



13860 Ballantyne Corporate Place
Suite 140
Charlotte, NC 28277

Office: 704-247-6230
walkerconsultants.com

December 28, 2018

Ms. Meg McGurk
Community Safety Planner
Town of Chapel Hill
828 Martin Luther King Jr. Blvd.
Chapel Hill, NC 27514-5705

Re: Town of Chapel Hill Downtown Parking Study
Parking Consulting / Planning Services
Walker Project No. 19-1146.00

Dear Meg:

Walker is pleased to submit the following report of our parking study for the Town of Chapel Hill.

We have updated the report and incorporated your comments to provide a full draft report.

We appreciate the opportunity to provide our service to you on this project. If you have any questions or comments, please do not hesitate to call. We look forward to discussing.

Sincerely,

WALKER CONSULTANTS

A handwritten signature in black ink, appearing to read "Jon R. Martens", is written over a light blue horizontal line.

Jon R. Martens, AICP, CAPP
Project Manager



BUILDING ENVELOPE
 CONSULTING
 FORENSIC RESTORATION
 PARKING DESIGN
 PLANNING

Parking Consulting / Planning Services

Town of Chapel Hill Parking Study

Chapel Hill, North Carolina

December 28, 2018

Prepared for:
 Town of Chapel Hill



WALKER
 CONSULTANTS

Table of Contents

Does the Town of Chapel Hill need more parking?	1
On-Street Parking	6
How much additional Parking is needed, and where?	7
Alternatives for Meeting Demand	8
Service Area	8
What is the financial outlook of the parking system?	11
<i>Staffing Levels</i>	11
Financial Model	12
<i>Future 350-Space Garage</i>	12
<i>Rate Increase</i>	13
<i>Enforcement Hours Increase</i>	13
<i>Capital Costs</i>	14
<i>Other Charges</i>	14
<i>Financial Projection</i>	14
How can added parking infrastructure be delivered?	16
<i>Developer/Business/Occupier Fee</i>	16
<i>Examples of Fee-In-Lieu or Similar Programs</i>	16
<i>Business Improvement District</i>	18
<i>Bed Tax Allocation</i>	18
<i>Sales Tax Allocation</i>	19
<i>Tax-Increment Financing District (TIF)/Project Development</i>	19
<i>Financing</i>	19
Is this a system worth investing in?	19
<i>Considerations</i>	20



LIST OF TABLES AND FIGURES

Table 1: Inventory, Occupancy, and Adequacy	2
Table 2: Parking Adequacy by Block.....	4
Table 3: Walking Distance Level of Service Conditions	4
Table 4: Sub-Area Adequacy	5
Table 5: Potential Redevelopment Demand	7
Table 6: Staffing Comparison	11
Table 7: Future Garage Operating Costs	12
Table 8: Breakeven Costs of Structured Parking	12
Table 9: Five-Year Financial Projection	15
Figure 1: Peak Occupancy Heat Map	1
Figure 2: Peak Occupancy Heat Map – Town Controlled Paid Parking	2
Figure 3: Sub-Areas Defined	5
Figure 4: LPR Length of Stay Sample	6
Figure 5: Potential Parking Structure Sites	8
Figure 6: LOS Walking Distance by Site	9

The Town of Chapel Hill is proactively making improvements to its downtown parking program, which includes Phase Two of the streets and sidewalk study. Included in this effort is an understanding of the existing and future parking supply, review of fee-in-lieu as a tool for redevelopment, and reviewing the financial health of the Parking Enterprise Fund. To address the key issues, this report is framed by addressing the following key questions:

- 1. Does the Town of Chapel Hill need more parking?**
- 2. If the Town needs more parking, how much is needed, and where?**
- 3. What is the financial outlook of the parking system?**
- 4. How can added parking infrastructure be delivered?**
- 5. Is this a system worth investing in?**

DOES THE TOWN OF CHAPEL HILL NEED MORE PARKING?

To answer this question, an in-depth analysis of the current supply and demand was completed. Given the overall size of the area it is not sufficient to look at the totals, as demand must be met within a reasonable walking distance. While the system in its entirety appears sufficient, there are areas where parking is at or near capacity. The following addresses this question in detail and identifies the areas of concern.

Current total parking supply within the downtown study area includes 4,843± spaces, broken down into on-street and off-street supplies, with additional segregation based on type and user. The overall peak parking demand was observed during a weekday in the early afternoon, between noon and 2 pm. During this time the overall occupancy reached 70%, with occupancy varying from 36% to 78% depending on the type of parking. While demand on a macro level is considered adequate, on a micro level, there are several areas that experience high occupancy levels and detailed later in this report. Table 1 on the following page provides a breakdown of the overall peak observation and calculated adequacy by type of parking during the peak observation.

Table 1: Inventory, Occupancy, and Adequacy

Off-Street	Inventory	Occupancy	% Occupied	Adequacy
Town	1,272	899	71%	246
Public	9	6	67%	2
Private	3,136	2,237	71%	585
Total:	4,417	3,142	71%	833

On-Street	Inventory	Occupancy	% Occupied	Adequacy
Metered	200	154	77%	16
Permit	146	53	36%	71
Free	67	52	78%	5
L-Zone	13	10	77%	1
Total:	426	269	63%	93

Grand Total:	4,843	3,411	70%	926
---------------------	--------------	--------------	------------	------------

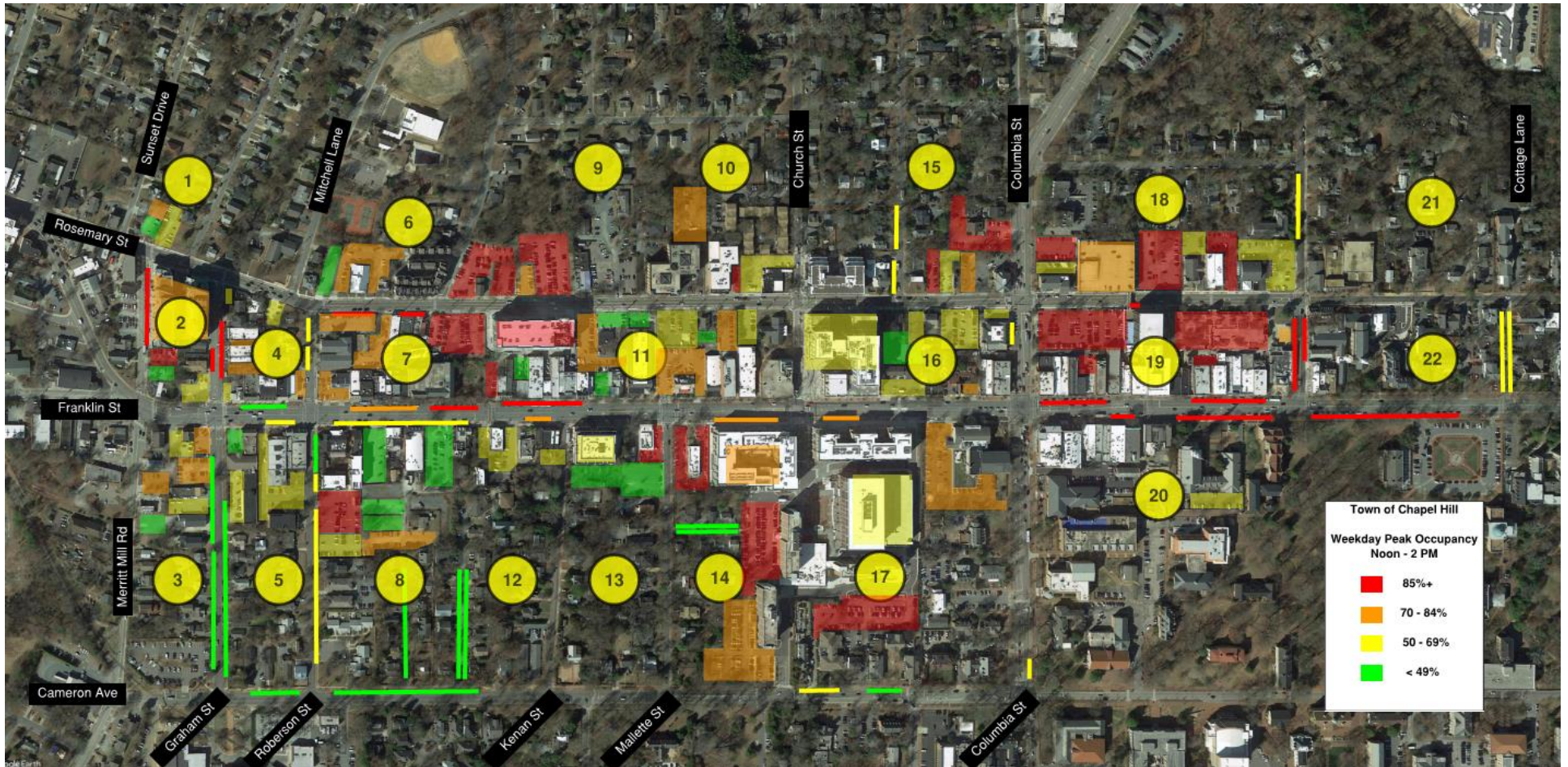
While overall parking is considered adequate, there are several localized areas that experience high demand levels that exceed industry standards for adequate parking.

Generally, on-street occupancy at or above 85% is considered problematic; off-street parking occupancy at above 90%-95% (depending on user) is considered problematic.

Source: Walker Consultants review of Inventory and Occupancy Data

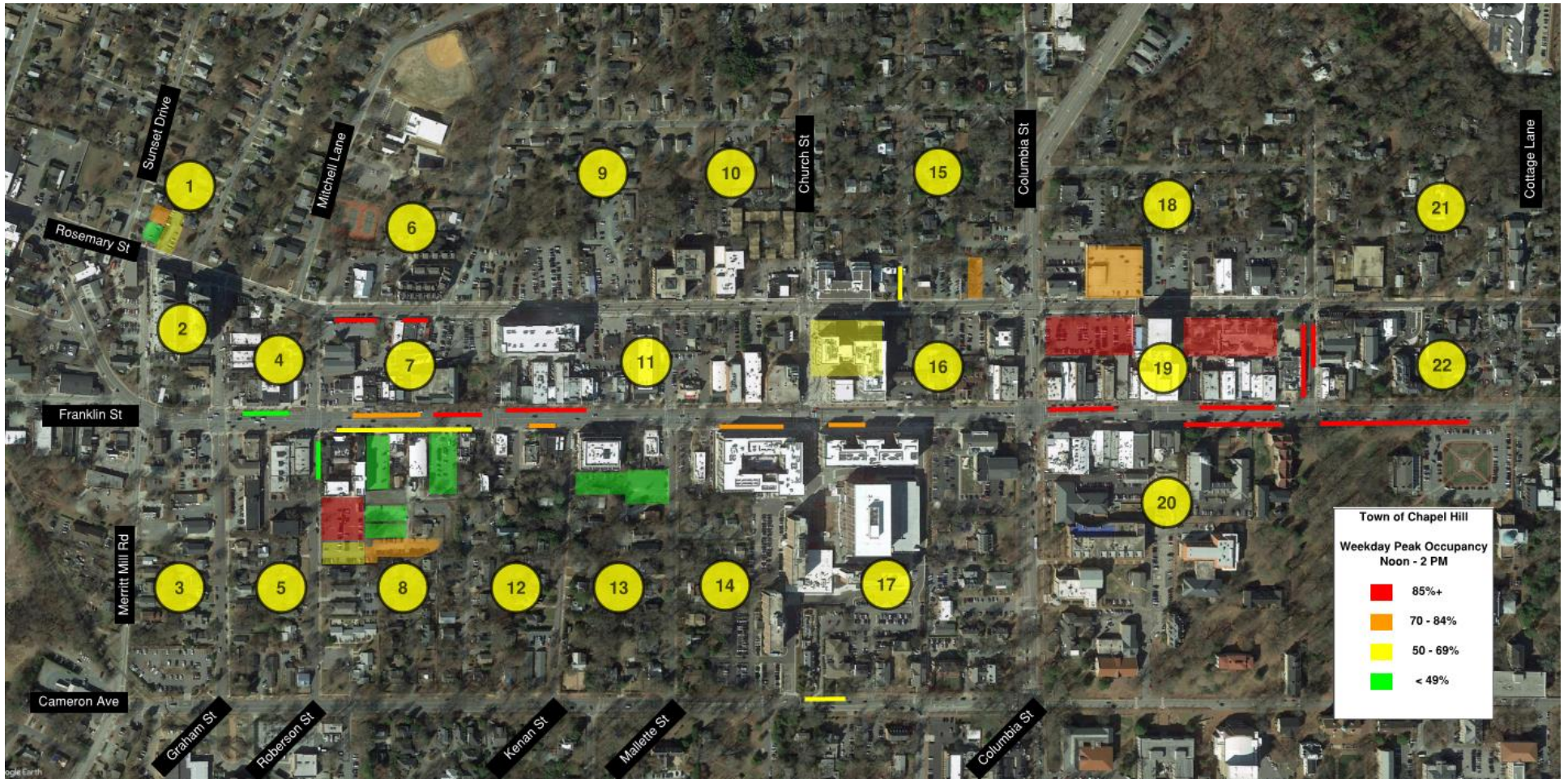
The observed peak occupancy by location is detailed in the following heat maps. The first map shows all surveyed areas while the second only shows the Town controlled parking assets. Areas in red indicate occupancy levels that exceeded 85%, which indicate spaces were difficult to find. The data is based on a review of the data collected in November 2017 by another consultant and spot checks by Walker in October 2018. To facilitate further analysis, each area is assigned a general block number in yellow.

Figure 1: Peak Occupancy Heat Map



Source: Walker Consultants

Figure 2: Peak Occupancy Heat Map – Town Controlled Paid Parking



Source: Walker Consultants

To further analyze current parking adequacy, the demand within each block during the peak observation is compared to the effective parking supply. The *Effective Parking Supply* provides a cushion necessary for vehicles moving in and out of spaces, and to reduce the time necessary to find the last few remaining spaces when the parking supply is nearly full, as well as account for spaces lost due to misparked vehicles, and minor construction. Walker derived the effective supply by deducting this cushion from the total parking capacity.

A parking supply operates at peak efficiency when parking occupancy, including both transient and monthly parking patrons, is approximately 85 percent to 95 percent of the supply. When occupancy exceeds this level, patrons may experience delays and frustration while searching for a space. Therefore, the parking supply may be perceived as inadequate even though there are some spaces available in the parking system.

The effective supply is compared to the parking occupancy to quantify the parking adequacy of the system, as either a parking surplus or deficit. A surplus exists when the supply exceeds the number of parked vehicles; a deficit exists when the supply is inadequate to meet the number of parked vehicles. Following are some factors that affect the efficiency of the parking system:

- **Capacity** – 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 sometimes limited to one side of the street at a time and often must parallel park in traffic to use the space.

For Chapel Hill, an 85% Effective Supply factor was applied for all on-street parking and a 90% Effective Supply Factor was applied to all off-street parking. The resulting overall Effective Supply is 4,315 spaces, or roughly 10% cushion to the parking supply.

Parking Adequacy by block is provided in the following table. While most blocks have a surplus, the surplus is fewer than 20 spaces in about half of the blocks including a negative surplus in two of the blocks. These are the areas where parking demand outpaces the supply.

Table 2: Parking Adequacy by Block

Block	Off-Street			Total	
	On-Street	Town	Public		
1	-	10	2	12	
2	(3)	-	-	21	
3	10	-	-	29	
4	4	-	-	12	
5	22	-	-	26	
6	-	-	-	17	
7	0	-	-	6	
8	36	137	-	173	
9	-	-	-	(11)	
10	-	-	-	11	
11	(1)	-	-	66	
12	8	-	-	19	
13	-	47	-	18	
14	10	-	-	29	
15	4	1	-	5	
16	1	34	-	51	
17	3	-	-	238	
18	3	52	-	39	
19	(5)	(35)	-	(1)	
20	(2)	-	-	12	
21	-	-	-	0	
22	4	-	-	4	
Totals:	94	246	2	587	928

Overall parking is considered adequate, with a surplus of just over 900 spaces when considering all forms of parking. When only publicly available parking is considered, the adequacy drops to just under 350 spaces.

Source: Walker Consultants

While the overall adequacy of the system could be judged to have a surplus of just over 900 spaces, there are blocks with adequacy issues as shown in Table 2 above and not all parking is available to the public. When only the publicly available parking is considered, the overall adequacy drops to just under 350 spaces. This is across the entire study area, which does not consider reasonable walking distances.

The parking supply must be within a reasonable walking distance to be considered useful. To aid in estimating the appropriate walking distance, Walker developed a Level of Service (“LOS”) rating system for evaluating appropriate walking distances based on specific criteria. LOS “A” is considered the best or ideal, LOS “B” is good, LOS “C” is average and LOS “D” is below average but minimally acceptable. A breakdown of the LOS conditions for each type of walking environment is provided in the table below. Walker has assumed an uncovered outdoor environment as one would walk through downtown Chapel Hill.

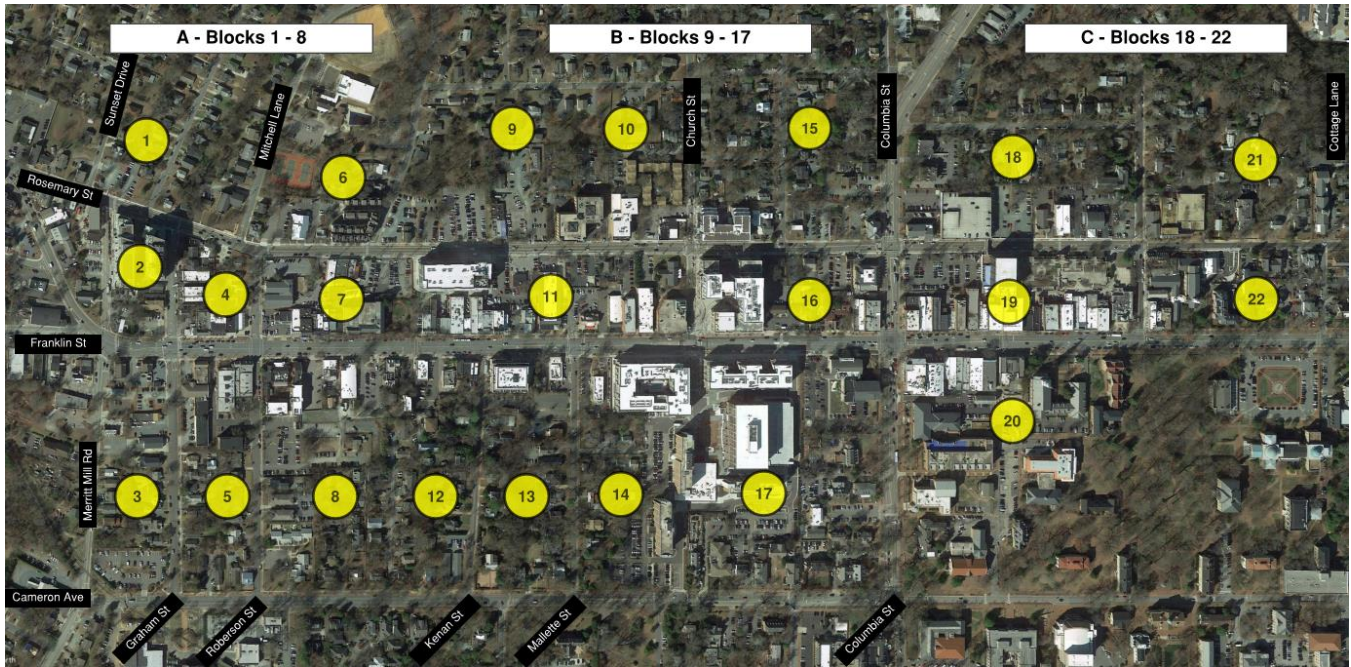
Table 3: Walking Distance Level of Service Conditions

Level of Service Conditions	A	B	C	D
Climate Controlled	1,000 ft	2,400 ft	3,800 ft	5,200 ft
Outdoor/Covered	500	1,000	1,500	2,000
Outdoor/Uncovered	400	800	1,200	1,600
Through a Surface Lot	350	700	1,050	1,400
Inside a Parking Facility	300	600	900	1,200

Source: “How Far Should Parkers Have to Walk?”, by Mary S. Smith and Thomas A. Butcher, Parking, May, 2008

To address this issue, the overall area was divided into three sub-areas, A, B, and C for evaluation. The sub-areas provide a clearer picture on current parking adequacy while accounting for reasonable walking distance. The three sub-areas are identified in the following figure.

Figure 3: Sub-Areas Defined



Source: Walker Consultants

Table 4 below provides the overall occupancy and adequacy within each of the sub-areas. This indicates strong surplus parking within areas A and B, while clearly identifying sub-area C as having a small surplus of 66 spaces. Interestingly, this area is closest to the UNC campus and has the most publicly provided parking.

Table 4: Sub-Area Adequacy

Sub-Area	Inventory		Demand		Percent Occupancy		Overall	Adequacy
	On-Street	Off-Street	On-Street	Off-Street	On-Street	Off-Street		
A	199	920	98	574	49%	62%	60%	329
B	85	2,430	48	1,670	56%	69%	68%	533
C	139	1,044	118	867	85%	83%	83%	66
Totals:	423	4,394	264	3,111	62%	71%	70%	928

Source: Walker Consultants

While it can be stated there is sufficient parking at present, there are areas at or near capacity. Any new development within the study area will have a direct impact on parking adequacy and will likely necessitate adding addition parking.

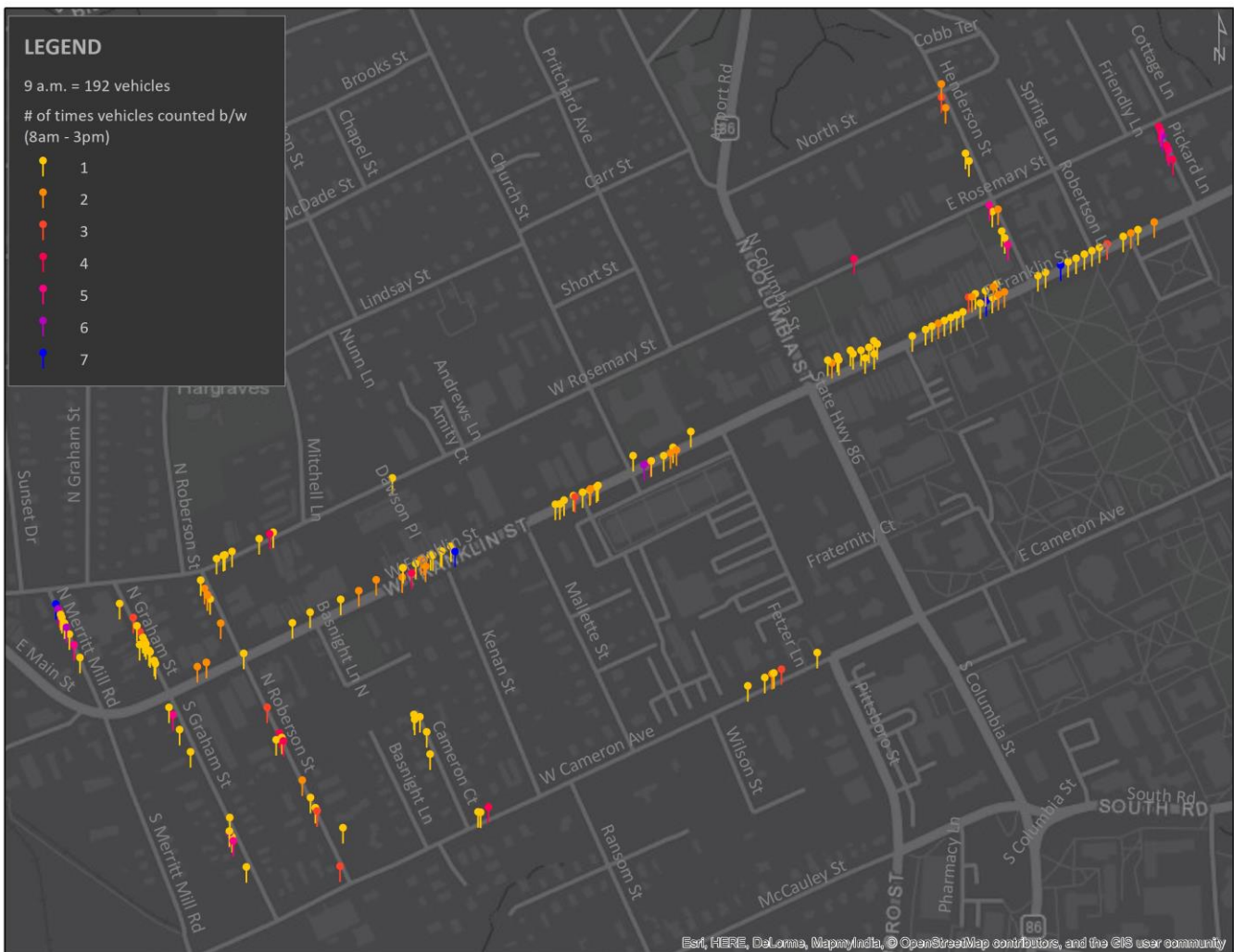
ON-STREET PARKING

The study included a length of stay and turnover analysis of on-street parking with a focus on Franklin and Rosemary Streets within the study area. This analysis utilized LPR (License Plate Recognition) technology, which records and tracks individual license plates, GPS coordinates, and time stamp information. The duration of the observation was seven hours during the day on September 19, 2018.

The data collected indicates that roughly 80% of the vehicles surveyed were there for an hour or less. Only 3% of the vehicles surveyed parked for five or more hours.



Figure 4: LPR Length of Stay Sample



Source: Walker Consultants

HOW MUCH ADDITIONAL PARKING IS NEEDED, AND WHERE?

Current conditions indicate parking is at or near capacity, specifically within sub-area C, which is closest to the UNC campus. An analysis of future parking conditions was done to address the question of how much parking is needed and where.

Future parking demand is predicated on redevelopment of existing land uses within the downtown. When future projects are unknown, it is possible to add a general growth factor to the existing demand to account for potential untapped demand, as available space is leased or unknown redevelopment occurs. Representatives from the Town provided three potential project sites to consider for in our analysis based on potential interest from outside developers. These projects and sites include the following:

- Office building at Rosemary and Church Streets with 300K sf of space
- Hotel at Rosemary and Columbia Streets with 90-100 rooms
- Residential (multi-family) at Rosemary and Mitchell Lane (size TBD)

Given the current level of interest in the area and previous successful redevelopment projects, it appears additional redevelopment is likely in the near future. Demand from the three known potential developments are calculated using industry standard demand ratios based on each land use, with an adjustment factor applied to account for users to the development by means other than a single occupancy vehicle. The calculations below are based on a standalone use, without sharing of parking assets or time of day adjustments.

Table 5: Potential Redevelopment Demand

Block	Land Use	Land Use Quantity/Unit	Demand Ratio/Unit	Drive Ratio*	Demand
15	Hotel	100 rooms	1.25 /room	0.65	81
9	Residential Rental: Studio/Efficiency	TBD unit	1.10 /unit	1.00	TBD
9	1 bedroom	TBD unit	1.60 /unit	1.00	TBD
9	2 bedroom	TBD unit	1.85 /unit	1.00	TBD
9	>3 bedroom	TBD unit	2.10 /unit	1.00	TBD
11	Office	300,000 sf GLA	3.40 /ksf GFA	0.90	918
Total Added Demand:					999

*The Drive Ratio is the % of people on site who did not drive a single occupancy vehicle to the site, but walked, biked, took a bus, etc. Drive Ratio assumptions were shaped by US Census data: <https://datausa.io/profile/geo/chapel-hill-nc/>

Source: Walker Consultants

This added demand only represents a portion of the potential impact of three projects, less the residential demand as the number of units is unknown. Another important factor is the amount of displaced existing parking spaces, which would need to be replaced. For the three projects listed above, we estimate the displacement of about 290 spaces.

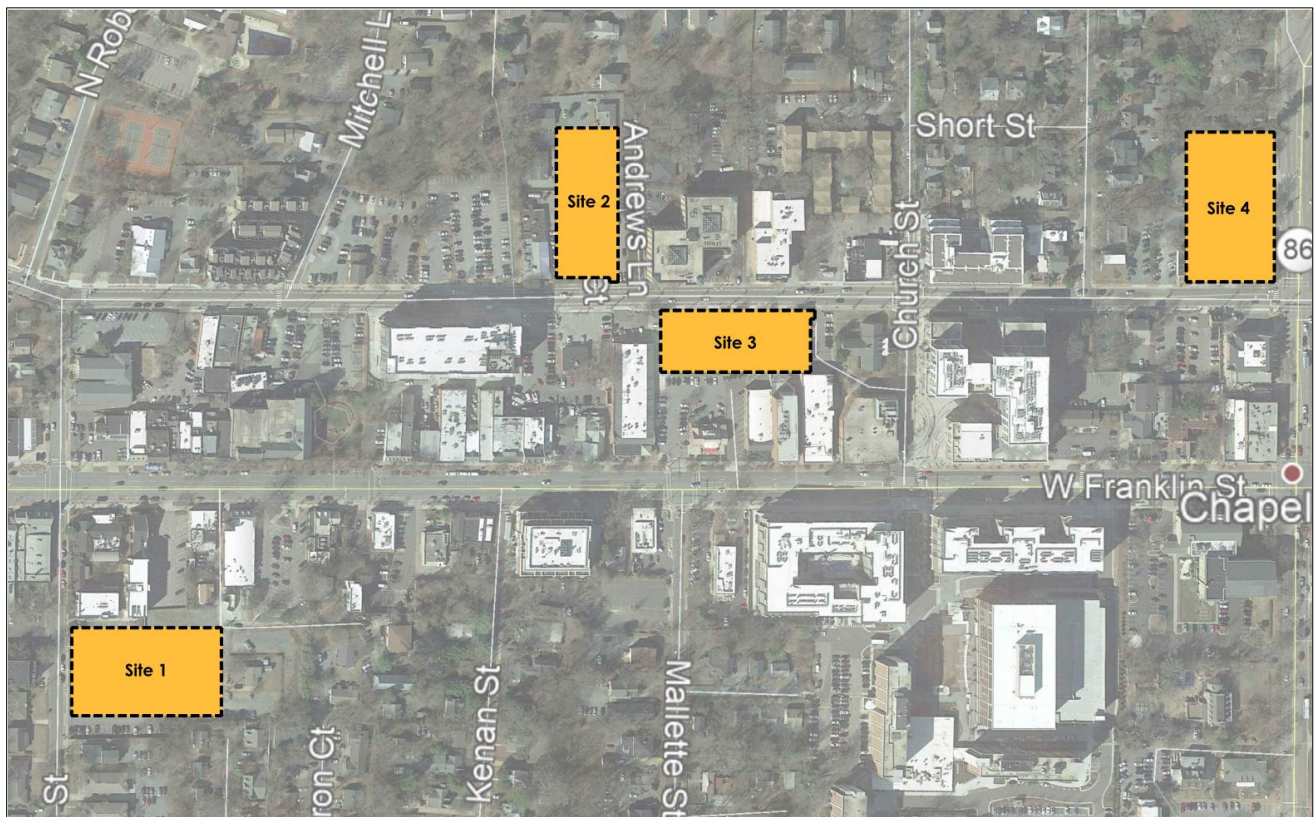
Assuming the potential added demand plus displaced parking is added to existing conditions, the overall calculated surplus of 940 spaces becomes a deficit of over 350 spaces. Considering the localized area of new demand and displaced parking, the challenge is to provide sufficient parking in or adjacent to the blocks experiencing redevelopment.

ALTERNATIVES FOR MEETING DEMAND

The study area was evaluated to determine the optimum locations for a new parking structure, based on the current and future conditions. A parking structure that has an odd shape or too small of footprint increases the cost of the structure so that it may not be reasonable to consider building on the site. The location should be within a reasonable walking distance from the primary demand generators, and allow sharing of the space to maximize the usefulness to the community. The selection of options is conceptual in nature and may be adapted for other potential sites given the general uniformity of block sizes within the study area.

Based on the above criteria, each site was identified and evaluated to determine potential sizing and options for development. Walker considered four sites for a possible parking structure. The sites are displayed in the following figure.

Figure 5: Potential Parking Structure Sites

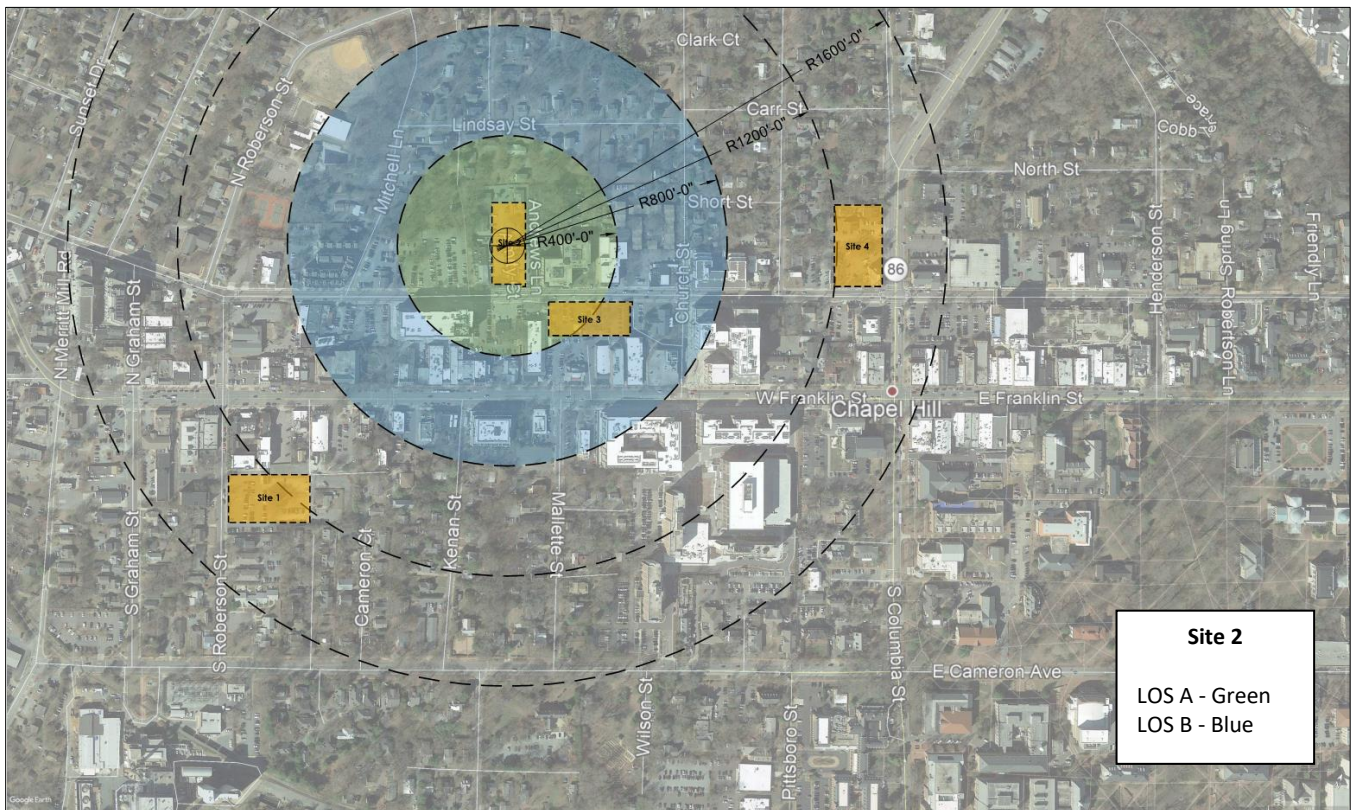
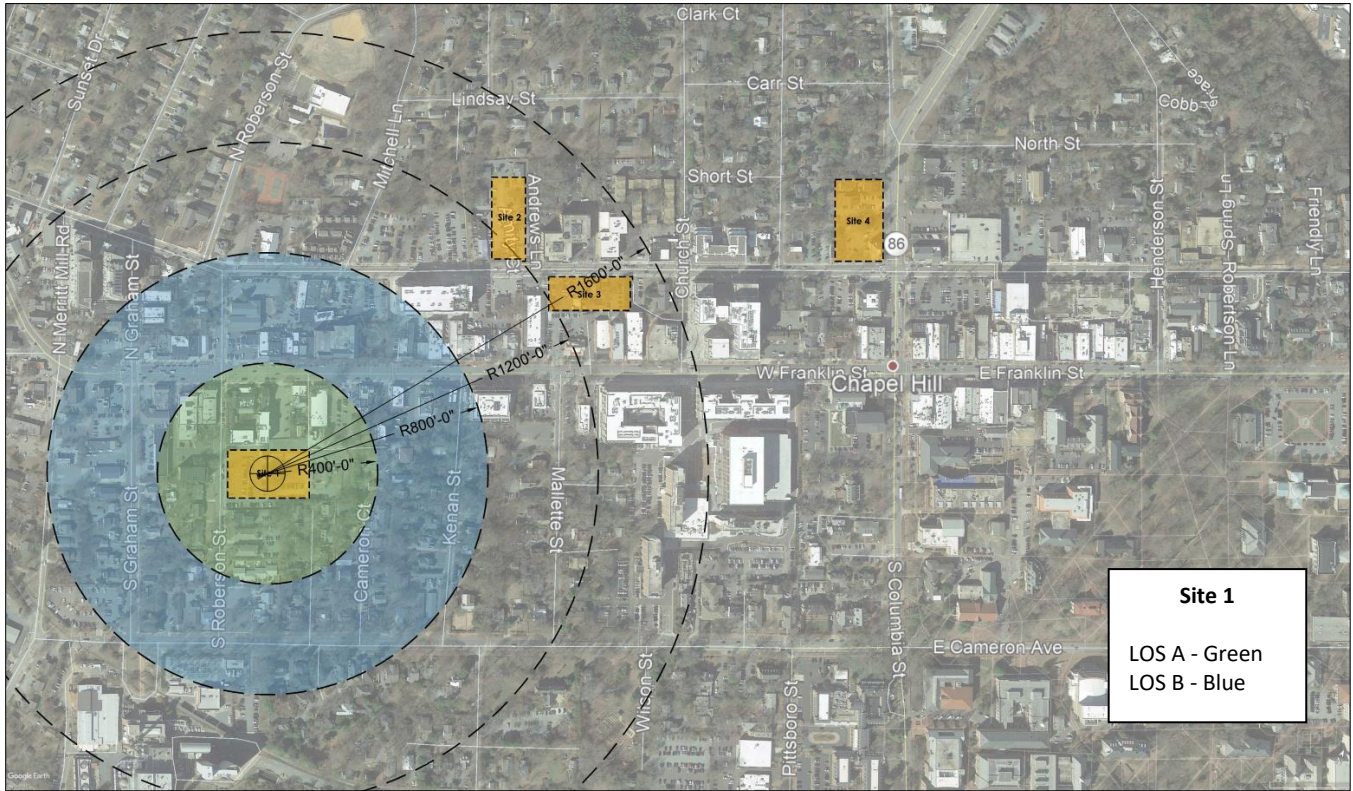


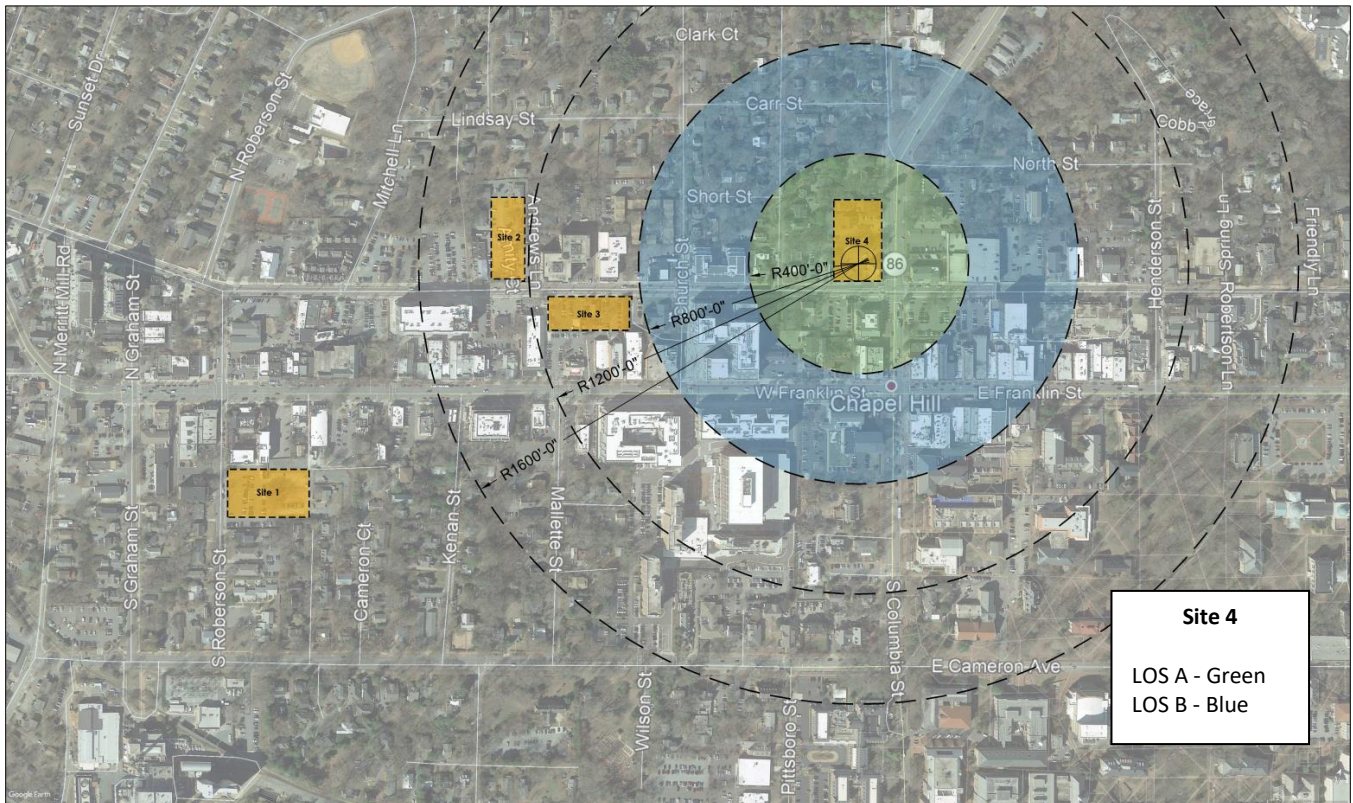
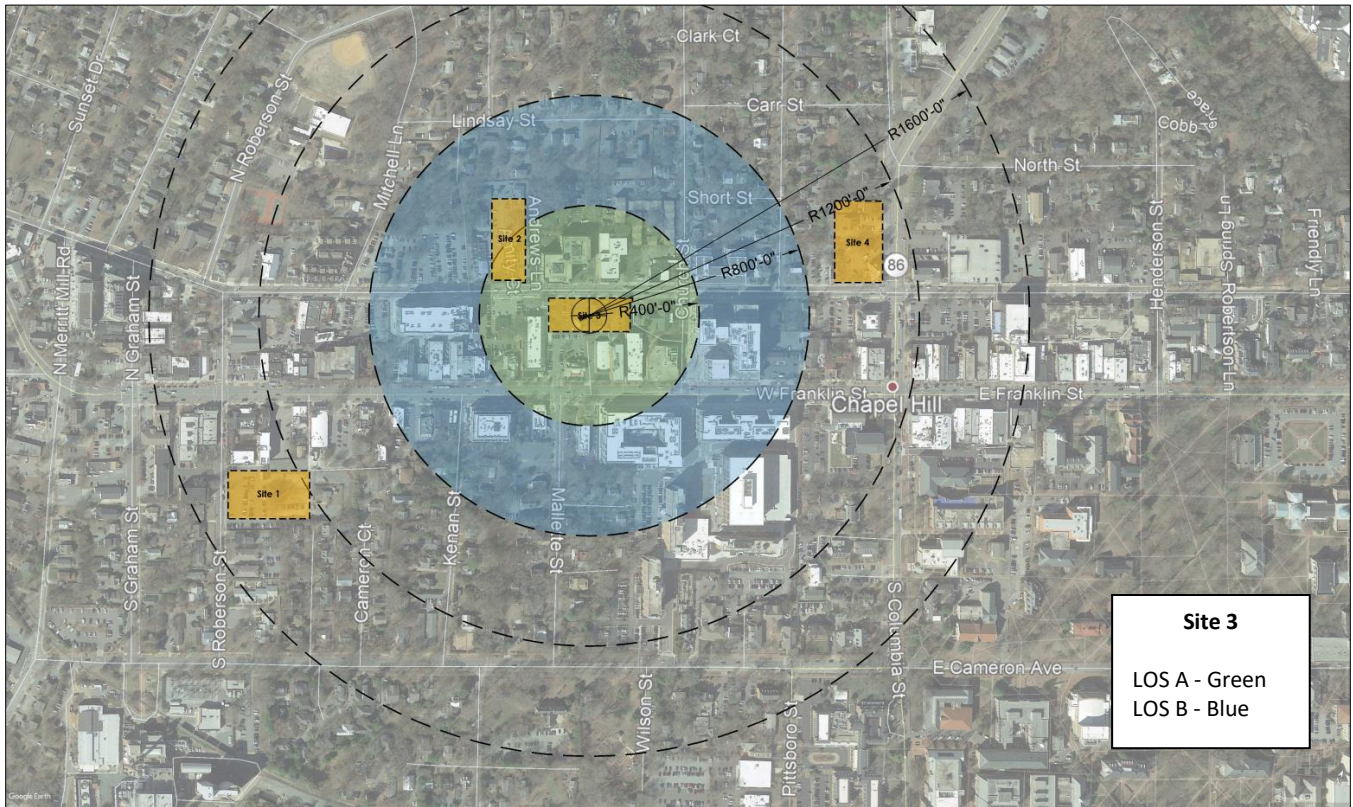
Source: Walker Consultants

SERVICE AREA

The area each facility serves varies based on the user and walking environment. As previously detail, Walker utilizes a Level of Service (LOS) to define the usable area. A parking structure can be expected to draw patrons within a LOS A or B (400-800 feet) during typical demand periods. This can be extended during peak activity such as during events or influenced by price. Each site was analyzed to highlight LOS A and B as well as outline LOS C and D and provided in the following figure.

Figure 6: LOS Walking Distance by Site





Our preliminary opinion of construction costs is estimated at \$16,000- \$18,000 per space, plus soft costs. At this initial level of planning, we suggest allocating 15-25% for soft costs. This brings the cost to \$18,400 to \$21,600, not including land or demolition costs. This assumes an efficient site with maximum efficiency. Factors that impact efficiency include adding commercial space on the ground level, adding public restrooms, providing a dedicated bicycle storage area, and adding parking equipment, all of which can increase the cost per space.

WHAT IS THE FINANCIAL OUTLOOK OF THE PARKING SYSTEM?

Chapel Hill maintains a separate Parking Enterprise fund to account for all on-street and off-street parking related revenues and expenses. There are opportunities to increase revenue given the demand levels through small rate adjustments as well as potential for increased hours of enforcement/payment may be an opportunity.

Walker compared operating expenses to Walker’s active database of over 400 parking facilities in the US and their profit and loss statements and found that, in general, the majority of operating expenses are within the normal range of typical parking system expenses of a similar size and characteristic to that of Chapel Hill’s. Potential reductions in expenses may be found in payroll, as additional reductions to Ambassador hours may be appropriate as users continue to become accustomed to the relatively new gateless operating system with payment required in advance at a kiosk. Another area that may be reduced is Contracted Services. Services should be bid out to ensure they are provided at a reasonable and competitive rate. Of particular interest is the miscellaneous contracted services, which accounts for approximately 55 percent of total contracted services line item.

Staffing Levels

The PSD has budgeted \$837,757 in total for wages and benefits. Wages and benefits for city parking systems vary widely depending upon the size of the parking system, but also on the nature of the city’s parking system within the overall city organizational structure. Chapel Hill recently reduced the part-time Downtown Ambassadors from 15 to 9 positions. Reduction in staffing levels may be through normal attrition with the goal of limiting to part-time staff to allow for one or two Ambassadors circulating through the downtown during normal operating hours. Staffing may be augmented during peak season or during events. Note, the Ambassadors are in addition to two full-time parking attendants. Chapel Hill is generally in-line with or slightly higher than other North Carolina municipalities that run the parking in-house as opposed to hiring an outside parking operator and overseeing the management. The following table provides a comparison with other cities.

Table 6: Staffing Comparison

City	Dedicated City Staff	FY17-18 Budget	Garages	Lots	Notes
Raleigh	39	\$ 16,712,153	8	5	
Winston-Salem	15.5 FTE	\$ 2,123,580	2	5	
Asheville	25.5 FTE	\$ 5,797,769	4	4	
Greensboro	13.75 FTE	\$ 2,924,768	4	6	
Chapel Hill	10 FT/9 PT	\$ 1,767,699	4	7	Some lots combined

Source: Walker Consultants Survey of NC Parking Budgets

FINANCIAL MODEL

Since Walker did not find any major expense categories that could be overhauled to reduce expenses by a substantial amount, Walker’s financial model focused on increasing revenues through modest rate and enforcement hour increases. Walker also found that, due primarily to proposed 300,000 square feet of office space, the parking system may be operating at a 350-space deficit upon completion of the office space and hotel. As such, Walker assumed in the financial model that a new 350-space garage would be constructed and utilized primarily by monthly office patrons.

Future 350-Space Garage

Walker utilized its active database of revenue and expense reports to estimate operating expenses of a new garage, on a per-space basis. The following cost reflect typical, average costs across at- and above-grade parking garages throughout the US, and were used as operating expense assumptions for the future garage. Walker also estimated that the future garage would be staffed with one half-time manager (at \$21,500 per year) and one half-time porter (at \$12 per hour) and assumed 30 percent of annual wages as benefits.

Table 7: Future Garage Operating Costs

Non-Labor Expense Item	Per Space Cost
Supplies	\$15
Insurance	\$30
Utilities	\$40
Repairs & Maintenance	\$150
Signage / Marketing	\$5
Misc. Contractual	\$20
Miscellaneous	\$15
Total	\$275

Source: Walker Consultants

The following table presents per-space, monthly breakeven costs of a parking garage given the annual operating cost and the project cost. A garage which costs \$18,000 per space to build and \$400 per month (including labor) to maintain, each space should generate \$156 in monthly revenue to recover these costs. This assumes a 6.5% interest over 25 years.

Table 8: Breakeven Costs of Structured Parking

Project Cost Per Space	Annual Operating Cost Per Space					
	\$300	\$350	\$400	\$450	\$500	\$550
\$ 15,000	\$127	\$132	\$136	\$140	\$144	\$148
\$ 16,000	\$134	\$138	\$143	\$147	\$151	\$155
\$ 17,000	\$141	\$145	\$149	\$154	\$158	\$162
\$ 18,000	\$148	\$152	\$156	\$160	\$165	\$169
\$ 19,000	\$155	\$159	\$163	\$167	\$171	\$176
\$ 20,000	\$162	\$166	\$170	\$174	\$178	\$182
\$ 21,000	\$168	\$173	\$177	\$181	\$185	\$189
\$ 22,000	\$175	\$179	\$184	\$188	\$192	\$196

Monthly Revenue Per Space Needed

Rate: 6.50% Amortized Period: 25 Years

Source: Walker Consultants

Since the majority of demand for a future garage would come from office employees, Walker estimated revenues as 350 spaces, at \$115 per month, which is the same monthly fee as the Rosemary Deck and the Wallace Deck.

Rate Increase

Walker assumed a modest, \$0.25 per hour rate increase to garage, off-street surface, and on-street parking transient rates, beginning in FY 2020. Chapel Hill's current parking rates, according to the Park on the Hill website, are \$1.00 per hour in the garages, \$1.50 per hour for off-street lots, and \$1.75 per hour for on-street parking. The monthly rate is \$95 or \$115, depending on the facility. Raising monthly rates would not have as large an impact on revenues as increasing the transient rates, so Walker focused this opportunity on the transient rates.

The PSD should expect some level of demand elasticity reaction if rates are increased, meaning that some patrons will search for free parking instead of paying for the increased rate. Price elasticity measures the impact on demand for a good if only the price changes, and is expressed as the percent change in demand, for each percent increase in price. The Victoria Transportation Policy Institute (VTPI) estimates that parking price elasticity is -0.16, or, for each one percent increase in price, demand will decrease by 0.16 percent¹.

The VTPI elasticity estimate includes a range of -0.10 to -0.30, so Walker rounded the average estimate of -0.16 to -0.20, since the PSD parking facilities are near the UNC campus, and the area is walkable. So, if the PSD raised prices by 100 percent, the PSD could expect that demand would fall by 20 percent.

Enforcement Hours Increase

On-street parking is currently free after 6pm and off-street after 8pm. Saturdays in July and December are free, as are major holidays, and every Sunday. Students tend to spend time in the area on weekend nights, and in Walker's opinion, the PSD is missing a chance to recover revenues by ceasing paid parking as early as 6pm. Walker's financial projection included the assumption that enforcement hours would extend until 10pm for both on- and off-street.

To keep revenue projections modest, Walker assumed that 25 percent of on-street spaces would be occupied (and thus generating revenue) during these extended hours, and since the off-street occupancy counts on the Saturday night were lower than on-street, Walker assumed that 10 percent of off-street spaces would be occupied.

Walker assumed that these enforcement hours would begin in FY 2019 at the current transient rates, and that when the rate increase began in FY 2020, the extended enforcement hours would include the raised transient fees. Walker also included the increase in enforcement labor costs as \$12 per additional hour, plus 30 percent for benefits.

¹ <http://www.vtpi.org/tdm/tdm11.htm>

Capital Costs

Debt service was assumed for the future, 350-space garage as a 25-year loan at 5 percent interest of \$18,000 per space plus 25 percent in soft costs. The resulting annual payments were \$559,000.

Walker recommends that a capital expense sinking fund be set aside annually, over the life of a garage, to cover structural maintenance costs as these arise. Walker suggests that a minimum of one percent of initial project costs of structured parking (including only construction and soft costs), adjusted for inflation, be placed annually in a sinking fund. Once the sinking fund is established, contributions to this fund accumulate over time and are available to cover structural maintenance and structural repairs. Even the best-designed and constructed parking facility requires structural maintenance. For example, expansion joints need to be replaced, and concrete invariably deteriorates over time and needs to be repaired to ensure safety and to prevent further deterioration. The structural maintenance cost typically represents the largest portion of the total maintenance budget. Facility owners tend to underestimate the structural maintenance cost and budget inadequately for timely corrective actions that must be performed to effectively extend the service life of the facility.

The structural system of the parking garage will influence maintenance costs. The periodic structural maintenance includes items such as patching concrete spalls and delamination in floor slabs, beams, columns, walls, etc. In many instances there are maintenance costs associated with the topping membranes, the routing and sealing of joints and cracks, and the expansion / construction joint repairs.

The capital expense assumption for the proposed garage was 1 percent of contractor and soft costs, annually, across the off-street spaces. For garage spaces, it was assumed that project costs were \$18,000 per space plus soft costs, and for surface lot spaces it was assumed they were \$5,000 per space. The sinking fund for the future 350-space garage was assumed to begin in FY 2021.

Other Charges

Operating expense items “Reserve”, “Charges by the General Fund”, and “Space Rental” as well as “Transfers” were all assumed to maintain their FY 2018 amounts, and while all other expenses were assumed to grow by 2 percent each year to reflect inflation, these charges were not assumed to grow.

Since “Other Income” included a \$300,000 sale in FY 2018, and varied wildly from year to year, Walker did not include this line item in the financial projection.

Financial Projection

The resulting five-year projection is presented in the following table. Assuming similar Transfers, Reserve, Charges by the General Fund, and Space Rental as in FY 2018, it would be unlikely that the PSD could cover debt payments for a future garage without both raising transient rates and increasing enforcement hours, which totals as much as \$578,000 in additional revenues, above FY 2018 revenues.

If a new structure is delayed, the impact of the small rate increase and added enforcement hours can benefit the parking fund and off-set future contributions from the general fund. This additional surplus can be used to reduce the debt service when a new structure is added.

Table 9: Five-Year Financial Projection

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Revenues						
Off-Street Monthly & Transient Base	\$ 1,770,758	\$ 1,771,000	\$ 1,771,000	\$ 1,771,000	\$ 1,771,000	\$ 1,771,000
Enforcement & Rate Increase		\$ 90,000	\$ 337,000	\$ 337,000	\$ 337,000	\$ 337,000
Future Garage Add. Rev.				\$ 483,000	\$ 483,000	\$ 483,000
Meter Violations	\$ 32,916	\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000
Other income	\$ 305,270	\$ -	\$ -	\$ -	\$ -	\$ -
Transfers	\$ 115,000	\$ 115,000	\$ 115,000	\$ 115,000	\$ 115,000	\$ 115,000
On-Street Revenues Base	\$ 1,089,799	\$ 1,090,000	\$ 1,090,000	\$ 1,090,000	\$ 1,090,000	\$ 1,090,000
Enforcement & Rate Increase		\$ 120,000	\$ 241,000	\$ 241,000	\$ 241,000	\$ 241,000
Total Revenue	\$ 3,313,743	\$ 3,219,000	\$ 3,587,000	\$ 4,070,000	\$ 4,070,000	\$ 4,070,000
Operating Expenses						
Supplies & Equipment	\$ 60,900	\$ 62,000	\$ 63,000	\$ 65,000	\$ 66,000	\$ 67,000
Signage / Marketing	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 8,000	\$ 8,000
Credit Card Fees	\$ 120,575	\$ 123,000	\$ 125,000	\$ 128,000	\$ 131,000	\$ 133,000
Contracted Services	\$ 156,152	\$ 159,000	\$ 162,000	\$ 166,000	\$ 169,000	\$ 172,000
Utilities	\$ 56,647	\$ 58,000	\$ 59,000	\$ 60,000	\$ 61,000	\$ 63,000
Printing / Postage	\$ 9,000	\$ 9,000	\$ 9,000	\$ 10,000	\$ 10,000	\$ 10,000
Maintenance & Repairs	\$ 173,115	\$ 177,000	\$ 180,000	\$ 184,000	\$ 187,000	\$ 191,000
Misc.	\$ 5,830	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000
Subscriptions & Fees	\$ 6,835	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 8,000
Insurance	\$ 19,000	\$ 19,000	\$ 20,000	\$ 20,000	\$ 21,000	\$ 21,000
Future Garage OpEx				\$ 96,000	\$ 98,000	\$ 100,000
Reserve	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000	\$ 107,000
Charges by General Fund	\$ 80,988	\$ 81,000	\$ 81,000	\$ 81,000	\$ 81,000	\$ 81,000
Space Rental	\$ 126,900	\$ 127,000	\$ 127,000	\$ 127,000	\$ 127,000	\$ 127,000
Total OpEx	\$ 929,942	\$ 942,000	\$ 953,000	\$ 1,064,000	\$ 1,079,000	\$ 1,094,000
Wages & Benefits						
Wages and Benefits Base	\$ 837,757	\$ 838,000	\$ 855,000	\$ 872,000	\$ 889,000	\$ 907,000
Future Garage Wages & Benefits				\$ 44,000	\$ 45,000	\$ 46,000
Increased Enforcement Labor		\$ 18,000	\$ 18,000	\$ 18,000	\$ 18,000	\$ 18,000
Total Wages & Benefits	\$ 837,757	\$ 856,000	\$ 873,000	\$ 934,000	\$ 952,000	\$ 971,000
Net Operating Income	\$ 1,546,044	\$ 1,421,000	\$ 1,761,000	\$ 2,072,000	\$ 2,039,000	\$ 2,005,000
Transfers	\$ (906,831)	\$ (907,000)	\$ (907,000)	\$ (907,000)	\$ (907,000)	\$ (907,000)
Capital Costs						
Future Garage Debt Service				\$ (559,000)	\$ (559,000)	\$ (559,000)
Capital Projects	\$ (327,556)					
Capital Sinking Fund		\$ (214,000)	\$ (218,000)	\$ (301,000)	\$ (307,000)	\$ (313,000)
Net Revenue	\$ 311,657	\$ 300,000	\$ 636,000	\$ 305,000	\$ 266,000	\$ 226,000

Assumed increased hours start FY 2019 at current transient rates.

Assumed increased rates start FY 2020.

Assumed the future garage is completed by FY 2021.

Source: Walker Consultants

HOW CAN ADDED PARKING INFRASTRUCTURE BE DELIVERED?

The Town is specifically interested in determining if a fee in-lieu program is an appropriate tool for providing parking with redevelopment activities as well as exploring other options. In this section we dig deeper into fee in-lieu programs as well as other options to help offset parking structure operations and maintenance (O&M) and capital costs. Options covered include:

- Developer/Business/Occupier Fee (includes fee in-lieu)
- Business Improvement District
- Bed Tax Allocation
- Sales Tax Allocation
- Tax Incremental Financing (TIF)/Project Development Financing

Developer/Business/Occupier Fee

This financing structure generates revenue through a fee imposed on developers, businesses, or other occupiers in exchange for the use of public parking stalls. Such public stalls can be “credited” towards fulfilling off-street parking requirements in-lieu of constructing dedicated parking. This is generally what Walker understands Chapel Hill to currently have in place.

Parking in-lieu fees, a similar revenue mechanism for public parking infrastructure, allow, encourage, or require that developers pay a fee to the city in-lieu of constructing private parking, and are a more common financing structure than a developer/business/occupier fee.

A number of cities have tried to find a means to advance the concept of shared parking by motivating developers or property owners who create the need for additional parking to contribute some or all of the cost of developing additional parking in municipal facilities. The approach provides the developer with an opportunity to contribute a predetermined amount for each required parking space not constructed on site. Funds contributed to the in-lieu account are used by the city to provide an appropriate number of spaces in municipal parking facilities or to provide an alternative means of arriving to the site.

Such a fund must be sufficient to cost-effectively develop adequate parking in reasonable proximity and in a timely manner to each new development. The city must charge a sufficient fee-in-lieu to cover the cost of land and construction, even when it isn't immediately turning the fee into parking spaces. In-lieu fees, more commonly than developer, businesses, or other occupier fees, are more successful at generating growth, because they allow the individuals the option to choose to either build their own parking on site or pay a fee in-lieu of building.

Examples of Fee-In-Lieu or Similar Programs

Downtown Coconut Grove Business District, Miami, Florida

By Code, the City of Miami, Florida allows the payment in-lieu to meet the minimum off-street requirements as required by zoning. This has been successfully used in Coconut Grove business improvement district for funding parking while encouraging redevelopment. For the year ended September 30, 2017, the reported Parking waiver and surcharge fees amounted to over \$600,000.

The law provides an option for developers and property owners to either pay a one-time fee of \$5,400 per required opted-out space, or pay \$50 per month. Ninety percent of parking waivers are deposited into the newly established Coconut Grove Parking Improvement Trust, which is used to enhance public parking facilities, offer infrastructure improvements, undertake maintenance, and conduct marketing to serve the Coconut Grove Village Center. The remaining 10 percent of the collections are held in reserve for subsequent years such as adding new parking.

Since its inception, developers have opted out of over 900 spaces, freeing valuable land for businesses to use while paying fees totaling \$3 million by 2008. With an average parking space consuming 325 square feet, the sum of space saved amounts to close to 300,000 sq. ft. of land that can instead be used for more retail, restaurants or other amenities. More importantly, it allows owners and developers to make decisions on land allocation based on market demand for each property instead of a standardized rule. The following link provides additional information and application forms.

<https://www.coconutgrove.com/bid-forms-applications/parking-waiver-application-sidewalk-cafe-permit-application/>

Town of Pasadena, California

The Town of Pasadena, California implemented the Zoning Credit Parking Program in its historic district, Old Pasadena, to enable developers, business owners, and other property owners to provide parking for their users while discouraging (and, in fact, disallowing) any construction of new parking. The program enables shared use (not exclusive use) of public parking spaces located in existing public parking structures; the number of spaces allowed per use is determined based on minimum parking requirements set forth in the City of Pasadena Zoning Code (Article 4). An initial \$738 application processing fee is required to join the program, followed by annual payments of \$250 per space. Processing requires sign-off by the City's planning, transportation, and building and safety departments.

According to representatives from the City's Parking Division, the program has met its key objective of fulfilling parking demand for this vibrant community while replacing the need for private parking infrastructure. In financial terms, the program contributes modestly to the operations and maintenance costs associated with the public parking structures used for the program. In 2016, the program yielded \$489,000, or 15% of total annual O&M cost for the structures.

A chief factor differentiating Pasadena's circumstances from Chapel Hill is the timing of parking infrastructure construction. The public parking structures in Old Pasadena associated with the Zoning Credit Parking Program were constructed in the late 1980's and financed; debt for the structures is expected to be fully retired in 2018. As such, repayment of initial capital costs for the structures is not a priority of the program, though the age of the structures may necessitate significant repair costs in the near future. Conversely, a similar program implemented in Chapel Hill would likely be more closely tied to construction expenses for the public parking structure.

City of Golden, Colorado

By code, the City of Golden, Colorado allows a payment in-lieu for providing required parking within the Downtown development district. The owner may request to provide a payment rather than the parking for approval using one of three calculations, subject to the city council approval.

Land Use Change	Fee Basis	Time of Payment
New Construction or Building Addition	50% of current replacement cost of structured parking space	Payment due at building permit or up to 20-year payment plan
Individual tenant change of use for structures constructed after November 1, 2003	Annualized contribution based upon 25% of current replacement cost of structured parking space, amortized over a 30-year economic life of the structure.	Payments begin at the start of the third calendar year the business is in operation. Ongoing, as long as tenant occupies space, or if transferred to a future tenant.

Link to code:

https://library.municode.com/co/golden/codes/municipal_code?nodeId=TIT18PLZO_CH18.52DODEDI_18.52.025SUPACOB

Business Improvement District

Some municipalities and county governments use business improvement districts (“BIDs”) and parking tax districts as a means to generate income to fund parking facility capital improvements and operating expenses. Both business improvement districts and parking tax districts can be used to finance the acquisition of land; the construction, operation, and maintenance of surface parking lots and parking structures; as well as the costs of engineers, attorneys and other professionals needed to complete infrastructure projects.

Over 1,200 BIDs have been implemented in the U.S. BIDs, which are most often formed at the request of their member businesses, typically address a wide variety of issues, not all related to parking. Common issues addressed include marketing, transit, beautification, signage, lighting, parking, street and public space maintenance, unarmed security patrols, “customer service representatives” or “ambassadors” to provide information and assistance to tourists and shoppers, etc. The collection of assessments tend to be applied uniformly on a square foot, gross receipts, or assessed value basis because benefits are universally recognized by all property owners. Typically, no exemptions or tax credits are provided to property owners who provide all or a portion of their required parking.

Bed Tax Allocation

“Bed taxes”, or transient lodging taxes, are typically imposed on gross rental receipts for transient lodging establishments within a certain jurisdiction. Such taxes enable a municipality, county, or state to generate revenue without economic or political consequences for its residents.

While many municipalities and other jurisdictional authorities levy bed taxes, especially those with strong tourism economies like Las Vegas, Nevada, this tax is typically allocated towards broad transportation improvements, aesthetic improvements, or marketing, promoting, and supporting the tourism industry itself. This is a possibility for Chapel Hill to utilize the large student population. However, this may come at a social cost.

Sales Tax Allocation

Financing via sales tax allocation requires that a certain percentage of municipal sales tax revenue be allocated specifically to a particular expenditure (in this case, operation, maintenance, and capital expense repayment for the proposed parking structure).

In many cases, jurisdictions (including both municipalities and counties) choose to implement this financing option through an increase in sales tax via voter referendum (e.g. a “one-cent” or “penny” sales tax increase). This method ensures that an allocation of sales tax revenue will not impact projects and services already being funded by this revenue source. Such “one-cent” sales tax allocations are commonly tied to infrastructural improvements, though in general potential uses are broader than parking alone, and may include public park maintenance, transportation infrastructure improvements like road widening, sidewalk or bike lane installation, or utility improvements.

Tax-Increment Financing District (TIF)/Project Development Financing

North Carolina General Statutes Chapter 106A allows Cities and Towns to utilize Project Development Financing, or Tax-Increment Financing (TIF) as a tool to make public improvements to assist with development projects. A TIF district is established by boundary and a base valuation of all property within the district is established. Incremental increases in the tax based overtime as the funding source for approved projects. While this has been used successfully in other states, it has not been widely used in North Carolina. This may be due to restrictive requirements that limit the total size to 5% of the total land area for the City as well as the requirement to have a detailed development financing plan prior to approval.

IS THIS A SYSTEM WORTH INVESTING IN?

Having a parking fee in-lieu program to allow or require developers to satisfy parking requirements can be an effective tool. While some cities have experienced participation, others have the mechanism in place but it is never or seldom used. Key factors where the program is used:

1. By definition, the fee in-lieu is tied to satisfying a requirement to provide a minimum number of parking spaces. This is problematic for the Town of Chapel Hill, as there are currently no parking requirements in the downtown.
2. Specific area defined, typically downtown area with limited land resources to dedicate to parking.
3. Establish fee on a per space basis. Fees vary widely, but should consider the cost to build and maintain the parking as well as revenue generation once built.
4. Maintain funds within a separate fund and establish how the funds may be used in advance.
5. Plan for adjusting fee. As an example, by ordinance, City of Miami adjusts fee in-lieu every five years by the Consumer Price Index for Urban Consumers (CPU-U). Based on research, keeping the fee updated is not always done.
6. May include option or additional requirement for purchasing or paying for permits in addition to the one-time payment. The fee may also be allowed to be paid over a period of time.
7. Typically offered as an option, but can require all or a portion of spaces to be paid in-lieu. Lake Forest, Illinois, requires developers to pay in-lieu fees for all required parking within certain districts where building new parking is not an option.

8. Not all programs continue, even successful programs. Calgary Canada had required developers to pay for the half of the parking with fee in-lieu and provide the other half; however, council approved ending this program in May 2017 to encourage more convenient on-site parking to be provided in conjunction with new developments. Previous required funding aided the city in building public parking, although not always convenient to each new development.

Considerations

Allowing developers to pay a fee in-lieu of parking rather than to build their own parking can be an attractive tool for developers. The first step is to require minimum parking standards. This sets the stage for quantifying the number of spaces in a fair and equitable manner. The second factor is establishing the fee, which should include the cost of providing and maintaining the space as well as take into consideration potential revenue generation from the parking.

Benefits:

- Encourages shared parking by providing a common asset for use by multiple land uses.
- Consolidate parking areas to maximize land use.
- May allow developers a lower cost option to meet parking requirements.
- Reduces the need for variances on meeting parking requirements.

Concerns:

- High cost to build and maintain parking.
- Location of parking may not be best for all users.
- Timing of new spaces may not match new developments.
- Not an ideal solution for residential parking, which is best served on-site.

Ultimately, it is a tool and the provides an alternative solution for providing the minimum parking requirements and may provide a solution for potential redevelopment in areas where parcels are a scarce commodity and consolidated parking is the desired solution.

