in allowing open public parking to assist with heavier demand periods. This will typically occur during non-business office hours when the facilities are not in use. The success of shared parking in this capacity will provide a level of on-street parking relief. In addition to City-owned Garages, the following facilities are within 2 to 4 blocks of the downtown:
 - **John Whitmore Parking Garage** (25 Clay Street) 826 spaces
1 Block off of West Street and Church Circle
Owned by Anne Arundel County
24/7 \$1.25/Hour; \$10 Daily Max; Overnight 4pm-4am \$2
Note – the “Do Not Enter” sign at Clay and Calvert Street should be changed so as not to discourage entry during off-peak times.
 - **Calvert Street Parking Garage** (19 St. Johns Street) 726 spaces
(State Owned)
Open Weekday Nights (6pm-6am) & (Sat/Sun (all day) – No Charge
Difficult to find, poor signage, & lack of branded way finding.

Pre-Paid Parking and Validation Programs

- Aggressively promote pre-paid parking at City off-street parking facilities and work with Non-City owned facilities to include inventory available for sale at the parking portal: annapolisparking.com.
- Boost promotion of the Park & Shop program, encouraging businesses to validate at least a portion of their patron’s off-street parking session.

C. PARKING ENFORCEMENT

Increase Hours of Meter Operation / Additional Staff Positions

- Due to high demand observations, enforcement hours should begin no later than 8

AM on Main Street and adjacent cross streets. Additional high demand streets will be reviewed during ongoing occupancy surveys.

- Extend hours until 9PM during the week and until Midnight on weekends.

D. Off-Street Facility Way Finding / Public Education

- Finalize plans for branding of the City’s parking system and incorporate the distinctive brand in all parking-related materials and signage.
- Conduct stakeholder meetings to promote available programs and facilities in an effort to ensure the message is clearly delivered.
- Participate in Central Business District (CBD), Chamber of Commerce, or other related forums to further promote the program.

E. LIMIT HOURS OF NON-METERED REGULATED SPACES

- Loading Zones, Passenger Zones, Taxi Parking, Timed parking should be regulated by specific hours (i.e., 7 AM – 4 PM Mon – Fri). This will add to the existing capacity while these spaces are not in use. There are a total of 83 marked loading zone spaces located within the 5 Districts. Fifty-six (56) of those spaces are in districts #1 - #3.
- The current signs would need to be changed to reflect the change in enforcement hours.

F. REPLACE “TIMED” PARKING WITH PAY PARKING (STATE CIRCLE (OUTER CIRCLE ONLY))

- Replace timed parking with pay parking.
- No changes to current hours of operation.

2. MERCHANT / EMPLOYEE PARKING OPTIONS

Programs A and B, below, have been established over the past year. Further expansion and exploration into additional programs is necessary as demand is measured over time.

A. EMPLOYEE DISCOUNT EVENING PARKING AT GOTT'S & KNIGHTON GARAGES.

- Business Managers or Owners can request validations for distribution to their employees.
- Time Parameters: Enter between 3PM - 6PM / Exit by 6AM.
- Each validation reduces the rate to \$2.00 payable at the time of exit.

B. HILLMAN GARAGE EVENING MONTHLY PARKER & VALIDATION PRODUCTS

- Parameters: Sunday - Thursday, Enter after 4:30PM / Exit by 6:00AM. Date limitations will apply. For days in which events are taking place in the area and parking is affected, space will not be available. These can be communicated via the event calendar at Annapolisparking.com.
- Rates
 - Monthly Rate: \$90.00/Mo
 - Validation Rate: \$5.00 per validation. Minimum order quantity: 10.

Encourage Businesses to be a champion for these programs as they are needed to increase participation. Their endorsement is key to realizing the value this brings to the success of the downtown.

C. TRANSPORTATION CIRCULATOR

The City's Transportation Circulator program has seen upgrades in the past year by converting to a smaller vehicle, branding the program, and a free smartphone app which enables the rider to track the circulator's location in real-time and get estimated arrival times for upcoming stops.



The current headway is 20 minutes which is manageable for employees using the Knighton and Park

Place facilities. However, the current hours of operation of Mon – Sat 7:30 AM – 11:00 PM and Sun 8 AM – 8 PM are not conducive to employees who work past 10:30 PM.

It is recommended that the hourly ridership be measured further and combined with survey responses and stakeholder feedback gathered over time to draw conclusions on the direction of the program.

Removal of the fare, effective July 1, 2017, is expected to boost ridership in combination with a more recognizable unit. Initial findings from feedback include a desire to pilot an additional route which includes stop(s) near Maryland Avenue. Additionally, a pilot to extend the hours of operation is a concept that has been well received in stakeholder discussions. Costs associated with these pilots are estimated to be, on a per month basis, approximately \$12,000 for an additional route, and \$5,000 to extend the schedule to 3:00AM.

D. RESIDENTIAL PERMIT DISTRICT #5

Surveys of the area and stakeholder engagement have demonstrated that a significant portion of the Residential Permit Parking District no longer fits the needs in the immediate area. Demand for residential parking has been replaced by a need for more longer term spaces to be utilized by commercial entities on Forbes Street (Monterey Ave to Giddings Ave) and Giddings Avenue (Forbes St to Annapolis St). SP+ recommends removing these blocks from Residential Permit Parking District #5, eliminating the two-hour time limited parking restriction for non-permit holders. This change will add approximately 57 spaces to be available for employee and visitor parking without impacting residential permit needs elsewhere in District #5. **See Appendix A – RPP District 5 – Proposed for accompanying map.**

3. EXPAND PAY PARKING (RPP)

A. EXPAND PAY PARKING INTO RPP DISTRICTS

- Install NEW pay parking into high demand RPP areas as noted in Section #2 (Observations) adjacent to the major commercial and high demand areas such as Main Street, West Street, Maryland Avenue, Prince George Street, and State Circle.
- Expanding pay parking into a portion of the RPP areas will help manage the extended stays beyond the 2 hour free parking. Two hundred and twenty-one (221) parking spaces are proposed to be converted from timed spaces to pay parking

[See Appendix B – Expanded Pay Parking]

- Pay By Cell (PBC) can be used as a standalone method for payment or in combination with Multi-Space Meters depending on the location. PBC lends itself to test this change to the system in the framework of a Pilot Program more readily than the purchase and installation of physical assets. Additionally, it is assumed Pay By Cell will further reduce the amount transient parking in RPP districts already strained by a permit –to-space ratio greater than 1: 1.
- Keep the existing 2 hour time limit.
- Adjust hourly rates to \$3.00 per hour.
- No extension of the Parking Session will be permitted.
- Residents with valid RPP permits may park at all times at No Charge (no change).
- No change / impact to the Visitor Passes purchased by Residents.
- Cost Estimates for capital equipment & installation included.

(See Appendix “B-1”- ALL Cost Estimates)