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DOWNTOWN PARKING STUDY

## CHARLES TOWN PARKING STUDY

CHARLES TOWN, WEST VIRGINIA

Prepared for:  
CITY OF CHARLES TOWN

FEBRUARY 9, 2011



**WALKER**  
PARKING CONSULTANTS



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February 9, 2011

Joseph Cosentini  
City Clerk  
City of Charles Town  
101 East Washington Street  
PO Box 14  
Charles Town, WV 25414

Re: Downtown Parking Study  
Walker Project No. 14-3696.00

Dear Joe:

Walker Parking Consultants is pleased to submit our parking study for the City of Charles Town. This report presents a draft of our findings and recommendations regarding parking for the downtown area.

We appreciate the opportunity to be of service on this project, and look forward to discussing our findings with you at your earliest convenience.

Sincerely,

WALKER PARKING CONSULTANTS

A handwritten signature in blue ink that reads "Carolyn H. Krasnow".

Carolyn Krasnow, Ph.D.  
Principal

A handwritten signature in blue ink that reads "Megan Gardo".

Megan Gardo  
Parking Analyst

# DOWNTOWN PARKING STUDY

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FEBRUARY 9, 2011

PROJECT #14-3696.00

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## EXECUTIVE SUMMARY

Walker Parking Consultants was retained by the Delta Development Group and the City of Charles Town to conduct a study of the City's downtown parking system. The downtown contains both City and County offices, as well as retail and other commercial space. In addition, APUS has grown as a presence in the area, with 14 offices in Charles Town.

Parking is a concern in the town. Some residents and business customers feel parking is difficult. Some businesses have been reluctant to locate downtown, in part because of the concern over adequate parking. In order to understand parking conditions now, and to plan for near-term improvements and longer-term growth, the City commissioned a parking study to clarify the following issues:

- Is the parking supply adequate under current conditions? If not, what is the deficit?
- Will the parking be adequate 10 years from now?
- Is the parking code up to date?
- If new parking is needed or desired, what are the best locations for augmenting the supply?

The current draft covers the first three questions; the fourth issue will be covered in a subsequent report, pending input from City staff and other stakeholders.

To prepare the report, Walker met with stakeholders to understand their concerns about, and perceptions of, the parking system. In addition, Walker conducted field surveys to quantify the parking supply and typical utilization rate.

Our occupancy counts found weekday occupancy to be approximately 67 percent at 11 a.m. and 65 percent at 2 p.m. Over 300 spaces remained available in the parking system, though more than half of these were in private lots that are not currently available to the general public. Some areas were quite crowded – Washington Street was at or near 100 percent occupancy all day. Some of the side streets near Washington also had high occupancy rates, as did the County lot and two of the three City lots. Most of the available public parking was at the periphery of the study area, including the public lot at Lawrence Street.

It should be noted that APUS had not yet moved in to its new building just north of the study area, so all APUS parkers were still using the downtown parking system. This may continue to be true even after the new building fills, as APUS may “backfill” existing downtown offices.

Per discussion with stakeholders, future growth is anticipated to occur slowly. Downtown is largely built out already, so major new square footage is unlikely. The Court will be expanding and will add one new courtroom, so jury and other courtroom-related traffic will increase somewhat. The population of the town is expected to start growing again as we come out of the recession; for the purposes of this analysis we assume no growth for three years, then 2 percent per year for the following seven years. At this growth rate, the parking system will still be adequate to accommodate growth in 10 years time, assuming APUS continues to build on-site parking as it has started to do.

Given the current surplus and projected adequacy of the parking system over the next ten years, we do not think a parking structure needs to be planned at this time. However, the following caveats should be noted:

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1. While there is not an overall shortage of parking, there are impacted areas. So while there are enough spaces throughout the area, there are not always spaces where people want them. This is likely what is creating concerns on the part of would-be business owners, and complaints from jurors and retail customers. The report outlines measures that can be taken to create a better balance, so that underutilized areas can be made busier to take pressure off prime on-street parking areas.
  - The option that has the greatest ability to improve parking is to create shared parking agreements that allow other entities to use private parking lots that are underutilized. There is a significant existing resource in the private lots. If on-street permit holders can be shifted to these lots, it will decrease the on-street parking occupancy and make spaces available for downtown visitors. Property owners can make some extra revenue from the permits. Shared parking can be encouraged between private owners as well.
  - Other suggestions include limiting use of on-street permits in higher-traffic areas near Washington Street, working with the County to plan a solution to the jury parking problem, and looking further into the cause of congestion on Washington Street. If the heavy occupancy along Washington Street (nearly 100% all day when we counted) is partly due to employees moving their cars around all day, regulations need to be put into place to minimize this type of usage and make room for visitors. The goal of all parking management measures should be to enable short-stay visitors to find convenient parking near key destinations like retail and government offices. It is acceptable to have employees park a little farther from destinations, since they can navigate the area better and tend to stay longer.
2. Although parking is adequate, stakeholders mentioned some initiatives of interest to the City that would require parking construction as a redevelopment tool.
  - One is the possibility of creating an intermodal hub at Washington Hall for a commuter connection. Commuter parking would need to be built if buses are going to depart for Harper's Ferry and/or Martinsburg. Commuter parking is unlikely to generate enough income to support garage construction; a large-scale intermodal project would be more feasible with a transportation grant, if available.
  - Another possibility is for the City to lease the "Down Under" lot to provide additional parking for the County, and potentially move some permit parkers from meters to this off-street resource. The owner of the lot is considering leasing it for roughly \$16,800 annually.
  - Some stakeholders mentioned the possibility of a joint venture to provide parking north of the study area, to serve APUS and/or other brownfield development, and possibly the County. It is not clear what the City's involvement would be in such a project, but a public/private joint venture is a likely scenario and a TIF district has been discussed. Again, construction costs make it difficult to support garages on monthly permit fees alone.

Finally, our study evaluated City codes for parking. We suggest minor changes to the geometrics standards for parking stalls, and minor changes to the parking stall requirements. Our key recommendation is to allow a reduced ratio for downtown restaurants, since the mixed-use nature of the area will allow restaurants to operate with less parking than is needed at a stand-alone facility.

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## INTRODUCTION

The City of Charles Town is the County seat of Jefferson County. The downtown area of the City includes commercial and residential space, City Hall, and the County Courthouse and offices. In recent years, American Public University System (APUS) has made Charles Town its headquarters.

The downtown area is busy on weekdays, with APUS, City/County, and commercial employees and visitors vying for parking spaces in the downtown. Some visitors and jurors complain that parking is insufficient, and some businesses have chosen not to locate in the downtown area because they are concerned that the lack of parking will reduce business. To help find solutions to these issues, and to plan for future growth, the City has retained Walker Parking Consultants to conduct a parking supply and demand analysis of the downtown.

## REPORT ORGANIZATION

Walker's scope of work for this project includes the following:

- Conduct a supply and demand analysis to understand parking patterns in the downtown, and to project future parking needs.
- Evaluate the City's parking code.
- Evaluate options for augmenting the off-street parking supply.

The current study includes the first two tasks. Options for augmenting the off-street supply will be done separately, pending discussion of this draft report and findings with City staff.

## STUDY METHODOLOGY

In order to complete the objectives of this study, Walker conducted a physical inventory of all parking spaces within a defined geographical area of study. The inventory was tabulated by block and categorized by on-street or off-street, public or private. Occupancy counts were taken, resulting in a tabulation of the physical number of vehicles found utilizing parking spaces. Two counts were taken on November 16, 2010, between 11:00 a.m. and 2:00 p.m. The date was selected to capture typical activity in the downtown area. By comparing the supply with the observed occupancy of the parking facilities on a block-by-block basis, Walker was able to determine the occupancy levels of each block and quantify specific demand for each block.

## STUDY AREA

The Study Area was chosen through discussion with The City and Delta Development Group. It consists of approximately 12 city blocks located in the central business district, bordered by North Street to the North, Mildred Street to the East, Congress Street to the South and Lawrence Street to the West. Walker was also asked to consider the Down Under lot located at the corner of North and George Street and the Ranson Community Center Lot, located to the northwest of the newest American Public University System (APUS) building. A map of the complete Study Area is detailed in the following figure.

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Figure 1: Study Area Map



Source: Google & Walker Parking Consultants, 2010

## CURRENT CONDITIONS

To understand current conditions, we evaluated the parking system from both a quantitative and qualitative perspective. The quantitative analysis consisted of a field survey, which will be described in detail below. The qualitative information came from interviews with stakeholders who are involved with the parking system every day.

## STAKEHOLDER INTERVIEWS

As part of the research on current conditions, Walker interviewed City staff and six stakeholders in the town. Stakeholders were selected by City staff and Council. As of the writing of this draft, two additional stakeholders have been unavailable. The six interviewed include:

- Mayor Smith
- City Councilwoman Ann Paonessa
- County Administrator Tim Boyde
- Noah Merkhams, Developer (Brownfield site for APUS)
- Joseph Sladki, APUS Director of Facilities,
- Bob Barroner, President of Bank of Charles Town

Circuit Court Clerk Laura Ratteni was also consulted regarding juror parking issues.

Each interviewee had unique input regarding the parking system, and their feedback informs this report throughout. Comments that came up repeatedly in interviews include:

- It can be difficult to find a space right near one's destination; sometimes it is necessary to drive around for a few minutes or park a block or two from a destination. Most interviewees did not consider this a problem, but suggested that people perceive a problem because they expect to park right where they are going. One interviewee felt the parking was difficult enough to be considered impacted.
- APUS has added a lot to the community. However, they generate a lot of on-street parking, which contributes to the lack of convenience for patrons and others. Most stakeholders mentioned that further growth of APUS should not impact public parking further. It should be noted that APUS had just constructed a new building that includes on-site parking, but the building was not yet open. APUS parking issues will be discussed below.
- Many interviewees also mentioned jury parking as problematic. Jurors are "on their own" for parking, as the Courthouse lot is restricted to County employees. Jurors also cannot park at the meters near the Courthouse, as they may not get back in the time allotted.

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- None of the interviewees see a lot of growth of square footage in the core downtown. Most of the growth will come from brownfield redevelopment along the lines of what APUS has recently accomplished. The core downtown is already largely built out; further growth of the commercial area will likely come from higher-generating businesses in the existing spaces.
- Several stakeholders mentioned that businesses are reluctant to locate downtown, in part because they perceive parking as problematic.

## PARKING DEMAND ANALYSIS

Walker conducted a full inventory and occupancy count of the parking supply in the study area, plus a few additional areas as requested by City staff. It should be noted that our counts were conducted after the new APUS building was complete but not yet open. The building is just north of our study area boundary. The extent to APUS will relocate offices (and therefore cars) from the study area to the new building was not available. If employees do shift from existing downtown buildings to the north and begin parking their cars in the new lot, that could decrease parking demand in the study area. However, it is also possible that APUS will “backfill” the downtown buildings and continue to use downtown parking at the same levels as it was doing during our counts.

## PARKING SUPPLY

Our inventory of parking supply in the study area found a total of 990± spaces in the Study Area. Table 1 shows the breakdown by block. Please note that the designations “public” and “private” have nothing to do with ownership, but rather with how lots are used. A public lot is any lot available to the general public for free or for a rate. A private lot is any lot, even if owned by a public entity, that is restricted to particular user groups (“customer only” or “County employees only,” for example).

There are a few lots to the north of our study area that City staff asked us to look at during the course of our study. Those lots are discussed in a separate section of the report.

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**Table 1: Parking Supply Summary**

Block #	Off-Street Supply			On-Street Supply				Total Supply
	Public Lot	Private Lot	Total	Meters	Res. Permit	Other	Total	
1	0	32	32	0	3	24	27	59
2	0	53	53	8	0	26	34	87
3	0	10	10	0	0	44	44	54
4	0	28	28	15	0	4	19	47
5	0	114	114	16	0	11	27	141
6	0	74	74	16	0	15	31	105
7	62	11	73	21	2	10	33	106
8	0	53	53	16	0	16	32	85
9	0	53	53	15	1	13	29	82
10	0	23	23	16	2	9	27	50
11	0	22	22	20	1	17	38	60
12	61	14	75	24	0	15	39	114
<b>Totals</b>	<b>123</b>	<b>487</b>	<b>610</b>	<b>167</b>	<b>9</b>	<b>204</b>	<b>380</b>	<b>990</b>

Source: Walker Parking Consultants, 2010

The City sells permits that allow the permit holder to park at any meter all day long. The permit does not assign a specific space or area, but enables the permit holder to use any meter they can find. Permits cost \$100 annually, but if more than 20 are purchased, the rate is \$200 per permit. Of the 270 permits currently distributed, 100 belong to APUS, 45 belong to the County.

## EFFECTIVE PARKING SUPPLY

When we evaluate the ability of a parking system to accommodate demand, we do not assume that every last space in the inventory can be used efficiently. When occupancy rates are very high, people have a difficult time finding the last few spaces, and circulation problems ensue. Also, there are inevitably mis-parked vehicles, minor construction, or other obstructions that prevent every last space from being used. Therefore, we consider a parking system to be at its “effective” capacity before it reaches 100 percent occupancy.

The analysis of the parking system uses a reduced, or “effective” supply adjustment to account for the circulation and operation cushions needed to make the system run smoothly. The reduction is 5 to 15 percent of the supply, depending on the following factors:

- Capacity – Large, scattered surface lots operate less efficiently than a more compact facility, such as a parking structure, which offers consolidated parking in which traffic generally passes more available parking spaces in a more compact area. Moreover, it is more difficult to find the available spaces in a widespread parking area than a centralized parking facility.
- Type of users – Monthly or regular parking patrons can find the available spaces more efficiently than infrequent visitors because they are familiar with the layout of the parking facility and typically know where the spaces will be available when they are parking.
- On-street vs. off-street – On-street parking spaces are less efficient than off-street spaces due to the time it takes patrons to find the last few vacant spaces. In addition, patrons are typically limited to one side of the street at a time and often must parallel park in traffic to use the space. Many times on-street

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spaces are not striped or are signed in a confusing manner, thereby leading to lost spaces and frustrated parking patrons.

In the current analysis, on-street parking is adjusted by a 15 percent effective supply factor, because of the relative difficulty of finding an open space while negotiating traffic. Public off-street parking is adjusted by 10 percent to account for user unfamiliarity and the challenges of safely navigating the area while searching for a space. Private off-street parking is adjusted by a 5 percent because employees or repeat users are familiar with the area and generally park in the same location each day. The Study Area contains a total of 990± spaces before any adjustments are made to account for an effective supply. After the effective supply factor is applied to the overall supply numbers, the Study Area’s effective supply is 894± spaces, as shown in Table 2.

**Table 2: Effective Parking Supply Summary**

Block #	Off-Street Public			Off-Street Private			On-Street Public			Total	
	Supply	Effective	Effective Supply	Supply	Effective	Effective Supply	Supply	Effective	Effective Supply	Effective Supply	Effective Supply
		Factor			Factor			Factor			
1	0	0.90	0	32	0.95	30	27	0.85	23	0.90	53
2	0	0.90	0	53	0.95	50	34	0.85	29	0.91	79
3	0	0.90	0	10	0.95	10	44	0.85	37	0.87	47
4	0	0.90	0	28	0.95	27	19	0.85	16	0.91	43
5	0	0.90	0	114	0.95	108	27	0.85	23	0.93	131
6	0	0.90	0	74	0.95	70	31	0.85	26	0.91	96
7	62	0.90	56	11	0.95	10	33	0.85	28	0.89	94
8	0	0.90	0	53	0.95	50	32	0.85	27	0.91	77
9	0	0.90	0	53	0.95	50	29	0.85	25	0.91	75
10	0	0.90	0	23	0.95	22	27	0.85	23	0.90	45
11	0	0.90	0	22	0.95	21	38	0.85	32	0.88	53
12	61	0.90	55	14	0.95	13	39	0.85	33	0.89	101
<b>Totals</b>	<b>123</b>	<b>0.90</b>	<b>111</b>	<b>487</b>	<b>0.95</b>	<b>461</b>	<b>380</b>	<b>0.85</b>	<b>322</b>	<b>0.90</b>	<b>894</b>

Source: Walker Parking Consultants, 2010

## PARKING OCCUPANCY

Occupancy counts were taken for all on- and off-street parking spaces on Tuesday, November 16, 2010. The date was representative of a typical weekday in Charles Town; no events were occurring and a typical jury was in session. Walker recognizes that while the survey day represents a “typical day” for the overall downtown area, there may be a specific land use that did not generate a typical level of demand.

Two counts were taken between 11:00 a.m. and 2:00 p.m. The following table summarizes the observed occupancy rates for on-street and off-street parking.

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**Table 3: Parking Occupancy Summary**

On-Street	380	264	69%	248	65%
Off-Street Public	123	93	76%	80	65%
Off-Street Private	487	307	63%	317	65%
<b>Total</b>	<b>990</b>	<b>664</b>	<b>67%</b>	<b>645</b>	<b>65%</b>

Source: Walker Parking Consultants, 2010

Occupancy rates as a whole do not indicate a shortage of parking. Overall, peak occupancy occurred with 664± vehicles parked or 67 percent occupancy. On-street and public off-street spaces were occupied at higher percentages (69 and 76, respectively) than the overall rate. The tables below illustrate the observed occupancy for on-street, public off-street and private off-street parking by block.

**Table 4: Parking Occupancy Summary – On-Street**

Block #	Supply	11:00 AM	Percentage	Surplus	2:00 PM	Percentage	Surplus
1	27	10	37%	17	11	41%	16
2	34	20	59%	14	19	56%	15
3	44	36	82%	8	30	68%	14
4	19	19	100%	0	20	105%	-1
5	27	22	81%	5	20	74%	7
6	31	25	81%	6	29	94%	2
7	33	21	64%	12	20	61%	13
8	32	26	81%	6	24	75%	8
9	29	22	76%	7	24	83%	5
10	27	12	44%	15	11	41%	16
11	38	26	68%	12	16	42%	22
12	39	25	64%	14	24	62%	15
<b>Totals</b>	<b>380</b>	<b>264</b>	<b>69%</b>	<b>116</b>	<b>248</b>	<b>65%</b>	<b>132</b>

Source: Walker Parking Consultants, 2010

Blocks 3, 5, 6 and 8 and 9 had occupancies over 80 percent during one or both occupancy counts. Each of these blocks included on-street parking on Washington Street. Blocks 5 and 6 also support the Judicial Center and City Hall. Given that on-street parking becomes impacted at 85 percent occupancy, these blocks are nearing their effective capacities. It should be noted that the block faces along Washington were observed to be at or near 100 percent occupancy all day.

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**Table 5: Parking Occupancy Summary – Public Off-Street**

Block #	Supply	11:00 AM	Percentage	Surplus	2:00 PM	Percentage	Surplus
1	0	0	0%	0	0	0%	0
2	0	0	0%	0	0	0%	0
3	0	0	0%	0	0	0%	0
4	0	0	0%	0	0	0%	0
5	0	0	0%	0	0	0%	0
6	0	0	0%	0	0	0%	0
7	62	54	87%	8	52	84%	10
8	0	0	0%	0	0	0%	0
9	0	0	0%	0	0	0%	0
10	0	0	0%	0	0	0%	0
11	0	0	0%	0	0	0%	0
12	61	39	64%	22	28	46%	33
<b>Totals</b>	<b>123</b>	<b>93</b>	<b>76%</b>	<b>30</b>	<b>80</b>	<b>65%</b>	<b>43</b>

Source: Walker Parking Consultants, 2010

There are three public parking lots in downtown Charles Town. The municipal lot on Block 7 is monthly permit parking only and is adjacent to the police station. There are two municipal metered lots on Block 12. The lot located at the corner of Charles Street and Congress Street was observed to be full throughout the day. The 41-space lot on Lawrence Street did not experience high utilization throughout the day.

**Table 6: Parking Occupancy Summary - Private Off-Street**

Block #	Supply	11:00 AM	Percentage	Surplus	2:00 PM	Percentage	Surplus
1	32	10	31%	22	11	34%	21
2	53	7	13%	46	14	26%	39
3	10	9	90%	1	9	90%	1
4	28	17	61%	11	25	89%	3
5	114	108	95%	6	93	82%	21
6	74	50	68%	24	46	62%	28
7	11	10	91%	1	8	73%	3
8	53	27	51%	26	36	68%	17
9	53	32	60%	21	26	49%	27
10	23	13	57%	10	24	104%	-1
11	22	15	68%	7	17	77%	5
12	14	9	64%	5	8	57%	6
<b>Totals</b>	<b>487</b>	<b>307</b>	<b>63%</b>	<b>180</b>	<b>317</b>	<b>65%</b>	<b>170</b>

Source: Walker Parking Consultants, 2010

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During peak parking conditions (11:00 a.m.), the private off-street parking was 63% utilized. Individual blocks, including small private lots and blocks 3 and 11 and the large County lot on block 5, experienced parking demands over 90 percent. Most other blocks experienced parking demand in the mid-sixties, indicating a significant surplus of spaces available. Overall, 170 spaces were available in private lots at the busiest hour.

The maps on the following pages color code the overall observed occupancy at 11 a.m. and 2 p.m., respectively.

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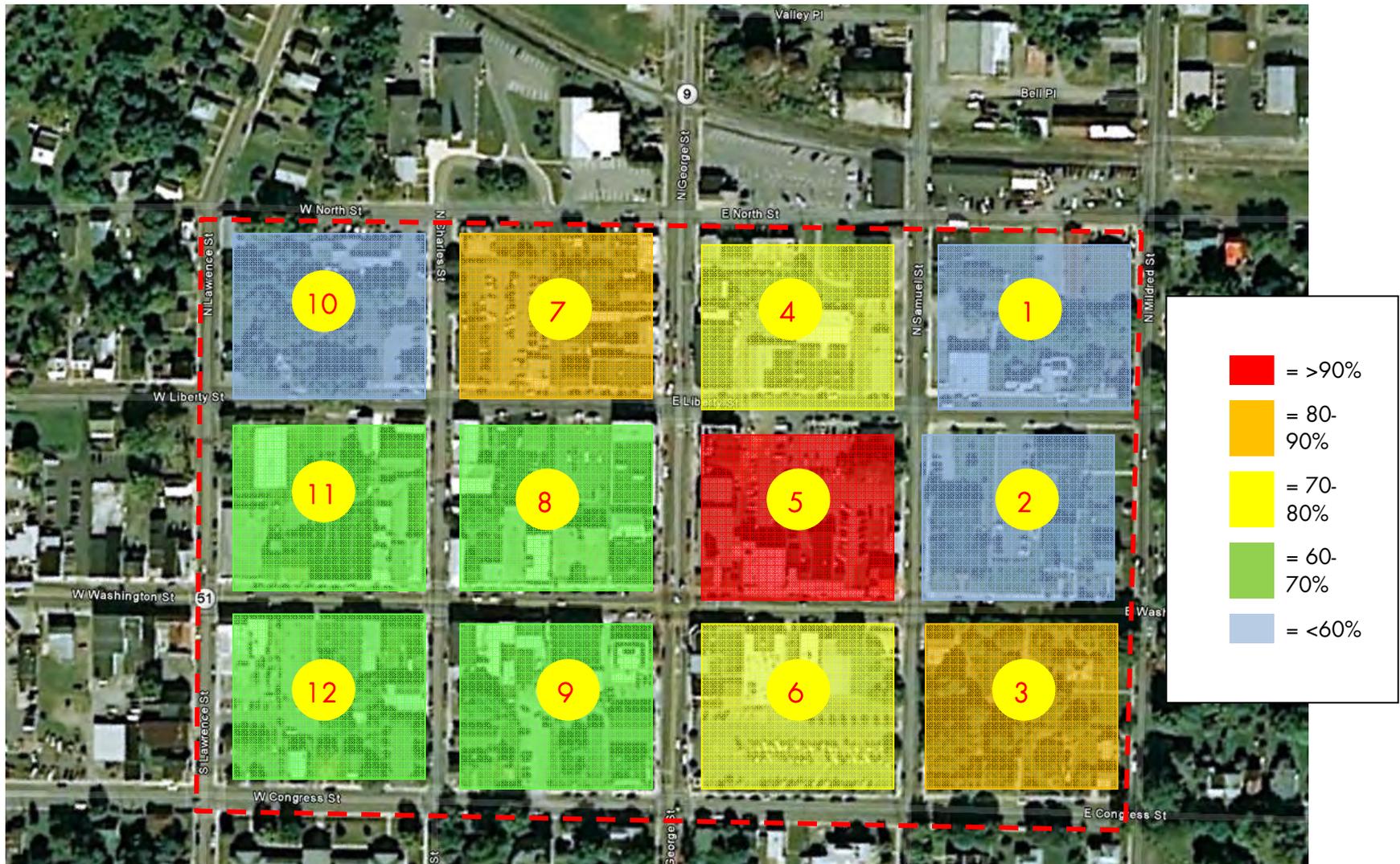
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Figure 2: 11:00 A.M. Occupancy



Source: Google and Walker Parking Consultants, 2010

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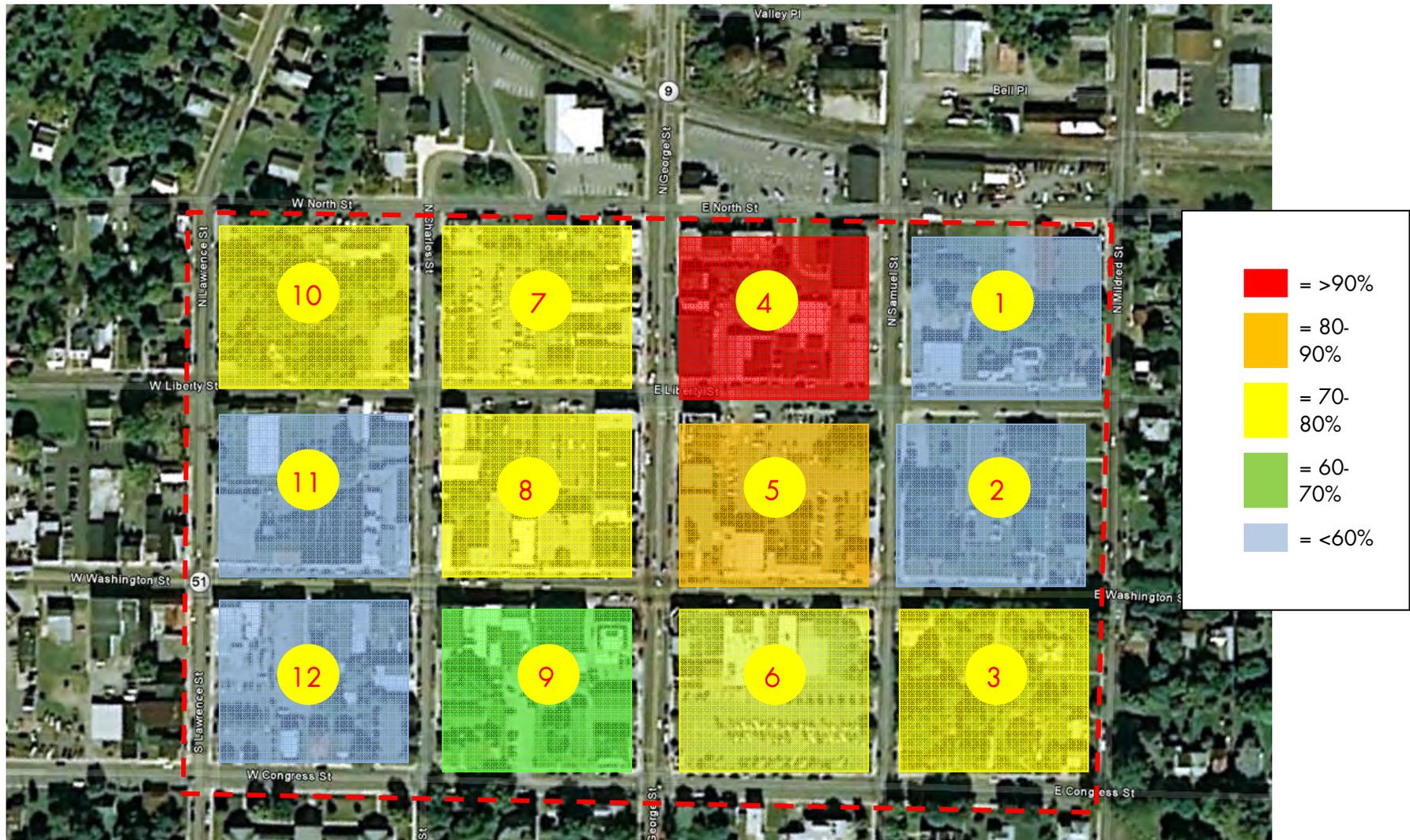
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Figure 3: 2:00 P.M. Occupancy



Source: Google and Walker Parking Consultants, 2010

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## PARKING ADEQUACY

Overall, the parking system showed a surplus of 230 spaces during the peak hour, as shown in Table 7. Thus while some areas - notably Washington Street, the County lot, and two of the three public lots - were very busy, there were parking resources available. Much of the surplus was in private lots, but on-street parking was also available on the east and west sides of the study area. The imbalance in utilization will be discussed in the Findings section.

**Table 7: Summary of Current Weekday Peak Parking Adequacy**

Block #	Off-Street Public			Off-Street Private			On-Street			Total Adequacy
	Effective Supply	Peak Occupancy	Adequacy	Effective Supply	Peak Occupancy	Adequacy	Effective Supply	Peak Occupancy	Adequacy	
1	0	0	0	30	10	20	23	10	13	33
2	0	0	0	50	7	43	29	20	9	52
3	0	0	0	10	9	1	37	36	1	2
4	0	0	0	27	17	10	16	19	(3)	7
5	0	0	0	108	108	0	23	22	1	1
6	0	0	0	70	50	20	26	25	1	21
7	56	54	2	10	10	0	28	21	7	9
8	0	0	0	50	27	23	27	26	1	24
9	0	0	0	50	32	18	25	22	3	21
10	0	0	0	22	13	9	23	12	11	20
11	0	0	0	21	15	6	32	26	6	12
12	55	39	16	13	9	4	33	25	8	28
<b>Totals</b>	<b>111</b>	<b>93</b>	<b>18</b>	<b>461</b>	<b>307</b>	<b>154</b>	<b>322</b>	<b>264</b>	<b>58</b>	<b>230</b>

Source: Walker Parking Consultants, 2010

## OTHER PARKING RESOURCES

Because of their proximity to the study area, City staff asked us to visit the new APUS building, the Ranson Community Center, and the surface lot on the northeast corner of Washington and George Streets (the "Down Under" lot). APUS was not yet occupying the new building. The Recreation Center, which is being considered for a shared-use arrangement with APUS, was empty. Striping is uneven in this lot, but we estimate there are 158 spaces. The Down Under lot has 55 spaces, of which 8 were occupied at noon and 12 were occupied at 3 pm.

## FUTURE PARKING CONDITIONS

### ANTICIPATED GROWTH

Based on conversations with stakeholders, the following summarizes our understanding of probable future growth patterns:

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- Downtown will not add square footage to the largely built-out existing core. Storefronts may, however, become occupied by tenants that generate higher levels of demand. Restaurants, which many stakeholders mentioned as a land use they would like to see more of in the downtown, generate more traffic than retail on a per-square foot basis.
- Most of the development near downtown will occur on the brownfields to the north. APUS has already built one building in this area and is working on a second. APUS or other businesses may continue to develop the area. APUS will be adding parking with subsequent buildings and it is assumed that other owners would as well.
- The County will expand their complex to add a new courtroom. This will add a small number of new staff (approximately five), as well as jurors and other transient parkers during trial days. Plans for the expansion are not set, but one possibility is that the expansion will occur on the site of the current employee parking lot. In this instance the County might build underground parking on site, or seek parking elsewhere.
- The recession slowed growth in the area, and stakeholders do not anticipate fast population growth in Charles Town over the next few years. Overall, though, the areas to the east of Washington DC are growing commuter towns.

To test the impact of growth on the downtown core, we created a scenario where the Town has no growth for the next three years as it pulls out of the recession, then grows at 2 percent annually for seven years. The scenario also assumes that the County parking lot is demolished and not replaced on site, resulting in a “joint venture” for parking with the City or other entity. The results are shown below.

**Table 8: Future Parking Adequacy**

Block #	Off-Street Public			Off-Street Private			On-Street			Total Adequacy
	Effective Supply	Peak Occupancy	Adequacy	Effective Supply	Peak Occupancy	Adequacy	Effective Supply	Peak Occupancy	Adequacy	
1	0	0	0	30	11	19	23	11	12	30
2	0	0	0	50	8	42	29	23	6	48
3	0	0	0	10	10	(0)	37	41	(4)	(5)
4	0	0	0	27	20	7	16	22	(6)	2
5 *	0	0	0	0	124	(124)	23	25	(2)	(126)
6	0	0	0	70	57	13	26	29	(3)	10
7	56	62	(6)	10	11	(1)	28	24	4	(4)
8	0	0	0	50	31	19	27	30	(3)	16
9	0	0	0	50	37	13	25	25	(0)	13
10	0	0	0	22	15	7	23	14	9	16
11	0	0	0	21	17	4	32	30	2	6
12	55	45	10	13	10	3	33	29	4	17
<b>Totals</b>	<b>111</b>	<b>107</b>	<b>4</b>	<b>353</b>	<b>353</b>	<b>0</b>	<b>322</b>	<b>303</b>	<b>19</b>	<b>23</b>

\* Assumes parking spaces on Block 5 are demolished during Courthouse expansion and not replaced on site.

Source: Walker Parking Consultants, 2010.

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Our projections suggest that overall, the downtown will continue to have enough parking to support demand if the town grows modestly over the next ten years. The projection assumes the County parking is not replaced (124-space deficit shown for private parking on block 5), but in reality the County will likely prefer/need a single replacement facility for its employees rather than cobbling together sufficient parking as available throughout the area. In this instance, the surplus would be 126 spaces greater than shown.

## FINDINGS AND RECOMMENDATIONS

### PARKING DEVELOPMENT

Given that there is currently a large surplus of parking, and that growth of the downtown employee and customer population is not expected to be greater than the supply can accommodate, we do not think there is a need for a parking structure in the near future. Clearly there are some "hot spots" in the downtown parking system, but management techniques may help even out the demand so that customers and others do not have a difficult time finding convenient parking.

Several stakeholders mentioned several possible parking structure development projects; these may be desirable for other reasons, but are not required to make the existing downtown "work." Some of the projects mentioned include:

- Creating an intermodal center behind Washington Hall to serve as a "park and ride" for commuters, and possibly to accommodate County employees as well.
- Leasing the "Down Under" lot to create an off-street alternative to on-street permits. It is our understanding that the owner of the lot is interested to lease the lot for approximately \$16,800 annually (\$20 per space per month), including lighting, snow removal, and cleaning. The owner indicates that the lot contains 70 spaces<sup>1</sup>. The location is useful for Courthouse and APUS parkers, as well as other overflow from the north/east portion of the study area and potentially some future brownfield development.
- A parking structure north of the study area, to accommodate County employees and also enable greater FAR for brownfield development. This would likely be a public/private joint venture, possibly involving the City as well as, or in lieu of, the County. A TIF district is under consideration. A parking structure at this location would accommodate more development than the "Down Under" lot can support.

As a way of encouraging additional growth in the brownfield area or creating a commuter "terminal" downtown, such construction may make sense from a redevelopment perspective. If there is consensus that such projects would serve redevelopment goals, consideration of the finances will be important. At \$20,000 per stall in construction costs, a garage can cost \$1,300 per stall annually just to service debt. Operating expenses generally run another \$500 or more per stall (depending on the amount of labor needed to run the garage). At \$1,800 per stall annually, or \$150 per month, many cities do not want to fund such expenditure out the general fund. Some cities use meter revenue to help offset the cost of garage operation, along with off-

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<sup>1</sup> During our field survey we counted 55 spaces in this lot. Some striping was worn and difficult to see.

street parking (transient and permit) fees. Transportation grants or other sources of construction funds are an important resource for lower per-stall annual costs.

## PARKING MANAGEMENT

Although the parking system is adequate overall, there may be ways to make it work more efficiently, thereby improving the level of customer service and alleviating the concerns of would-be tenants. In general, the goal should be to move long-term parkers away from Washington Street and, as much as possible, off street.

1. Work with owners of private lots to make private lots available to other parkers. It is always preferable to make good use of existing parking resources before building additional ones, and we often see private parking lots that were built with more spaces than their associated business needs. The City already has one such arrangement, leasing spaces from the VFW for public parking. APUS is also working with the City of Ranson to share excess spaces at the Recreation Center at off hours.

This type of shared parking arrangement is a good opportunity to maximize the efficiency of existing resources, and it can be done to the advantage of multiple parties. For example, if City-issued permits were shifted from meters to private lots, the owners of the lots could earn some revenue while permit parkers would not be taking up meters on prime commercial streets. The property owner could control the number of permits issued to ensure that his/her own customers and employees still have sufficient parking available. City staff would need to work with the lot owners to overcome liability concerns and concerns about losing control of spaces needed for patrons and employees. Shared parking arrangements between private parties should be encouraged as well.

2. Move some on-street permit parkers to the Lawrence Street public lot or to less congested on-street parking resources. If private lots are not available to accommodate any or all of the permit parking, and on-street spaces continue to serve the bulk of the permit parkers (currently there are 270 permits in circulation), the City should consider redistributing spaces to shift parking to peripheral areas as much as possible. Rather than allowing parking at any meter, the City could limit the number of permit parking spaces per block to leave meters open for customers near Washington Street.
3. Work with the County to improve jury parking. Though not needed from a purely quantitative perspective, an assigned jury area would be helpful. Jurors may need to stay all day, limiting their parking options on street to completely unrestricted areas. Since many jurors come from outside of Charles Town, they may be unfamiliar with the town and have difficulty finding appropriate spaces. Our study showed a significant surplus of parking on block 2, which is convenient to the Courthouse. If the surpluses we observed are typical, there should be space for jurors. If the City and/or County leases parking on block A ("Down Under" lot), that would also be a convenient and adequate supply of parking for jurors. Lots on block 1 also have a reasonable surplus that could be used for typical jury days (full jury pools – 35 people or so – would require additional parking). It is not necessary for the City to provide the solution, but a partnership between the City and County to identify a solution that fits with the larger planning goals would be efficient.
4. Monitor parking on Washington Street for long-term parkers. Washington Street stayed near 100 percent occupancy all day. Most of the spaces on Washington are unmetered, so they should not be being used by permit holders for all-day parking. However, in our experience main commercial streets that have free parking instead of meters are frequently used by business employees and owners who simply move their

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car every few hours. In an area where employees/owners have to pay for all-day permits or for metered parking that is less convenient than the free parking, there is a strong incentive to grab the most convenient spaces even if it means moving the car periodically.

When all the spaces are full on the main street all day, it is discouraging to customers. They perceive parking to be difficult near their destinations. Further research on parking patterns along Washington Street is recommended; enforcement personnel can collect and process license plate data on different days. If data suggests that all-day parkers are moving cars to avoid tickets, the City may need to set limits on reparking along Washington Street and/or surrounding streets for more than three or four hours. This will encourage all-day parkers to seek a better long-term solution. If data suggests that Washington Street is being used correctly – for high turnover parkers (retail customers, City /County business visits) – then the emphasis should be on ensuring that monthly parkers are not taking up meters along the side streets nearest Washington. In other words, the priority must be on ensuring adequate parking for visitors on or near Washington Street. Transient visitors are more likely not to know the area well, and they don't stay very long. For those reasons they should have the most convenient parking. Employees, who park for eight hours and know how to navigate the area to find parking, can be expected to park at a greater distance from their destination.

Ultimately, as downtown gets busier it would be worth considering adding meters to Washington Street, or moving meters from the side streets to Washington. As a general rule, the prime spaces should be the most expensive. Offering free parking at the prime destination and paid parking in less desirable areas encourages people to circle the prime area waiting for a space. Paid parking along Washington Street would encourage turnover, and many customers would be willing to pay for that convenience. Free parking on the side streets would offer a free alternative for those who don't want to pay. From stakeholder interviews we understand that adding meters on Washington Street is not desirable at this time.

**ZONING CODE REVIEW AND RECOMMENDATIONS**

**PARKING GEOMETRICS**

Walker reviewed the City of Charles Town Zoning Ordinance, passed by Council February 4, 1991. The Article 15, Division 1, Off-Street Parking and Loading, Section 15.3 describes the off-street parking and design requirements, including parking geometrics and required parking quantities per land use.

According to the City of Charles Town Zoning Code, "all off-street parking spaces shall be a minimum of nine (9) feet by twenty (20) feet except those required for parallel parking, which shall be twenty-two (22) feet." Additionally, all parking areas shall be served by access lanes with a minimum width corresponding to the parking angle as follows:

Access Lane Width	Parking Angle
Eleven (11) feet	30°
Fourteen (14) feet	45°
Nineteen (19) feet	60°
Twenty five (25) feet	90°

The "level of service" approach used by traffic engineers can be used as a tool for adapting designs to the specific needs of users. Level of service (LOS) A, which is the most comfortable, allows vehicle movement with little or no constraint. As the level of service decreases, from A to D, the comfort level decreases, LOS D is the minimum dimension for safe maneuvering of a vehicle at low speed.

The level of service selected for a particular application should reflect the needs of the users and the Owner of the property.

A major factor in selecting LOS is the familiarity of the user. The turnover rate in a facility also plays an important role. When arriving and departing vehicle activity is sustained at high levels throughout most of the day, a better level of service should be provided than if there is one rush period of a half-hour in the morning and another short one in the evening. Employees represent the end of the scale with high familiarity/low turnover.

As seen in the following table from the "Architectural Graphic Standards" Tenth Edition, most criteria allow for a lower level of service for employees than for visitors.

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**Table 9: Comparison of Levels of Service**

LEVEL OF SERVICE	LOS D	LOS A
Type of users	Familiar, young adults	Unfamiliar, elderly
Length of stay	Long-term	Short-term
Turnover	Less than 2 per day	More than 5 per day
Type of generator	Industrial	Retail
Location	Urban	Rural
Image	Spec office	Corporate headquarters
Percent small cars	High	Low
Percent light trucks, vans and utility vehicles	Low	High

Source: Walker Parking Consultants, 2010

Design standards typically consider the 9' stall width specified by the City to be LOS-A. This is best for high turnover situations and medical facilities. For areas with moderate turnover (longer visits, some employees), an 8'9" stall is recommended.

The 20' stall specified by Charles Town code is long for contemporary cars. Walker suggests planning for 18' stalls, as do many industry publications. The design vehicle (85<sup>th</sup> percentile) currently in circulation is just over 17' long.

The aisle size shown in the City code is close to Walker's recommendations, though Walker suggests basing the code on module rather than aisle. Our recommendations for different angles of parking and different levels of service are shown below. Please note that we do not recommend allowing 30 degree stalls, and suggest removing them from the code.

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**Table 10: Recommended Stall and Module Sizes**

Design Vehicle	by 17.08 ft			
	LOS D	LOS C	LOS B	LOS A
Stall Width (ft)	8.25	8.5	8.75	9
Module (ft)				
45	46.50	47.50	48.50	49.50
50	48.25	49.25	50.25	51.25
55	49.50	50.50	51.50	52.50
60	51.00	52.00	53.00	54.00
65	52.25	53.25	54.25	55.25
70	53.50	54.50	55.50	56.50
75	54.50	55.50	56.50	57.50
90	58.50	59.50	60.50	61.50

Source: Walker Parking Consultants, 2010

## LAND USE PARKING REQUIREMENTS

The City of Charles Town Zoning Code currently details parking requirements for 32 different land uses, including office, retail, restaurant, medical/dental office and banks. Walker has developed a table to compare the City's Zoning Code parking requirements to those recommended in the Urban Land Institute's Shared Parking, 2<sup>nd</sup> Edition for several common land uses.

**Table 11: Land Use Parking Requirements**

Land Use	Zoning Code Requirements	ULI Shared Parking
Bank	Parking Area 50% of Floor Space	4.6 Spaces /1,000 SF GFA
Commercial Retail (<2KSF)	2 Spaces /1,000 SF	4.0 Spaces <sup>1</sup> /1,000 SF GLA
Shopping Center (>2KSF)	5.5 Spaces /1,000 SF GLA	4.0 Spaces <sup>1</sup> /1,000 SF GLA
Office (<25KSF)	3.3 Spaces /1,000 SF	3.8 Spaces <sup>2</sup> /1,000 SF GFA
Office (100KSF)	3.3 Spaces /1,000 SF	3.4 Spaces <sup>2</sup> /1,000 SF GFA
Restaurant (Family)	20 Spaces / 1000 SF of Customer Floor Space	15 Spaces <sup>3</sup> /1,000 SF GLA
Restaurant (Fine Dining)	20 Spaces / 1000 SF of Customer Floor Space	20 Spaces <sup>3</sup> /1,000 SF GLA

Notes:

<sup>1</sup> Base parking ratio for a Community Shopping Center (<400 ksf). The City of Charles Town describes two ratios, one for free standing commercial retail less than 2,000 SF and a second for a shopping center with retail greater than 2,000 SF.

<sup>2</sup> Walker compared the City of Charles Town Office requirements to the ULI base parking demand for Office, which varies according to the size of the office.

<sup>3</sup> Walker compared the City of Charles Town Office requirements to the ULI base parking demand for Family Restaurants and Fine Dining.

Source: Walker Parking Consultants, 2010

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The City has a substantially lower ratio for small retail, but given that retail of this size would likely be in a mixed use setting like the downtown area, it is fair to offer a low ratio on the assumption that there will be shared parking impacts. The City's ratio for shopping center retail is high, and should be re-evaluated. A ratio of 4 is adequate for all but super-regional shopping centers (600,000 sf or more). The bank ratio is hard to evaluate, but appears low. 50% of floor area equates to 500 sf per 1,000 sf of floor space. 500 sf is about 1.5 parking spaces, depending on the efficiency of the layout.

Reductions for restaurants in the downtown area would also be feasible, as their weekday daytime parking generation rate will be low (most traffic will come from area employees walking in). At night and on weekends there is ample space available on street and in public lots, especially if private lots are made available to the public. We recommend the City consider offering a reduced parking ratio – perhaps half of the ratio shown above – for downtown restaurants. Stand-alone restaurants and/or restaurants outside the mixed use area should not have a reduced ratio. The code should encourage shared-use arrangements between owners.

The office ratios are appropriate; Urban Land Institute recommends a higher ratio for small offices, but in the context of downtown Charles Town, the standard ratio is adequate.

# APPENDIX A: SCOPE OF SERVICES



**WALKER**  
PARKING CONSULTANTS

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## **BASE SCOPE OF SERVICES – SUPPLY AND DEMAND STUDY**

The base services to be provided by Walker for Charles Town will be as follows:

1. Meet with representatives of Charles Town to further clarify study's objectives, establish lines of communication, review the work plan, set work session dates and schedule of deliverables, and finalize the project schedule.
2. Obtain and review from Charles Town any information about future developments within the study area – This includes type of land use, square footage, seating capacity, or number of rooms, expected completion data, location, and whether any existing parking spaces will be displaced. Copies of any previous parking studies, community master plans or downtown market studies. AutoCAD base map of study area, if available.
3. Conduct an inventory of on-street and off-street parking spaces in the study area, an area to be defined during the course of this study and anticipated to include no more than 10 city blocks. Include block identification, capacity, public vs. private, parking rates, and time restrictions.
4. Perform a parking space occupancy count survey for all on-street and off-street parking facilities on a weekday between 9 a.m. and 3 p.m.
5. Analyze the existing and future parking demand and break down into sub-areas within the study area taking into consideration current parking counts and existing land uses. Provide recommended parking ratios for various types of land uses.
6. Compare the calculated parking demand to the existing parking supply to determine the existing parking surplus or deficit on a block-by-block basis in the study area.
7. Determine future parking surpluses and deficits by block for a five- and ten-year projection period, within the study area, based on inventory and occupancy analysis, available local data, projections of future growth and development, shared use methodology, and Walker Parking Consultants' experience.
8. Identify areas with parking deficiencies that are likely to require expansion of the parking supply and provide order of magnitude conceptual construction and project costs, including estimated operational expenses for one surface parking lot and one structured parking option. Schematic layouts of parking options for specific sites can be provided as an additional service.
9. Review the City's proposed parking standards as drafted under the City's Zoning and Subdivision and Land Development ordinances. Provide feedback regarding code requirements relative to parking supply and parking geometrics (layout).

10. Prepare a report for review by Charles Town representatives and distribute via email in Adobe PDF format.
11. Meet with Charles Town representatives via teleconference to discuss findings and subsequent tasks.

### **ADDITIONAL SCOPE OF SERVICES – ALTERNATIVES ANALYSIS**

As an additional scope of services, in order to provide Charles Town with a more project specific understanding of the construction and project costs associated with a parking facility, Walker proposes an Alternatives Analysis Study.

1. Confer with Charles Town representatives to determine potential locations for off-street parking structures.
2. Identify up to two (2) concepts for new parking facilities and/or the expansion of existing facilities and illustrate on a site plan.
3. For each new parking concept, estimate out-to-out dimensions, probable building height, and parking capacity.
4. Review existing vehicular and pedestrian access and circulation patterns for their relationship to existing and proposed parking generators and the parking supply.
5. Develop an opinion of probable construction and project cost for each alternative on a conceptual basis without the benefit of design drawings.
6. Evaluate the various alternatives on the basis of qualitative criteria to be mutually agreed upon with the city using a weighted matrix. Evaluation criteria may include but are not limited to capital cost, life cycle cost, ability to generate revenue, location, visibility, pedestrian access, vehicular access, traffic impact, aesthetics, implementation time, security, and future versatility.
7. Recommend the most feasible solution to meet existing and future parking needs.
8. Prepare a report for review by Charles Town representatives and distribute via email in Adobe PDF format.

