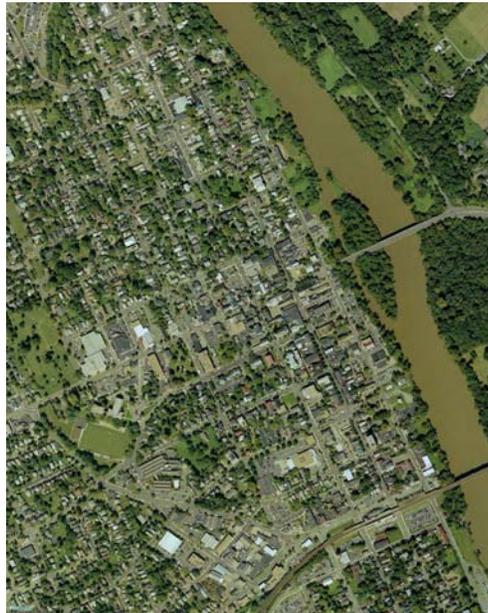


# FINAL REPORT



## CITY OF FREDERICKSBURG COMPREHENSIVE PARKING STUDY

Submitted To:

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*City of Fredericksburg, Virginia*  
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**Comprehensive Parking Study for Fredericksburg, Virginia**  
**Final Report**

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## **1.0 INTRODUCTION**

DESMAN Associates was retained by the City of Fredericksburg to assess the existing demand for both on and off-street parking as well as to assess the future demand for parking within the study area. The goal of this study was to provide the City with a comprehensive parking study and ample information to support decisions regarding parking management and the development of future public parking facilities.

The downtown area of the City of Fredericksburg is alive with activity and is quickly becoming a major destination for both residents and visitors. This has attracted a lot of attention and development interest in the area. There are several proposed private developments that will be completed within the downtown area in the next several years. Large events are held frequently in the downtown area during the day and in the evening throughout the year. The City is also becoming very popular among tourists, most of who arrive by car. All of this presents the City with a unique challenge in terms of current and future parking needs.

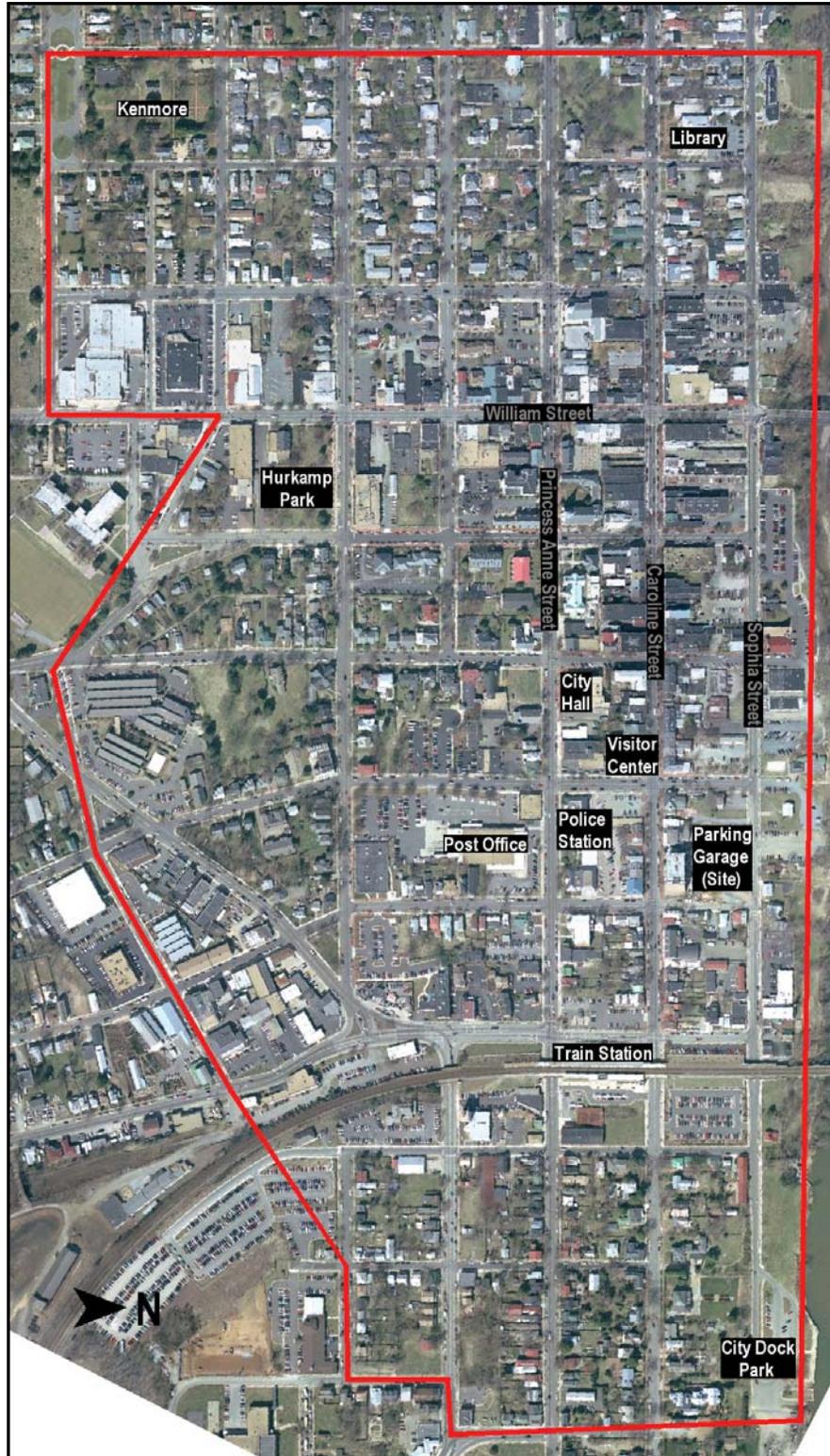
## **2.0 THE STUDY AREA**

The focus of the study was the historic downtown area of Fredericksburg, Virginia. This area of the City is fairly large and contains a mix of residential, commercial, and government uses. There is a significant amount of residential development downtown which helps to create 24 hour activity. The peak period occurs during the weekday around lunchtime when many local office employees and visitors are in the downtown area to eat and shop. The majority of the vehicle and pedestrian traffic is located along Caroline, Princess Anne, and William Streets. Most of the streets are laid out in a grid pattern which helps to keep traffic flowing. Downtown Fredericksburg is unique in that it is a destination for many tourists. Therefore, many people who come to the downtown are unfamiliar with the area and where to find parking. A new 297 space parking garage was being constructed during this study. The garage will be owned and operated by the City upon completion.

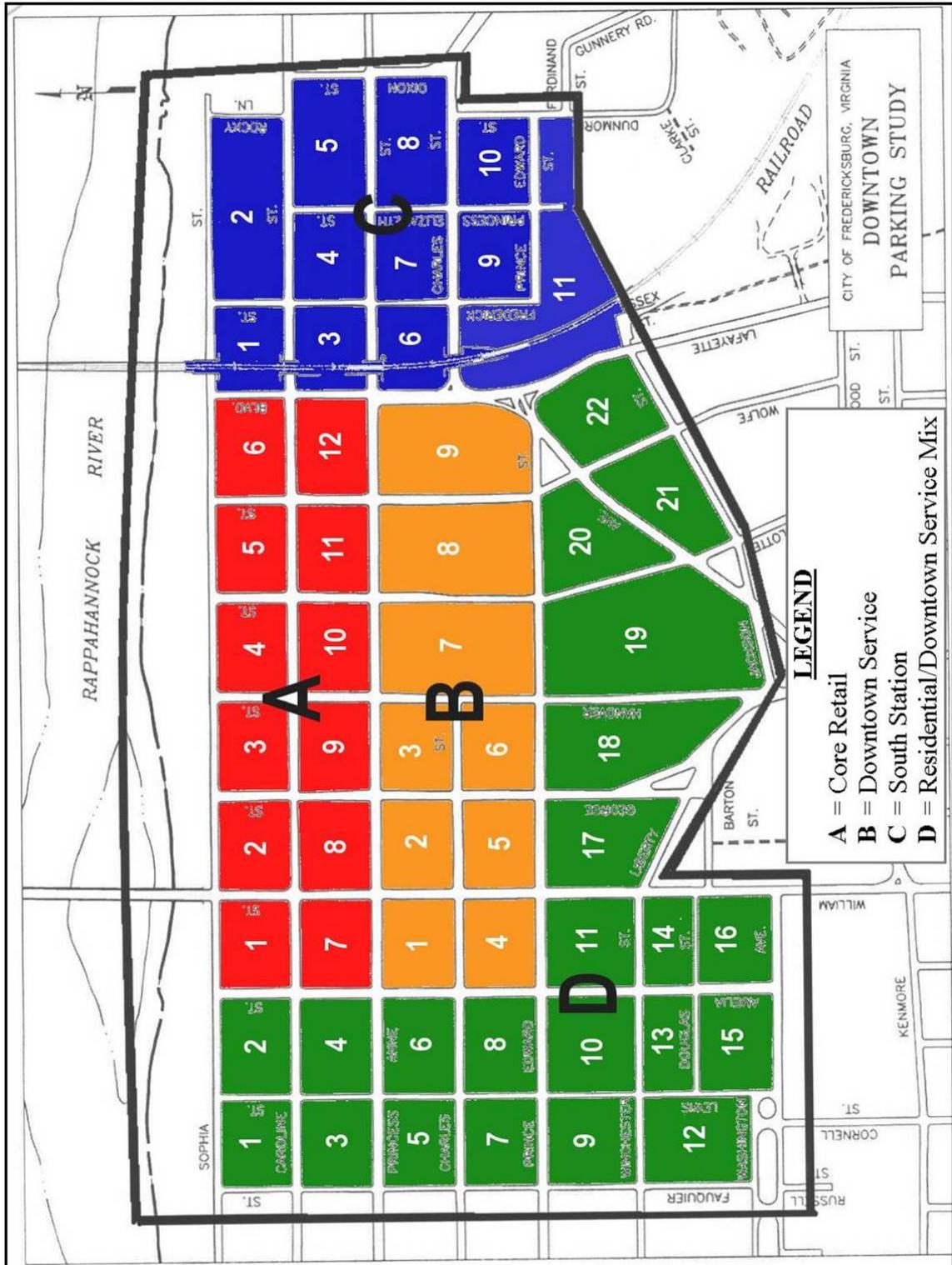
The City of Fredericksburg currently owns and operates (controls) five parking lots that are available to the general public. The rest of the off-street lots are controlled by other public agencies (such as VRE), or are privately owned and operated. Once completed, the new parking garage will serve the general public, City employees, and perhaps private businesses.

The study area and a few key landmarks are shown in Exhibit 1 on the following page. The study area is generally bounded by the Rappahannock River to the east, Fauquier Street to the north, Lafayette Boulevard to the south, and Washington Avenue/Jackson Street to the west. In order to identify meaningful supply and demand relationships, and to aid in data collection, the study area was divided into four sub-areas. Sub-area A (Core Retail) includes the active commercial and residential area in the downtown core. Sub-area B (Downtown Service) includes retail, office, and institutional uses which complement Sub-area A. Sub-area C (South Station) includes the residential area south of the train station. Sub-area D (Residential/Downtown Service Mix) includes residential and commercial uses on the periphery of the study area. The blocks within each sub-area were then given a number. The sub-areas and block coding are illustrated in Exhibit 2. By using a coding system based on blocks, it will help identify which parts of the downtown are currently experiencing a surplus or deficit of on and off-street parking spaces and how new development will impact the existing parking conditions.

**Exhibit 1:  
Downtown Fredericksburg Study Area**



**Exhibit 2:  
Downtown Sub-Areas & Blocks**



### **3.0 PARKING INVENTORY AND OCCUPANCY**

#### **3.1 Parking Inventory**

The parking supply in any municipality consists of publicly available off-street parking (garages and lots), private/restricted off-street parking (garages and lots), and on-street parking. Publicly available parking is defined as those spaces available to the general public regardless of trip purpose. Thus, a publicly available garage or lot could be publicly or privately owned and operated. In contrast, private/restricted parking is only available to specific users. On-street parking is available to anyone regardless of trip purpose. These definitions are important when determining a downtown's available parking supply and therefore, peak period surplus or deficit. For this study, DESMAN analyzed on-street spaces and City controlled (publicly owned and operated) off-street surface lots. An inventory of privately owned off-street spaces was collected (restricted and unrestricted), but occupancy data for these numerous small, undefined lots was not collected. Parking which is restricted to specific users cannot be counted on to satisfy the larger needs of the general public.

DESMAN organized the data collection effort, which took place over two days. The City wanted to capture the parking activity during a typical weekday and on a weekend period. With guidance from the City, the dates chosen were Saturday, May 21, 2005 and Thursday, May 26, 2005. During the initial kick-off meeting for the project it was noted by the consultant and City staff that these days would not capture peak courts activity or peak visitor volumes nor did they capture the parking impacts associated with special events. The consultant and staff understood that the analysis of supply and demand needed to examine typical weekday and Saturday conditions that were devoid of infrequent impacts (jury selection or special events). With this understanding, the City approved the data collection schedule and approach.

The first task was to record all of the on-street and off-street spaces within the study area in order to get an accurate inventory of parking spaces. For on-street spaces, the number of spaces (marked and unmarked) were recorded by block "face." The block coding for the on-street parking represent the North, South, East, and West (N, S, E, W) block faces. The complete table can be found in the Appendix. Many of the on-street spaces within the commercial downtown area are marked. However, some of the residential areas contain unmarked spaces. For these spaces, DESMAN estimated how many standard

sized vehicles could fit along the street. For off-street spaces, the data collection team recorded City controlled and privately controlled parking spaces.

Table 1 on the following two pages shows the parking inventory for each sub-area by block. Overall, there are 4,723 parking spaces within the downtown study area. A total of 1,895 are on-street and 2,828 are located in off-street facilities. All of the City controlled facilities are located in Sub-area A. Several blocks in Sub-area B contain large amounts of privately controlled off-street parking. Only 241 (9%) of the off-street spaces are controlled by the City, the other 2,587 (91%) are privately owned and operated.

As in a typical urban area, the number of private/restricted parking spaces is greater than the number of publicly available off-street spaces. This is simply the result of a developer's or property owner's requirement for on-site parking because of zoning requirements or market pressures for a project's "vehicular accessibility." For example, leasing agents will have much greater success renting a property to a prospective commercial or residential tenant if the property has sufficient on-site parking. The City of Fredericksburg includes a historic downtown, developed long before the dominance of the single occupancy automobile culture. Therefore, on-site parking is limited if not physically impossible to provide. As a result, property owners and developers pressure the municipality to provide the required parking "infrastructure."

**Table 1:  
Parking Inventory**

Sub-Area/Block	On-Street	Off-Street		Subtotal	DOWNTOWN TOTAL
		City	Private		
<i>Sub-Area A - Core Retail</i>					
A-1	39	53	89	142	181
A-2	31	116	65	181	212
A-3	32	0	65	65	97
A-4	38	38	43	81	119
A-5	24	0	9	9	33
A-6	24	0	53	53	77
A-7	49	0	0	0	49
A-8	43	0	0	0	43
A-9	43	0	7	7	50
A-10	43	14	28	42	85
A-11	28	20	64	84	112
A-12	31	0	52	52	83
<b>Subtotal</b>	<b>425</b>	<b>241</b>	<b>475</b>	<b>716</b>	<b>1,141</b>
<i>Sub-Area B - Downtown Service</i>					
B-1	44	0	47	47	91
B-2	37	0	78	78	115
B-3	49	0	15	15	64
B-4	44	0	98	98	142
B-5	48	0	70	70	118
B-6	40	0	40	40	80
B-7	57	0	99	99	156
B-8	50	0	227	227	277
B-9	33	0	221	221	254
<b>Subtotal</b>	<b>402</b>	<b>0</b>	<b>895</b>	<b>895</b>	<b>1,297</b>
<i>Sub-Area C - South Station</i>					
C-1	0	0	131	131	131
C-2	36	0	0	0	36
C-3	5	0	19	19	24
C-4	44	0	0	0	44
C-5	28	0	10	10	38
C-6	5	0	69	69	74
C-7	43	0	0	0	43
C-8	31	0	15	15	46
C-9	43	0	0	0	43
C-10	24	0	0	0	24
C-11	17	0	198	198	215
<b>Subtotal</b>	<b>276</b>	<b>0</b>	<b>442</b>	<b>442</b>	<b>718</b>

**Table 1:**  
**Parking Inventory (cont'd)**

Sub-Area/Block	On-Street	Off-Street		Subtotal	DOWNTOWN TOTAL
		City	Private		
<i>Sub-Area D - Residential/Downtown Service</i>					
D-1	31	0	47	47	78
D-2	31	0	27	27	58
D-3	37	0	0	0	37
D-4	43	0	20	20	63
D-5	21	0	18	18	39
D-6	41	0	0	0	41
D-7	25	0	0	0	25
D-8	40	0	11	11	51
D-9	24	0	0	0	24
D-10	47	0	0	0	47
D-11	50	0	54	54	104
D-12	22	0	6	6	28
D-13	23	0	29	29	52
D-14	11	0	100	100	111
D-15	32	0	0	0	32
D-16	23	0	42	42	65
D-17	52	0	53	53	105
D-18	58	0	0	0	58
D-19	64	0	157	157	221
D-20	64	0	0	0	64
D-21	42	0	50	50	92
D-22	11	0	161	161	172
<b>Subtotal</b>	<b>792</b>	<b>0</b>	<b>775</b>	<b>775</b>	<b>1,567</b>
<b>TOTAL</b>	<b>1,895</b> 40%	<b>241</b> 5%	<b>2,587</b> 55%	<b>2,828</b> ---	<b>4,723</b> ---

### 3.2 City Owned and Operated Parking Inventory

Table 2 shows the inventory of off-street City owned and operated parking facilities. Note that for the remainder of the existing conditions analysis, the report will only focus on on-street spaces and City controlled off-street facilities. The City operates five lots. With the exception of the two Visitor Center lots, all of these lots are free and are available for all parkers regardless of trip purpose. Parkers to the Visitor Center lots must obtain a Visitor Center hang tag.

**Table 2:  
City Owned and Operated Parking Facilities**

<b>Lot</b>	<b>Inventory</b>
<b>1. Visitor Center</b>	14
<b>2. Charlotte/Caroline (Visitor Lot)</b>	20
<b>3. Sophia St. (Porous Paving)</b>	38
<b>4. Sophia St./George St.</b>	116
<b>5. Sophia St. (Barefoot Greens)</b>	53
<b>TOTAL</b>	<b>241</b>

### 3.3 Parking Occupancy

The next task was to complete a parking occupancy survey in order to determine when and how many cars were utilizing on-street spaces and City controlled off-street parking facilities. The occupancy survey was performed every two hours between 8AM and 4PM on each survey day. For on-street spaces, the occupancy was recorded using the same system used to collect the inventory. For off-street spaces, occupancy in the City controlled parking facilities was recorded every two hours. As mentioned previously, hourly occupancy counts were not recorded for private off-street facilities. Detailed occupancy data can be viewed in the Appendix Section of this report.

The most commonly used restriction for on-street parking limits parking to two hours between 9AM and 5PM Monday through Saturday. This restriction is widespread throughout the core retail area. A benefit of this policy is that it encourages turnover of the spaces to allow more people to park on-street throughout the day. Excluding the two Visitor Center lots, off-street restrictions in the City controlled

lots did not have a limit on how long someone could park there, but in order to prevent overnight parking, parking is restricted between 5AM and 8AM Monday through Saturday. It should also be noted that all on-street and City controlled off-street parking is *free*.

Table 3a on the following page shows the study area (both on and off-street) hourly parking occupancy by sub-area. Table 3b shows the same data using percentages. At the time of the survey, there were approximately 2,136 on and off-street spaces within the study area. Peak occupancy occurred at 12PM with 1,465 (69%) parking spaces being occupied on Thursday and 1,220 (57%) parking spaces being occupied on Saturday. There was a significant increase in occupancy between 8AM and 10AM, and then a gradual decrease in occupancy after 12PM. This pattern is typical in an area that contains offices and government activity and is a destination for the “lunch-time crowd.” Sub-area A experienced the highest level of occupancy on Thursday during the peak hour with 94% of the available on and off-street parking occupied. On the other end of the spectrum, Sub-area D was only 41% occupied during the peak hour on Saturday.

**Table 3a:  
Downtown Parking Occupancy**

Sub-Area	Inventory	Occupancy				
		8AM	10AM	12PM	2PM	4PM
<b>THURSDAY</b>						
A	666	297	504	626	526	500
B	402	195	299	287	264	221
C	276	128	118	123	119	134
D	792	301	447	429	418	374
<b>TOTAL</b>	<b>2,136</b>	<b>921</b>	<b>1,368</b>	<b>1,465</b>	<b>1,327</b>	<b>1,229</b>
<b>% Occupied</b>	<b>---</b>	<b>43%</b>	<b>64%</b>	<b>69%</b>	<b>62%</b>	<b>58%</b>
<b>SATURDAY</b>						
A	666	285	562	557	527	469
B	402	188	202	218	171	164
C	276	105	120	123	125	122
D	792	296	327	322	331	308
<b>TOTAL</b>	<b>2,136</b>	<b>874</b>	<b>1,211</b>	<b>1,220</b>	<b>1,154</b>	<b>1,063</b>
<b>% Occupied</b>	<b>---</b>	<b>41%</b>	<b>57%</b>	<b>57%</b>	<b>54%</b>	<b>50%</b>

**Table 3b:  
Downtown Parking Occupancy (%)**

Sub-Area	Inventory	Occupancy (%)				
		8AM	10AM	12PM	2PM	4PM
<i><b>THURSDAY</b></i>						
<b>A</b>	666	45%	76%	94%	79%	75%
<b>B</b>	402	49%	74%	71%	66%	55%
<b>C</b>	276	46%	43%	45%	43%	49%
<b>D</b>	792	38%	56%	54%	53%	47%
<i><b>SATURDAY</b></i>						
<b>A</b>	666	43%	84%	84%	79%	70%
<b>B</b>	402	47%	50%	54%	43%	41%
<b>C</b>	276	38%	43%	45%	45%	44%
<b>D</b>	792	37%	41%	41%	42%	39%

DESMAN was surprised to find that the parking occupancy in Sub-area D, which is extensively residential in area and nature, was much higher during a weekday than during a Saturday. It would be presumed that residential parking activity is lower during a weekday than during a Saturday as residents are at work. It must be assumed that some of the parking occupancy observed during a weekday is, in fact, employees who work in adjacent sub-areas (A and B).

Overall, it appears that parking conditions in Fredericksburg are driven not by retail or residential activity but by office/employment activity and the “lunch crunch” that is generated by downtown restaurants as conditions peak during the weekday daytime period (12 PM).

Table 4 shows the occupancy data for on-street and City controlled off-street facilities by sub-area during the peak hour of 12PM. There were approximately 1,895 on-street spaces and 241 off-street spaces within the downtown study area. Overall, the on-street spaces were not heavily utilized. A total of 65% of on-street spaces were occupied on Thursday during the peak hour and 53% on Saturday during the peak hour. However, DESMAN observed that on-street spaces were very well utilized in the commercial retail core (Sub-area A). As one moves away from this core and into the residential areas, vacant on-street parking spaces become plentiful. The off-street facilities were heavily utilized on both days; they were 98% occupied on Thursday and 88% occupied on Saturday.

**Table 4:  
Downtown Parking Occupancy  
On-Street vs. Off-Street**

Sub-Area	On-Street			Off-Street (City Controlled)		
	Inventory	Peak Occupancy	% Occupied	Inventory	Peak Occupancy	% Occupied
<b>THURSDAY</b>						
A	425	389	92%	241	237	98%
B	402	287	71%	0	---	---
C	276	123	45%	0	---	---
D	792	429	54%	0	---	---
<b>TOTAL</b>	<b>1,895</b>	<b>1,228</b>	<b>65%</b>	<b>241</b>	<b>237</b>	<b>98%</b>
<b>SATURDAY</b>						
A	425	344	81%	241	213	88%
B	402	218	54%	0	---	---
C	276	123	45%	0	---	---
D	792	322	41%	0	---	---
<b>TOTAL</b>	<b>1,895</b>	<b>1,007</b>	<b>53%</b>	<b>241</b>	<b>213</b>	<b>88%</b>

Tables 5a and 5b illustrate the peak occupancy of the various City-owned and operated off-street facilities. Exhibit 3 illustrates where these facilities are located. All of these surface lots were well-utilized on both days between the hours of 10AM and 2PM. The Visitor Center and Sophia St./George St. lots were actually over-utilized during certain times, reaching as high as 111% occupancy. DESMAN noticed that some of the vehicles within these lots were parked illegally. This accounts for the high percentage of occupied parking spaces and it suggests to DESMAN that enforcement of parking regulations may not be effective.

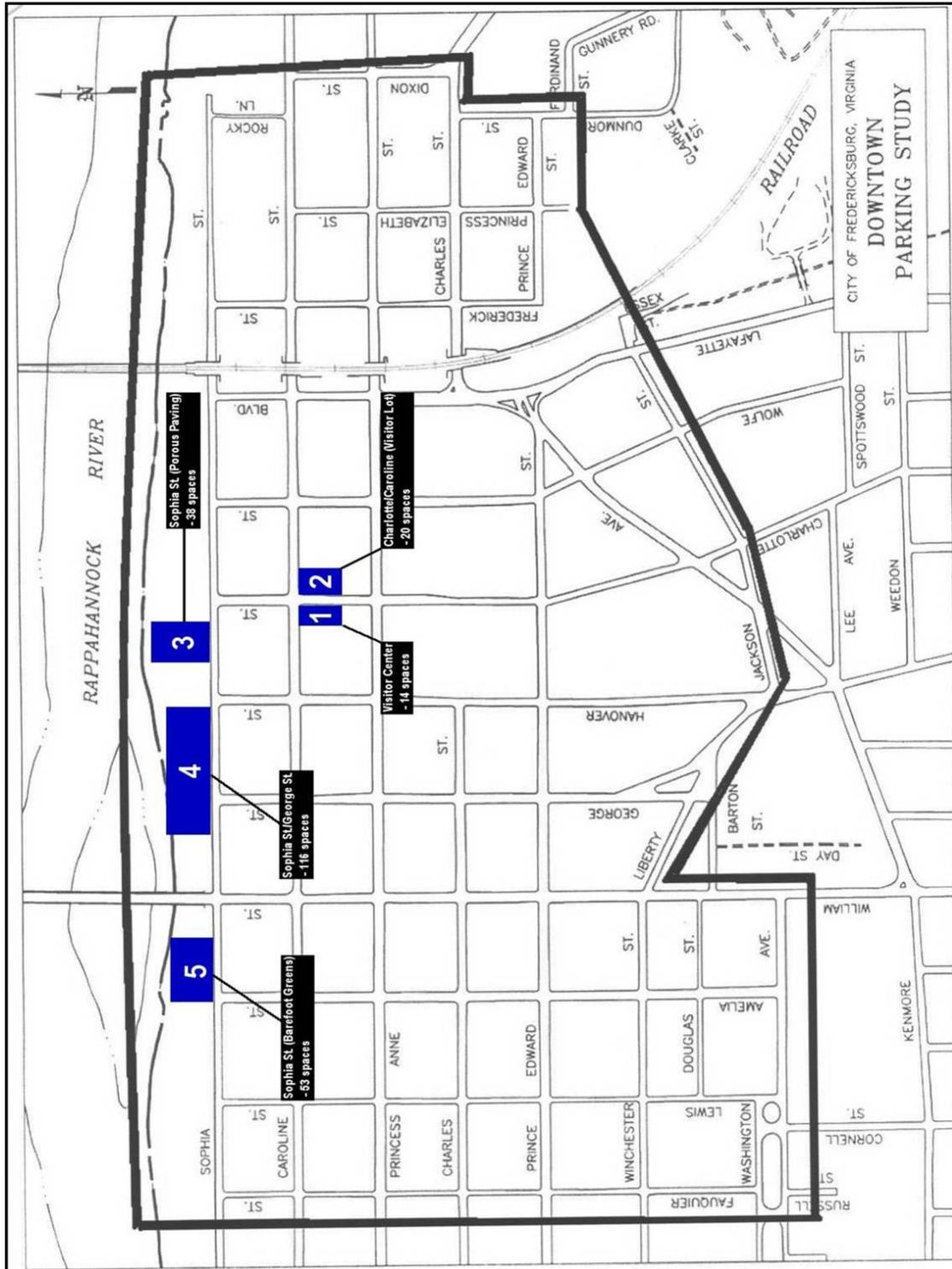
**Table 5a:  
Occupancy of City Controlled Facilities**

Lot	Inventory	Occupancy				
		8AM	10AM	12PM	2PM	4PM
<b>THURSDAY</b>						
1. Visitor Center	14	8	14	13	7	6
2. Charlotte/Caroline (Visitor Lot)	20	6	14	19	11	14
3. Sophia St. (Porous Paving)	38	28	32	35	35	25
4. Sophia St./George St.	116	52	109	129	116	102
5. Sophia St. (Barefoot Greens)	53	10	21	41	18	26
<b>TOTAL</b>	<b>241</b>	<b>104</b>	<b>190</b>	<b>237</b>	<b>187</b>	<b>173</b>
<i>% Occupied</i>	---	<b>43%</b>	<b>79%</b>	<b>98%</b>	<b>78%</b>	<b>72%</b>
<b>SATURDAY</b>						
1. Visitor Center	14	5	15	15	10	7
2. Charlotte/Caroline (Visitor Lot)	20	9	17	10	5	8
3. Sophia St. (Porous Paving)	38	15	37	32	37	20
4. Sophia St./George St.	116	40	129	122	106	98
5. Sophia St. (Barefoot Greens)	53	5	38	34	34	30
<b>TOTAL</b>	<b>241</b>	<b>74</b>	<b>236</b>	<b>213</b>	<b>192</b>	<b>163</b>
<i>% Occupied</i>	---	<b>31%</b>	<b>98%</b>	<b>88%</b>	<b>80%</b>	<b>68%</b>

**Table 5b:  
Occupancy of City Controlled Facilities (%)**

Lot	Inventory	Occupancy (%)				
		8AM	10AM	12PM	2PM	4PM
<i>THURSDAY</i>						
1. Visitor Center	14	57%	100%	93%	50%	43%
2. Charlotte/Caroline (Visitor Lot)	20	30%	70%	95%	55%	70%
3. Sophia St. (Porous Paving)	38	74%	84%	92%	92%	66%
4. Sophia St./George St.	116	45%	94%	111%	100%	88%
5. Sophia St. (Barefoot Greens)	53	19%	40%	77%	34%	49%
<i>SATURDAY</i>						
1. Visitor Center	14	36%	107%	107%	71%	50%
2. Charlotte/Caroline (Visitor Lot)	20	45%	85%	50%	25%	40%
3. Sophia St. (Porous Paving)	38	39%	97%	84%	97%	53%
4. Sophia St./George St.	116	34%	111%	105%	91%	84%
5. Sophia St. (Barefoot Greens)	53	9%	72%	64%	64%	57%

**Exhibit 3:  
City Controlled Off-Street Facilities**



**4.0 PRACTICAL PARKING SURPLUS/DEFICIT**

Before discussing the surplus/deficit figures, the concept of “practical capacity” should be discussed. Practical capacity simply estimates the level of service of a parking facility. As the occupancy levels within a garage, lot, or throughout an overall parking system reach a certain level, drivers who are searching for an available space will be required to search longer and farther, resulting in the driver spending more time searching for an available space. This increases the driver’s frustration, the potential for vehicle/vehicle or vehicle/pedestrian conflicts, and slows the ability for cars to get in and out of the spaces. This is particularly true for drivers who wish to remain parked for only a short period of time (shoppers, diners, infrequent visitors, etc.). The effective and efficient utilization and turnover of spaces is achieved when an operational surplus of between 5% and 10% is provided. For the purpose of this study, a practical capacity factor of 10% was used to analyze parking conditions in downtown Fredericksburg.

**4.1 Surplus/Deficit Conditions**

Table 6 shows the surplus/deficit conditions for on-street parking. Overall, there was a 478 space surplus and a 699 space surplus of on-street spaces on Thursday and Saturday, respectively. However, the majority of these system-wide surpluses exist in Sub-areas C and D which are predominantly residential in nature. Sub-area A exhibits a true practical shortfall during the weekday peak period and Sub-area B has only a modest surplus of spaces (75).

**Table 6:  
On-Street Surplus/Deficit**

Sub-Area	Parking Capacity	Practical Capacity @ 90%	Current Peak Utilization (12PM)		Surplus/Deficit
<b>THURSDAY</b>					
A	425	383	389	92%	-7
B	402	362	287	71%	75
C	276	248	123	45%	125
D	792	713	429	54%	284
<b>TOTAL</b>	<b>1,895</b>	<b>1,706</b>	<b>1,228</b>	<b>65%</b>	<b>478</b>
<b>SATURDAY</b>					
A	425	383	344	81%	39
B	402	362	218	54%	144
C	276	248	123	45%	125
D	792	713	322	41%	391
<b>TOTAL</b>	<b>1,895</b>	<b>1,706</b>	<b>1,007</b>	<b>53%</b>	<b>699</b>

Table 7 presents the surplus/deficit conditions for City controlled off-street parking. Overall, there was a 20 space deficit on Thursday and a 4 space surplus on Saturday. This reveals that there is an existing shortage of City controlled off-street parking. As stated earlier, much of these facilities were at or over capacity between the hours of 10AM and 2PM.

**Table 7:  
City Controlled Off-Street Surplus/Deficit**

Sub-Area	Parking Capacity	Practical Capacity @ 90%	Current Peak Utilization (12PM)		Surplus/Deficit
<i>THURSDAY</i>					
A	241	217	237	98%	-20
B	0	---	---	---	---
C	0	---	---	---	---
D	0	---	---	---	---
<b>TOTAL</b>	<b>241</b>	<b>217</b>	<b>237</b>	<b>98%</b>	<b>-20</b>
<i>SATURDAY</i>					
A	241	217	213	88%	4
B	0	---	---	---	---
C	0	---	---	---	---
D	0	---	---	---	---
<b>TOTAL</b>	<b>241</b>	<b>217</b>	<b>213</b>	<b>88%</b>	<b>4</b>

The overall downtown surplus/deficit analysis is shown in Table 8. This Table combines both the on-street and off-street surplus data. There was an overall surplus of 457 spaces on Thursday and 702 spaces on Saturday. Sub-area A experienced a deficit of 27 spaces on Thursday, while Sub-area D experienced a 284 space surplus. On Saturday, Sub-area A experienced a 42 space surplus while the other sub-areas experienced a gradual surplus of spaces as one moves away from the downtown core.

**Table 8:  
Downtown Surplus/Deficit**

Sub-Area	Parking Capacity	Practical Capacity @ 90%	Current Peak Utilization (12PM)		Surplus/Deficit
<i>THURSDAY</i>					
A	666	599	626	94%	-27
B	402	362	287	71%	75
C	276	248	123	45%	125
D	792	713	429	54%	284
<b>TOTAL</b>	<b>2,136</b>	<b>1,922</b>	<b>1,465</b>	<b>69%</b>	<b>457</b>
<i>SATURDAY</i>					
A	666	599	557	84%	42
B	402	362	218	54%	144
C	276	248	123	45%	125
D	792	713	322	41%	391
<b>TOTAL</b>	<b>2,136</b>	<b>1,922</b>	<b>1,220</b>	<b>57%</b>	<b>702</b>

## 4.2 Summary of Current Conditions

The study area for downtown Fredericksburg consisted of approximately 2,136 on and off-street parking spaces. At the peak hour of 12PM on a typical Thursday, 1,465 (69%) of these spaces were occupied. Sub-area A consistently had a high level of occupancy when compared with the other sub-areas. When practical capacity is applied to the data, there was an overall surplus of 457 spaces on Thursday and 702 spaces on Saturday. The data shows that there was a higher demand for parking during the week than on the weekend. However, a system-wide assessment of conditions is not an appropriate way to examine supply and use relationships in Fredericksburg. Parking surpluses in residentially dominated areas should not be counted upon to meet the needs in high demand commercial areas. Additionally, though Fredericksburg can be considered a “walking city” given its size and character, parking surpluses in one section of a sub-area might not be close enough to satisfy parking demands in another. Research completed by the Urban Land Institute suggest that short-term parkers are only willing to walk 400 ft. from their vehicle to their destination, long-term parkers (employees) are only willing to walk 800 ft., and special event parkers are willing to walk up to 1,500 ft. These conditions vary from municipality to municipality but are good general “rules of thumb”. For these and other reasons DESMAN summarized existing parking supply and use conditions by City block.

Exhibit 4 on the following page illustrates the City controlled on and off-street parking surplus/deficit by block during the peak hour on a weekday. The red blocks show a deficit of parking spaces, the yellow blocks show the available parking is occupied to capacity, and the green blocks show a surplus of parking. The numbers within each block indicate how many spaces are available during the peak hour (surplus or deficit). The green block in Sub-area A that shows a large surplus is due to the parking garage which is currently under construction. The graphic is interesting because it strikingly reflects the typical parking patterns associated with downtown areas. The core of the downtown, where much of the activity occurs, is experiencing a deficit of spaces. As one gradually moves away from the core and into residential area, unoccupied spaces become more plentiful and result in a theoretical surplus of parking.



The existing parking situation in downtown Fredericksburg is complex because of the nature of its peak daytime demand. Sub-areas A and B support a considerable amount of office/employment activity. Employees arrive early and consume the most convenient spaces, often occupying 2-hour curb side spaces. Some employee-oriented parking activity is “spilling over” into residential neighborhoods, particularly those neighborhoods west of Princess Anne Street. By 11 AM, the nature of parking demand begins to change as a large influx of shoppers, visitors, and lunchtime diners begin to arrive. These individuals search for the most convenient parking because of their short duration of stay or their unfamiliarity with the area. The few remaining spaces in the off-street facilities are quickly consumed, leaving lunch time parkers to search for available on-street spaces. Because employees occupy the most conveniently located spaces and because infrequent visitors are unfamiliar with or unwilling to use less conveniently located on-street spaces in other areas they perceive that there is a shortage. In their minds they are correct.

The next section of the report will examine parking supply and demand under future conditions. Development impacts will be assessed and the nature of current and future parking problems will be understood. Combined with the knowledge of the current parking problem (or perception), parking policy, management, and development solutions will be proposed to address current and future parking surplus or deficit scenarios.

**5.0 ASSESSMENT OF FUTURE PARKING CONDITIONS**

**5.1 Estimate of Development Based Parking Demand**

In order to accurately model peak parking demand associated with planned development projects, the concept of parking demand factors needs to be introduced. Land use parking demand factors or ratios are per-unit measures of peak hour parking generation. By applying these factors to the density of various land uses, the weekday and weekend parking activity associated with those developments can be estimated. For example, for each occupied 1,000 square feet of office space 3.0 parking spaces would be needed during the typical peak period. Table 9 illustrates the peak parking demand factors that are believed to be relevant and accurate in downtown Fredericksburg, Virginia. In this case, the public/institutional land use category refers to churches. Notice that for each land use the factor is different during the weekday than on the weekend, except for residential. This reflects the increased or decreased parking demand associated with each land use during the week vs. the weekend. Note that these factors are based on research conducted by the Urban Land Institute (ULI), the Institute of Transportation Engineers (ITE), and most importantly DESMAN’s experience.

**Table 9:  
Representative Peak Period Parking Demand Factors**

Land Use	Parking Space Units	Spaces per Weekday	Spaces per Weekend
Residential	per unit	1.50	1.50
Office	per 1,000 sq.ft.	3.00	0.50
Retail	per 1,000 sq.ft.	3.50	3.75
Public/Institutional	per 1,000 sq.ft.	4.50	8.50
Public/Institutional	per seat	0.30	0.60
Restaurant	per 1,000 sq.ft.	10.0	14.0
Hotel	per room	0.85	0.95

The parking needs associated with different activities fluctuate throughout the day and different activities generate different types of parkers with various expectations (hours of use, duration of stay, parking rates, etc.). For example, the arrival and departure patterns of vehicles generated by an office building are greatest at about 10AM when most employees are at work and visitors typically begin arriving. Conversely, the arrival and departure patterns generated by residential activity reflect when residents are

normally home. Parking generation for residential activity is greatest between the hours of 10PM and 7AM. Therefore, parking accumulation patterns must be incorporated into the demand model. Table 10 illustrates the hourly accumulation patterns for the various land use/development activity that are relevant to this study. The factors below will be used to model future development.

**Table 10:  
Representative Hourly Accumulation by Percent  
Of Peak Hour**

**WEEKDAY or WEEKEND**

<u>Hour of Day</u>	<u>Residential</u>	<u>Office</u>	<u>Retail</u>	<u>Public/Institutional</u>	<u>Restaurant</u>	<u>Hotel</u>
6:00 AM	100%	3%	0%	0%	0%	100%
7:00 AM	95%	20%	8%	0%	2%	85%
8:00 AM	90%	63%	18%	15%	5%	65%
9:00 AM	87%	93%	42%	42%	10%	55%
10:00 AM	85%	100%	68%	65%	20%	45%
11:00 AM	85%	100%	87%	76%	30%	35%
12:00 Noon	85%	90%	97%	51%	50%	30%
1:00 PM	85%	90%	100%	72%	70%	30%
2:00 PM	85%	97%	97%	75%	60%	35%
3:00 PM	85%	93%	95%	100%	60%	35%
4:00 PM	87%	77%	87%	85%	50%	45%
5:00 PM	90%	47%	79%	79%	70%	60%
6:00 PM	92%	23%	82%	46%	90%	70%
7:00 PM	94%	7%	89%	98%	100%	75%
8:00 PM	96%	7%	87%	83%	100%	90%
9:00 PM	98%	3%	61%	0%	100%	95%
10:00 PM	99%	3%	32%	0%	90%	100%
11:00 PM	100%	0%	13%	0%	70%	100%
12:00 Midnight	100%	0%	0%	0%	50%	100%

**5.2 Estimate of Surplus/Deficit by Development Activity**

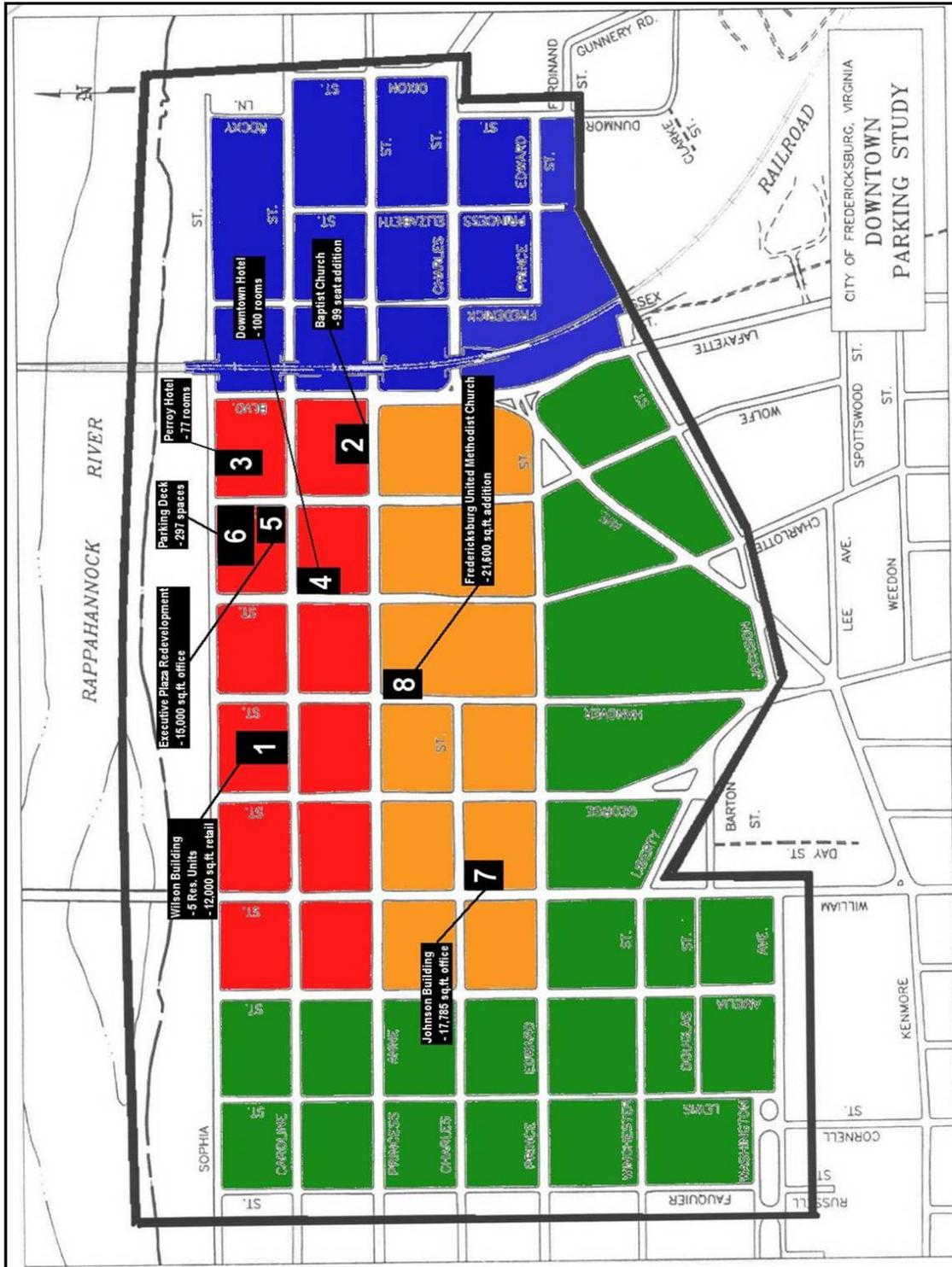
A list of planned development and redevelopment projects were identified by the City’s Planning Department. Information regarding the development’s land use type, density, and phasing was provided. Since many of these projects are still in the planning process, exact figures on parking spaces that will be provided for each project were unavailable and/or insignificant for purposes of this study. However, the surplus/deficit table does note any anticipated loss of parking, such as a development being built on an existing surface parking lot. There is also a new parking garage that is currently under construction. This garage will provide 297 spaces within Sub-area A. Table 11 shows detailed information for each proposed development. Exhibit 5 illustrates the locations of these potential projects within the sub-areas of downtown. Note that none of the proposed developments are located in Sub-areas C or D. Tables 12a

and 12b show the parking surplus/deficit for each project during the weekday and weekend. Based on this analysis, the new development will yield a 30 space surplus during the weekday and a 22 space deficit during the weekend. The weekend condition also accounts for higher activity associated with the churches, especially on Sunday. The surplus/deficit table accounts for the loss of 20 spaces in the Visitor’s lot where a hotel is proposed as well as the addition of 297 spaces that will be available when the parking garage is completed.

**Table 11:  
Proposed Development Activity**

	PROJECT	LAND USE					PHASING	
		Residential	Office	Retail	Public/Institutional	Hotel		Parking
1	Wilson Building	5 units		12,000 sq.ft.				1-2 Years
2	Baptist Church				99 seats			N/A
3	Perroy Hotel					77 rooms		N/A
4	Downtown Hotel					100 rooms		1-2 years
5	Executive Plaza - Redevelopment		15,000 sq.ft.					1-2 Years
6	Parking Deck						297 spaces	6 months
7	Johnson Building		17,785 sq.ft.					N/A
8	Fredericksburg United Methodist Church				21,600 sq.ft.			1-2 Years

**Exhibit 5:  
Proposed Development Activity**



**Table 12a:  
Anticipated Weekday Parking Demand Generated by  
Individual Future Development Activity**

WEEKDAY										
	Development Project	Land Use	Density	Demand Factor	Hourly Adjustment (12PM)	Demand	Parking to be		Total Surplus/Deficit	
							Displaced	Provided		
<b>SUB-AREA A</b>										
1	Wilson Building	Residential	5 units	1.50	85%	6	---	---	-6	
		Retail	12,000 sq.ft.	3.50	97%	41	---	---	-41	
2	Baptist Church	Institutional	99 seats	0.30	51%	15	---	---	-15	
3	Perroy Hotel	Hotel	77 rooms	0.85	30%	20	---	---	-20	
4	Downtown Hotel	Hotel	100 rooms	0.85	30%	26	20	---	-46	
5	Executive Plaza - Redevelopment	Office	15,000 sq.ft.	3.00	90%	41	---	---	-41	
6	Parking Deck	Parking	297 spaces	---	---	---	---	297	297	
						<b>Subtotal</b>	<b>148</b>	<b>20</b>	<b>297</b>	<b>128</b>
<b>SUB-AREA B</b>										
7	Johnson Building	Office	17,785 sq.ft.	3.00	90%	48	---	---	-48	
8	Fredericksburg United Methodist Church	Institutional	21,600 sq.ft.	4.50	51%	50	---	---	-50	
						<b>Subtotal</b>	<b>98</b>	<b>0</b>	<b>0</b>	<b>-98</b>
						<b>GRAND TOTAL</b>	<b>245</b>	<b>20</b>	<b>297</b>	<b>30</b>

**Table 12b:  
Anticipated Weekend Parking Demand Generated by  
Individual Future Development Activity**

WEEKEND										
	Development Project	Land Use	Density	Demand Factor	Hourly Adjustment (12PM)	Demand	Parking to be		Total Surplus/Deficit	
							Displaced	Provided		
<b>SUB-AREA A</b>										
1	Wilson Building	Residential	5 units	1.50	85%	6	---	---	-6	
		Retail	12,000 sq.ft.	3.75	97%	44	---	---	-44	
2	Baptist Church	Institutional	99 seats	0.60	75%	45	---	---	-45	
3	Perroy Hotel	Hotel	77 rooms	0.95	30%	22	---	---	-22	
4	Downtown Hotel	Hotel	100 rooms	0.95	30%	29	20	---	-49	
5	Executive Plaza - Redevelopment	Office	15,000 sq.ft.	0.50	90%	7	---	---	-7	
6	Parking Deck	Parking	297 spaces	---	---	---	---	297	297	
						<b>Subtotal</b>	<b>152</b>	<b>20</b>	<b>297</b>	<b>124</b>
<b>SUB-AREA B</b>										
7	Johnson Building	Office	17,785 sq.ft.	0.50	90%	8	---	---	-8	
8	Fredericksburg United Methodist Church	Institutional	21,600 sq.ft.	8.50	75%	138	---	---	-138	
						<b>Subtotal</b>	<b>146</b>	<b>0</b>	<b>0</b>	<b>-146</b>
						<b>GRAND TOTAL</b>	<b>297</b>	<b>20</b>	<b>297</b>	<b>-22</b>

Remarkably, the 297 spaces to become available in the parking deck matches the parking demand that would be generated by new development under the weekend condition (i.e., the higher of the two development impact peaks). While it is fortunate that the parking deck's capacity would appear to be capable of absorbing all new development based parking deficits, it is doubtful whether a parking deck in this location could meet all these needs.

**6.0 SUMMARY OF ANTICIPATED SURPLUS/DEFICIT CONDITIONS**

Tables 13a and 13b layer the development demand over the existing supply and use conditions for each section of downtown Fredericksburg. This analysis reveals that if development occurs as planned, there will be a system-wide surplus of 488 parking spaces during a typical weekday and a surplus of 681 spaces during a Saturday or Sunday. However, as discussed earlier, it is important to look at each sub-area of the downtown in relation to the existing parking conditions and the development that will occur there. The data suggests that Sub-area B will experience a slight deficit during weekday and weekend conditions while the other three sub-areas will enjoy a significant surplus of parking which helps yield an overall surplus of parking for the entire study area during typical weekday and weekend conditions. As noted previously, it is questionable if parking surpluses in one block or sector of the study (i.e. the new parking deck) could absorb the deficits generated in other areas. Exhibit 6 on the following page illustrates a block by block analysis of surplus/deficit conditions when new development is layered onto existing conditions.

**Table 13a:  
Weekday Anticipated Surplus/Deficit Conditions**

WEEKDAY

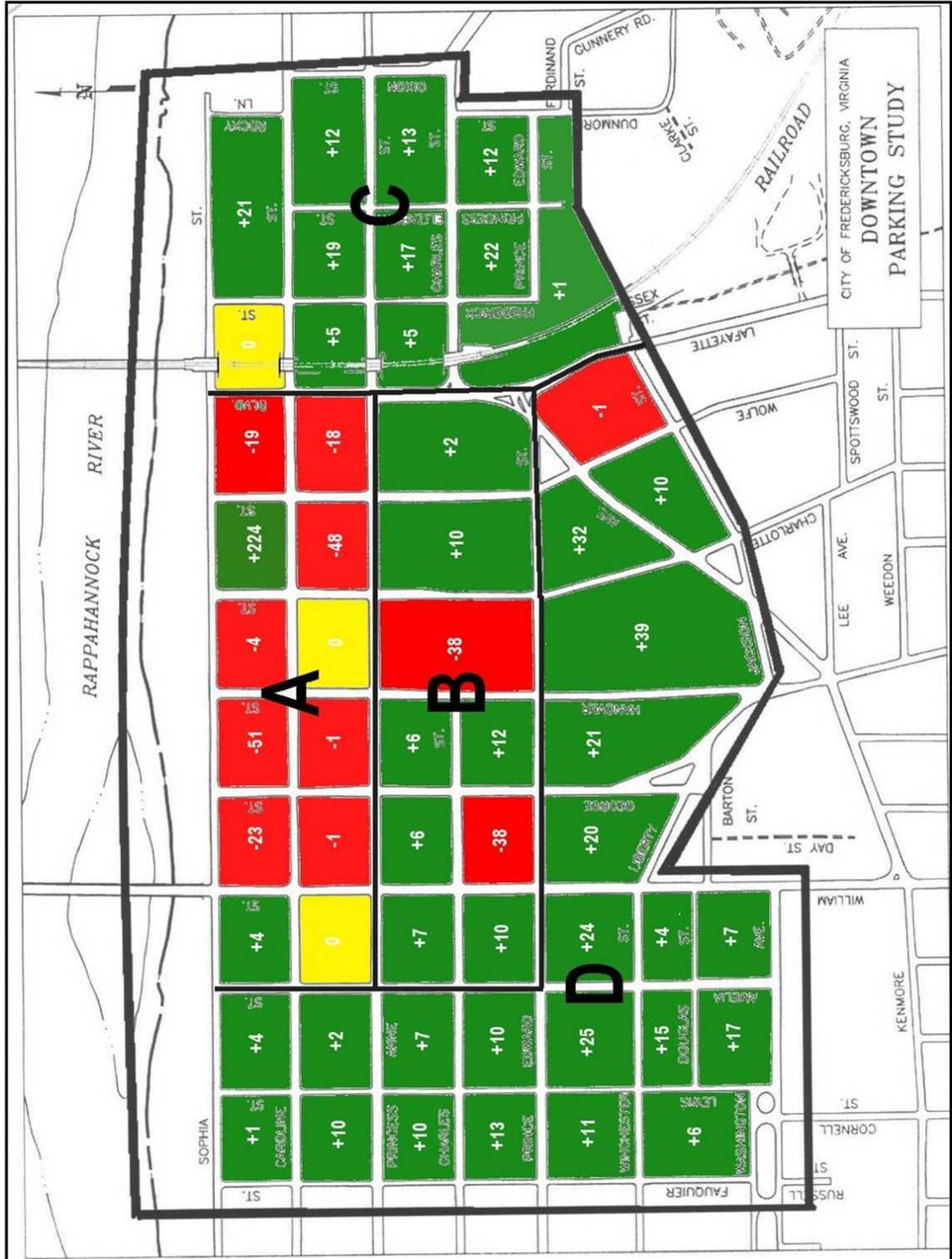
Sub-Area	Current Supply	Operational Capacity of Resulting Supply (90%)	Existing Peak Occupancy	Development Based Surplus/Deficit	Estimated Peak Surplus/Deficit
A	666	599	626	128	101
B	402	362	287	-98	-23
C	276	248	123	0	125
D	792	713	429	0	284
<b>TOTAL</b>	<b>2,136</b>	<b>1,922</b>	<b>1,465</b>	<b>30</b>	<b>488</b>

**Table 13b:  
Weekend Anticipated Surplus/Deficit Conditions**

WEEKEND

Sub-Area	Current Supply	Operational Capacity of Resulting Supply (90%)	Existing Peak Occupancy	Development Based Surplus/Deficit	Estimated Peak Surplus/Deficit
A	666	599	557	124	166
B	402	362	218	-146	-2
C	276	248	123	0	125
D	792	713	322	0	391
<b>TOTAL</b>	<b>2,136</b>	<b>1,922</b>	<b>1,220</b>	<b>-22</b>	<b>681</b>

**Exhibit 6:  
Downtown Surplus/Deficit by Block on a Weekday  
Including Proposed Development**



While a parking surplus of 224 spaces in the block bound by Wolfe, Charlotte, Sophia, and Caroline streets could easily absorb parking deficits in adjacent blocks it is questionable, given parkers' preference for immediate convenience, whether deficits in areas 3 or 4 blocks away would be satisfied. In short, individuals' natural preference to park close to their destination will cause the new parking deck to be under utilized and the perception that a parking shortfall will persist. In order to enhance the effectiveness of the parking deck and other peripheral parking facilities the City of Fredericksburg needs to introduce policies and management strategies that 1) increase the attractiveness of the parking deck, 2) redistributes long-term parking demand (employees) from areas where parking deficits are present, 3) reduce the likelihood for extensive parking search patterns, and 4) achieve these aims without negatively impacting the City's character or its fiscal resources. These and other issues will be addressed in the next phase of the parking study.

## **7.0 PARKING OPERATIONS & MANAGEMENT**

The City of Fredericksburg’s parking system consists of curb-side (on-street) parking and some off-street surface lots. The City does not presently charge for parking either on-street or in off-street surface parking lots. As parking is complimentary, there are no on-street meters or payment systems in place. Like many smaller municipalities, the City employs a signage and timed enforcement approach for on-street parking and offers complimentary parking off-street. Posted parking restrictions of various types notify users of the appropriate use of parking spaces while enforcement and adjudication encourages patrons to follow posted restrictions. It is understood that sections of the downtown historic district have employed parking meters in the past to encourage turnover of spaces but these meters have been removed for sometime. Given the increasing vitality in Fredericksburg today and the potential for dramatic development and redevelopment activity, the City and its downtown stakeholders (residents, shop owners, property owners, and developers) must examine, evaluate, and implement the proper level of service responses to current and projected parking pressures.

Recommendations regarding varying roles in delivering parking services will be presented, which identify and define the elements that are required to have parking play an integral supporting role in the City’s economic development. A mission statement for the parking system will be developed and would represent a roadmap to lead the City’s parking system into the foreseeable future.

This section of the report respects the results of the parking supply and demand analysis and takes into account the perspective of many of the downtown stakeholders. It examines the City’s current administration of parking, and suggests changes to both the “measure and means” by which the City can improve the efficiency and effectiveness of the parking system without negatively affecting a shopper’s, visitor’s, or employee’s experience. The first step in this process is the development of a mission statement.

### **7.1 Defining the Parking Mission for the Parking System**

The creation of a commendable mission statement is the single most important step in enhancing the effectiveness of the City’s parking program. It is often said that a well crafted mission statement, which is supported by worthy goals, depicts the most accurate picture of the final product. Itemizing additional goals adds clarity and specificity to the overall vision. Interviews with parking stakeholders and City

representatives (to be presented), on-site observations, and DESMAN’S experience in aiding in the development of parking programs in other cities throughout the nation provided the basis for the development of the following mission statement:

*The City of Fredericksburg’s on and off-street parking system shall support existing land uses, assist the City’s economic development initiatives, assist in strategic planning for future parking resources, and preserve parking for its residents by providing adequate and high quality parking resources and related services for all user groups that need to park within the City.*

## 7.2 Stakeholder Perspective

As noted in the introduction, DESMAN personnel met on several occasions with representative downtown stakeholders. These included restaurant owners, inn owners, coffee shop owners, shop owners, church representatives, residents, builders, property owners, and large employers (National Bank of Fredericksburg and the Free-Lance Star). The following is offered simply as perspective and, as will be noted, some perspectives conflict.

- Customers can find convenient parking but only during particular times of the day.
- Delivery vehicles are a problem but the shop owners and delivery companies won’t except restrictions on delivery hours
- Employees park their vehicles in two-hour spaces then move them throughout the day to avoid tickets.
- The City has been under organized, under planned and always under estimates the problem.
- Baptist Church has been “great” sharing its lots with evening employees.
- Parking meters would negatively impact downtown business – “meter is a four letter word in Fredericksburg”.
- City needs to be more proactive with development and parking – land needs to be accumulated and consolidated for future parking facilities.
- Need more small parking lots/garages – one large parking garage won’t solve the problem.
- City should provide grants so that developers could provide on-site parking for their projects.
- Parking meters in specific areas might be acceptable.

- City should encourage the redevelopment of the Post Office for mixed use (including a public parking structure)
- Employee parking activity at City Hall, Verizon, the Free-Lance Star, and other large employer is spilling into residential neighborhoods.
- Because of curb-side parking and traffic it can be dangerous for pedestrians to cross the street.
- Property owners will be unwilling to support a special taxing district (to fund downtown initiatives and operations including parking)
- “I was very nervous about the downtown parking structure but am pleased with the results so far.”
- City needs to be more accountable to the downtown district as a whole and a special manager/manager needs to be dedicated downtown issues.
- Need improved signage and wayfinding.
- The current parking fines are too low to discourage violations.
- Need to improve and maintain City’s existing parking lots (along Sofia Street)
- Residents have to cope with a variety of on-street restrictions and street cleaning schedules.
- The City and the historic district need to be prepared to compete with Newpost (a new town center to be developed across the river).
- Something needs to be done about the parking situation here.

While there are a great number of perspectives regarding parking, development and the City’s role and responsibility, a few have been highlighted based on the recurring comments from stakeholders :

- The parking structure is being received much better by downtown stakeholders than originally anticipated.
- There is great sensitivity regarding parking meters but the placement of some in selection locations might be acceptable.
- The City needs to be more involved with downtown district issues
- The City should plan for additional parking structures to encourage infill redevelopment and waterfront development initiatives.
- In order for the downtown to continue its vitality and growth the parking system need to be successful (sufficiently available, effectively located, and fairly managed).
- Something needs to be done.

### **7.3 Parking Administration**

The City of Fredericksburg currently operates its parking system using a fragmented management approach. This method requires a number of City Departments to be responsible for the daily maintenance and operation of parking.

For example, the Police Department is in charge of parking enforcement, the Fiscal Affairs office is in charge of violations/fine collection, Parks & Recreation/Public Facilities is responsible for maintenance of lots, Public Works is responsible for installation of signs and posted restrictions, and the City Manager's office is responsible for public parking's support of economic development. Each City department operates its own responsibility center without constant interaction with the other components that make up a more consolidated parking system. The most effective approach to parking administration is to maintain one department head solely responsible for the oversight of parking services who would report directly to the Assistant City Manger. This individual would be responsible for the operation of off-street and on-street parking, parking enforcement and the daily maintenance and operation of all parking facilities and systems.

#### **7.3.1 Industry Perspective**

Organization and management of parking systems varies from city to city. Specific responsibilities and arrangements reflect local circumstances and needs. Major variables include the amount and location of the municipality operated parking inventory, community size and resources, state enabling legislation, local statutes and the priorities, agenda and attitudes of the local community.

Municipal parking systems are typically comprised of on-street parking facilities (i.e. curbside parking meters and time Sub-areas) and off-street parking facilities (i.e. parking garages and surface parking lots), parking enforcement and parking administration. Because daily operations, maintenance, personnel and costs associated with the management of on and off-street parking facilities are quite different, the parking management structures municipalities have created are typically a reflection of their individual preferences and unique needs.

Generally, organizational examples for managing municipal parking activities can be viewed as a "spectrum of alternatives." On one end of the spectrum is the purely public sector or in-house structure for complete management of a municipality's parking facilities. Typically, small cities having small

parking systems or larger cities that have opted to make a substantial commitment to properly staff and fund an in-house parking program in one or more departments, elect not to involve the private sector.

On the other end of the spectrum are cities that assigned the total responsibility for managing their parking facilities to one or more private entities. The rationale for such an arrangement often relates to the desire for professional and competent management, administrative savings, improved responsiveness, financing and/or contracting latitude, or other basic operational efficiencies that stem from having an autonomous private entity assume control of public parking facilities.

In the middle of the spectrum are various organizational structures that have public and private aspects. To lessen some of the public sector burden of selected roles, responsibilities can be assigned to the private sector. Municipalities may engage private sector entities with individual contracts to provide such services as facility operation, maintenance, meter collections, auditing or development of public parking facilities, while delegating the balance of the responsibilities to one or more city departments or agencies. In today's environment, organizational structures for managing public parking activities in most cities include some private sector involvement and thus as a result, fall into the middle of the spectrum.

Parking industry management experts generally agree that the parking management structure most often dictates what the parking system will look like. Conversely, the parking system and its operation most often reveal the nature of the management structure. There are some telltale signs of a poorly crafted management structure.

These telltale signs are usually readily evident and generally characterized by the parking system's inability to:

- Meet basic performance objectives
- Portray a good public image
- Respond to the user groups it serves
- Understand and apply large parking management strategies

Conversely, well crafted parking management structures most often have the ability to perform the following:

- Establish an adequate budget to address the operating requirements of the parking system
- Set rates that are sufficient to fund activity to meet the adopted goals and objectives of the parking system
- Manipulate and control the elements and processes associated with the management and operation of the parking system
- Set aside sufficient revenue for property acquisition and future development
- Set aside sufficient revenue for system maintenance and other future capital expenditures
- Direct and deliver services from a single source responsibility center

The following lists the various approaches to parking management the City of Fredericksburg may want to evaluate to manage its growing parking program.

#### ***Parking “Enterprise Fund” Approach***

A parking enterprise fund *is* a direct unit of city government. It is an accounting construct of city government that follows a businesslike model and is intended to generate adequate income to be self-sustaining. This model generally does not have a board of directors and relinquishes two extremely important powers that are embodied into most parking authorities. These include:

- The power to approve its own budget.
- The power to set its own fees and parking rates.

*The “enterprise” fund approach to parking management most often offers a municipality the best mix of operational advantages. These include:*

- Municipality maintains direct control of parking operations and long-term parking planning goals.
- Financial structure (self-supporting) permits department to sometime work outside of financial restraints placed on other “general fund” city departments.
- Parking operations and development usually do not place a tax burden on the citizens of its municipality.

Overall, there are no operational disadvantages to this approach other than the parking “enterprise fund” does not maintain the operational freedom of a parking authority and parking issues can sometime become political at higher level of government.

***Conventional “Parking Department” Approach***

Not unlike other city departments, a parking department can manage its special charge from a single consolidated base. Although parking departments can succeed in managing on and off-street parking facilities, there are certain inherent problems that prevent parking departments from delivering the high level of service that is befitting a Class “A” city like the City of Fredericksburg.

The primary problem is that parking departments cannot control all the variables associated with the delivery of parking services. Parking departments are most often created to be reliant on other departments that have cooperation with a parking department as a secondary or tertiary responsibility. A meter pole is broken - call the Public Works Department. Parking income is suspect - call the Finance Department. Have a problem with a parking contract –call the Law Department. Parking departments find it difficult to divest themselves of reliance on other departments, thus maintaining a fatal parking flaw –fragmentation of critical support services and the absence of a true business model.

Another problem is that parking departments must compete for funding in the municipal budget environment and cannot operate as a business. It is difficult to explain to city fathers why a parking structure’s restoration needs are more important than other competing interests. Unfortunately, a frequent byproduct of parking department managed facilities is poor structural maintenance and a Class “B” appearance.

***Parking Divisions***

Lastly, parking divisions organized under other departments (public works, engineering, etc.) are most often used in situations where a city charter limits and defines the number and nature of individual departments. Parking divisions have similar, but diminished, powers and abilities that are associated with parking departments. However, a parking division has two more liabilities. They must:

- Seek permission to perform actions from a subordinate position within the department in which they reside. And;
- They must not only compete for funds with other departments, but also within the department that they reside as the subordinate entity. Parking divisions are generally weak and find it difficult, if not impossible, to bring about significant change.

***“Parking Authority” Approach***

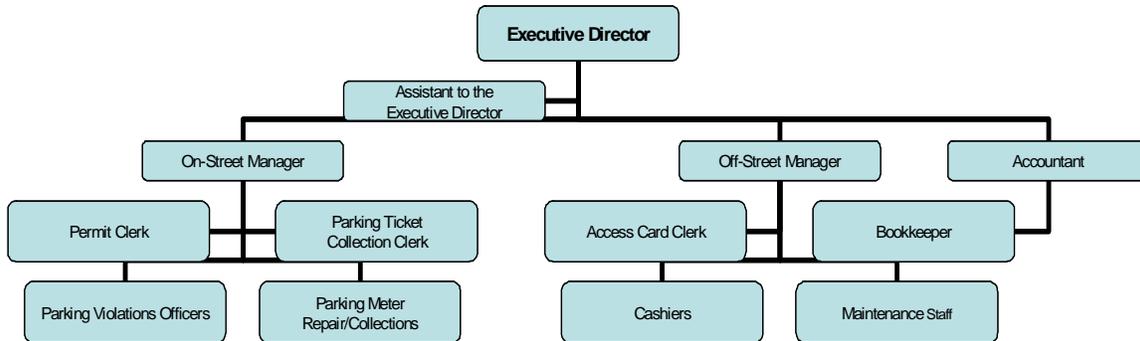
A parking authority is generally defined as a city affiliated arm of government charged with managing the parking found within its designated boundaries. Charged with the overall responsibility for parking operations and planning in its respective city, a parking authority is a semi-autonomous agency, which is fully dependent on the parking revenues it generates. Parking authorities receive no property tax support for use in their operation.

The necessity to create a parking authority is most often driven by the need to increase service levels and essentially lessen the bureaucracy associated with the daily operation of a city-run department.

A parking authority is defined as an independent body politic of a municipality enabled under state legislation, and created by a municipal ordinance or resolution. In most states, parking authorities have the following powers and characteristics.

- The ability to acquire real property either through negotiation or its vested powers of eminent domain.
- A parking authority has a five member board of directors (some states permit more). The board is appointed by the mayor with the consent of the city council.
- The board is empowered to hire a director and any and all other employees that it deems necessary to manage and operate parking facilities, processes, and functions under its jurisdiction.
- It is empowered to operate all public off-street parking within its city limit.
- It has the power to set rates for on and off-street parking, thus removing the rate setting process from the political arena.
- It has the power to create and approve its own budget. The budgets are generally intended to be revenue neutral.
- It may keep excess revenues from operation. This permits a parking authority to create reserves for future expansion and renewal/replacement.
- It has the power to issue bonds. Although theoretically possible, because of much more favorable interest rates, parking authorities almost always work with the City in which they reside and seek its backing.

The following Organizational Chart depicts a full service parking authority that is self-operated. The executive director would answer to a five member board that is appointed by the Mayor with the consent of the City Commission.



Establishing a parking authority can be a lengthy process if State legislation is not in place to create this type of entity.

### 7.3.2 Recommendations

The most effective method of managing any municipal parking operation is through a sole source responsibility center. A majority of municipalities nationwide take a consolidated approach to parking management through the use of a Parking Authority, Parking Department, or a Parking Division. The latter is most often found under the direction of the respective Public Works Department.

Based on the size of the parking system in Fredericksburg, the relative size of City government, and the relatively low user revenues that could potentially be generated by parking, the recommended approach to parking management would be the creation of a Parking Division within the Public Works Department. A parking manager would be hired and would be responsible for all aspects of parking operations, including enforcement, maintenance, revenue collection, permitting, and planning. The parking manager would supervise parking enforcement officers and maintenance and collection technician(s). It should be noted that the enforcement, maintenance and revenue collection functions are already staffed and that it is presumed that these individuals would simply be reassigned to the Parking Division. Therefore, the

proposed Parking Division’s operating budget assumes some cost efficiency associated with reassigning existing personnel and functions from other departments.

This approach would empower centralize responsibility for all functions of parking management. This would include parking enforcement management and oversight, parking equipment management, parking revenue collection, and short and long-term maintenance responsibilities. Policy recommendations would still fall within the City Manager’s office, policy setting would fall within City Council (visa vi the City Manager’s office), and fine collection would remain within the Fiscal Affairs office. In addition to these operational standards, it would be preferable for the newly reorganized parking operation to be financially self-sufficient and not rely on general fund monies for its daily operation or capital expenses (Enterprise Fund).

#### **7.4 Parking Enforcement**

At present, the enforcement of parking restrictions and regulations is the responsibility of the Police Department and in the short-term it is the intention of the City to maintain this arrangement. The Police Department employs two part-time enforcement staff who functions as “one parking officer per day.” The hours of parking enforcement are from 8 AM to 5 PM. As parking enforcement is not critical to the safety and security of a community, which is the core function of the Police Department, parking enforcement efforts may sometimes take a back seat to other more important police activities. While the average number of parking violations issued per day in the downtown averages 25 citations, it is unclear from these figures if the enforcement efforts are effective in encouraging turnover in 1 and 2-hour restricted areas. However, given the number of curbside and off-street spaces within the study area (1895 on-street and 241 public off-street) it is unlikely that one enforcement officer can cover the downtown sufficiently to capture and deter all scofflaws.

Complicating matters further, parking citations are not automated. All parking citations are currently handwritten and require manual input into the collection database. This can be labor intensive as it requires personnel to manually input and track citation issuance and resulting payments. The general purpose for instituting the use of handheld devices is to:

- Provide a less labor intensive ticket issuing system
- Easily track negative parking trends and reassign staff as necessary to affected areas

- Track productivity of enforcement officers
- Increase parking fine collection rates
- Consolidate existing citation management programs
- Use variable rate fine structures
- Identify scofflaws

The national trend is to move away from handwritten parking citations and exclusively use handheld ticket issuance technology to the fullest degree possible. The latest generations of these devices are small lightweight (PDA style) machines that each enforcement officer carries on their person that allows for automated ticket writing.

Information on each vehicle issued a citation is entered into the handheld device resulting in a ticket being dispensed automatically. At the end of each patrol shift, each officer downloads their device into a personal computer. This information is then assigned the correct owners' names based on the license plate numbers recorded with late notices being generated by the system on predetermined dates from the initial date of issuance.

This technology will allow the City of Fredericksburg to accurately track individuals who attempt to circumvent parking regulations by relocating their vehicle to a different space or zone to comply with posted time limit parking regulations. Parking enforcement officers would simply input vehicle tag numbers of each parked vehicle during the course of their respective patrol. After the initial patrol and every patrol thereafter, this information would be available to each officer's handheld device using real time wireless communication. As a result, if a vehicle is found in another space or zone after being parked at another location, this information is made available to the officer for citation issuance purposes.

Handheld ticket issuing devices also provide the City with information regarding the performance of its parking enforcement staff. It is capable of tracking the number of citations written during any specified period and can identify areas where parking enforcement efforts may need to be stepped up based on issuance levels.

There are many manufacturers who are capable of providing this type of system. Manufacturers are listed on the International Parking Institute's Website at [www.parking.org](http://www.parking.org). These systems range from simple

handheld devices to devices that are also capable of capturing the image of an automobile's tag for court verification purposes should a citation be challenged. Handheld enforcement systems also include the back office software and the capability of the software system can range greatly based on the needs of the specific user and can be customized to meet the municipality's needs. The cost of these systems can vary based on the specific system chosen and on the level of customization requested. Some cities have opted to arrange for the lease purchase of this type of system to lessen the impact on their operating budget.

If the City of Fredericksburg were to purchase this type of system, it is recommended that five (5) handholds be purchased. This will allow for immediate replacement of a malfunctioning unit and will allow each officer a spare.

The cost of this system will most likely range from \$40,000 to \$100,000 based on the level of equipment and software desired. This cost will also be affected by any required interfacing with State and County software systems currently in place for vehicle identification and court purposes. Pricing will also be dependent on the level of communication required by the City of Fredericksburg as systems can be as exotic as real time wireless devices that communicate all citation data back to the main terminal at the time of issuance so all data is in the mainframe system before the end of each shift. This allows citation holders to make a payment at the office with all information already in the system before the officer ends his or her shift and downloads data for processing.

The following depicts a typical handheld enforcement device:



Cities that now use handheld citation issuance devices include:

- New Brunswick, NJ
- New York City, NY
- Miami Beach, FL
- Washington, D.C.
- Frederick, MD
- West Palm Beach, FL
- Philadelphia, PA
- San Francisco, CA

Whether parking citations are issued by a parking enforcement officer who patrols the downtown or by sworn police officers who are patrolling larger areas of the City, all parking citations would be processed by the Parking Division.

#### **7.4.1 Recommendations**

Parking enforcement is *the* foundation of any municipal parking program. Without the proper level of enforcement of all posted parking regulations, the use of on-street parking by other than short-term users will occur and result in a lack of available on-street parking and off-street facilities being underutilized. Without consistent and proper parking enforcement efforts, the public perception of readily available curbside parking will also be diminished. For any of the operational recommendations found in this report to be effective, it is essential that parking enforcement efforts in the study area be completed in such a manner to exhibit to the public that failing to follow the posted parking regulations will result in a parking citation.

Parking industry staffing guidelines dictate 1 parking violation officer per 200-300 parking meters and/or 300-400 unmetered/restricted on-street spaces. These guidelines relate to 2-hour metered/restricted spaces. Shorter duration spaces require additional personnel. As noted earlier, there some 2,136 public on and off-street spaces within the study area and based on this inventory number one must conclude that additional parking enforcement officers are needed to achieve proper coverage. Given the large amount of resident permit-only parking areas in the study area there is a need to patrol these areas to insure compliance with posted regulations. However, the need to patrol them is not as frequent as in timed parking areas. Based on the characteristics of Fredericksburg's parking inventory, it is recommended that the downtown and adjacent residential areas employ a program that provides rotational coverage a

minimum of every two hours during all posted regulation periods. At a minimum, this would call for the following staffing:

Monday – Friday: 2 full- time employees (8:00 AM until 5:00 PM)

1 part-time employee (lunch breaks)

It is recommended that the City of Fredericksburg transfer all parking citation management responsibilities to the newly formed Parking Division. This will allow for dedicated personnel to enforce parking regulations. This consolidation of efforts will also allow the Parking Division to track parking citations from date of issuance to date of payment and take the necessary action required to track down citation holders who refuse to pay.

There are several approaches the City of Fredericksburg can take to pursue citation holders who refuse to pay their outstanding fines. Most states allow for the restriction of vehicle registration renewal for owners with three or more outstanding fines or fines that equal a preset dollar amount. Basically, this approach will capture a good majority of those individuals who refuse to pay. Another option available to the City is its existing booting program. Booting is preferred over towing given an added “shame factor”. Booting and towing programs can be further enhanced through the use of a collection agency who as a last resort will attach each respective scofflaw’s credit report.

Another strategy that a municipality can employ to discourage repeat parking offenders is the use of a graduated parking fine structure. For example, if a parking enforcement officer identifies a vehicle that has not previously received a parking citation, that individual would receive a warning. No fine would be levied. If that vehicle is identified a second time, within a predetermined period, that vehicle would receive a parking citation at the base rate. A third violation would receive an increased fine. A fourth violation would require an even higher fine. A fifth violation would require the booting of the vehicle. Such a tiered system is only possible through the use of handheld ticket issuance technology.

Parking fines should be structured to the point that it is not convenient or cost-effective to receive a citation in lieu of not complying with the posted parking regulations. A recommended fine structure would look like the following:

- 1<sup>st</sup> Citation - Warning
- 2<sup>nd</sup> Citation - \$15.00
- 3<sup>rd</sup> Citation - \$25.00
- 4<sup>th</sup> Citation - \$40.00
- 5<sup>th</sup> Citation – Booting Fee \$50.00 + \$40.00 Citation Fee

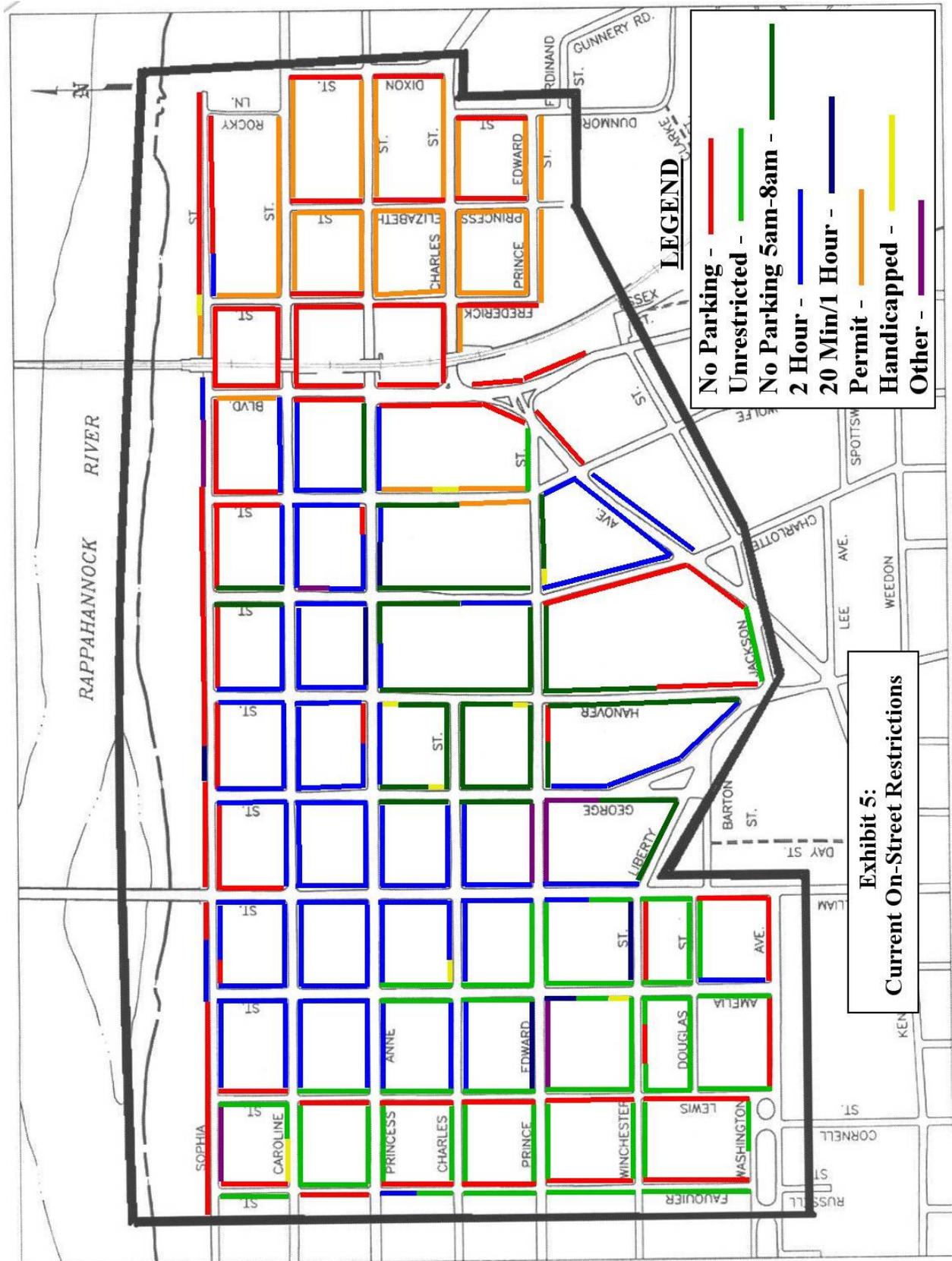
Citations not paid within ten (10) business days should have a late fee assessed. This fee should be levied at \$10.00 after ten (10) days and \$25.00 after thirty (30) days. A similar fine structure is used by the city of Williamsburg, Virginia.

It should be pointed out that parking enforcement personnel are not solely responsible for the issuance of parking citations. As City employees and representatives of City government and the downtown business district, parking enforcement personnel would also act as parking concierges to the public, providing direction to convenient parking locations, information on parking policy, and guidance to dining and shopping destinations. They also act as the eyes and ears for the City’s Public Works Department, noting locations of cracked sidewalks, deteriorated or missing signage, landscaping/maintenance needs, and waste/trash removal.

## **7.5 On-Street Parking**

The City’s most significant parking resources is its curb-site spaces (on-street). Even with the completion of the Municipal Garage (297 spaces), on-street spaces will outnumber off-street spaces by nearly 4 to 1 (1895 vs. 538). On-street spaces are the most convenient and easily identifiable. As such, they are traditionally managed so as to encourage turnover. Properly enforced, one on-street parking space could serve 8 different parkers throughout the day presuming that the spaces turnover once every two hours. Given this access potential, one can clearly see the negative impact that long-term parking has on accessibility.

As illustrated on Exhibit 5, there are a number of on-street parking restrictions within the study area including 20 minute, farmers market, handicapped, permit only, unrestricted, restricted between 5AM and 8AM and 2-hour parking. Posted two-hour restrictions dominate the key commercial corridors of the City, namely Caroline Street, Princess Anne Street, and William Street.



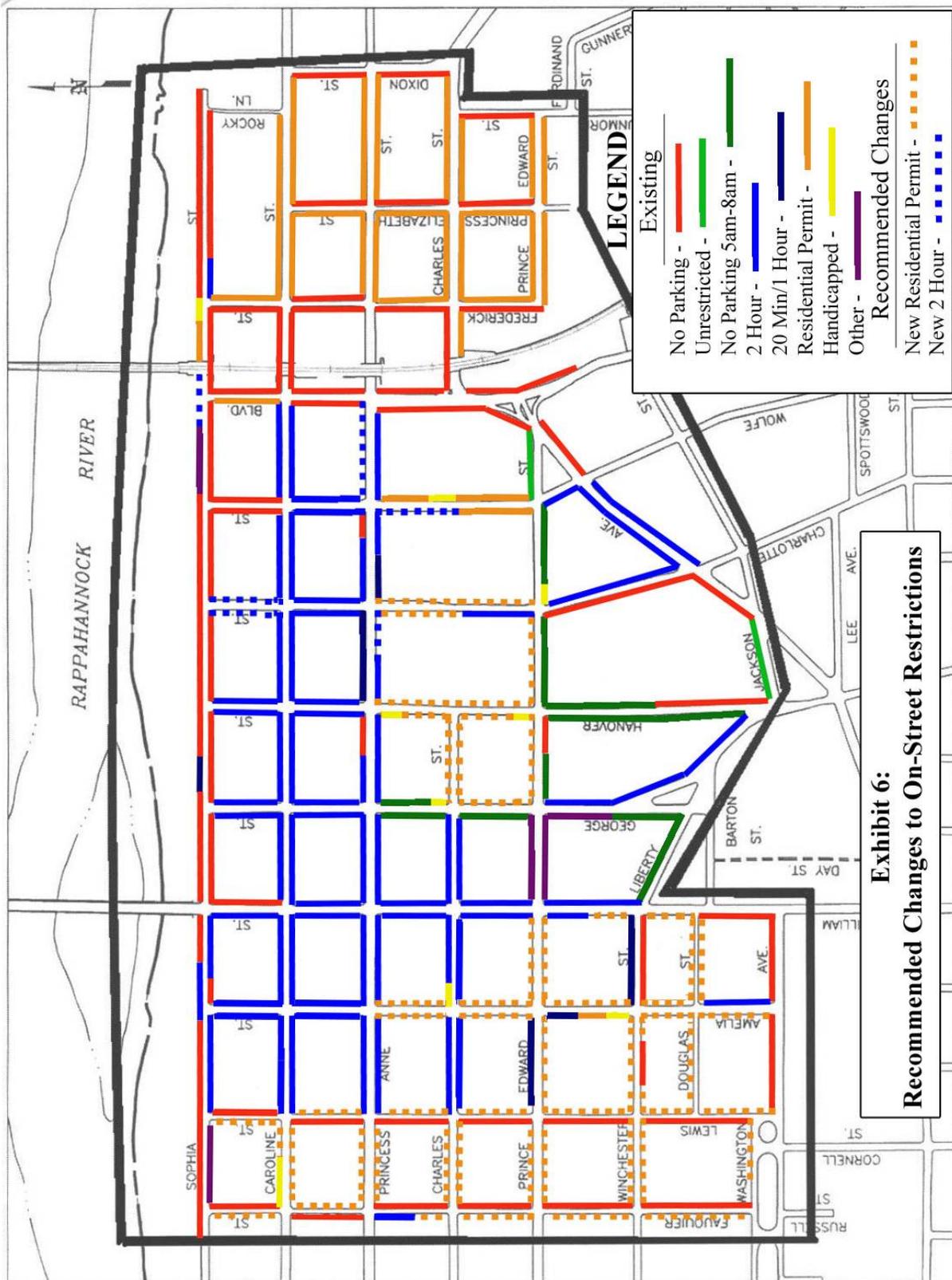
As noted previously, it is unclear whether the range of on-street restrictions, particularly the critical 2-hour only spaces, is being adhered to by the parking public. While the balance and distribution of parking restrictions appears on the whole appropriate, permit restrictions in residential areas, 2-hour restrictions in commercial areas, it is suggested that all curb side spaces along the two key commercial corridors of Carolina Street and Princess Anne Street between Lafayette Boulevard and Amelia Street be converted to 2-hour spaces (existing handicapped accessible spaces should remain).

### ***7.5.1 Recommendations***

Existing restrictions on residential parking in the study area would remain, in effect, unchanged. However, it is suggested that the residents to the small number of “town homes” within this area should be permitted to obtain special residential parking permits to allow them (2 per unit) and a controlled number of guests (upon request) to park for unlimited periods within close proximity to their properties.

As employees and other long-term parkers may be displaced with the introduction of increased parking fines and increased levels of parking enforcement, the City will need to expand the residential permit only area and reconsider the number and location of “No Parking 5AM–8AM” spaces. The City’s new parking manager would be responsible for the administration of the residential permit program and the City’s expanded enforcement staff would need to patrol those areas occasionally. These residential permits should be free of charge. Exhibit 6 illustrates the recommended on-street parking restrictions pattern.

It should be noted that the recommended change to on-street restrictions illustrated on Exhibit 6 would be applicable and appropriate under the current timed parking program or if the City were to institute a paid parking program in the future.



## 7.6 Off-Street Parking

Excluding the soon to be completed municipal garage and the resident only VRE station commuter lot, the City of Fredericksburg operates and manages five publicly available surface lots (see Exhibit 3) that have a capacity of 241 spaces. The City does not charge for parking in these facilities. With the exception of the small Visitor Center lot, each lot exhibited some level of physical deterioration and need for upgrade. The surface parking lots at the corner of Sophia and Charlotte Street is referenced to by the City as the “Porous Paving” Lot as that is exactly the surface treatment. The Sophia Street lots did not appear to be well maintained given the overgrown vegetation, the weathered signage, and, in the cause of the ‘Porous Paving” lot, beer cans, bottles, and plastic cups. Even under these conditions the lots were heavily utilized (98% occupancy) during the peak weekday period.

### 7.6.1 Recommendations

It is the intention of the City of Fredericksburg to keep existing off-street parking lots free of charge for its parkers. In an effort to provide the perception of readily available parking, it will be necessary to properly enforce all parking regulations to promote the turnover of on-street spaces and force long-term users into off-street facilities.

Off-street parking will capture the parkers who require more than two hours of parking. Presuming that a significant number of long-term parkers have been “encouraged” to relocate from 2-hour on-street spaces the parking system needs to be prepared to accommodate their parking needs. Therefore, it is recommended that a portion of each of the Sophia Street lots be designated for permit parking. An employee or downtown resident would be asked to purchase a parking permit that allows them to park in specific sections of specific lots. Less convenient sections of each Sophia Street lot would be signed for permit parking only. DESMAN suggests that 20% of the vehicles parked along Carolina and Princess Anne Street parked in excess of the 2-hour restriction. Therefore, of the approximately 400 spaces within this area, as many as 80 spaces (20% of 400) are being used by longer-termed parkers. Under this presumption, the City should assign 80 spaces within/between the three Sophia Street lots for permit parking to meet the needs of those who would be relocated. Note that these would not be reserved spaces, only designated areas were permit holders are allowed to park for long periods of time. The user, whether a resident of an apartment or a downtown employee, would have to complete a permit application form and agree to the policy and procedures for parking. The City’s parking manager would

need to monitor the request for permits and the utilization of spaces to ensure a fair balance exists between short-term parking availability and long-term parking demand.

The condition of the three Sophia Street lots would need to be seriously upgraded and maintained. Identification signage needs to be improved, existing landscaping needs to be upgraded and maintained, and lighting levels need to be expanded. Additional/new lighting has to be created. Orientation markers (“you are here” signs) need to be placed near pedestrian pathways. The “Porous Lot” will require resurfacing and more consistent cleaning (given its adjacency to a restaurant/bar). Fortunately, the City’s historic scale and aesthetic does not require costly improvement to the walkways that lead from these lots to Carolina and Princess Anne Street. These lots are conveniently located from both a long-term and short-term parker’s perspective.

It is important to note that it is the City’s intention to charge for parking at its new Wolfe and Sophia Street Garage while the remainder of its parking inventory remains free of charge. Experience with this type of fee structure will make it less attractive to use a paid parking facility when free parking exists.

## **8.0 PARKING EXPANSION AND IMPROVEMENT OPPORTUNITIES**

Although the need to build additional public parking structures in the near term, particularly an additional parking structure is not anticipated, the City must nonetheless be prepared to identify, preserve, and/or acquire property for future parking facilities. Therefore, this section of the report presents two parking development and land accumulation concepts; the first for the acquisition of land for peripheral intercept parking facilities and the second for acquisition of land for mixed-use development with integrated public parking.

### **8.1 Intercept Parking Facilities**

One strategic land planning approach that the City of Fredericksburg should consider is the identification, preservation, and/or acquisition of property for the development of intercept parking facilities. Given the difficulty in obtaining core area properties in Fredericksburg that are sufficient to support the development of public parking structures it would be more effective for the City to target larger, less historically and politically sensitive properties on the periphery of the downtown. Parking structures have inflexible design and development footprints, typically 124 feet by 240 feet, and therefore require rather large development parcels.

However, depending on the location, its proximity to core functions, anticipated users' acceptable walking distance from their car to their destination, and the aesthetics of the walking distance, a peripheral parking facility may need to be supported by a shuttle service. These shuttle operations can prove quite expensive as the average cost per one hour of operation can equal between \$30 and \$45. This cost includes capital cost, maintenance costs, operating costs, insurance, and personnel salary and benefits. A shuttle service that was developed for the City of Frederick, Maryland and which ferries downtown employees from a minor league baseball stadium to select stops downtown costs the City \$240,000 per year. While the tour bus program that currently operates in Fredericksburg could be expanded to capture riders associated with an intercept parking facility, the cost would still be quite high.

Disregarding shuttle operating costs, two sites that could support structured parking and act as an intercept facility have been identified; the City owned/operated VRE lot (illustrated on Exhibit 7a), and the "Free-Lance Star/Maury" lot along William Street (see Exhibit 7b). Each exhibit illustrates the





general footprint requirements for a parking structure. It would appear that the City/VRE site could support a three-bay parking structure with as many as 450 spaces on grade plus 3 supported levels. This facility could meet the needs of VRE riders and some downtown employees during the daytime and shoppers and visitors during the evenings and weekend. Because this site is located on the south side of the railroad tracks and is in close proximity to the Sophia Street municipal deck, a shuttle service would need to be created that links that facility with the Visitor Center and the intersection of William and Carolina to the north. Though located several blocks from critical downtown parking demand areas and though it would be located near a new public parking structure the site does have merit in that 1) the City controls the land, 2) the site could support both structured parking and mixed use development (office, retail, and/or residential), and 3) increased VRE ridership will only increase the demand for parking in this area and, possibly, VRE's interest in some type of development partnership.

The "Free-Lance Star/Maury" site's footprint significantly limits the efficiency and capacity of a parking structure but could support a small deck nonetheless. It is estimated based on the boundary of the site that a grade plus 3 supported level parking structure could support as many as 220 parking spaces. A parking structure on this site would meet the needs of Free Lance Star employees, employees who work in shops/offices along William Street, and could support development objectives of the Maury Center. Like the City/VRE site, however, a shuttle system would need to be introduced if this facility wished to attract Carolina and Sophia Street shoppers and visitors.

## **8.2 Mixed-use Developments and Public Parking**

A second parking development concept involves the redevelopment of large centrally located parcels by a private sector development but with design/development requirements that promote the development and provides publicly available parking. Generally, private sector development initiatives include acquiring the necessary land for the development of a mixed-use project, which could include office, retail, residential, and entertainment components. A municipality supports this development through government approvals and, in the case of structured parking, space requirements, design standards, operating standards, and funding (the latter being the key component for the developer). In effect, the developer is paid to provide more parking than their project requires and is required to operate these spaces as a public parking facility. Alternatively, the municipality develops the public parking structure as development infrastructure and ensures that the developer's project will enjoy sufficient, easily accessible, and fairly priced parking.

One property in Fredericksburg that may possess the necessary redevelopment components is the Post Office site (see Exhibit 7c). This is a large, centrally located property. The site could accommodate either a stand alone parking structure or one that is integrated into a commercial/residential development. Given the high cost of developing integrated structured parking it is suggested that a stand alone facility with convenient pedestrian access/bridges be anticipated. Presuming that a 124' by 240' development footprint could be preserved for the parking structure, a highly efficient structure could be developed. A grade plus 3 supported level deck on that site could support as many as 360 spaces. If a 100,000 square foot commercial project with 50 apartment units were developed on that site, that project would require approximately 260 spaces (200 for the commercial, 60 for the apartments), then 100 spaces would be available for the general public.



## **9.0 FISCAL IMPACT OF RECOMMENDATIONS**

It has been recommended that a newly created Parking Division operate under an Enterprise Fund model where costs and expenses are supported by operating revenues. To evaluate if this definition is feasible, the following analysis combines the various costs associated with estimates of the City's current parking operation (street cleaning, maintenance, lighting, administration) and the costs associated with operational recommendations (Parking Division, parking manager, and additional staffing).

Note that the cost and revenue figures presented herein are purely estimates and, as such, it should not be considered a capital and operating budget for this new division. The analysis is an attempt to illustrate the parking system's fiscal strengths or weaknesses.

### **9.1 Recommendations on Current Operating and Maintenance Costs**

For purposes of this analysis, recommended on-street, surface lot, and structured annual per space maintenance costs are being used to evaluate both the City's current operating cost and the Parking Divisions' anticipated costs. These estimated industry figures for cleaning, painting, snow removal, lighting, and administration should be the fiscal basis on which the Parking Division operates and upon which an enterprise fund condition would be determined.

Regarding on-street operating and maintenance costs, it is anticipated and recommended that \$25 per space per year be set as the budget target for on-street spaces in the study area. In all there are 1,895 on-street spaces within the study area. This number does exclude curbed no parking Sub-areas which do require some painting, signage maintenance, and other operating/maintenance costs. Nonetheless, using the \$25 per space per year cost suggests that the Parking Division's budget for on-street operating and maintenance should be approximately \$50,000.

Regarding surface lot operating and maintenance costs, an industry based recommendation suggests that \$50 per surface space per year be established. This cost is higher than curbside operations and maintenance because of periodic resurfacing requirements, additional landscaping requirements, additional signage, and more extensive lighting/safety requirements. There are 241 surface lot spaces within the study area. Therefore, the annual surface lot operations and maintenance costs should be roughly \$12,000. Note that this figure does not include the recommendation that the City resurface the

“Porous Lot” site. This one-time capital cost to resurface this 38-space, 15,000 square foot lot is estimated at \$12,000 (\$8.00 per square foot). Finally, as the Parking Division, through the Department of Public Works, will be responsible for the new municipal parking garage, it is suggested that a budget of \$300 per space per year be established for this unmanned, 297-space structure (annual operating and maintenance budget of approximately \$89,000 excluding salary and benefits).

**9.2 Recommended Parking Division Operating Costs**

It has been recommended that the newly created Parking Division should have a parking manager, 2 ½ parking enforcement officers, and an attendant at the new garage. The Division’s budget should include only one-half of the staffing cost of the new municipal parking garage (building/garage supervisor). One-half is deemed appropriate as this individual will also be responsible for the building functions within the Executive Plaza and other public buildings. In addition to personnel and benefits costs, the Parking Division must anticipate some hardware, software, and administrative costs, most notably the purchase and utilization of a handheld ticket issuance system. Table 14 illustrates an anticipated first year operational budget based on the recommended organizational structure, which also identifies the cost for non-recurring capital items such as motor vehicles for parking enforcement staff.

**Table 14**  
**Anticipated First Year Operating Budget**

	<b>Annual</b>	<b>One-Time</b>
	<b><u>Expenses</u></b>	<b><u>Capital Expense</u></b>
Salaries	\$190,000	---
Benefits (32%)	\$ 61,000	---
Overtime (5%)	\$ 9,500	---
2 Enforcement/Fleet Vehicles	---	\$ 45,000
Fuel	\$ 5,000	---
Hangtag/Permit Cost	\$ 3,000	---
Handheld Ticket Issuance System	---	\$100,000
Uniforms	\$ 1,000	---
Misc. Office Supplies	<u>\$ 1,200</u>	---
	\$ 270,700	<u>\$ 145,000</u>

Salary costs, by far the most significant, presumes that the parking manager’s salary would be \$50,000, the building/garage supervisor’s salary \$42,000 with an enforcement officer’s salary estimated at \$32,000. The handheld ticket issuance system includes 5 handheld units, training, and all field and office hardware and software. It should be noted that some of the identified operational costs might already be

realized under the present method of operation. However, to properly evaluate the cost of consolidating the parking program it is critical to identify all costs.

Excluding debt service costs of existing and/or future parking facilities but include estimated operations and maintenance costs of on-street and off-street facilities, it could be estimated that the parking system would cost approximately \$421,700 annually (\$270,700 staffing and division costs plus \$151,000 facility operations and maintenance costs). Based on the 2,426 total on and off-street spaces that will be within the study area upon completion of the municipal garage, the parking system cost would equate to \$174 per space per year.

### **9.3 Potential Public Off-Street Revenue**

To summarize, it has been recommended that the City concentrate its 2-hour parking along in commercial areas along Carolina and Princess Anne Street. Appropriate turnover and utilization of these spaces would be encouraged through enforcement and fines. As such, the City’s on-street system would not generate any user based parking revenue. Recommended parking rates in the municipal garage could be structured as follows.

< 2 Hours -----	Free
3-4 Hours -----	\$3.00
4-5 Hours -----	\$4.00
5-6 Hours -----	\$5.00
6-7 Hours -----	\$6.00
7-8 Hours -----	\$7.00
> 8 Hours -----	\$8.00 (“max all day”)
Monthly Permit --	\$60.00

The monthly permit rate for the estimated 80-90 monthly parking spaces in the three Sophia Street lots would also be set at \$60. All other on-street and off-street parking spaces would be free of charge presuming the parker follows all posted parking restrictions. If one-half of the spaces in the 297 space municipal garage would be occupied by monthly permit parkers (a conservative assumption) and that 80 monthly permits would be purchased for the Sophia lots then the monthly permit program could generate \$162,000 annually (225 permits \* \$60 \* 12 months).

While the first 2 hours of parking in the municipal garage would be complementary some parking revenue from transient parkers who park longer than 2 hours must be assumed. If only 20 vehicles per weekday park in the garage for an average duration of 4 hours (\$4.00 fee) then the garage would generate \$20,000 annually from transient activity.

In total, a parking program with these characteristics could generate \$182,000 per year. In comparison to the recommended operating budget for the Parking Division (\$421,700), the parking operation would cause an operating deficit of \$239,700 per year. It is important to note that the greatest unknown is the level of demand for a paid parking facility that is part of an overall free parking system. This unknown will greatly affect the annual income generated by this facility.

#### **9.4 Parking System's Financial Feasibility**

Obviously, this revenue is also insufficient in covering existing or future parking development debt service costs. This is the realism of mostly free public parking infrastructure. The cost to develop and maintain a parking system is almost always greater than the revenue that can be generated. Municipalities that can pay for the basic operations and maintenance costs are "ahead of the curve". Some municipalities can even fund the development of additional parking facilities by using the enterprise or revenue bond capabilities, i.e., existing revenue generating facilities are paid for and have no debt associated with them. This is why parking structures and public parking systems are best viewed as a utility or as public infrastructure. Parking's value is not in the direct revenues or profits that it generates but in the added value it provides to nearby/adjacent land use activities. Like roads, sewers, and electrical utilities, parking provides a basic public service, increases the viability or success of a particular activity (offices, shops, restaurants, etc.), and, in turn, increases the revenue stream associated with property and sales taxes. However, the costs associated with effective parking operations cannot be ignored, for if they are the functions critical to successful operations will be ignored and the program will deteriorate.

## **10.0 ALTERNATIVE FUNDING MECHANISMS**

It may be necessary that the City identify some mechanism to fund the recommended parking system improvements for “what gets funding gets done”. Given this and the sensitivity regarding user based funding (on and off-street parking revenue) the City needs to examine the pros and cons of alternative funding mechanisms. While financing the parking program via budget requests of the City’s General Fund is always a possibility, this examination chose to focus on more creative mechanisms that would not directly impact the General Fund.

### **10.1 Tax Increment Financing / Special Tax Districts**

Tax Increment Financing (TIFs) has been authorized by most state legislations to permit a certain portion of a municipal property tax to be levied on property in a designated development district and placed in a special fund to be used to support improvements within that district (funding operational budgets and repaying issuance of bonds). The benefit of such legislation creates a taxing district where tax revenues may be applied toward the creation of public facilities or public programs which would directly benefit those businesses that exist within the tax district.

These tax districts, however, generally draw revenues away from the general fund, thereby lowering the amount of City revenue which supports other publicly finding activities such as police and fire, education, park and recreation, etc. If enacted as a separate and additional taxing mechanism they add an additional burden on property owners. For example, if the City of Fredericksburg and the required majority of property owners agree to create a special taxing district to fill the funding gap in annual parking operations, those property owners would need to generate \$239,700 annually (see previous operating estimate). Information provided by the City identified roughly 1,010,000 square feet of commercial/residential space in Sub-area A and 619,000 square feet in Sub-area B, the two Sub-areas that would benefit most directly from the recommended parking improvements. Based on the annual operating costs and the total commercial/residential space in Sub-area A and B, property owners in those areas could be asked to pay an additional annual tax equal to \$0.15 per 1,000 square feet. It should be noted that DESMAN did discuss in general terms the nature and value of a special tax district with downtown stakeholders and found from this sample of individuals that any proposal related to additional taxes on property owners would be summarily rejected regardless of the amount or benefit.

## **11.0 IMPLEMENTATION PROGRAM OF RECOMMENDATIONS**

Given the variety of subject matter included as part of this assignment, the necessary steps to meet basic parking management, maintenance, and development goals may have been lost. Though not an Executive Summary, the following bullets simplify the presentation of recommendations. Each represents a “rung” that is necessary to reach the next level of recommendation. Note, however, the recommendations present here represent a “package” of improvements that must be implemented together. These recommendations are not a menu of strategies to choose from, but a consolidated series of steps towards a better parking program.

### **11.1 Immediate Steps (0-6 months)**

- Adopt recommendations in municipal parking garage’s Standard Operating Procedures manual
- Communicate with the public the reasons for parking improvements and changes through print media and public meetings.
- Upgrade parking signage and directional wayfinding
- Increase fines for parking violations

### **11.2 Near-Term Steps (6-18 months)**

- Create a Parking Division and centralize all parking functions (\$421,700 budget)
- Hire a Parking Manager/Manager (included in Division budget)
- Hire two full-time and one part-parking parking enforcement officer (included in Division budget)
- Purchase fleet vehicle, computers, and handheld ticket issuance technology and supportive hardware and software (one-time capital cost)
- Institute monthly permit parking program in Sophia Lots and card access program in the municipal garage
- Introduce pedestrian “orientation” kiosks in lots/garage

**11.3 Long-Term Steps (18 months – 2 years)**

- Work with downtown employers regarding an employee permit parking program.
- Evaluate specifics of a Special Tax Districts as a source of revenue to support the parking system
- Re-surface “Porous Paving” lot
- Improve landscaping and lighting levels in the three Sophia Street lots

These are rather basic and comprehensive steps toward the development of an effective public parking system. However, there are many decisions that are interrelated. Although this report does not map out the complex web of actions and reactions that ultimately occur in a public parking system, it does represent base and direction upon which effective decisions can be made.