Village of
ARLINGTON HEIGHTS
Illinois

Parking Study

Draft Final Report

October, 2018

RICH & ASSOCIATES
PARKING CONSULTANTS

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Section 1 - Executive Summary

Introduction

The Village of Arlington Heights has requested a comprehensive assessment of downtown parking needs. With a vibrant downtown consisting of multi-story residential unit developments, retail shops, restaurants, offices, entertainment and other community assets, Village officials are looking to understand how the existing and future parking supply can be efficiently managed and support the many activities of downtown Arlington Heights.

Much of the assessment begins with the detailed utilization counts that were conducted in May, June and July of 2018. During each of these months, three sequential days of counts (Thursday, Friday and Saturday) totaling nine survey dates provided information regarding on-street parking occupancy, public and private off-street parking occupancy and floor-by-floor parking utilization in the Vail, North and Evergreen underground garages. Nearly 100 percent of the available parking supply[1] was included as part of this assessment. This data provided the basis on which to calculate the parking demand reflecting existing conditions and project the parking as it could be expected to exist in the future with provided plans for potential future development. The analysis evaluated the North side of downtown (north of the Metra rail tracks) separately from the portion of downtown south of the tracks.

With the parking needs quantified via the counts and demand assessment, information provided by means of the public engagement process on the challenges presented by the parking situation will help in the development of recommendations. These are designed to address identified deficiencies and should lead to an effort to maximize the efficiency of the available parking assets while improving user perceptions and accessibility.

The downtown study area is shown by **Map 1** on **page 8.**

Methodology

The assessment of the parking needs in downtown Arlington Heights consisted of numerous elements. These included:

a) Land use information provided by the Village noting the amount of square footage or number of residential units attributable to each block by type (Office, Retail, Restaurant or Library).
b) Parking supply data also provided by the Village supplied the initial basis for the completion of the nine days of counts throughout the downtown.

[1] Excluding private parking beneath several residential buildings which was inaccessible to the surveyors and the Village Hall Garage which was not included because of the on-going construction of the adjacent Police Building.

c) Nine days of turnover / occupancy counts. These counts which were conducted beginning at 6:00 am on each day and continuing until 2:00 am provided detailed information on how the parking system is being used by its varied users (residents, commuters, shoppers/visitors, merchants and their staff).
d) Public Input & engagement which consisted of a series of on-line surveys to customers/visitors, downtown residents, downtown business owners and their staff. It also consisted of one-on-one meetings with key stakeholders and two focus-groups consisting of residents and merchants.
e) Determination of parking demand vs. supply for the existing and projected future conditions. This is developed using the occupancy counts as a basis of the existing conditions and applying appropriate parking generation factors to demonstrate the current levels of parking needed by block by type (commercial, residential etc.).

Summary Results – South Side

Land Use Data

Land use data provided by the Village for the blocks that were included in this analysis.

Table ES1 – Summary Land Use (south side)

Demand Classification	Demand Variable
Retail (Square Footage	218,500
Office (Square Footage)	165,200
Restaurant (Square Footage)	46,600
Metropolis Theater (Seats)	329
Residential (Dwelling Units)	759
Movie Theater (Seats)	700
Metropolis Ballroom (Attendees)	100-200

Parking Supply

Parking supply on the south side of downtown totals 2,697 spaces. This is comprised of 947 privately controlled spaces (some with restricted access) and 1,750 publicly available on and off-street parking spaces. On-street parking provides 282 spaces while publicly available off-street parking totals 1,468 spaces. The Village has three garages on the south side of downtown, the 1,097 space Vail Avenue Garage, the 314 space Evergreen underground Garage and the 290-space garage at Village Hall. The Village Hall garage (and its capacity) however was not included in this assessment or in the values above because of the current construction of the adjacent new police building. This publicly available off-street parking supply is split between 1,411 spaces provided in the two studied parking garages on the south side and 57 spaces provided in one surface lot (Lot E). However, once the construction of the new building

is complete, the Village Hall Garage may provide additional capacity that could be used during peak evening hours by the public.

Occupancy Results

The nine days of parking observations serve as a benchmark to which the calculated parking demand can be compared. This helps ensure that the calculated values reasonably demonstrate the existing conditions and helps in the acceptance that future projected needs can be assumed to be reasonably accurately reflecting future parking conditions. The demand calculations are based on land use and parking supply data provided by the Village.

Rich initially calculated the downtown parking demand to compare against the observed conditions based on the land use data shown above with a slight adjustment. A total of 759 residential units are shown for the south side of downtown and 2,697 total spaces. However, 380 residential parking spaces were beneath buildings on one block. These spaces were inaccessible to the surveyors. Therefore, they were not included in the occupancy assessment and the corresponding 280 residential units served by this parking had to be excluded from the demand comparison. Therefore, the comparative demand was based on just 479 residential units (759-280) and the supply evaluated was 2,317 spaces (2,697-380). Comparing the calculated parking demand for the square footage, seating values and adjusted residential values and against the adjusted supply results in a reasonable correlation of the observed versus calculated needs.

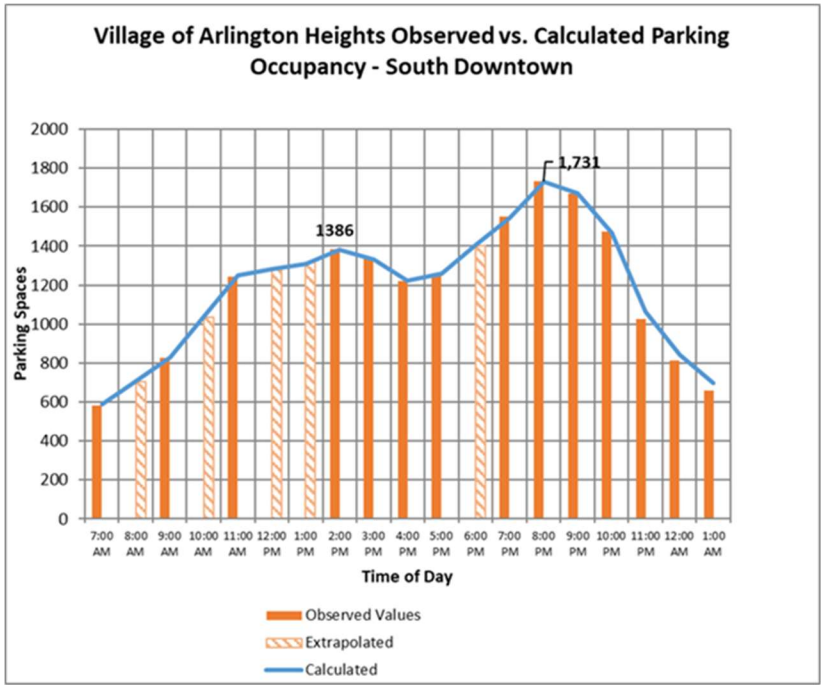


Figure ES1 - Calculated vs. Observed Parking Demand - south side

Occupancy count results shows that parking activity on the south side typically experiences an early afternoon peak, declines until early evening and then rises again to a daily peak as residents come downtown for dinner or to visit some of the other community and entertainment offerings within the Village. Seventy-five percent of the total observed parking supply is occupied at peak time in the evening (1,731 spaces occupied of 2,317 observed). When just the publicly available parking is considered, the level of occupancy reaches 82 percent.

On-Street Parking

The occupancy analysis also found that on-street parking reached and exceeded 100 percent occupancy during the evening hours on several occasions. The excessive parking was due to patrons creating impromptu spaces at the ends of blocks or squeezing in additional spaces on block faces as well as parking in residential areas outside the defined study area.

With most on-street parking time limited to two-hours, Rich found that just over five percent of total vehicles were overstaying the time limit during the hours of 6:00 am until 7:00 pm. A best practice is to control the number of violations such that the rate doesn't exceed five percent.

Vail Garage Parking

The Vail Garage with 1,097 spaces provides 41 percent of the 2,697 spaces which comprise the total parking supply on the south side of the downtown. Providing permit parking, 4-hour shopper parking and daily fee parking, maximum occupancy of the Vail garage was observed on the Friday count date in July when 872 (79.5%) spaces were occupied between 8:00 pm and 9:00 pm. On the date of the highest occupancy observed for the entire south side downtown (Friday June 22, 2018), the Vail Garage was observed at 851 (77.6%) spaces occupied also between 8:00 pm and 9:00 pm.

Events contributing to the high June occupancy on the Friday survey date included a summer concert series event in Harmony Park, (the Thursday performance was cancelled due to weather) a performance at the Metropolis Theater and a wedding reception in the Metropolis Ballroom.

Calculated Parking Demand – Existing Conditions

Application of parking generation rates as determined from Rich's Shared Use Model which correlate to the observed conditions showed a calculated peak demand during the evening hours of 2,191 spaces after adding back in the demand from the 280 excluded residential units. Compared against the total supply of 2,697 spaces this shows a gross surplus of 506 spaces.

However, because this "gross surplus" includes private supply not available to the general public such as Jewel/Osco, Chase Bank and Citibank as well as several others, the excess supply attributable to these uses must be excluded from the calculations. After making this adjustment, the "net" surplus is reduced to 283± spaces.

Calculated Parking Demand – Future Conditions

Plans shared with the consultant show a potential residential and commercial development on the vacant parcel west of the Vail Garage. The developer and Village have indicated that 100 percent of the residential parking needs for this development will be provided on-site but the Village may be required to accommodate the demand from the commercial uses within existing

parking. Current estimates are for 6,000 square feet each of retail, office and restaurant space for which the parking needed will be supplied by the Vail Garage.

At the time of the current assessment, a new music venue (Hey Nonny) was under construction adjacent to the Vail Garage but not yet in operation. With approximately 180 seats, this venue will contribute additional parking demand to the downtown primarily during the evening hours.

Finally, the demand correlating to the existing peak day conditions used a 100-guest wedding event at the Metropolis Ballroom. In order to assess likely conditions in the future, Rich has projected an event at the Metropolis Ballroom with 200 guests. The added parking demand from the commercial square footage on Block 16, Hey Nonny (Block 17) and a larger event in the Ballroom will increase the total downtown parking utilization from the existing 81 percent (2,191± spaces needed of 2,697 available) currently to 92 percent (3,096± spaces needed of 3,365 available spaces) during the peak evening hours in the not-too-distant future. This results in a gross surplus of 268± spaces. After deducting surplus private parking, the "net" surplus will be reduced to just 46± spaces. Given the proximity of this added demand to the Vail Garage, a large proportion of the additional parking demand will seek parking there.

Results - North Side

Land Use Data

Table ES2 – Summary Land Use – North Side

Demand Classification	Demand Variable
Retail (Square Footage)	39,050
Office (Square Footage)	184,775
Restaurant (Square Footage)	14,000
Residential (Dwelling Units)	282
Library (Square Footage)	89,747

Parking Supply

Parking supply supporting the north side of downtown totals just under 2,200 spaces.

Table ES3 – Summary Parking Supply – North Side

North of Tracks - Downtown Arlington Heights						
	Public		Private		Total	
On-Street	239	7.4%	19	1.5%	258	5.7%
Off-Street	1,255	38.7%	675	53.5%	1,930	42.8%
Total	1,494	46.1%	694	55.0%	2,188	48.6%
	68.3%		31.7%		100.0%	

The occupancy counts conducted on the north side showed peak occupancy in the 60 to 65 percent range compared to the total parking supply. With nearly the same parking capacity as the south side, the parking statistics showed generally a peak occurring during either the late morning or early afternoon with a steady decrease throughout the remainder of the day. There was not the evening peak as was observed for the south. The north side houses the Arlington Heights Public Library, shops, restaurants and several residential developments including one that was under construction during the field data collection (the demand is shown with the future

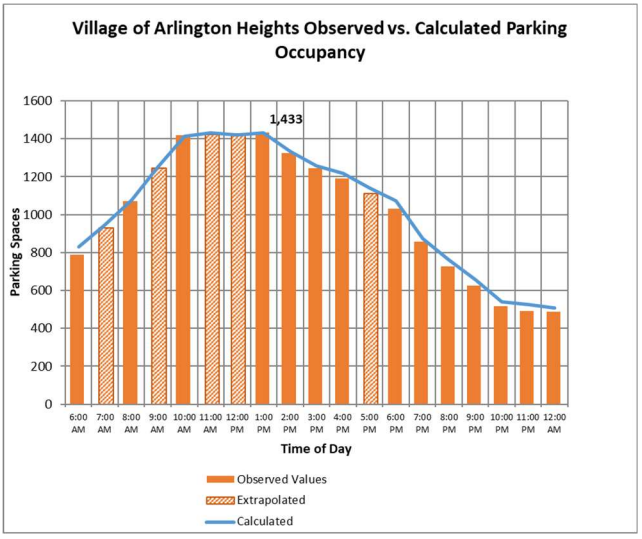


Figure ES2 - Calculated vs. Observed Parking Demand - north side

demand for the north side). In addition to potential commuter (daily fee) parking in the North Garage, there are also several lots catering to commuters located along the tracks and a large 175± space lot just west of the Library. Peak occupancy for the north side occurred on the Thursday May 3rd date between 1:00 pm and 2:00 pm when 1,435 spaces were occupied of 2,188 available spaces (66%). The occupancy of the publicly available spaces peaked at just over 70 percent on this peak day which was also the occupancy rate observed for the North Garage on this date (560 occupied spaces of 811 available spaces).

Existing demand calculations show that given the 66 percent occupancy rate, this would translate into a gross surplus of 745 spaces. However, after discounting the private parking that is not available to the general public in the Library or at the churches, the effective parking surplus becomes 473 spaces for an effective occupancy rate of 78 percent. At this rate, most patrons should be able to find parking relatively convenient to the destinations.

With the only new parking anticipated to occur on the north side within the defined study area resulting from the 45-unit residential building under construction, this would only decrease the net surplus from 473 spaces to 439 net surplus spaces for an effective occupancy rate of 80 percent.

Public Parking

Public parking occupancy on the north side of downtown generally peaked during the late morning after which there was generally a steady decline throughout the remainder of the day. This coincides with the high proportion of daily fee parking on the north side which caters to commuter parking needs.

On-Street Parking

Use of on-street parking did not exhibit the same level of utilization as the south side of downtown. On-street parking generally showed peak needs during the morning at about 60 percent of spaces occupied, showed a decline through the afternoon and then rose again during the evening to between 50 percent and 60 percent occupancy.

Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS NORTH # BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	Sheet Title: STUDY AREA	MAP Number: MAP 1

Recommendation Summary

A number of recommendations have been developed that are intended to improve the user experience and maximize the efficient use of the existing parking supply. By encouraging use of all publicly available parking during periods of peak activity combined with possible opportunities to partner with private businesses for use of surplus private capacity, the intent is to reduce the need to provide additional public parking that in the long-run may not be needed given future parking needs and the potential revolution in personal vehicle ownership.

Table ES4 – Summary Recommendations

Issue Addressed			Recommendation	Time Frame	Costs
	User Experience				
1.0	Signage	1.1	Install Blade Public Parking Signs on Garages	0 -6 months	To Be Determined
		1.1.2	Include Name of Garage on Sign	0 -6 months	To Be Determined
		1.2	Develop Consistent Signs for Permit, Daily Fee and Free Parking	0 -6 months	To Be Determined
		1.3	Consider Assigning Names to Lots rather than Letter Designations	6-12 Months	To Be Determined
		1.4	Signs in garage stair and elevator towers with floor designation and permission (free, permit, daily fee etc).	0 -6 months	To Be Determined
2.0	Parking Guidance	2.1	Install Space Available (Parking Guidance) signs in garages (at a minimum initially Vail Garage)	0 -6 months	+82,000 per garage + $400 - $500 / camera. One camera per lane at both top and bottom of each ramp. Alternative system can monitor each stall ..approximately $160 - $200 / stall)
		2.2	As budgets allow incorporate into North, Evergreen and Village Hall Garages	12-36 Months	See Above
3.0	Payment System	3.1	Install Electronic Pay Stations for Pay Lots and eliminate the existing antiquated system.	0 - 6 months	Pay Stations $7,000 - $10,000 per unit (±17 Units required)
		3.2	Partner with pay-by-phone provider	0 - 6 months	No Cost to Village with most providers. Patron pays a small convenience fee
	Management / Operations				
4.0	On-Street Parking	4.1	Extend two-hour on-street parking limit until 8:00 pm	0 - 6 months	Minimal
		4.2	Repaint stall markings as necessary to make sure that clearly define stalls	0 - 6 months	Minimal
		4.3	If extended two-hour limit unsuccessful in managing on-street parking in evening, consider charging for on-street parking in evening	6 - 12 months	Pay Stations $7,000 - $10,000 per unit (±30 units required)
		4.4	Rates of $2.00 per hour	6- 12 Months	NA
		4.5	Partner with pay-by-phone	0 -6 Months	No Cost to Village with most providers. Patron pays a small convenience fee
5.0	4-Hour Limit	5.1	Reduce 4-hour Limit North & Vail Garages to Three Hours	0 - 6 months	Minimal
		5.2	Enforcable until 8:00 pm	0 - 6 months	Cost of Additional enforcement
		5.3	monitor for abuse by employees	0 - 6 months	NA
		5.4	Reduce number of 3-hour spaces in North Garage from 57 to 40.	6-12 Months	NA
6.0	Free Parking Hours	6.1	Change commencement of free parking to 3:00 pm from 12:00 noon	6-12 months	NA

Issue Addressed			Recommendation	Time Frame	Costs
	Management / Operations				
7.0	**Vail Garage**	**7.1**	Do Not Split the Vail Garage	0 - 6 months	NA
		7.2	Assign Commuter and Merchant permit holders to 4th and 5th floor parking. This will help ensure that these spaces will be available in the evening as many will have left by time needed by restaurant customers.	0 - 6 months	
8.0	**Village Hall Garage**	**8.1**	Move Village Hall staff to 3rd Floor	0-6 Months	Cost of Sign chance
		8.2	Assign 2nd Floor (covered) as daily fee. Slightly dimished convenience to station compensated by covered parking	0-6 Months	Cost of Sign Change
9.0	**Lot E**	**9.1**	Convert Lot E to all permit parking. Maintain 20 spaces for Arlington Heights Commuters with $40.00 monthly permit.	0 - 6 Months	Sign Cost
		9.2	Sell balance of lot as Employee Permit	0-6 Months	
10.0	**Special Event Parking**	**10.1**	seek opportunties to use church lots or other private parking areas	0-6 Months	
		10.2	For particularly large events may need to have shuttle system. Have buses pickup and drop off at peripheral areas of downtown	6-12 Months	
		10.3	Develop sandwich board signs to direct patrons during special events to available parking	0-6 Months	
	Parking Demand & Supply				
11.0	**Supply**	**11.1**	Market the Village Hall Garage for evening restaurant employees to park	0 - 6 Months	Cost of Marketing Materials / Effort
		11.2	Seek opportunities to partner with private businesses (particularly banks) to use their parking as public parking after hours	0 -6 Months	Negotiable
		11.3	Market Lot A as available parking during evening hours	0 - 6 Months	Cost of Marketing Materials / Effort
		11.4	Use opportunities to maximize use of existing capacity before adding additonal parking supply	12-24 Months	To Be Determined

Issue Addressed			Recommendation	Time Frame	Costs
	ADA Parking				
12.0	**On-Street Parking**	**12.1**	Evaluate Village Hall for compliance with number of accessible spaces	Immediately	NA
		12.2	Consult Village Legal Counsel for necessity to provide handicap parking on-street (*Fortyune v City of Lomita)* where the Ninth Circuit U.S. Court of Appeals ruled that cities have an obligation under the Americans with Disabilities Act to provide on-street parking that is accessible to people with disabilities.	Immediately	Could be substantial if roadway changes required. Rich's understanding roadway changes to meet Handicap design standards only required if substantial changes to the adjacent roadway are made
		12.3	Begin Process to provide accessible on-street parking	6 - 12 Months	To Be Determined
	Village Downtown Parking Ratios				
13.0	**Municipal Code**	**13.1**	Consider adjustment in the Village Code to consider shared use in the determination of parking needs	6 - 12 Months	To Be Determined
		13.2	Uniformly apply standards to future developments	6 -12 Months	To Be Determined
		13.3	Consider implementing "in-lieu fee" where if developer cannot provide the parking, fee is charged to offset Villages cost of providing	6 - 12 Months	To Be Determined
		13.4	Encourage Developers of residential parking to "unbundle" parking from the price of the units	0 - 6 Months	NA

Section 2 - Methodology / Public Input

Introduction

Rich & Associates have been asked to assess the parking situation in downtown Arlington Heights. The Village is home to a thriving residential community with 1,300 owner-occupied condominium and rental apartment units, numerous shops and restaurants, a 6-screen movie theater, 329-seat Metropolis Performing Arts Theater and the Metropolis Ballroom which is a venue for weddings and other social gatherings. Downtown also host the Arlington Heights train station which serves approximately 2,500 daily passengers[2]. Although the Village has four public garages within the downtown, only three of these were studied as part of this analysis. The 290-space Village Hall garage was not included because of the on-going construction of the new Police Building adjacent the garage and Village Hall. However, the Village Hall garage can provide additional evening parking capacity to patrons enjoying the many evening activities in the downtown.

Methodology

Downtown Arlington Heights is bisected by Northwest Highway and the Metra Railroad tracks which effectively split the downtown into a north and south side. While there are some similarities between the two areas with both having multi-story residential units, Village provided parking facilities and various restaurants and shops, the Village felt that the two areas should be evaluated independently. The total parking supply (not including Village Hall) available on both the north and south sides of the downtown is just short of 2,200 spaces available on the north side of the tracks and just under 2,700 spaces on the south side. The parking regulations for both areas are similar with most on-street parking time-limited to two-hours and the garages in each area providing 4-hour shopper parking, daily fee parking and permit parking.

Table 1- Parking Supply Summary

Downtown Arlington Heights (Total)						
	Public		Private		Total	
On-Street	521	16.1%	19	1.2%	540	11.1%
Off-Street	2,723	83.9%	1,622	98.8%	4,345	88.9%
Total	3,244	100.0%	1,641	100.0%	4,885	100.0%
	66.4%		33.6%		100.0%	
North of Tracks - Downtown Arlington Heights						
	Public		Private		Total	
On-Street	239	7.4%	19	1.2%	258	5.3%
Off-Street	1,255	38.7%	675	41.1%	1,930	39.5%
Total	1,494	46.1%	694	42.3%	2,188	44.8%
	68.3%		31.7%		100.0%	
South of Tracks- Downtown Arlington Heights						
	Public		Private		Total	
On-Street	282	8.7%	0	0.0%	282	5.8%
Off-Street	1,468	45.3%	947	57.7%	2,415	49.4%
Total	1,750	53.9%	947	57.7%	2,697	55.2%
	64.9%		35.1%		100.0%	

[2] Metra Weekday Boarding count data (2016).

Parking Study Elements

In completing this analysis, a number of different elements were completed. Several of these were not restricted specifically to either the north or south sides of downtown. These included:

- On-line surveys of customers/visitors (1,080 responses), downtown business owners (20 responses), downtown employees (47 responses) and downtown residents (325 responses)
- Two Focus group interviews with downtown business owners and residents
- Evaluation of allocation of spaces among various groups (permit holders, shoppers, commuters).
- An assessment of the existing parking garages for potential improvements in user-friendliness (signage, payment systems, direction to available parking etc.)

Several other elements completed were related specifically to the parking supply and needs either on the north or south sides of the railroad tracks. This allowed for the determination of each areas unique parking needs which, in turn, can provide for necessary improvements in the operation and management of the parking assets.

- Land use square footage and parking supply information provided by the Village
- Provision by the Village of parking permit statistics and parking agreements with downtown residential buildings for use of Village parking
- Parking permit statistics for merchants and commuters
- Detailed occupancy counts conducted between 6:00 am and 2:00 am on nine days (Thursdays, Fridays and Saturdays each in May, June & July)
- One-on-One meetings with key stakeholders
- Attendance figures coinciding with the survey dates for events occurring at the Metropolis Theater and Metropolis Ballroom
- Determination of existing and future parking demand by block and for each portion of the downtown (north of tracks and south of tracks) reflecting their individual daytime and evening peak periods
- Comparison of the peak period demands against the gross and net parking supply[3]

Parking Occupancy Counts

The nine days of comprehensive counts conducted hourly of virtually all parking spaces within the defined downtown study area for the hours and days detailed above represented a major component of the assessment of the parking in downtown Arlington Heights. One route covered the portion of the downtown north of the railroad tracks while the other route encompassed on-street and off-street parking south of the tracks. These results will be discussed in more detail in the individual assessments of the south-side and north-side parking discussions.

[3] Net supply will be explained with the demand figures

The counts were conducted beginning at 6:00 am. During the morning hours, counts were conducted at 6:00 am, 8:00 am and 10:00 am on each survey date (Thursday through Saturday). Beginning with the counts at 1:00 pm, they were conducted hourly until 5:00 pm. After a one-hour dinner break, the counts continued hourly from 6:00 pm until 2:00 am. Between 6:00 am and 7:00 pm, all two-hour on-street and three-hour off-street spaces had license plate data recorded in order to gauge not only occupancy but length of stay and turnover rates. After 7:00 pm, the Village lifts all time restrictions and therefore just the occupancy of each lot or block face was conducted

In both cases however, this compiled data provided a benchmark to which the calculated parking demand for both the south downtown and north downtown could be individually compared to. The occupancy counts were conducted by two teams of Rich & Associates surveyors. One team (consisting of a driver and recorder) drove a defined route for the north side study area with a second team driving a defined route for the south side. License plate or occupancy count data was entered into a laptop computer as the route progressed. Counts were conducted on the following dates:

Table 2 – Occupancy Count Dates

Day of Week	May	June	July
Thursday	**05/03/18***	06/21/18	07/12/18
Friday	05/04/18	**06/22/18****	07/13/18
Saturday	05/05/18	06/23/18	07/14/18

'* Highest Occupancy Day North Side
** Highest Occupancy Day South Side

Parking Turnover

In the two-hour and three-hour spaces, turnover information was collected in addition to the occupancy counts. This was designed to help in the determination of whether patrons were abusing the time restrictions for these spaces which can add to perceptions of insufficient parking. Two-hour on-street parking and three-hour parking in several lots provides close, convenient access to many businesses. If these spaces are occupied for extended periods, often by employees or others, they are obviously not available for patrons who cannot then take advantage of the convenience. Due to time limitations and the need to perform the counts on an hourly basis, the four-hour spaces in the garages were only recorded for occupancy. Rich does however generally recommend against a four-hour limit because it provides too easy a means for abuse by downtown employees.

Public Input

Rich & Associates, with the assistance and cooperation of the Village, facilitated a series of on-line surveys directed to downtown customers and visitors, downtown business owners and their staff as well as residents living within one of the many apartment buildings and condominium buildings located within the downtown. More than 1,000 responses were received which provided some critical information not only in how the parking is being used but also the respondent's perception of downtown parking. This composite information was intended to provide not only some quantitative information, but also qualitative data that could be used in the assessment of potential parking operation and management changes that may be needed. The overall goals of the analysis have been to assess whether the Village is getting maximum use of its existing parking assets and whether additional parking will need to be constructed in order to continue the growth and vitality currently experienced within the downtown.

The following section details some of the key results from the various surveys.

Downtown Customer / Visitor Surveys

The number respondents who indicated that they are residents of Arlington Heights suggest the significant role that the downtown plays as both a gathering place and a place to conduct other personal business. This is further supported by the high proportion of patrons who drive into the downtown (88%) as opposed to the walk from nearby neighborhoods (9% since downtown residents of the towers are surveyed separately). Ninety-one percent said they use public parking in either a Village lot, garage or on-street space in the downtown. What this suggests is that patrons may be using public parking even though some private parking is provided in the downtown because it allows them to park once and attend to multiple errands without the need to move their car. This may be supported by the average number of businesses visited per trip at an average of 1.76. Being able to park once in a public lot, garage or on-street space and attend to more than one errand can be more efficient than having to move their car between stops if the destinations are close enough together. From the surveys this also suggests destinations within approximately 1.5 blocks of each other and the selected parking space. When private parking is used, often the lot owner will expect that patron to move their car at the conclusion of their visit or business.

One of the critical questions asked was the length of stay. When considering all responses, the average length of stay is 3 hours and 22 minutes. However, Rich typically discounts responses longer than 4 to 5 hours for downtown visits because they are inconsistent with the expected time necessary for most patrons to shop or conduct other errands and to visit a restaurant during the same trip. If responses longer than four hours are discounted, then the average stay becomes 2 hours and 38 minutes. Including 57 responses who indicated an average stay was four to five hours increases the overall average stay to 2 hours 47 minutes. In either case, this suggests that the need for 4-hour shopper parking is minimal. *More on the 4-hour parking length will be discussed with the recommendations.*

Customer survey results show that an average of 1.76 businesses are visited on each trip. An owner of private parking will generally restrict the parking only to their staff, customers or residents and typically expects visitors/customers to move their car at the conclusion of their business (visit).

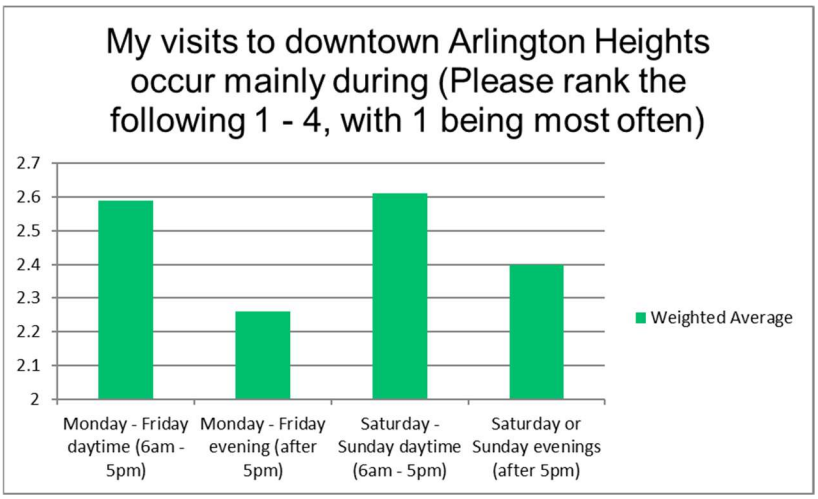
Customer / Visitor Survey Results

I am a (check all that apply):

	Responses	
Resident of Arlington Heights	75.44%	820
Live in Downtown Arlington Heights	9.84%	107
Frequent Visitor to downtown Arlington Heights	56.58%	615
Infrequent Visitor to downtown Arlington Heights	5.70%	62
Out-of-Town Visitor	0.55%	6
	Answered	**1,087**

How do you generally arrive to downtown Arlington Heights?

	Responses	
Drive and Park my own car	88.13%	958
Ride with someone who then parks	1.10%	12
Train	0.09%	1
Dropped Off / Rideshare	0.64%	7
Motorcycle/scooter	0.28%	3
Walk	8.83%	96
Bicycle	0.28%	3
Other (please specify)	1.66%	18
	Answered	**1,080**



Where do you generally park?

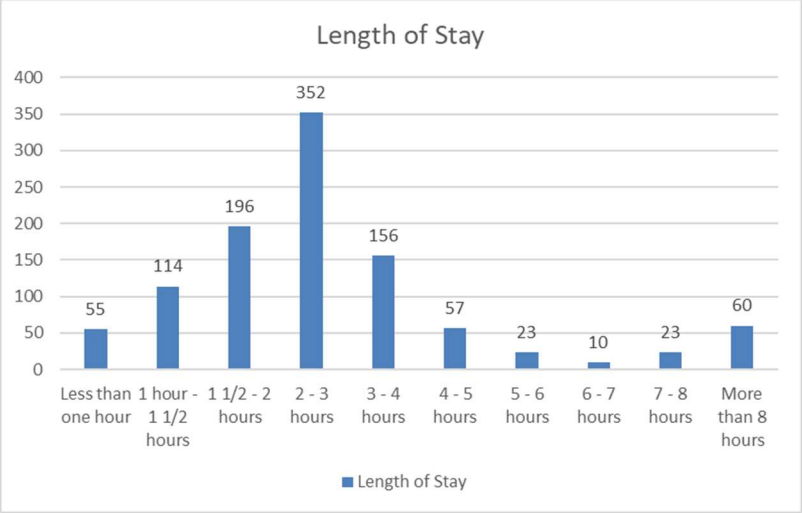
	Responses	
Village parking lot	7.74%	83
Village Parking Garage	45.24%	485
Privately owned parking lot	5.13%	55
On-street downtown	38.06%	408
On-Street in residential area near downtown	3.82%	41
	Answered	**1,072**

How many times in a typical week do you visit downtown Arlington Heights?

	Responses	
About once per week	13.74%	148
1 to 2 times per week	24.05%	259
3 to 4 times per week	22.19%	239
5 or more times per week	20.80%	224
about once a month	10.31%	111
less than once a month	2.97%	32
I tend not to come downtown because	5.94%	64
	Answered	**1,077**

Average: 2.85 Times / Week

During your visits, how long do you generally stay in downtown Arlington Heights?

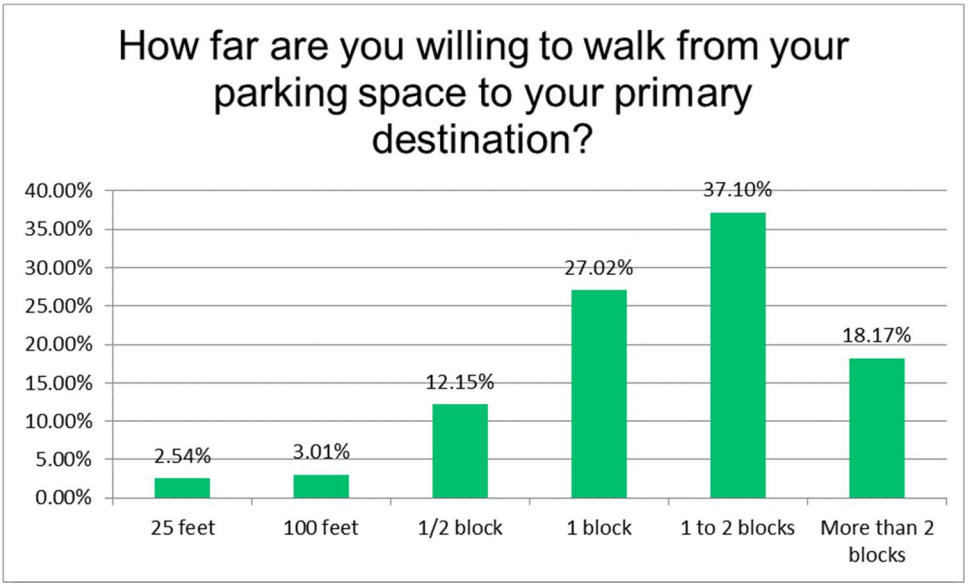


Average Stay: 3 hours 22 minutes
Average Stay: 2 hours 47 minutes discounting stays longer than 5 hours

How many businesses do you generally visit each trip?

	Responses	
Generally, 1 (single purpose)	43.11%	457
2	42.26%	448
3	11.51%	122
4	2.17%	23
5 or more	0.94%	10
	Answered	**1,060**

Average # businesses visited per Trip 1.76



1,062 Responses:

With average block assumed to be 450 feet: Average Distance is 1.52 blocks (686 ft)

Do you feel that there is enough publicly available parking for downtown Arlington Heights customers & visitors?

	Responses	
Yes - The number of parking spaces seems to be okay	29.16%	314
No - There are not enough spaces.	70.84%	763
	Answered	**1,077**

Do you feel that you and your vehicle are safe when you park in downtown Arlington Heights?

	Responses	
Yes	90.98%	978
No	9.02%	97
	Answered	**1,075**

Number of Responses	94	204	284	429	65
Directional signs to parking are clear and adequate	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	-2	-1	0	1	2
Average Score 0.16	-188	-204	0	429	130

Number of Responses	175	427	151	277	47
It is generally easy to locate a parking space near my destination	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	-2	-1	0	1	2
Average Score -0.38	-350	-427	0	277	94

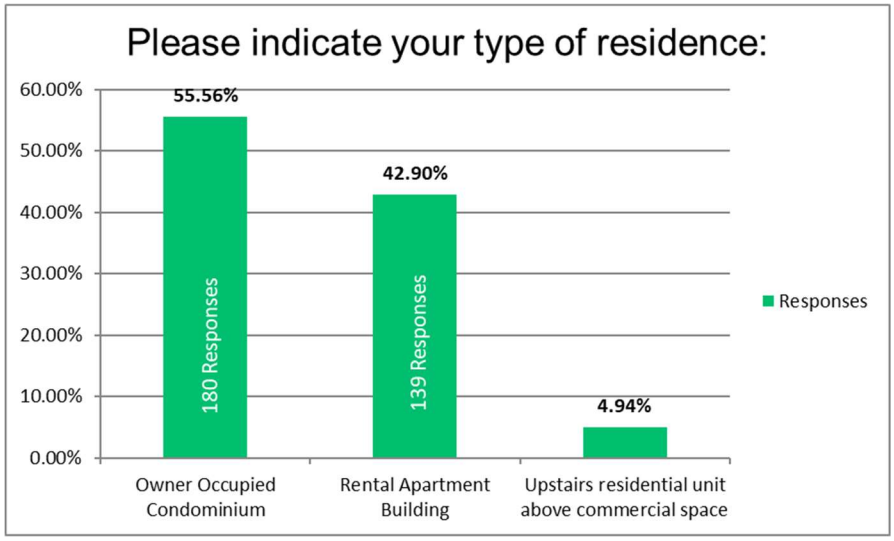
Number of Responses	30	138	214	612	83
On-street signage (No Parking, Loading Zones etc) are clear and consistent	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	-2	-1	0	1	2
Average Score 0.54	-60	-138	0	612	166

Number of Responses	75	229	180	512	75
Public parking areas are clearly identified	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	-2	-1	0	1	2
Average Score 0.26	-150	-229	0	512	150

Number of Responses	38	38	91	437	474
The events and services in the Village, make downtown a desirable place to visit	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	-2	-1	0	1	2
Average Score 1.18	-76	-38	0	437	948

Number of Responses	120	130	375	390	61
The level of parking enforcement seems appropriate	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	-2	-1	0	1	2
Average Score 0.13	-240	-130	0	390	122

Resident Survey Results



Do you have a designated parking space?

	Responses	
Yes	16.62%	54
Parking Is available, but not designated space	12.31%	40
Building does not have parking	0.92%	3
I have a Downtown Residential Parking Permit for a Village owned garage	36.92%	120
	Answered	**325**

Is a parking space included in the cost of your rent or price paid for the unit?

	Responses	
Yes	43.57%	139
No, pay a separate monthly fee for a space	50.78%	162
Had to buy a parking space separately	4.70%	15
Do not have parking	0.94%	3
	Answered	**319**

Is there sufficient parking for guests?

	Responses	
Yes, always	23.97%	76
Not at all	31.23%	99
Usually, but not always	44.79%	142
	Answered	**317**

If there is not sufficient parking at your building for guests, where do guests park?

	Responses	
Village Owned Lot	8.16%	23
Private lot	2.84%	8
Village Owned Parking Structure	26.60%	75
On-street space	62.41%	176
	Answered	**282**

One of the more interesting findings from the resident surveys is the high proportion (62%) of respondents who indicated that their guests use on-street parking when visiting. Given the two-hour time limit this suggests that two-hours is sufficient for their needs and that the longer lengths of stay responses are not coming from guests to downtown residents. The analysis of on-street parking showed not only a relatively modest violation rate (just over 5 percent) but an average stay that ranged from just about 1 hour to 1 hour and 18 minutes depending on the length of time allotted to the first observation of each car.

Downtown Employee Survey Results

I am a (check all that apply):

	Responses	
Full-Time Employee (Work more than 30 hours per week)	80.00%	36
Part-Time Employee (Work less than 30 hours per week)	20.00%	9
Temporary Employee	0.00%	0
	Answered	**45**

How do you generally get to work?

	Responses	
Drive and Park my own car	93.62%	44
Ride with friend or spouse	0.00%	0
Dropped Off / Rideshare	0.00%	0
Train	6.38%	3
Walk	0.00%	0
Bicycle	0.00%	0
Motorcycle	0.00%	0
	Answered	**47**

Does your employer provide parking for you at your workplace?

	Responses	
Yes	4.35%	2
No	95.65%	44
	Answered	**46**

Where do you generally park?

	Responses	
Lot provided by my employer	0.00%	0
Village parking lot	2.22%	1
Village Parking Garage	93.33%	42
Privately owned parking lot	0.00%	0
On-street downtown	4.44%	2
On- street in residential area near downtown	0.00%	0
	Answered	**45**

If you are required to use public parking, is enough off-street parking provided near your employment?

	Responses	
No - Parking is too far away	23.81%	10
Yes - Publicly available lots / garages are near enough	76.19%	32
	Answered	**42**

How far are you willing to walk from a parking space to work?

	Responses	
Less than 1 block	36.17%	17
1 block to 1 1/2 blocks	34.04%	16
1 1/2 to 2 blocks	12.77%	6
2 to 2 1/2 blocks	8.51%	4
2 1/2 to 3 blocks	6.38%	3
More than 3 blocks	2.13%	1
	Answered	**47**

Average Distance: 1.61 Blocks
***if Block assumed to be 450 ft = 723 feet ~ 3 minute walk**

Do you feel that you and your vehicle are safe when you park in downtown Arlington Heights?

	Responses	
Yes	80.85%	38
No	19.15%	9
	Answered	**47**

Does your employer have a policy against or discourage you from parking in on-street or customer convenient off-street spaces?

	Responses	
Yes - Employees are told that convenient parking	13.04%	6
No - There is no policy	86.96%	40
	Answered	**46**

Do you feel that there is enough publicly available parking for customers/visitors?

	Responses	
Yes - The amount of customer/visitor parking is fine	35.71%	15
No - We need more parking for customers and visitors.	64.29%	27
	Answered	**42**

Another critical question was the hours that employees worked downtown. For the three critical days of the week (Thursday, Friday & Saturday), **Figures 1** and **2** below demonstrate the hours that employees indicated that they arrive for work and depart at the end of their workday. The interesting aspect is the proportion of employees who arrive 8:00 am to 9:00 am as well as during the later afternoon hours and their ability to take advantage of a combination of the free 4-hour parking plus early afternoon free daily fee parking.

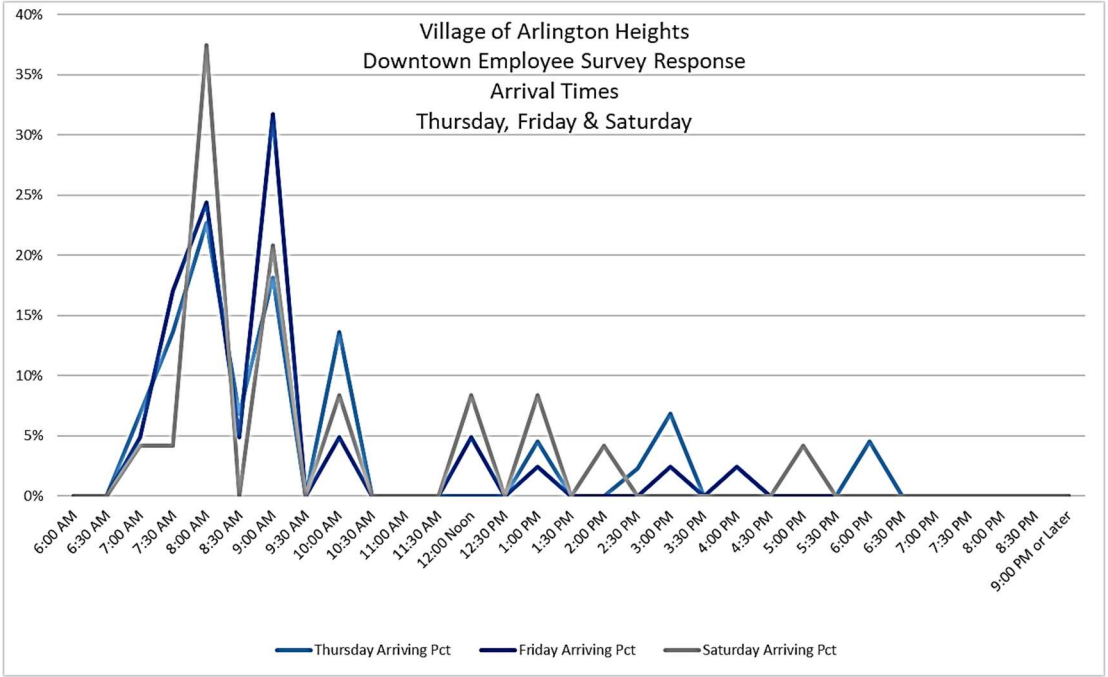


Figure 1 -Downtown Employee Arrival Pattern

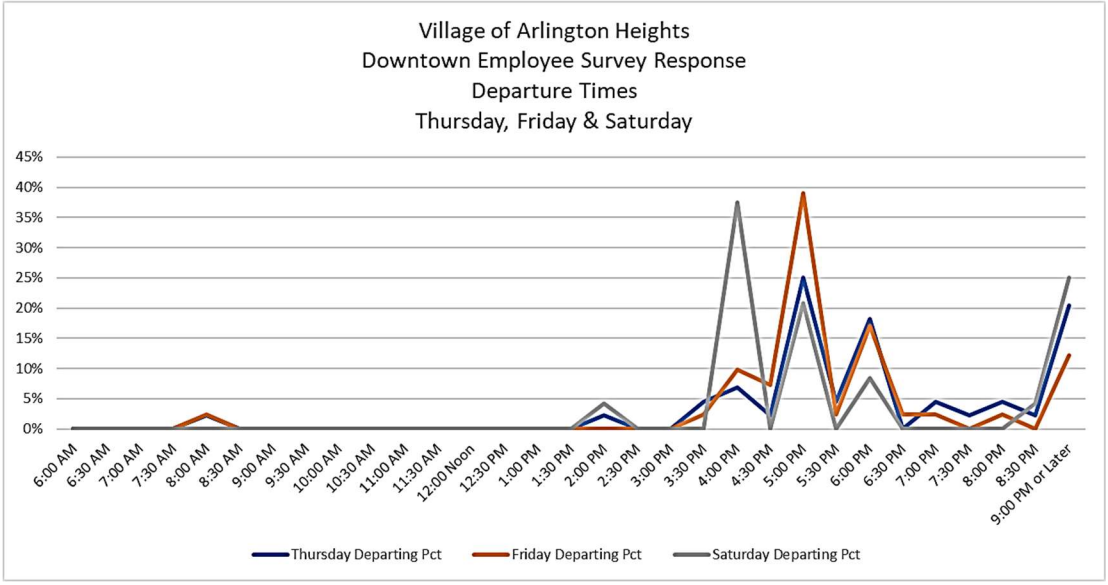


Figure 2- Downtown Employee Departure Pattern

Number of Responses	3	10	8	18	8
It is easy to find a parking space for my car when I come to work in downtown Arlington Heights	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	-2	-1	0	1	2
Average Score 0.38	-6	-10	0	18	16

Number of Responses	2	16	6	18	5
On-Street signage (No Parking, Loading Zone, 2-hour Limit etc) are clear	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	-2	-1	0	1	2
Average Score 0.17	-4	-16	0	18	10

Number of Responses	3	14	16	11	3
Directional signs on-street (Public Parking this way, etc) are clear and easy to follow	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	-2	-1	0	1	2
Average Score -0.06	-6	-14	0	11	6

Number of Responses	12	6	15	7	7
The amount of parking enforcement is appropriate	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	-2	-1	0	1	2
Average Score -0.19	-24	-6	0	7	14

At the outset of the study and at the requests of the Village, Rich & Associates has evaluated the conditions of the three downtown parking facilities and how they can be made more user friendly. Many issues contained in the comments of surveys completed related to the lack of lighting, parking availability, signage and attractiveness of some parking facilities. Some of these issues are already in process of being addressed by the Village.

Analysis – South Side Downtown Arlington Heights

The Village has requested that the parking assessments analyze the south side of the downtown (south of the railroad tracks) separately from the north side. The following section begins with the south side parking assessment. Evaluation of the north side conditions is discussed beginning on page 88 of this report.

Parking Supply

The downtown parking supply servicing the southside of Arlington Heights is a combination of publicly provided on and off-street assets and privately provided supply generally intended only for use by specific groups. Rich defines public parking as parking that can be used by anyone without regards to their destination. Private supply will carry restrictions such as only for use by residents, customers or employees of the parking provider.

The south side downtown parking supply in Arlington Heights totals 2,697 spaces not including the 290 spaces in the Village Hall Garage. These were not included in this analysis because the on-going construction of the new Police Building.

Unlike many communities, nearly two-thirds (65%) of the parking servicing the south side of the downtown in Arlington Heights is publicly provided whereas in many other communities, the private sector will often control in excess of 50 percent of the supply. The distinction between public and private parking is important because having the majority of the spaces publicly available facilitates patrons being able to park once and visit multiple destinations without the need to move their car in between. Owners of private lots such as Jewel/Osco, Dunton Court or Evergreen Center would typically expect those patrons to move their car at the conclusion of their business to make room for the next customer. Rich's best practice is that the municipality control at least 50 percent since this facilitates a patron being able to visit more than one destination (shop and visit a restaurant) or attend an event at the Metropolis and a restaurant without the need to move their vehicle. The Village of Arlington Heights significantly exceeds this benchmark.

Table 3 – South Downtown Parking Supply Summary

South of Tracks- Downtown Arlington Heights						
	Public		**Private**		**Total**	
On-Street	282	**8.7%**	0	**0.0%**	282	**5.8%**
Off-Street	1,468	**45.3%**	947	**57.7%**	2,415	**49.4%**
Total	**1,750**	**53.9%**	**947**	**57.7%**	**2,697**	**55.2%**
	64.9%		**35.1%**		**100.0%**	

The 947 spaces in Table 3 above includes 380 spaces that were beneath the residential towers on block 13. These spaces were not accessible to the surveyors and therefore the number of spaces that were evaluated as part of the turnover and occupancy study downtown was 2,317 spaces.

Map 2 on the following page shows the various public and private parking areas. The letter designations for the off-street parking areas are keyed to **Table 4** on page 33. **Table 5** on page 34 shows the on-street parking.

Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS • ENGINEERS • PLANNERS NORTH # BLOCK NUMBER	LEGEND: STUDY AREA PUBLIC PARKING PRIVATE PARKING 2 HOUR ON-ST PARKING 4 HOUR ON-ST PARKING BLOCK FACE KEY PLAN: A D # B C	Sheet Title: PARKING SUPPLY	MAP Number: MAP 2

Table 4 – Off-Street Parking Supply Detail South Side

													Private Parking			
Block		Description	# Of Total Spaces	HCP	3hr parking	4 hr Parking	Daily Fee	HCP	Permit or 4hr Shopper	Permit	Total	Resident	Cust/Vis/Staff	HCP	Total
9	Q	Jewel-Osco Lot	111	5							0		111	5	116
9		**Block 9 Total**	**111**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**111**	**5**	**116**
10	E	Lot E (3-Hr Shopper Parking + Daily Fee)	54	3	34		20	3			57				0
10		**Block 10 Total**	**54**	**3**	**34**	**0**	**20**	**3**	**0**	**0**	**57**	**0**	**0**	**0**	**0**
13	V	Residential Parking	28								0	28			28
	U	Tuscan Market & Wine Shop Customers	34	2							0		34	2	36
		Underground Parking	380	0							0	380			380
13		**Block 13 Total**	**442**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**408**	**34**	**2**	**444**
14	X	Bangkok Café (Alley)	2								0		2		2
14		**Block 14 Total**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**
15	W	Chase Bank Lot	45	2							0		45	2	47
15		**Block 15 Total**	**45**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**45**	**2**	**47**
17	Y	Vail Ave. Garage	1,073	24		168	243	24		662	1,097				0
	AA	Between AT & T and Vail Garage	19								0		19		19
	Z	Former AT&T Building Lot (Bldg Vacant)	30								0		30		30
17		**Block 17 Total**	**1,122**	**24**	**0**	**168**	**243**	**24**	**0**	**662**	**1,097**	**0**	**49**	**0**	**49**
18	BB	Dunton Tower Retail Customer Parking	21								0		21		21
	CC	Dunton Court Commercial Parking	39								0		39		39
	DD	Hase Petroleum Wax Co	11								0		11		11
18		**Block 18 Total**	**71**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**71**	**0**	**71**
19	EE	Annex Parking (McDonald Dance)	20	2							0		20	2	22
	FF	Lot Before Citi Bank Lot (School of Rock)	24								0		24		24
	GG	Citi Bank Lot	50	2							0		50	2	52
	HH	Evergreen Center Lot	52	3							0		52	3	55
	JJ	Porky's BBQ, Etc.	8								0		8		8
	II	Bentley's Pet Stuff, etc. 30 minute customer parking	7								0		7		7
19		**Block 19 Total**	**161**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**161**	**7**	**168**
20	LL	Evergreen Ave. Underground Garage U (LL)	306	8		96		8	89	121	314				0
	KK	Arlington Town Square	47	3							0		47	3	50
20		**Block 20 Total**	**353**	**11**	**0**	**96**	**0**	**8**	**89**	**121**	**314**	**0**	**47**	**3**	**50**
		TOTAL	**2,361**	**54**	**34**	**264**	**263**	**35**	**89**	**783**	**1,468**	**408**	**520**	**19**	**947**

Table 5 – On-Street Parking Supply Detail South Side

			Public				Private	
Block	Face	Description	2 hr free	Loading	3-HR	4-Hr	Commercial	**Total**
9	A	No Parking this Block Face						
	B	No Parking this Block Face						
	C		10					10
	D	No Parking this Block Face						
9	**Block 9 Total**		**10**	**0**	**0**	**0**	**0**	**10**
10	A	No Parking this Block Face						
	B	No Parking this Block Face						
	C		11					11
	D	No Parking this Block Face						
10	**Block 10 Total**		**11**	**0**	**0**	**0**	**0**	**11**
11	A	No Parking this Block Face						
	B	No Parking this Block Face						
	C	No Parking this Block Face						
	D	No Parking this Block Face						
11	**Block 11 Total**		**0**	**0**	**0**	**0**	**0**	**0**
13	A		12					12
	B		9					9
	C		11					11
	D		10					10
13	**Block 13 Total**		**42**	**0**	**0**	**0**	**0**	**42**
14	A		10					10
	B		3					3
	C		10					10
	D		9					9
14	**Block 14 Total**		**32**	**0**	**0**	**0**	**0**	**32**
15	A	No Parking this Block Face						
	B	No Parking this Block Face						
	C		5					5
	D		3					3
15	**Block 15 Total**		**8**	**0**	**0**	**0**	**0**	**8**
16	A		9					9
	B		12			24		36
	C	No Parking this Block Face						
	D		14					14
16	**Block 16 Total**		**35**	**0**	**0**	**24**	**0**	**59**
17	A		6					6
	B		14					14
	C		10					10
	D		6					6
17	**Block 17 Total**		**36**	**0**	**0**	**0**	**0**	**36**
18	A		9					9
	B		17					17
	C	No Parking this Block Face						
	D		19	2				21
18	**Block 18 Total**		**45**	**2**	**0**	**0**	**0**	**47**
19	A		9					9
	B		11					11
	C	No Parking this Block Face						
	D		17					17
19	**Block 19 Total**		**37**	**0**	**0**	**0**	**0**	**37**
20	A							0
	B							0
	C							0
	D							0
20	**Block 20 Total**		**0**	**0**	**0**	**0**	**0**	**0**
	TOTAL ON-STREET		**256**	**2**	**0**	**24**	**0**	**282**

Downtown Parking Occupancy

Deficiencies associated with downtown parking can range from wayfinding and signage issues, difficulty with paying any required parking fees, accessibility and convenience of the parking to the actual capacity of the parking. Rich is of the opinion that many of these issues can be interrelated. For example, high utilization of the most convenient on-street parking spaces can create perceptions of insufficient parking that is exacerbated if alternatives are not clearly marked along with any restrictions or there are accessibility issues. Are on-street spaces turning over appropriately? Where is parking observed to be tight and where may spaces actually be available? For these reasons, the detailed assessment of downtown parking utilization conducted over the nine survey dates can provide not only critical benchmarks for appropriate levels of service but also the support needed to understand and implement any necessary changes to the parking system. The collected data can help to determine whether solutions require changes in the management or allocation of parking to signage improvements or capacity enhancements.

Table 6 on the following page shows that generally on each survey date, there was an initial peak during the early afternoon (1:00 pm – 2:00 pm) followed by a decrease in parking utilization until late afternoon/early evening when the utilization rose to reach the overall peak for the day during the evening hours. At peak time (7:00 pm – 8:00 pm), the average for the three Thursday counts was 1,592 occupied spaces representing 69% of the available capacity on the south side of downtown. The three Friday count dates averaged 1,628 spaces occupied or 70 percent of the capacity. Friday, June 22nd was also the highest occupancy value recorded at 1,731 occupied spaces (74.7%). The highest Saturday value (also in June) was 1,531 spaces full or 200 fewer spaces than the previous day.

Table 6 – Total (Public & Private) number of occupied spaces by Survey Day (South Side)

South Side

Description	Spaces	6:00am - 8:00 am	8:00 am - 10:00 am	10:00 am - 12:00 N	1:00 pm - 2:00 pm	2:00 pm - 3:00 pm	3:00 pm - 4:00 pm	4:00 pm - 5:00 pm	6:00 pm - 7:00 pm	7:00 pm - 8:00 pm	8:00 pm - 9:00 pm	9:00 pm - 10:00 pm	10:00 pm - 11:00 pm	11:00 pm - 12:00 am	12:00 am - 1:00 am	1:00 am - 2:00 am
Thursday Total May	2,317	601	771	1,125	1,157	1,158	1,228	1,373	1,481	1,468	1,299	928	706	571	504	496
Thursday Total June	2,317	731	996	1,382	1,470	1,414	1,433	1,510	1,667	1,667	1,458	1,183	715	602	536	529
Thursday Total July	2,317	588	860	1,299	1,378	1,311	1,298	1,329	1,577	1,642	1,565	1,193	713	607	545	530
Thursdays	**6,951**	**1,920**	**2,627**	**3,806**	**4,005**	**3,883**	**3,959**	**4,212**	**4,725**	**4,777**	**4,322**	**3,304**	**2,134**	**1,780**	**1,585**	**1,555**
Thursdays Average	**2,317**	**640**	**876**	**1,269**	**1,335**	**1,294**	**1,320**	**1,404**	**1,575**	**1,592**	**1,441**	**1,101**	**711**	**593**	**528**	**518**
% Spaces Occupied		**27.6%**	**37.8%**	**54.8%**	**57.6%**	**55.9%**	**57.0%**	**60.6%**	**68.0%**	**68.7%**	**62.2%**	**47.5%**	**30.7%**	**25.6%**	**22.8%**	**22.4%**
Friday Total May	2,317	579	817	1,189	1,259	1,211	1,182	1,237	1,474	1,542	1,490	1,269	882	755	601	547
Friday Total June	2,317	582	827	1,244	1,386	1,333	1,220	1,256	1,551	1,731	1,671	1,473	1,024	811	658	586
Friday Total July	2,317	587	800	1,193	1,318	1,251	1,194	1,186	1,471	1,611	1,606	1,370	966	745	608	570
Fridays	**6,951**	**1,748**	**2,444**	**3,626**	**3,963**	**3,795**	**3,596**	**3,679**	**4,496**	**4,884**	**4,767**	**4,112**	**2,872**	**2,311**	**1,867**	**1,703**
Fridays Average	**2,317**	**583**	**815**	**1,209**	**1,321**	**1,265**	**1,199**	**1,226**	**1,499**	**1,628**	**1,589**	**1,371**	**957**	**770**	**622**	**568**
% Spaces Occupied		**25.1%**	**35.2%**	**52.2%**	**57.0%**	**54.6%**	**51.7%**	**52.9%**	**64.7%**	**70.3%**	**68.6%**	**59.2%**	**41.3%**	**33.2%**	**26.9%**	**24.5%**
Saturday Total May	2,317	502	682	915	1,213	1,182	1,129	1,090	1,362	1,445	1,458	1,267	997	785	645	576
Saturday Total June	2,317	529	708	995	1,043	1,073	1,113	1,119	1,378	1,499	1,531	1,362	976	769	634	565
Saturday Total July	2,317	538	700	1,011	1,111	1,121	1,116	1,161	1,338	1,472	1,445	1,318	893	712	648	587
Saturdays	**6,951**	**1,569**	**2,090**	**2,921**	**3,367**	**3,376**	**3,358**	**3,370**	**4,078**	**4,416**	**4,434**	**3,947**	**2,866**	**2,266**	**1,927**	**1,728**
Saturdays Average	**2,317**	**523**	**697**	**974**	**1,122**	**1,125**	**1,119**	**1,123**	**1,359**	**1,472**	**1,478**	**1,316**	**955**	**755**	**642**	**576**
% Spaces Occupied		**22.6%**	**30.1%**	**42.0%**	**48.4%**	**48.6%**	**48.3%**	**48.5%**	**58.7%**	**63.5%**	**63.8%**	**56.8%**	**41.2%**	**32.6%**	**27.7%**	**24.9%**

A key factor that likely played a part in the level of peak parking occupancy experienced and the timing was the multitude of social and entertainment offerings available in downtown Arlington Heights. On the Friday June 22nd count date, which was the highest occupancy experienced for the south side of the downtown of all nine survey dates, attendance figures provided by the Metropolis Theater reported a 7:30 pm performance where there were 282 attendees. Statistics provided by the Metropolis Ballroom had a wedding with 100-guests on this date as well. There was also a Sounds of Summer concert in Harmony Park on this date. The concert may be the reason while reported data for the following day (Saturday) had even greater attendance at the Metropolis Theater with 312 attendees and a larger 200-guest wedding at the Metropolis Ballroom yet even with these higher attendance figures, the maximum observed parking occupancy count for this Saturday count date was 200 cars fewer (1,531 vs. 1,731).

Public Parking Occupancy

For many patrons coming downtown, particularly to visit one of the restaurants or attend an event at the Metropolis, their parking choices are primarily the publicly provided on and off-street parking spaces. None of the downtown restaurants nor the Metropolis have their own designated and restricted parking spaces for their staff and customers use. However, as the parking supply information showed, Arlington Heights is somewhat unique with the relatively high proportion (65 percent) of the parking supply publicly provided and available compared to many other communities in Rich's experience where the public supply may account for 50 percent (often less) of the total supply.

The publicly provided parking consists of the 57 space 3-hour shopper and daily fee lot between Vail Avenue and Dunton north of West Davis Street (Lot E), the on-street spaces for the south side of downtown (282 spaces), the 1,097-space Vail Avenue Garage and 314 spaces in the Evergreen underground garage. Combined, these facilities total 1,750 spaces. Analysis of the total public supply figure shows that the Vail Garage comprises 63 percent of the total public supply. Eighty-four percent of the public supply is in the two garages and one on-street lot. **Figure 3** on the following page shows the observed occupancy of the combined public parking on the south side of downtown for the three Thursday survey dates (May, June & July). Consistent with the results reported above, peak occupancy of the public spaces for the Thursdays coincided with the June count at 77.8 percent (1,362 occupied spaces). The occupancy of the public parking that was evaluated peaked at 80.2 percent (1,403 occupied spaces) which occurred on the Friday survey date in June (**Figure 4**). However, there were some patrons who parked on Campbell or Wing Streets west of Chestnut during the evening hours. If the utilization of these spaces was included as part of the 1,750-space public supply, then the public parking occupancy actually increased slightly to 82 percent. The significance of this percentage is its proximity to what is generally accepted as perceptually full parking. At levels above 85 percent, patrons may consider the parking full because it may take more time and effort to find an available space. Monetary measures are often implemented to control the parking such that 15 percent of spaces are available. This will be discussed in greater detail later in this report.

Use of public parking on the Saturdays was found to be slightly lower. This level of occupancy is consistent with results from the business owner survey which reported peaks days as Thursdays, Fridays and Mondays. **Figure 5** shows the reduced occupancy observed on Saturdays.

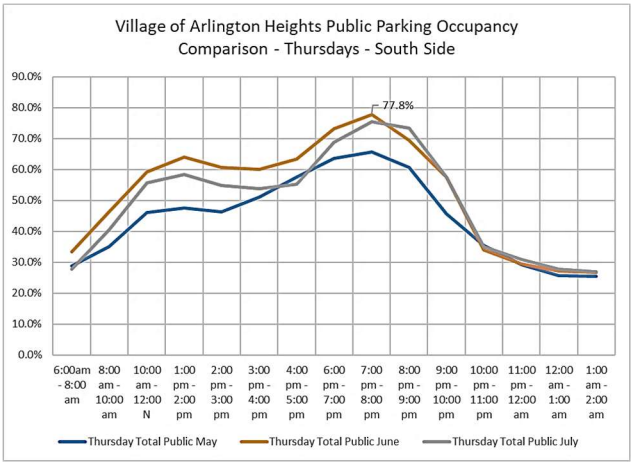


Figure 3 - Thursdays Public Parking Occupancy

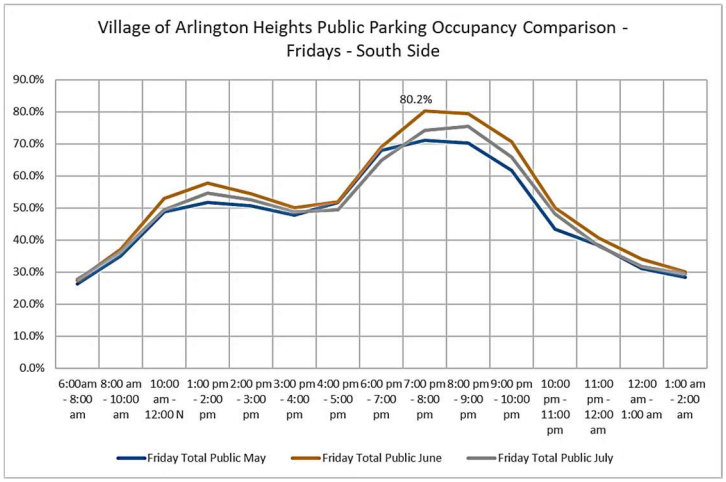


Figure 4 - Fridays Public Parking Occupancy

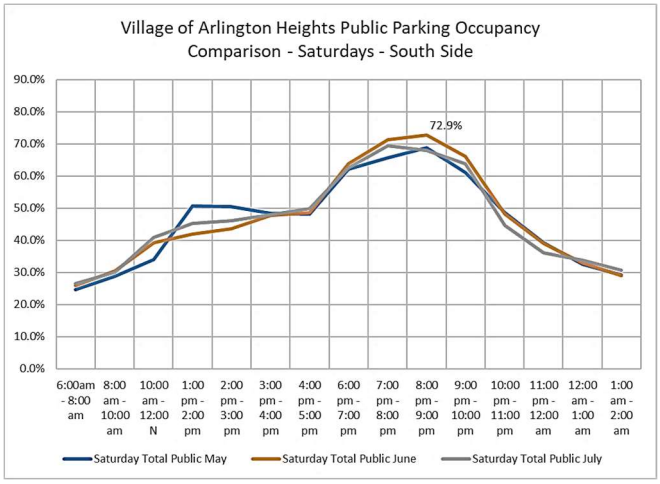


Figure 5 – Saturdays Public Parking Occupancy

On-Street Parking

During the daytime hours, on only one of the nine survey dates did the on-street parking briefly reach the "perceptually full" 85 percent figure with occupancy levels comfortably below this through much of the day. These occupancy rates suggest that anyone wishing to visit the downtown during the "daytime" hours should generally be able to find a convenient on-street space.

As **Figures 6, 7** and **8** show, daytime occupancy of the on-street parking contrast sharply with evening occupancy rates. On-street parking occupancy exceeded 85 percent during the period between 6:00 pm and 9:00 pm on each of the nine survey dates. At peak time, the available on-street parking was reaching or exceeding one hundred percent occupancy (102 percent) as patrons created additional parking spaces at the ends of several block faces and if the on-street parking outside the defined study area down Campbell and Wing Streets west of Chestnut is included. This high occupancy is likely due to not only the higher level of activity occurring during the evening hours but almost certainly, at least partially, due to the elimination of the two-hour time restriction after 7:00 pm.

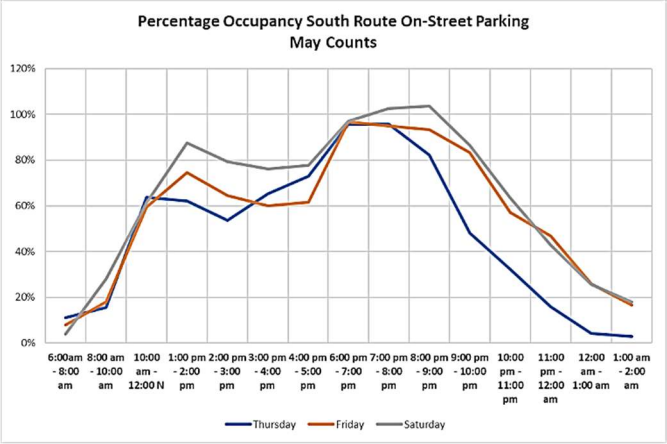


Figure 6 – On-Street Parking Occupancy (May Counts)

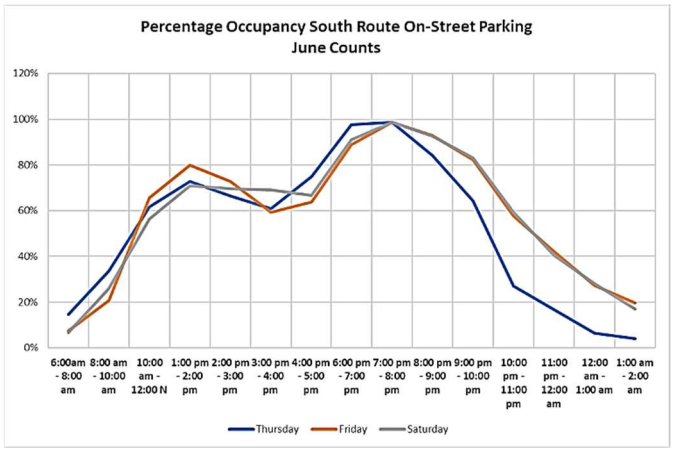


Figure 7 – On-Street Parking Occupancy (June Counts)

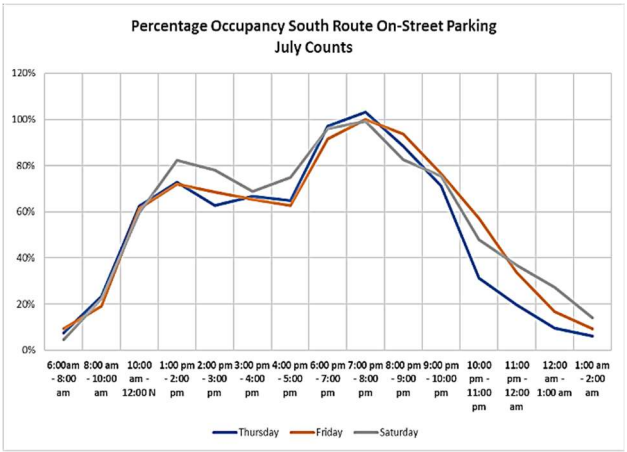


Figure 8 – On-Street Parking Occupancy (July Counts)

Controlling On-Street Parking

The fact that on-street parking during the daytime hours operates well (below the 85 percent maximum desired occupancy) with no price controls suggests that the time limit and level of enforcement are both adequate for patrons needs.

While evening activities such as Metropolis (Theater and Ballroom) events, movies and even restaurant visits could easily exceed two-hours, as noted above, the high utilization of the on-street parking is likely a combination of the increased activity and the fact that after 7:00 pm there is no longer the two-hour time limit for on-street parking. Anyone arriving for any evening activity just prior to or after 5:00 pm including a movie, Metropolis Theater performance combined with a restaurant visit, social event in the Ballroom or just dinner with friends can take advantage of the convenient on-street parking. Many of these activities will extend beyond two-hours, yet currently they can park in these spaces legally and stay for as long as desired. Certainly, these very convenient spaces, if available, will become a first choice. The cessation of enforcement after 7:00 pm may also encourage restaurant staff who perhaps may begin arriving at 4:00 pm, to "take a chance" and use an on-street space in the hope of not getting caught and the belief that not all downtown parking can be monitored by the 7:00 pm cutoff.

The occupancy of on-street parking exceeding 100 percent combined with the overall public parking occupancy currently reaching 82 percent contributes to the perception that downtown parking is full. This may be further reinforced by the fact that available parking for these evening activities will likely be only in either the Vail or Evergreen garage where the actual availability of parking is not clearly evident unless and until someone drives into the facility. In the case of the Vail Garage, this likely will mean traveling up to at least the fourth floor before finding a space.

The high occupancy rate of on-street parking during the evening hours suggests two possible alternatives for managing the resource. One would be to maintain the two-hour time limit for on-street parking later into the evening. This may encourage some users, knowing that they will be downtown longer than two-hours to park in an off-street location (particularly restaurant employees) and ideally help free up some on-street capacity. A downside is that it may frustrate a patron who feels the "clock ticking" and thus shortens their visit with a consequent reduction in the amount of money spent downtown. However, customer/visitor survey results also showed that 35 percent of visits to downtown Arlington Heights were two-hours or less which may mean that encouraging those with a desire to stay longer to park in an off-street location and making sure that these are not only clearly marked but available may provide for this need.

The alternative and more common method of limiting the parking is to manage the parking resource monetarily following the laws of supply and demand. Many municipalities control their parking in this manner which is why Rich recommends that a municipality control at least 50 percent of the downtown supply in order to help manage the parking.

When pricing parking, best practices are to price it such that about 85 percent of the spaces are occupied. It puts a value on the convenience and allows the patron to make the choice of paying for the parking or seeking a less convenient (and less costly) alternative. In the case of Arlington Heights, this of course would mean parking in one of the parking garages or surface lots. The fact that the on-street parking operates well during the daytime hours with no price controls suggest that pricing may only be required at night and if the time limit option doesn't sufficiently discourage on-street parking levels.

Options exists for implementing on-street payment. Simply implementing a charge ($1.00 or $2.00 an hour) may be enough to manage the parking. Alternatively, more dynamic pricing may be appropriate taking advantage of technology such that pay stations can be linked and have real-time data on the level of on-street parking activity. As the level of occupancy begins to reach the 85 percent level, rates may increase. As occupancy decreases, rates will as well. This dynamic pricing means that the on-street parking could continue to be free during periods of lower demand and only charged for during the evening hours and even then, the rate may fluctuate to higher rates for longer stays (i.e. $1.00 the first hour, $2.00 each additional hour) or perhaps a flat $2.00 or $3.00 an hour after 7:00 pm.

However, one potential negative repercussion that the Village will have to consider is that this may encourage patrons to seek free parking by using on-street spaces in adjoining neighborhoods. This, in turn, could require either a) completely restricting on-street parking during these hours in the neighborhoods or b) implementation of a residential permit program. This would require residents acquire and use permits to park on-street in front of their homes. These could be used either by their vehicles or provided to guests. This of course leads to the follow up question of how many permits per household can or should be provided.

Vail Garage – Non-Permit Spaces

The 1,097-space Vail Avenue garage provides 41 percent of the total supply and nearly two-thirds (63 percent) of the 1,750-space public parking capacity on the south side of downtown not including the Village Hall Garage. The Vail Garage also accommodates a diverse set of users including downtown residents, merchant permit holders and both permit holding commuters and daily fee commuters as well as shopper's and other short-time visitors. The approximately 80 percent utilization of the public parking supply at peak time in the evening including the 100 percent plus occupancy of on-street parking and with just the one 57-space public off-street lot (Lot E) on the south side suggests that the surplus capacity will, at this point[4], be in either the Vail Avenue or Evergreen underground garage. Occupancy of the Evergreen underground garage in the evening will likely and at least partially be a result of the popularity and scheduling of movies at the CMX theater. Therefore, this appears to put the focus for transient patrons to use the Vail Garage. **Figures 9, 10** and **11** show the number of spaces available as determined for the counts from the May, June and July observations for occupancy of the designated transient parking (floors 1, 4 and 5).

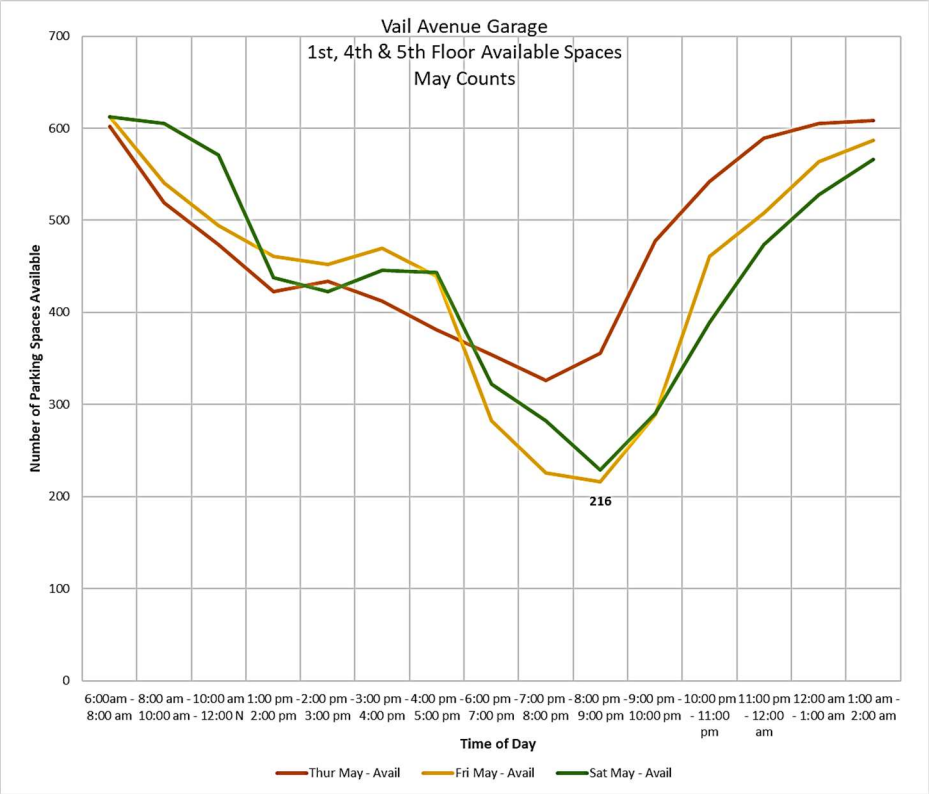


Figure 9 – Vail Garage transient floor availability (May)

[4] We will discuss the possibilities for the Village Hall Garage in the Recommendation Section

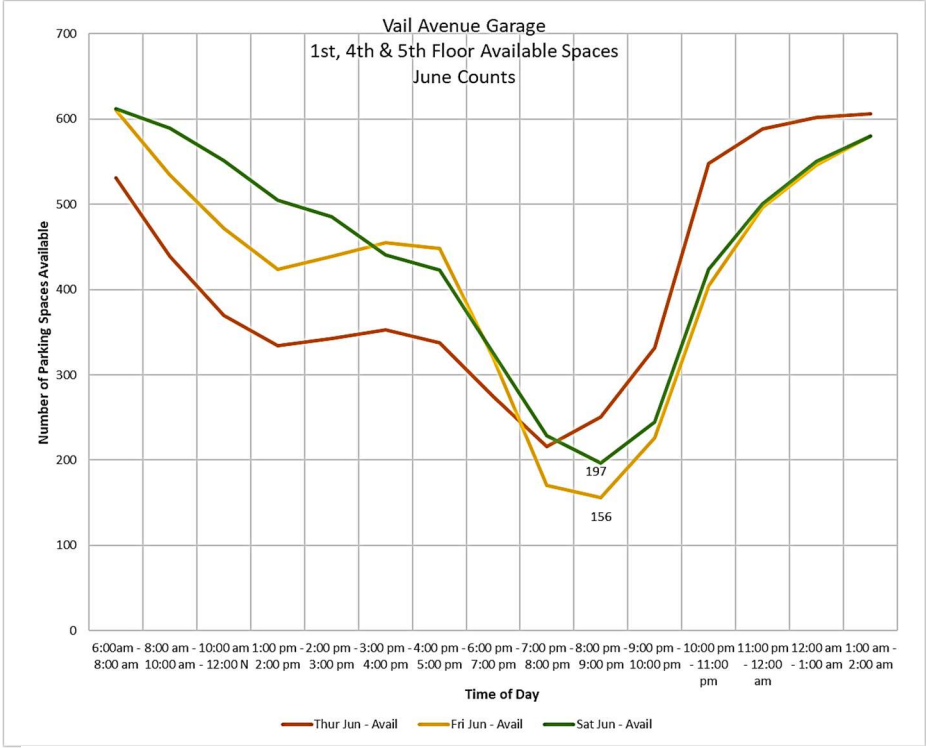


Figure 10 – Vail Garage Transient Floor Availability (June)

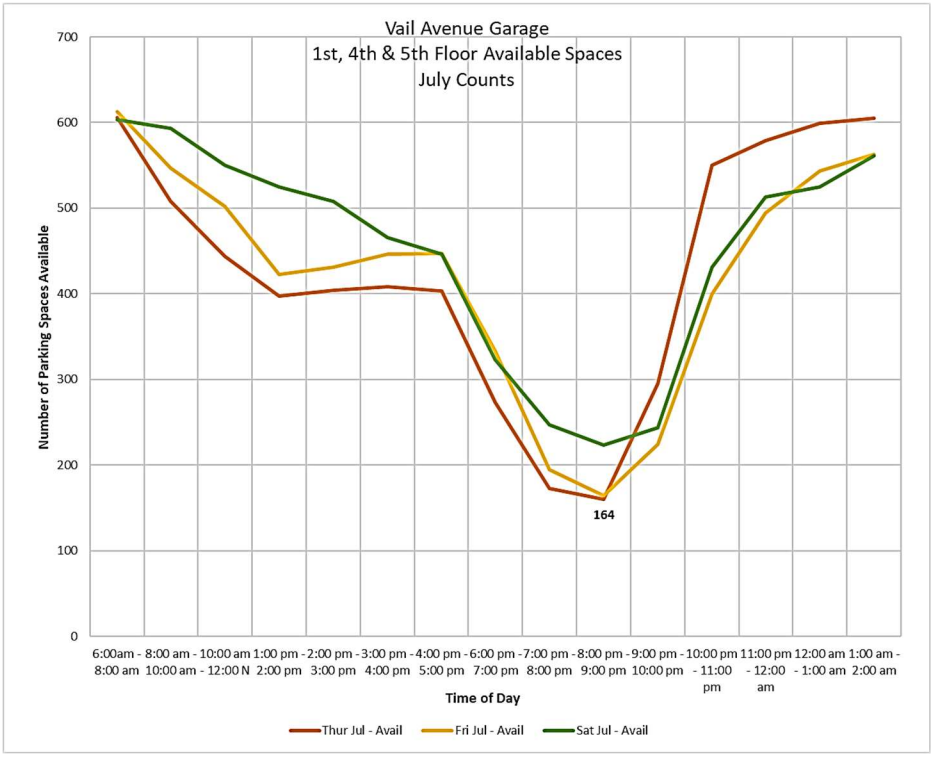


Figure 11 – Vail Garage Transient Floor Availability (July)

The occupancy counts conducted for the non-permit spaces in the Vail Garage show that availability at this time is reaching as few as 160± spaces (156 in June) at peak time.

Figure 12 on the following page shows the analysis of where these available spaces are within the garage coinciding with the Friday June survey date (peak occupancy). The graph shows 9 spaces available on the 1st floor (7 non-handicap), 36 spaces on the fourth floor (north and south) and 111 spaces on the fifth floor (north and south). While spaces are available before reaching the fifth floor, this could involve circulating across nearly the entire 1st or 4th floor in order to find parking rather than continuing up on the ramp. One issue certainly facing drivers will be that after passing numerous full spaces as they continue up, they have been provided with no information that they will actually be able to find parking.

Another potentially frustrating issue could be non-permit holding patrons who are circulating through the 2nd and 3rd floors of the garage to get up to where they have designated parking and seeing spaces open that they are not permitted to use because they are reserved for resident or other permit holders. While most certainly, the availability of resident parking must be maintained by reserving these spaces, the efficient use of the garage would help to ensure that permit holders are first using these spaces rather than parking in the non-permit spaces on the fourth or fifth floor. For the same reason of not wanting to have to circulate across a large parking floor in the hopes of finding a space, a permit parking patron may simply continue up to the fourth floor where they may be more certain to find parking. A permit holder who uses a fourth or fifth floor space when space is available on the second or third floor is in effect taking two spaces if that permit space continues to go un-utilized.

Vail Garage – Permit Spaces

A critical aspect for the downtown parking is to ensure that the existing parking supply operates as efficiently as possible, particularly given the current levels of utilization of the available public parking supply. Given the likelihood that the Vail Garage will be the “go to” choice for transient parking during periods of peak activity, it is prudent to review the utilization of the garage and seek opportunities that will maximize its effectiveness.

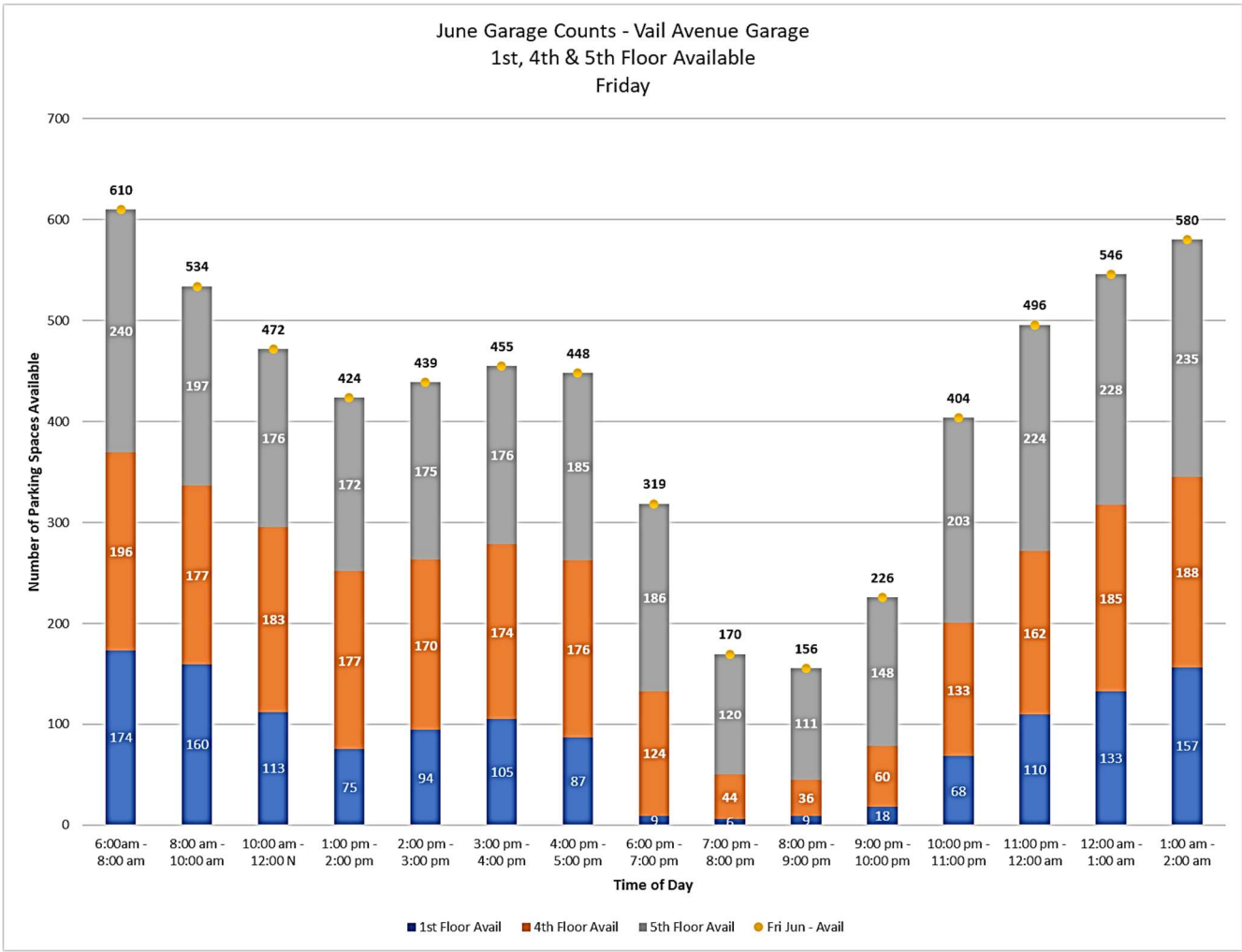


Figure 12 – Vail Garage Transient Space Availability by Floor

The maximum parking occupancy observed in the Vail Garage occurred coinciding with the Thursday count date in July when 872± spaces were occupied between 8:00 pm and 9:00 pm. This represents nearly 80% of the total capacity of the garage. At this time of evening this level of utilization will be from a combination of resident permit holders and downtown transient users. Using similar data as shown in Figure 12 above (which reflects **June** data), the number of available spaces remaining on levels 1, 4 and 5 for the July Thursday survey date (maximum occupancy in the garage) was 160. With 665 total spaces on these three floors, the 160 available spaces mean that 505 "transient" spaces were occupied. Subtracting the 505 transient occupied spaces from 872 total occupied spaces means that 367 permit spaces were occupied on this peak date at this time. This 367 occupied represents 85 percent of the 432 permit spaces on levels 2 and 3 of the Vail Garage and that 65 permit spaces were open at this peak time.

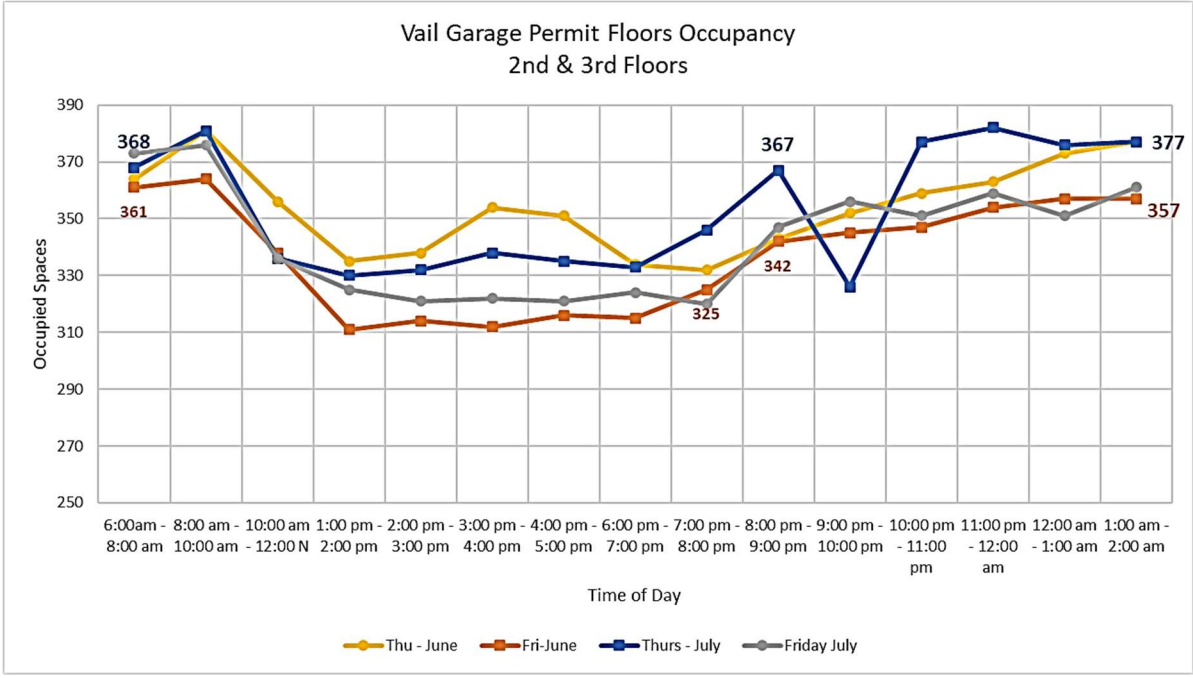


Figure 13 – Vail Garage Permit Floor Occupancy

Rich believes it is certainly critical that the residents who have invested in the downtown and with the assurance that parking will be provided for them, that parking be available. **Figure 13** above shows that at the peak time there are still 65± spaces available on the designated permit floors. (432 spaces on the two floors with 367 occupied) The main issue with this is a review of the number of cars parked on the fourth floor during the 1:00 am to 2:00 am circuit showed an average of 51 cars over the nine survey dates. Rich believes that it is likely given the reduced level of activity by this time of evening that these are in fact residents parking on the fourth floor when all of these could be parking on the designated permit floors (two and three). In essence, these 50 cars are taking two spaces away from potential transient parking patrons.

Table 7- Fourth Floor Occupancy between 1:00 am – 2:00 am.

Location	Thu 5/3/2018	Fri 5/4/2018	Sat 5/5/2018	Thu 6/21/2018	Fri 6/22/2018	Sat 6/23/2018	Thu 7/12/2018	Fri 7/13/2018	Sat 7/14/2018	Average
North Vail Fourth Floor	24	21	25	20	19	25	25	29	24	
North 4th HCP	0	0	0	0	0	0	0	0	0	
South Vail Fourth Floor	30	31	23	27	35	24	25	30	23	
Total	**54**	**52**	**48**	**47**	**54**	**49**	**50**	**59**	**47**	**51**

The most efficient use of the Vail Garage would have the maximum number of spaces be available during the evening hours for customers and visitors to the businesses and where only resident permit holders park on the second and third floors. If commuters and merchant permit holders could be directed to the fourth floor, most of these would then be gone during by

evening when they would be needed by later patrons. Unfortunately, there are several issues with this "ideal" operation.

The table below represents Rich's understanding for the number of residential units and the number of permits issued for parking in the Vail Garage based on the provided agreements and permit statistics.

Table 8 – Residential Buildings using Vail Garage Parking

Residence	Number of Units	Number of Permits
Residences at Metropolis	63	111
Dunton Tower	226	275±
Metro Lofts	55	91
7 W. Campbell	11	11**
15 W. Davis	6	7**
15 N. Vail	10	10**
Total	**371**	**505***

* equates to 1.36 per dwelling unit
** 12-month average (2017)

The occupancy results suggest that not all permits allocated or allowed per the agreements are being used at this point. However, the maximum allowed number per the agreements will have to be accommodated for the period that the agreements are in place. What could be limited or re-allocated from the Vail Garage are the potential 28 permits assigned to the smaller residential buildings.

1). The number of residential permits as noted above per the agreements is 505 which exceeds the combined capacity of floors 2 and 3 which have just 432 spaces. This means that some residential permit holders may be forced to park on the 4th floor and very likely could remain there during the evening hours. Rich's concern is that this may already be happening and occupancy data suggests that the maximum potential of permits per the agreements are not yet being used. If even more permit holders park on the fourth floor when spaces are still available on the reserved permitted floors, this will exacerbate the conditions experienced by transient parking patrons during the evening hours.

2). The fourth floor has just 242 spaces yet Village provided data shows an average of 267 Vail Garage Commuter permits issued for each month in 2017 plus an average of 81 merchant permits. These 348 total permits exceed the 4th floor capacity by more than 100 spaces and some of these spaces may need to be occupied by resident permit holders due to insufficient capacity on the second or third floors. This, in turn, could force permit holders to the 5th floor daily fee spaces.

Vail Garage Parking Operation Change

Introduction

Notwithstanding the discussion on utilization of the Vail Garage above, during the stakeholder meetings and subsequent discussions with the Village, one suggestion was to change the traffic flow and allocation of the Vail Avenue Garage. As the garage is currently configured, the first floor of both the north and south halves of the garage operate and provide 4-hour shopper parking. Floors 2 and 3 (north and south halves) are designated as entirely permit parking. Both north and south halves of the fourth floor are signed as permit parking until 12:00 noon after which time it becomes free public parking. The entire fifth floor of the garage is designated as daily fee parking. Because of the design of the garage and the ramping system, it is possible to operate the Vail Avenue Garage as two separate, independent facilities. Therefore, the suggestion has been to designate the south half of the garage as permit parking (floors 1 through 5) and the north half (also floors 1 through 5) as public parking (shopper and daily fee).

This analysis has been prepared to assess the impact on permit and transient (shopper / commuter) parking if the suggested change were implemented. **Table 9** on the following page shows the existing capacity and the current allocation of spaces as well as the number of spaces that would be available to permit holders and shoppers / daily fee commuters under a north/south split configuration.

Given the dual assignment of the fourth-floor spaces, the table shows customers and visitors have 423 spaces available to them during the morning hours (prior to 12:00 noon) and that this increases during the evening hours to 665 spaces with their ability to use any open parking on the fourth floor. Conversely, permit patrons have 674 spaces designated for their exclusive use during the pre-noon hours which declines to 432 spaces after 12:00 by which time the maximum number of permit spaces will have been met by residents who have not left and incoming commuters and merchants. Spaces vacated by residents on the fourth floor can be used by commuters or merchants during the daytime hours.

As **Table 9** shows, operating the Vail Garage as two independent garages with the north side available to shoppers and commuters and the south side allocated to just permit holders would result in an increase in the number of spaces available for shoppers and commuters from 423 spaces to 546 spaces available. This would be an increase in the number of spaces available to them during the morning hours (when they are not as needed) but a decrease in the number of spaces available to them during the afternoon and evening hours when they are most needed (assuming that no permit holders are parking on the fourth floor). By the same token the number of parking spaces available for permit holders would *decrease* from 674 spaces to 551 spaces during the pre-noon hours which is likely their period of maximum need given resident, commuter and merchant parking while increasing the number of spaces for their exclusive use from 432 spaces (existing conditions during the afternoon) to 551 spaces during the afternoon. In effect, more spaces are held reserved for permit patrons at a time that they may not be needed.

Table 9 – Vail Garage Floor Configuration / Allocation (North/South Split)

						Existing Configuration				North / South Split Configuration			
	Existing Conditions Assignments		Existing Capacity			AM Assignment		PM Assignment		AM Assignment		PM Assignment	
Garage Floor	AM Assignment (prior to 12:00 Noon)	PM Assignment (after 12:00 Noon)	Regular Spaces	Handicap Spaces	Total Spaces	Shopper / Commuter / Visitor	Permit	Shopper / Commuter / Visitor	Permit	Shopper / Commuter / Visitor	Permit	Shopper / Commuter / Visitor	Permit
North Vail 1st Floor	Shopper Parking	Shopper Parking	84	7	91	91		91		91		91	
South Vail 1st Floor	Shopper Parking	Shopper Parking	84	5	89	89		89			89		89
North Vail 2nd Floor	Permit Parking	Permit Parking	91	4	95		95		95	95		95	
South Vail 2nd Floor	Permit Parking	Permit Parking	87	5	92		92		92		92		92
North Vail 3rd Floor	Permit Parking	Permit Parking	120	2	122		122		122	122		122	
South Vail 3rd Floor	Permit Parking	Permit Parking	123	0	123		123		123		123		123
North Vail 4th Floor	Permit Parking	Customer / Visitor	119	1	120		120	120		120		120	
South Vail 4th Floor	Permit Parking	Customer / Visitor	122	0	122		122	122			122		122
North Vail 5th Floor	Daily Fee (Cust/Vis)	Customer / Visitor	118	0	118	118		118		118		118	
South Vail 5th Floor	Daily Fee (Cust/Vis)	Customer / Visitor	125	0	125	125		125			125		125
			1,073	**24**	**1,097**	**423**	**674**	**665**	**432**	**546**	**551**	**546**	**551**
						1,097		**1,097**		**1,097**		**1,097**	

In order to gauge the impact on the permit and transient (shopper / commuter) parking, Rich used data from the occupancy counts conducted in the garages on Thursdays, Fridays and Saturdays in May, June and July. This occupancy data was collected by garage floor and thus allows Rich to assess the occupancy by type of use. Using the tabulated information from the occupancy counts, Rich calculated the number of occupied shopper / commuter spaces and the number of occupied permit spaces. This information is demonstrated below.

Transient demand was based on the results from the 1st Floor 4-hour shopper parking (north and south) and the 5th Floor Daily Fee parking (north and south). Permit parking counts were based on the 2nd, 3rd and 4th floors (north and south) counts with a slight adjustment.

It is Rich's understanding that the entire 2nd and 3rd floors of the Vail Garage are designated for permit parking patrons, 24-hours a day, seven days a week. The 4th floor of the Vail Garage requires use of a permit up until noon each day after which time it becomes free parking. In order to allocate permit parking and transient parking on the fourth floor, Rich took the maximum number of permit spaces observed occupied on each survey date for the fourth floor between the hours of 6:00 am and 12:00 noon. Rich then held this number as the number of occupied permit spaces on the fourth floor. Any values that exceeded this peak number for the hourly counts conducted between 1:00 pm and 2:00 am were added to the shopper / commuter (transient) counts at this time. For example, the maximum number of occupied parking spaces on Thursday, May 3, 2018 on the north half of the fourth floor was 38 spaces between 6:00 am and 12:00 noon. Therefore, 38 spaces were used as the number of occupied permit spaces for the north half of the fourth floor. For the counts conducted between 1:00 pm and 2:00 pm, 52 vehicles were counted on the north half of the fourth floor. Therefore, we assumed that 38 of these cars were permit holders and the 14-car difference (52 – 38) were shoppers or commuters (visitors). These 14 cars were added to the number of transient parkers to be accommodated within the garage. A similar methodology was applied for each of the subsequent periods and for the south half of the fourth floor. In all cases, if the number of counted cars (for example 24) was less than the maximum number of permit holders initially observed (38 in the case above) then this reduced number (24) was held as the number of permit parking spaces occupied at that time period. Applying this correction methodology to each of the nine days of counts in the Vail Garage, Rich developed the "corrected" number of occupied permit and transient (customer/visitor) spaces.

Using this methodology, Rich quantified the corrected number of transients (customers / commuters) at each count period throughout the day and the corrected number of permit parkers throughout each of the nine count days. We then applied the peak hour count from each (transient and permit) to the revised number of available parking spaces should the Vail Garage be split into a north (transient) garage and the south portion be a permit only garage in order to determine the percentage occupancy. As **Table 9** showed, this would increase the number of dedicated transient parking spaces from 423 currently to 546 spaces while at the same time the number of pre-noon permit parking spaces would be reduced from 674 spaces to 551 spaces.

Table 10 on the following page demonstrates the percentage occupancy under the revised space allocations for the calculated number of occupied permit and transient spaces. The 269 occupied transient spaces at peak time on the Thursday May 3rd, 2018 survey date represented 64% of the 423 designated short-term spaces in the garage at that time. Under the revised configuration where the entire north half (546 spaces) would be designated for transient use, 269 occupied spaces would mean that the percentage occupancy would be reduced to just 49 percent.

The reduction in the number of permit spaces (from 674 to 551) if just the south half of the garage is dedicated towards permit parking, would mean that the 419 occupied permit spaces at peak time (between 8:00 am and 10:00 am) would increase the percentage occupancy for permit parking from 62 percent to 76 percent. The real issue becomes with higher occupancies of the permit spaces as observed during the June and July counts. On the Thursday count date in June, 525 spaces were counted as occupied on the 2nd, 3rd and 4th floors of the Vail Garage between 8:00 am and 10:00 am. (518 in the permit spaces plus 7 spaces in the handicap designated spaces on these floors). This level of permit parking utilization compared against the revised allocation of 551 permit spaces that would be available in a split garage would represent 95 percent of the available permit parking capacity.

Based on the average data by day of week, Thursdays permit parking occupancy percentage would increase from 69 percent to 85 percent. The 468-car average occupancy for the permit spaces on a Thursday would mean that just 83 permit parking spaces would still be available for future needs (551designated permit spaces south side – 468 occupied = 83).

Table 10 – Vail Garage Re-Allocation Occupancy Rate

		Transients			Permits		
		Original Allocation	Revised Allocation	Occupied Spaces	Original Allocation	Revised Allocation	Occupied Spaces
	Spaces	423	546		674	551	
May	Thursday	63.6%	49.3%	269	62.2%	76.0%	419
	Friday	89.1%	69.0%	377	61.7%	75.5%	416
	Saturday	92.4%	71.6%	391	58.6%	71.7%	395
June	Thursday	72.1%	55.9%	305	77.9%	95.3%	525
	Friday	103.5%	80.2%	438	63.6%	77.9%	429
	Saturday	99.3%	76.9%	420	59.8%	73.1%	403
July	Thursday	99.1%	76.7%	419	68.2%	83.5%	460
	Friday	104.7%	81.1%	443	64.1%	78.4%	432
	Saturday	92.7%	71.8%	392	61.3%	75.0%	413
Average		90.8%	70.3%	384	64.1%	78.4%	432
Thursday Average		78.3%	60.6%	331	69.4%	84.9%	468
Friday Average		99.1%	76.7%	419	63.2%	77.3%	426
Saturday Average		94.8%	73.4%	401	59.9%	73.3%	404

One additional issue that we believe is not reflected in the occupancy values is that the Village and AT&T have an agreement that AT&T will be provided with 187 permits in the Vail Garage. This is presumably for the use of staff in the now vacant AT&T Building just south of the garage at the corner of Vail and Sigwalt Street. Provided data suggest that if the building is re-occupied as office space, then the agreement to provide the 187 permits in the Vail Garage would remain in force. However, should the use change, then the agreement would become void and the 187 permits would not be required to be held or provided. For purposes of this analysis, we are assuming the worse-case condition of maintaining the agreement and permits.

Unless commuter permit spaces could be re-allocated from the Vail Garage, given the agreement for the former AT&T Building permit spaces and the likely necessity to accommodate these permits in the "permit" half of the garage with the likelihood that the defined capacity would be exceeded for permit parking patrons, Rich does not recommend splitting of the Vail Garage.

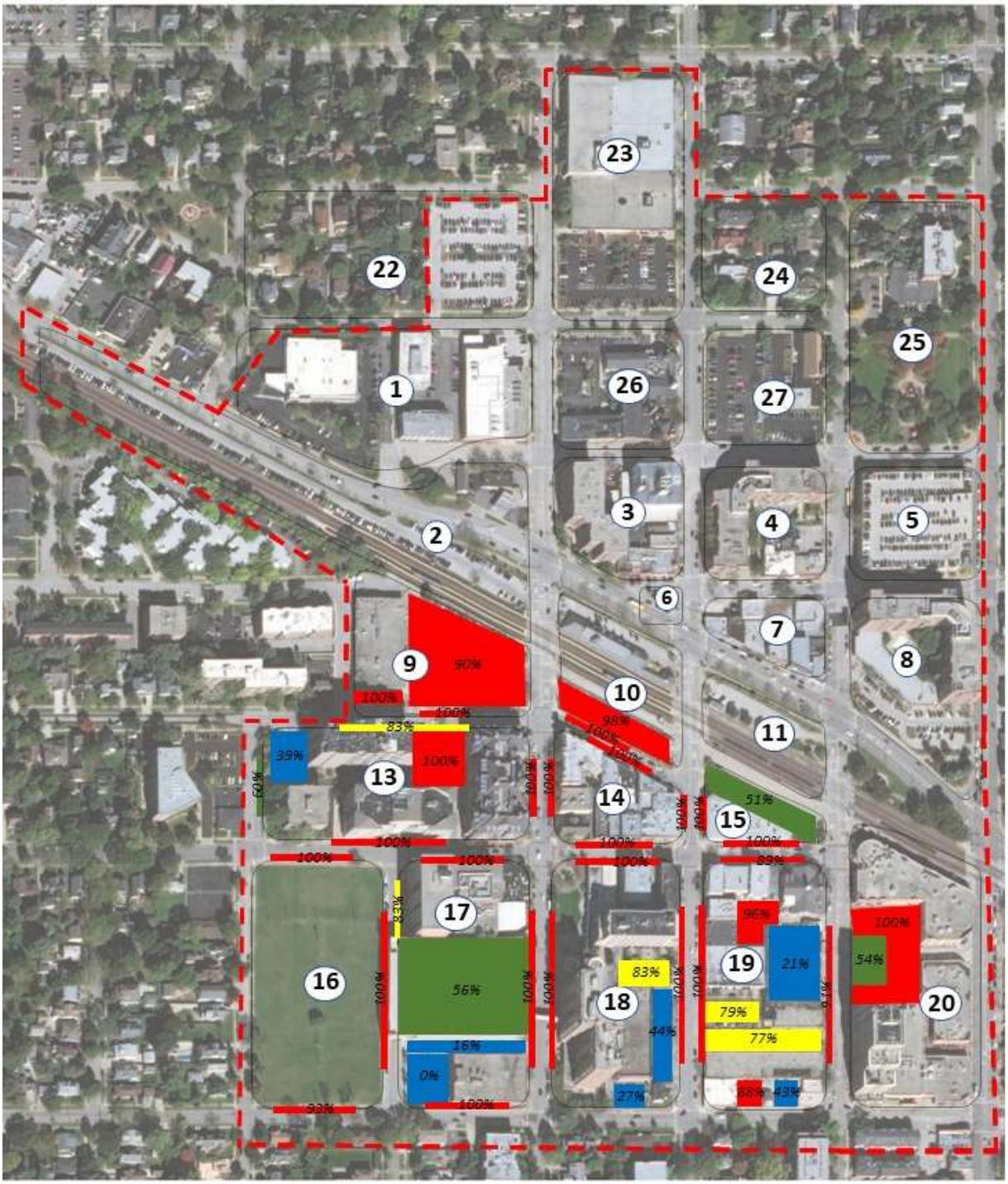
Summary – Occupancy Results

The maps on the following pages show the percentage occupancy of each parking area (off-street lots or garages) and on-street spaces during the overall peak period on each of the nine survey dates. Areas where more than 85 percent of the spaces were full are shown in red, those from 75 percent to 84 percent are in yellow. Areas above 50 percent but less than 75 percent are in green while those less than 50 percent full during these peak periods are shown in blue. It should be noted that the lower utilization occurs in many privately controlled parking areas which will be important in the parking demand discussion as it relates directly to what patrons are likely experiencing. This will be explained further in the discussion of current and future parking demand and the parking demand model (beginning on page 66**).**

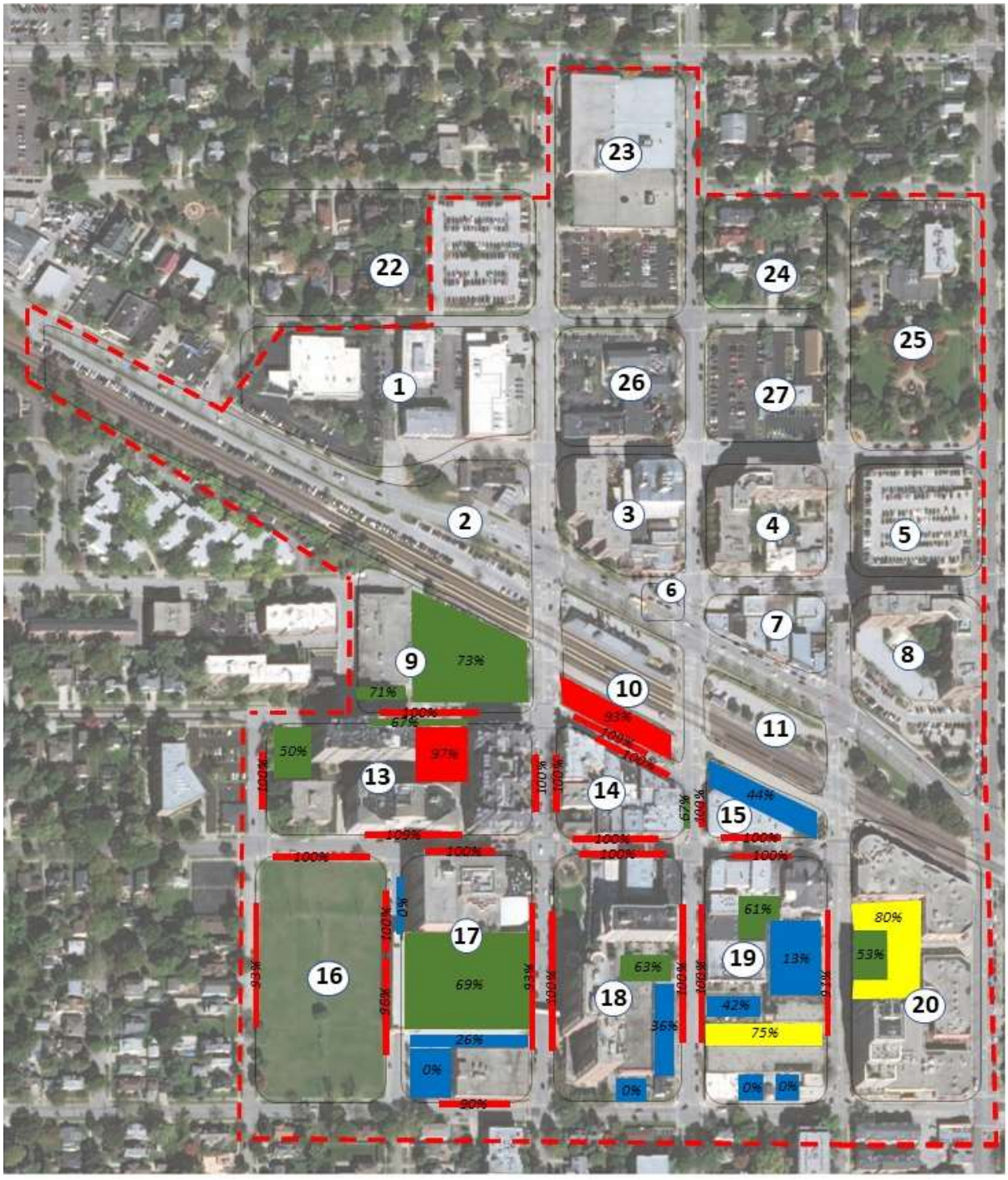
Table 11 – Summary Peak Occupancy Observed Values (South Downtown)

Day of Week	May		June		July	
	Date	Peak Occ	Date	Peak Occ	Date	Peak Occ
Thursday	05/03/18	1,481	06/21/18	1,667	07/12/18	1,642
Friday	05/04/18	1,542	**06/22/18**	**1,731**	07/13/18	1,611
Saturday	05/05/18	1,458	06/23/18	1,531	07/14/18	1,472

Overall peak occupancy observed.



Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY SOUTH Thursday May 3, 2018 6:00 pm – 7:00 pm	MAP Number: MAP 3



Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS NORTH # BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY SOUTH Friday May 4, 2018 7:00 pm – 8:00 pm	MAP Number: MAP 4


23
22
24
25
1
26
27
2
3
4
5
6
7
8
9
62%
71%
10
91%
11
50%
94%
13
14
73%
15
16
17
69%
18
54%
19
23%
70%
20
90%
34%
8%
12%
11%
3%
0%
50%
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BLOCK NUMBER
LEGEND:
STUDY AREA
BLOCK FACE KEY PLAN:
A
D
B
C
PARKING OCCUPANCY:
85% Through 100%
75% Through 84%
50% Through 74%
0% Through 49%
Sheet Title:
PEAK OCCUPANCY SOUTH
Saturday May 5, 2018
8:00 pm – 9:00 pm
MAP Number:
MAP 5

Arlington Heights Parking Study

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ARCHITECTS · ENGINEERS · PLANNERS

BLOCK NUMBER

LEGEND:

STUDY AREA

BLOCK FACE KEY PLAN:

A
D # B
C

PARKING OCCUPANCY:

- 85% Through 100%
- 75% Through 84%
- 50% Through 74%
- 0% Through 49%

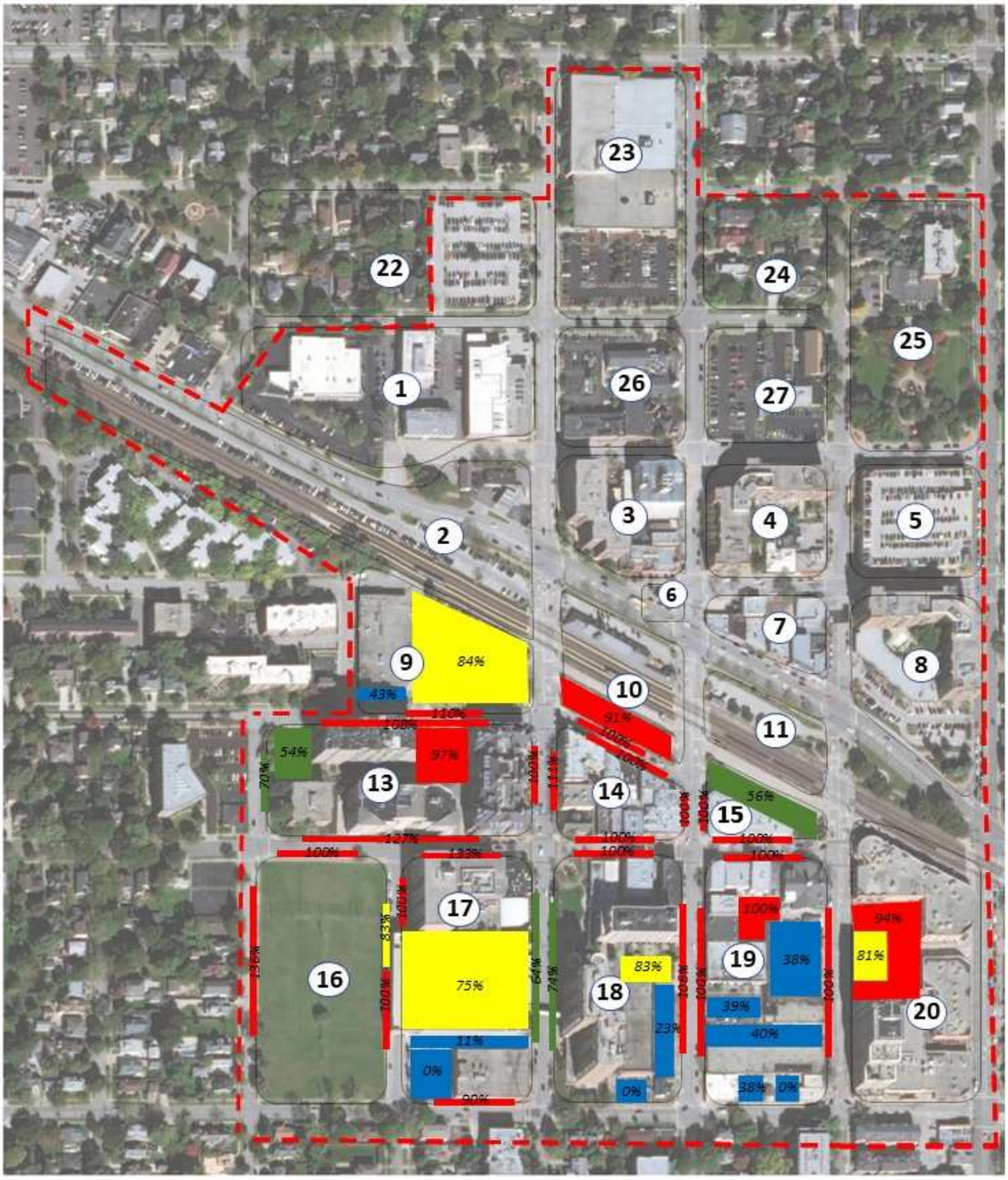
Sheet Title:

PEAK OCCUPANCY SOUTH

Thursday June 21, 2018
7:00 pm – 8:00 pm

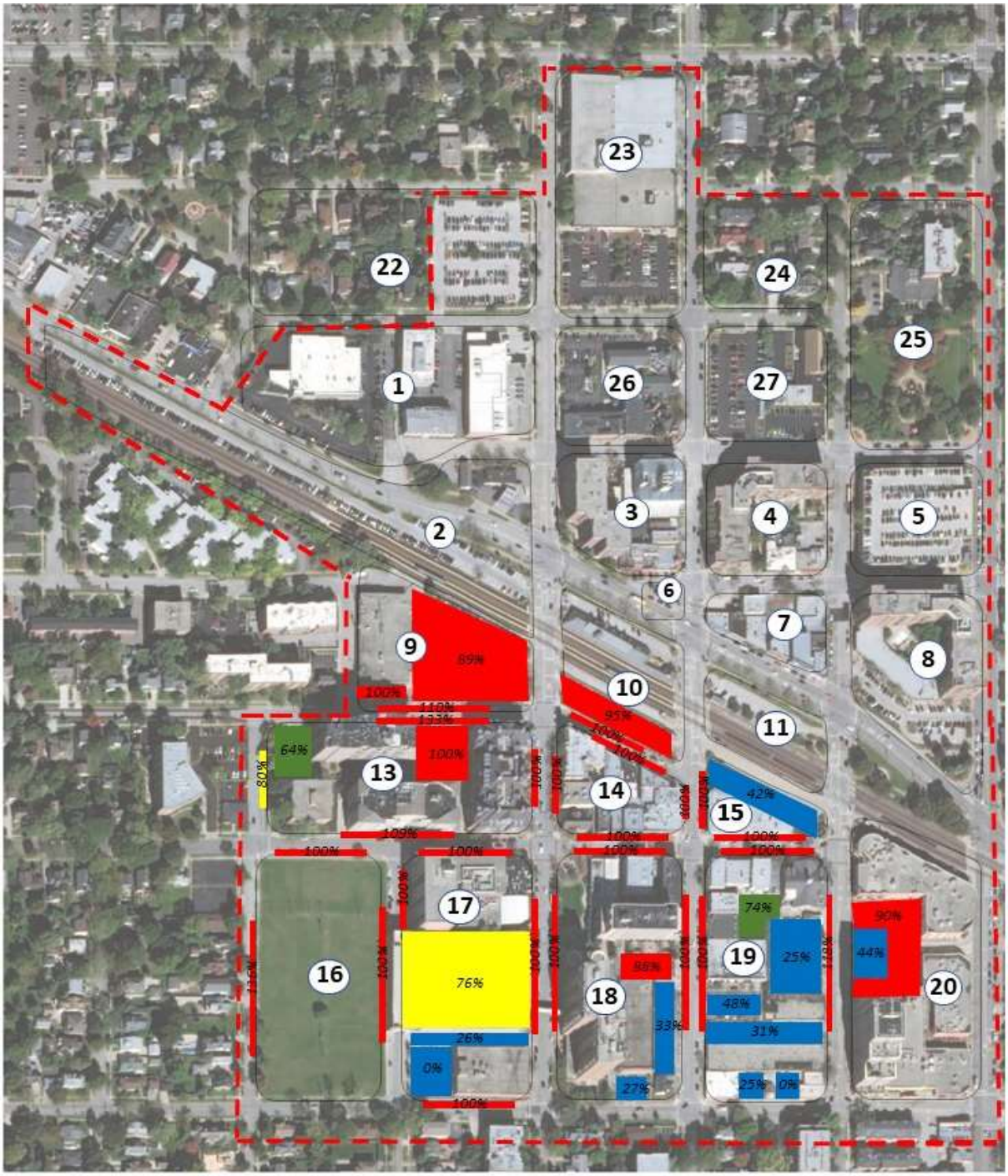
MAP Number:

MAP 6

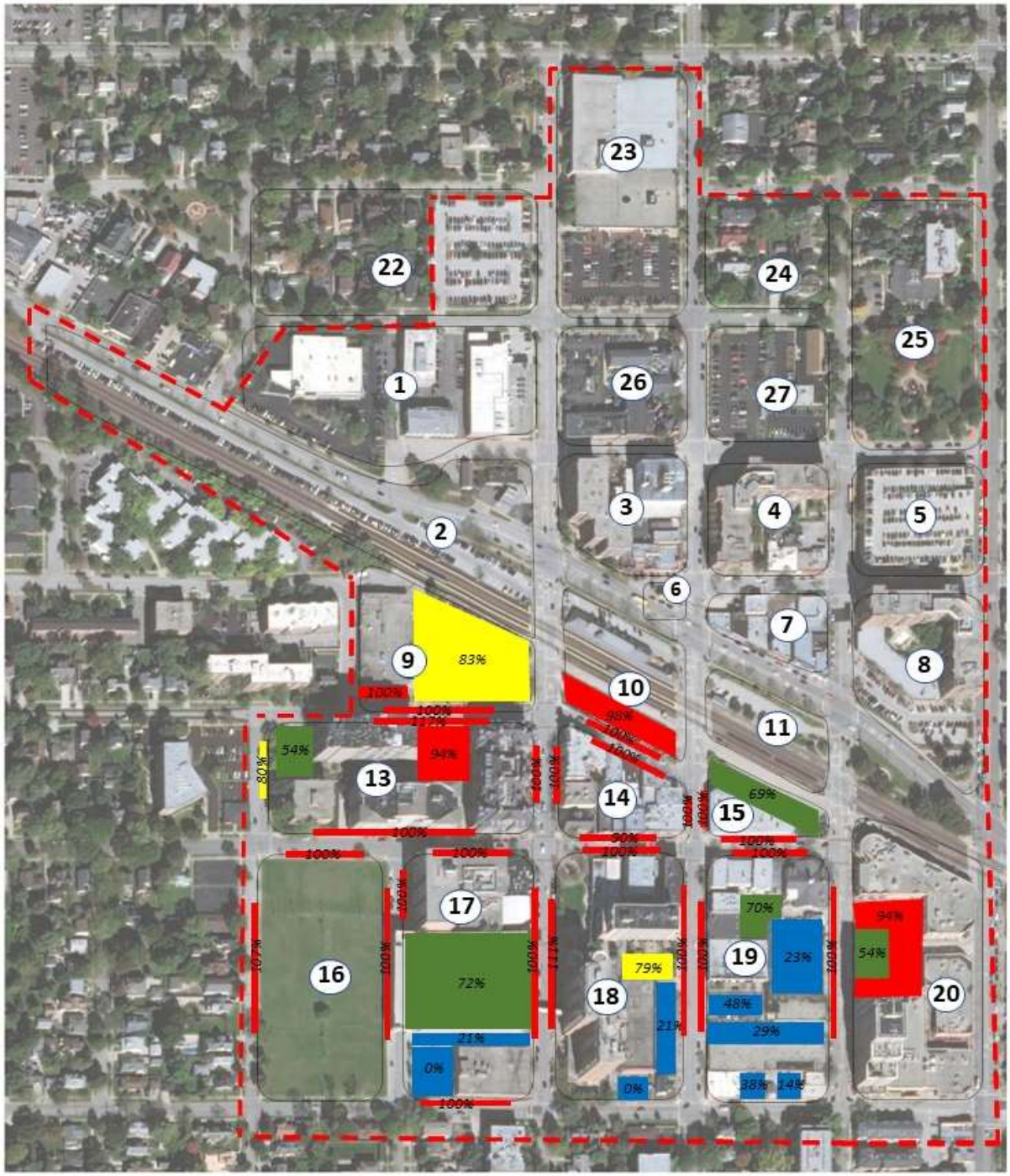


Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY SOUTH Friday June 22, 2018 7:00 pm – 8:00 pm	MAP Number: MAP 7
	# BLOCK NUMBER				

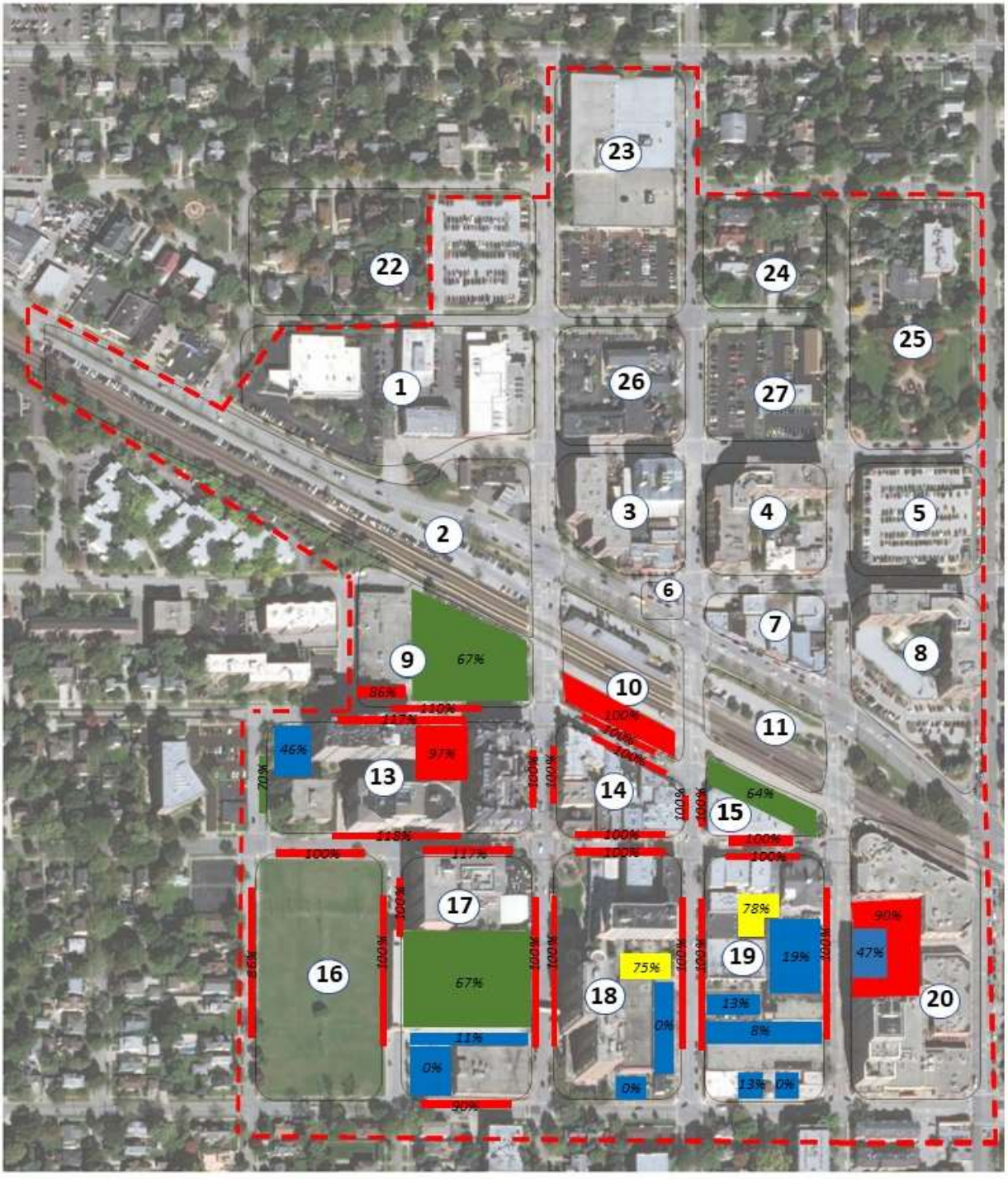
Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS NORTH # BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY SOUTH Saturday June 23, 2018 8:00 pm – 9:00 pm	MAP Number: MAP 8



Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS NORTH # BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY SOUTH Thursday July 12, 2018 7:00 pm – 8:00 pm	MAP Number: MAP 9



Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS - ENGINEERS - PLANNERS BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY SOUTH Friday July 13, 2018 7:00 pm – 8:00 pm	MAP Number: MAP 10



Arlington Heights Parking Study

Arlington Heights, IL

RICH & ASSOCIATES
PARKING CONSULTANTS
ARCHITECTS · ENGINEERS · PLANNERS

BLOCK NUMBER

LEGEND:

STUDY AREA

BLOCK FACE KEY PLAN:

A
D # B
C

PARKING OCCUPANCY:

- 85% Through 100%
- 75% Through 84%
- 50% Through 74%
- 0% Through 49%

Sheet Title:

PEAK OCCUPANCY SOUTH

Saturday July 14, 2018
7:00 pm – 8:00 pm

MAP Number:

MAP 11

Parking Turnover / Violations

As part of the counts conducted, one aspect was to analyze length of stay data in the 2-hour on-street spaces and 3-hour off-street spaces. The turnover counts were conducted to collect not only occupancy information but also helped identify how long cars were staying parking in the same space. Analysis of the information collected for the south side of the tracks showed that cars were observed in the same space an *average* of just 1.28 times. This suggests an average stay of less than two-hours for the on-street parking. Results separately by month showed the May average for the number of times that a vehicle was seen parked in the same space to be 1.25 times, June was 1.30 times and the July results showed 1.29 times.

Table 12 – On-Street Turnover / Length of Stay Summary

South Side of Tracks On-Street Spaces						
Month	Day of Week	# Spaces	Car Count	Avg Turnover	Total # of occupied Spaces	Avg Stay (# times car observed) # occupied spaces / # cars
May	Thursday	232	894	3.85	1,108	1.24
	Friday	232	915	3.94	1,117	1.22
	Saturday	232	955	4.12	1,240	1.30
May Average				3.97		1.25
June	Thursday	234	904	3.86	1,207	1.34
	Friday	234	885	3.78	1,152	1.30
	Saturday	234	889	3.80	1,128	1.27
June Average				3.81		1.30
July	Thursday	234	909	3.88	1,139	1.25
	Friday	234	905	3.87	1,118	1.24
	Saturday	234	874	3.74	1,199	1.37
July Average				3.83		1.29
South Side Average				3.87		1.28

Also shown in **Table 12** is the turnover rate. Turnover is an often-used benchmark to reflect the average number of different vehicles using a particular space. Higher turnovers generally suggest more cars using that spot while lower turnovers mean fewer cars. The 3.97 average turnover shown for May in Figure 9 shows that the average on-street space in May was used by 4 different cars each day (between 6:00 am and 7:00 pm which are the hours the turnover was conducted). Over the three days of counts in May 2,764 different cars were observed in 696 (232 x 3 = 696) spaces for an average of 3.97 per day per space. Turnover however can be low due to cars either staying for extended periods in the same space or a lower occupancy (fewer cars counted). In this case, we believe that the turnover rate of under 4 is the result of lower occupancy as opposed to vehicles staying beyond the stated time limits. The average number of times each car is seen which ranges between 1.25 and 1.3 means that cars are for the most part adhering to the two-hour limit.

Table 13 shows the analysis of the on-street violations as determined based on the turnover counts conducted as part of the detailed occupancy analysis. This was completed by recording portions of each license plate for each on-street parking space. On subsequent circuits, it was noted if the same car was there, a different car or the space was vacant.

While the average stay suggested that cars were adhering to the posted time limits, cars were observed that did stay beyond the posted time. In May, 121 cars of 2,764 different vehicles recorded were observed to remain in the same space three times or more. This represents a violation rate of just 4.4 percent. In June, the number of vehicles overstaying the limit increased to 164 cars on a slightly reduced vehicle count of 2,678. This increased the violation rate slightly to 6.1 percent. For virtually the same number of cars observed in the on-street spaces in July (2,688), a similar violation rate of 5.7 percent (152 vehicles) was found

Table 13 – On-Street Violations Summary

South Side Routes			Number of Times Car Observed in Same Space										
			Legal Cars		Violation Cars						Violation Summary		
On-Street Parking	Total Spaces Observed	Total Cars	1 Time	2 Times	3 Times	4 Times	5 Times	6 Times	7 Times	8 Times	# Violations	% Violations (3X or More)	% Violations (4X or More)
Thursday 5/3/18	232	894	737	124	19	7	5	1	1	0	33	3.7%	1.6%
Friday 5/4/18	232	915	759	126	18	8	4	0	0	0	30	3.3%	1.3%
Saturday 5/5/18	232	955	753	144	44	8	3	1	2	0	58	6.1%	1.5%
May Average	**696**	**2,764**	**2,249**	**394**	**81**	**23**	**12**	**2**	**3**	**0**	**121**	**4.4%**	**1.4%**
Thursday 6/21/18	234	904	728	113	29	14	11	8	1	0	63	7.0%	3.8%
Friday 6/22/18	234	885	717	113	30	12	9	3	0	1	55	6.2%	2.8%
Saturday 6/23/18	234	889	722	121	27	13	5	1	0	0	46	5.2%	2.1%
June Average	**702**	**2,678**	**2,167**	**347**	**86**	**39**	**25**	**12**	**1**	**1**	**164**	**6.1%**	**2.9%**
Thursday 7/12/18	234	909	754	110	29	5	8	3	0	0	45	5.0%	1.8%
Friday 7/13/18	234	905	749	121	22	8	3	1	0	1	35	3.9%	1.4%
Saturday 7/14/18	234	874	659	143	47	14	9	2	0	0	72	8.2%	2.9%
July Average	**702**	**2,688**	**2,162**	**374**	**98**	**27**	**20**	**6**	**0**	**1**	**152**	**5.7%**	**2.0%**

The relatively low violation rate is not significantly above benchmark levels. A further analysis of the length of stay for on-street parking shows that if we assume that someone who is observed just one time is parked for an average of 45 minutes and each additional observation adds 1 hour to that (2 times = 1:45, 3 times = 2:45 and so on), then the average stay in May was only 60 minutes, 61 minutes in June and 61 minutes in July.

Instead if we assume that the first time each car is observed, that they have already been parked 1 hour (which means they arrived and parked just after the surveyors have passed), then the 1st stay is 1 hour and increment each observation by 1 hour (2 times – 2 hours, 3 times 3 hours and so on), then the on-street length of stay is still well below the 2-hour limit ranging between 1 hour 15 minutes and 1 hour 18 minutes. However, we would not recommend reducing the on-street time limit to less than two-hours.

When combined with the relatively low violation rate of 4 to 6 percent this is, in our opinion, validation that two-hours is sufficient time or that the majority of patrons at least understand the 2-hour time limit for on-street parking and are not abusing it. One final note is that best

practices are that your violation rate not exceed 5 percent. Therefore, the fact that the violation rate in downtown Arlington Heights is only marginally exceeding this value is not a great cause for concern.

Current Parking Demand – South side of Downtown

Introduction

The following section demonstrates the calculated parking demand for downtown Arlington Heights. It is a two-part process which uses the occupancy results as a validation of the parking generation rates applied. However, because supply beneath the residential buildings on Block 13 was not inaccessible and thus not included in the counts, the corresponding residential units are excluded from the comparison. A close correlation supports the parking generation rates determined which can then be applied to the missing residential demand and the supply added back in.

Additionally, while the occupancy data provided significant statistics and utilization data, it does not necessarily show from where the demand is coming from. It only looks at snapshots of time. Understanding how this demand for parking is related to individual land uses and demand generators (office or restaurant parking demand vs. commuter parking demand) and where the demand occurs as well as projecting future needs can only be completed by use of a parking demand model.

Land Use Allocation

This demand model begins with the Land Use information provided by the Village which is detailed by **Table 14** on the following page. This shows the square footage allocated to the various types of uses. It also shows number of residential units, number of movie theater and Metropolis Theater seats and attendance to Metropolis Ballroom events and the number of commuter parking patrons expected. The 280 residential units shown on block 13 are in red because these are excluded when comparing the calculated parking demand against the available supply. That is because the corresponding 380 resident parking spaces beneath the residential buildings were not accessible to the surveyors. It was necessary therefore, to deduct these 280 residential units from the 759 shown resulting in 479 residential units included in the comparative demand assessment. They will be added back in once the comparison has been done since all demand elements combined play a role in the number of parking spaces needed at various times throughout the day.

Table 14 – Current Land Use Allocation (South Side)

Current Square Footage by Land Use											
	Retail	Office	Restaurant	Metropolis Theater	Residential[1]	Movie Theater	Banquet Hall	Commuters	Total Occupied SF	Vacant	Total SF (includes Vacant)
Block #											
9	25,000								25,000		25,000
10								20	0		0
13	22,500	10,000	11,700		280				44,200		44,200
14	13,700	7,000	5,400		17				26,100		26,100
15		15,000							15,000		15,000
16									0		0
17	21,300	76,000	7,100	329	63		100	302	104,729		104,729
18	36,000	5,000	6,000		281				47,000		47,000
19	41,600	22,200	2,750		26				66,550		66,550
20	58,400	30,000	13,650		92	700			102,050		102,050
Total	218,500	165,200	46,600	329	759	700	100	322	430,629	0	430,629

(1) Dwelling Units.

Some non-square footage values are also shown. The Metropolis Theater has 329 as the land use value which is the reported seating capacity. Seven hundred seats are shown for the CMX movie theater which is also our understanding to be the current capacity[5]. The value of 100 used for the banquet hall reflects the reported guest complement to a wedding in the Metropolis Ballroom on the June 22nd date.[6] The commuter category reflects a value of 322. This is based on 2017 average monthly statistics of 267 permits assigned to the Vail Garage. To this we added 20 commuters to account for the daily fee use of Lot E spaces. Finally, during the morning hours, approximately 65 daily fee spaces were occupied in the Vail Garage. We assumed that some of these could be downtown employees so we have used 35 of the approximately 65 as commuter parking. This totaled 322 commuters.

[5] Rich & Associates understands that the capacity of the theater was reduced from the 1,566 seats used in the 2002 analysis to just 700 seats as a result of several renovations.
[6] Rich used 200 guests for the future projections.

Observed Parking Occupancy

The observed occupancy of all parking on the south side of the tracks is shown by Figure 14 for the peak day occupancy results (Friday June 22nd). Not including the 380 underground spaces on block 13, this shows that a maximum occupancy of 1,731 occupied spaces was observed.

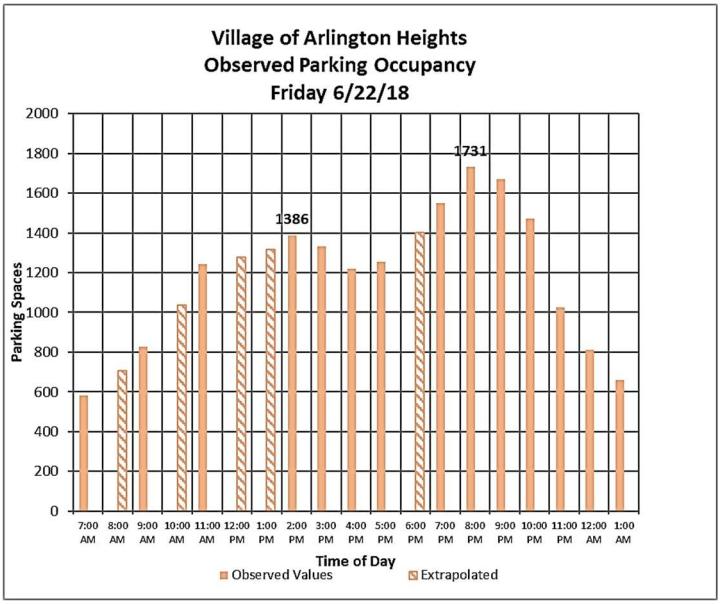


Figure 14 - Observed Parking Occupancy

As the graph shows, the observations showed an afternoon peak between 1:00 pm and 2:00 pm when 1,386 spaces were occupied. The parking utilization experienced a slight decline until about 4:00 pm after which time it began to increase, eventually reaching the 7:00 pm to 8:00 pm peak of 1,731 occupied spaces. Using Rich's shared-use model, Rich calculated and applied the parking generation rates to the land use as shown in Table 14 for each period throughout the day.

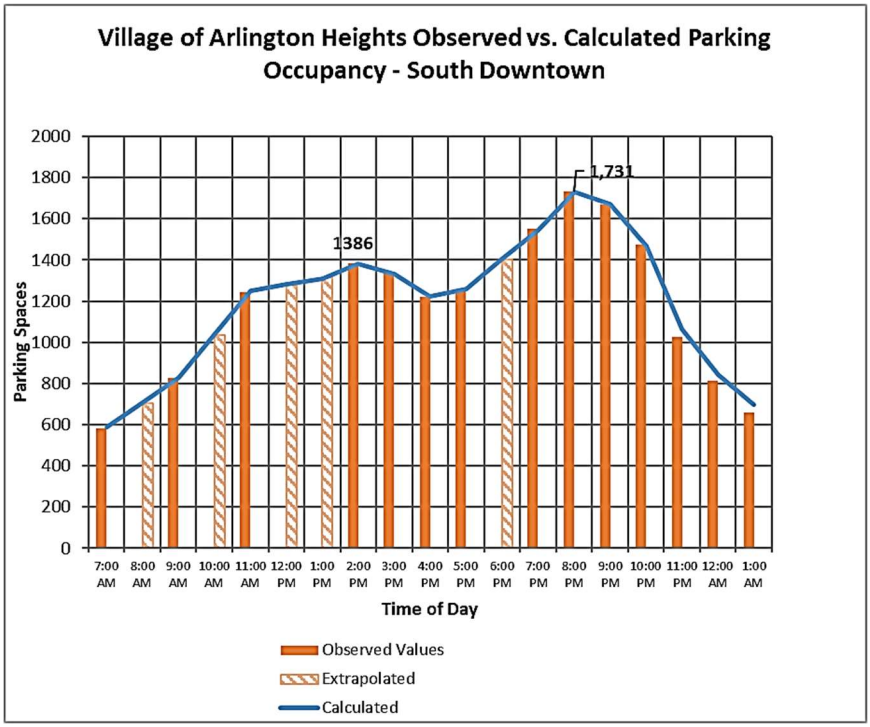


Figure 15 – Observed vs. Calculated Parking

Figure 15 shows the comparison of the calculated parking demand for each observation period to the actual observed parking at that time. The close correlation between observed and calculated parking needs lends confidence in the applied values.

With the parking demand correlated to the observed needs, the next step in the process is to apply the parking generation rates as determined corresponding to the afternoon peak (1:00 pm to 2:00 pm) and evening peak (7:00 pm – 8:00 pm) to the land-use (square footage, seating, commuter volumes etc.) on each block to derive the individual blocks parking demands. The values used are shown by Table 15 below.

Table 15 - Peak Hours Parking Generation Rates

Classification	Peak Hour Daytime Value (1:00 pm – 2:00 pm)	Peak Hour Evening Value 7:00 pm – 8:00 pm)
Retail	0.88	0.48
Office	2.00	0.13
Restaurant	3.50	10.49
Metropolis Theater (per seat)	0.13	0.32
Residential (per dwelling unit)	0.56	1.64
Movie Theater (per seat)	0.09	0.17
Banquet hall (per attendee)	.012	0.60
Commuters	0.95	0.17

Calculated Daytime Parking Demand vs Supply

Application of the daytime parking generation rates shown by Table 15 above to the square footage values that were shown in Table 14 gives the parking demand values as shown in Table 16 on the following page. This shows a calculated parking demand of 1,534 spaces at the peak hour. This is obviously higher than the 1,386± spaces demonstrated in figures 14 and 15 but reflects adding back in to the available residential units the 280 residential units on block 13 and 380 underground designated spaces. As table 16 shows, this added 157 spaces on block 13 that was not included in the comparative assessment because the 380 underground spaces associated with these residential units were inaccessible to the surveys. Deducting 157 from the total calculated of 1,534 spaces needed gives 1,377 which is very close to the observed 1,386.

Application of the parking generation rates to the allocated land uses shows block 14 would have a deficit of 20 spaces while block 18 has a calculated deficit of 102 spaces. This simply means that the available supply on the block cannot accommodate all the demand for parking on that block. This is common in an urban setting. Comparing the 1,534-space total demand against the total downtown parking supply of 2,697 available spaces shows that downtown would have a gross surplus of 1,163 spaces at this time.

Table 16 – Current Daytime Surplus / Deficit by Block

Current Surplus / (Deficit) - Peak Daytime (1:00 PM - 2:00 PM)

	Retail	Office	Restaurant	Metropolis Theater (per seat)	Residential (per dwelling unit)	Movie Theater (per seat)	Banquet Hall (per attendee)	Commuters	Total Demand	Public Parking			Private Parking	Total			Gross Surplus / (Deficit)	Net Surplus / (Deficit)
	Parking Generation Rate (Shared Use)									On-Street	Off-Street	Total	Off-Street	On-Street	Off-Street	Combined		
	0.88	2.00	3.50	0.13	0.56	0.09	0.12	0.95										
Block #	Parking Spaces Required at Parking Generation Rate																	
9	22	0	0	0	0	0	0	0	22	10	0	10	116	10	116	126	104	10
10	0	0	0	0	0	0	0	19	19	11	57	68	0	11	57	68	49	49
13	20	20	41	0	157	0	0	0	238	42	0	42	444	42	444	486	248	42
14	12	14	19	0	10	0	0	0	54	32	0	32	2	32	2	34	(20)	(20)
15	0	30	0	0	0	0	0	0	30	8	0	8	47	8	47	55	25	8
16	0	0	0	0	0	0	0	0	0	59	0	59	0	59	0	59	59	59
17	19	152	25	43	35	0	12	287	573	36	1,097	1,133	49	36	1,146	1,182	609	609
18	32	10	21	0	157	0	0	0	220	47	0	47	71	47	71	118	(102)	(102)
19	37	44	10	0	15	0	0	0	105	37	0	37	168	37	168	205	100	37
20	51	60	48	0	52	63	0	0	274	0	314	314	50	0	364	364	90	90
Total	192	330	163	43	425	63	12	306	1,534	282	1,468	1,750	947	282	2,415	2,697	1,163	782

However, this 1,163-space surplus figure is slightly misleading because it compares total demand against total parking supply. In reality, surplus spaces in many private lots are not available to outside users. The Jewel/Osco Lot is a prime example of a parking area that is not intended as general parking for non-shoppers to Jewel/Osco. Signs throughout the lot prohibit this. Similarly, surplus parking in lots associated with Chase Bank or Citibank is also protected. Therefore, the parking demand table shows the net surplus or deficit after deducting surplus private parking on several blocks. Block 9 (Jewel/Osco) with a total calculated demand of 22 spaces needed at this time of day and a total supply (public and private) of 126 spaces has a calculated surplus of 104± spaces. In reality, per the signs, these extra spaces in the Jewel / Osco lot are not typically made available to outside users. They are therefore deducted from the calculation and the true surplus for this block is just the public on-street spaces. This same condition occurred on blocks 15 and 19. This adjustment results in the gross surplus being reduced from 1,163± spaces to 782± spaces during these daytime hours. **Map 12** shows the comparison of the surplus or deficit by block (using the net values).

Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS # BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	SURPLUS OF PARKING +100 0 Thru 99 DEFICIT OF PARKING -99 Thru -1 - 100 +	Sheet Title: SOUTH SURPLUS/ DEFICIT CURRENT PEAK 1:00PM-2:00PM	MAP Number: MAP 12

Calculated Evening Parking Demand vs. Supply

As the occupancy counts demonstrated, peak demand for parking for the south side of downtown Arlington Heights does not occur until the evening hours (7:00 pm – 8:00 pm). Rich has therefore applied the parking generation rates calculated for this time period to the land-use configuration to derive the parking needs by block for the evening condition.

Table 17 below shows the parking needs as calculated reflecting the peak evening condition. The calculated demand totals 2,191± spaces which compares reasonably well with the observed peak of 1,731spaces occupied if the 459 block 13 residential demand was deducted for the same reasons cited for the daytime comparison. In the evening, four blocks have calculated parking deficits that must be satisfied by available parking on adjacent blocks. Comparing the parking demand against the total parking supply shows that the downtown gross surplus is reduced from 1,163± spaces (1:00 pm to 2:00 pm) to 506± spaces (7:00 pm – 8:00 pm) while the "net" surplus is reduced from 782± spaces (1:00 pm to 2:00 pm) to 283± spaces during the evening peak.

Table 17 – Current Evening Surplus / Deficit by Block

Current Surplus / (Deficit) - Peak Evening (7:00 PM - 8:00 PM)

	Retail	Office	Restaurant	Metropolis Theater	Residential	Movie Theater	Banquet Hall	Commuters	Total Demand	Public Parking			Private Parking	Total			Gross Surplus / (Deficit)	Net Surplus / (Deficit)
	Parking Generation Rate (Shared Use)									On-Street	Off-Street	Total	Off-Street	On-Street	Off-Street	Combined		
	0.48	0.13	10.49	0.32	1.64	0.17	0.60	0.17										
Block #	Parking Spaces Required at Parking Generation Rate																	
9	12	0	0	0	0	0	0	0	12	10	0	10	116	10	116	126	114	10
10	0	0	0	0	0	0	0	3	3	11	57	68	0	11	57	68	65	65
13	11	1	123	0	459	0	0	0	594	42	0	42	444	42	444	486	(108)	(108)
14	7	1	57	0	20	0	0	0	85	32	0	32	2	32	2	34	(51)	(51)
15	0	2	0	0	0	0	0	0	2	8	0	8	47	8	47	55	53	8
16	0	0	0	0	0	0	0	0	0	59	0	59	0	59	0	59	59	59
17	10	10	74	105	103	0	60	51	415	36	1,097	1,133	49	36	1,146	1,182	767	767
18	17	1	63	0	461	0	0	0	542	47	0	47	71	47	71	118	(424)	(424)
19	20	3	29	0	43	0	0	0	94	37	0	37	168	37	168	205	111	37
20	28	4	143	0	151	119	0	0	445	0	314	314	50	0	364	364	(81)	(81)
Total	105	21	489	105	1,237	119	60	55	2,191	282	1,468	1,750	947	282	2,415	2,697	506	283

Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	SURPLUS OF PARKING +100 0 Thru 99 DEFICIT OF PARKING -99 Thru -1 - 100 +	Sheet Title: SOUTH SURPLUS/ DEFICIT CURRENT PEAK 7:00 PM – 8:00 PM	MAP Number: MAP 13

Future Parking Needs

Based on provided information and several assumptions, Rich has projected the future parking needs. The most significant change projected is for the development of the vacant property just west of the Vail Avenue Garage. Provided information was for:

- 358 residential units at the north end of the property
- 80 residential units at the south end
- 18,000 sf of commercial space which Rich has assumed would be allocated as 6,000 sf of retail space, 6,000 sf of office and 6,000 as restaurant space

Data provided by the Developer and Village has indicated that 100 percent of the residential parking need will be met on site through the provision of 548 spaces beneath the northern building (1.53 per unit) and 120 spaces under the southern residential building (1.5 per unit). The demand from the 18,000 sf of commercial space will be met through the use of Village provided parking.

In addition to the changes projected to occur on block 13, the future demand values also assume some additional higher demand. This is projected to be from:

- The opening of Hey Nonny on block 17 beneath the Metropolis Ballroom. This 180-seat music venue is reflected under Banquet Hall as it is expected to generate similar parking generation rates.
- Increasing the Banquet Hall (Metropolis Ballroom) demand from 100 attendees to 200 attendees to reflect a larger wedding.

Table 18 shows the land use values used in the determination of the future parking needs. With the exception of the changes noted above, all other values remain the same as for the existing conditions.

Table 18 – Future Land Use Allocation

Future Square Footage by Land Use											
	Retail	Office	Restaurant	Metropolis Theater	Residential[1]	Movie Theater	Banquet Hall	Commuters	Total Occupied SF	Vacant	Total SF (includes Vacant)
Block #											
9	25,000								25,000		25,000
10								20	0		0
13	22,500	10,000	11,700		280				44,200		44,200
14	13,700	7,000	5,400		17				26,100		26,100
15		15,000							15,000		15,000
16	6,000	6,000	6,000		438				18,000		18,000
17	21,300	76,000	7,100	329	63		380	302	104,729		104,729
18	36,000	5,000	6,000		281				47,000		47,000
19	41,600	22,200	2,750		26				66,550		66,550
20	58,400	30,000	13,650		92	700			102,050		102,050
Total	224,500	171,200	52,600	329	1,197	700	380	322	448,629	0	448,629

(1) Dwelling Units.

Future Daytime Parking Demand vs. Supply

Given these values and applying the same parking generation rates as used for the existing condition to the future values results in the calculated parking demand as shown in **Table 19** below. For the daytime peak, the demand increased from 1,534 spaces to 1,852 (+318 spaces). Because 100 percent of the new residential parking demand on block 16 is met by added supply created on the block, the gross surplus for the total south side study area increases from 1,163 to 1,513 spaces. However, the "net" surplus which deducts surplus private parking decreases slightly from 782± surplus spaces (existing condition) to 749± surplus spaces (future needs).

Table 19 – Future Daytime Surplus / Deficit by Block

Future Surplus / (Deficit) - Peak Daytime (1:00 PM - 2:00 PM)

	Retail	Office	Restaurant	Metropolis Theater	Residential	Movie Theater	Banquet Hall	Commuters	Total Demand	Public Parking			Private Parking	Total			Gross Surplus / (Deficit)	Net Surplus / (Deficit)
	Parking Generation Rate (Shared Use)									On-Street	Off-Street	Total	Off-Street	On-Street	Off-Street	Combined		
	0.88	2.00	3.50	0.13	0.56	0.09	0.12	0.95										
Block #	Parking Spaces Required at Parking Generation Rate																	
9	22	0	0	0	0	0	0	0	22	10	0	10	116	10	116	126	104	10
10	0	0	0	0	0	0	0	19	19	11	57	68	0	11	57	68	49	49
13	20	20	41	0	157	0	0	0	238	42	0	42	444	42	444	486	248	42
14	12	14	19	0	10	0	0	0	54	32	0	32	2	32	2	34	(20)	(20)
15	0	30	0	0	0	0	0	0	30	8	0	8	47	8	47	55	25	8
16	5	12	21	0	245	0	0	0	284	59	0	59	668	59	668	727	443	59
17	19	152	25	43	35	0	46	287	606	36	1,097	1,133	49	36	1,146	1,182	576	576
18	32	10	21	0	157	0	0	0	220	47	0	47	71	47	71	118	(102)	(102)
19	37	44	10	0	15	0	0	0	105	37	0	37	168	37	168	205	100	37
20	51	60	48	0	52	63	0	0	274	0	314	314	50	0	364	364	90	90
Total	198	342	184	43	670	63	46	306	1,852	282	1,468	1,750	1,615	282	3,083	3,365	1,513	749

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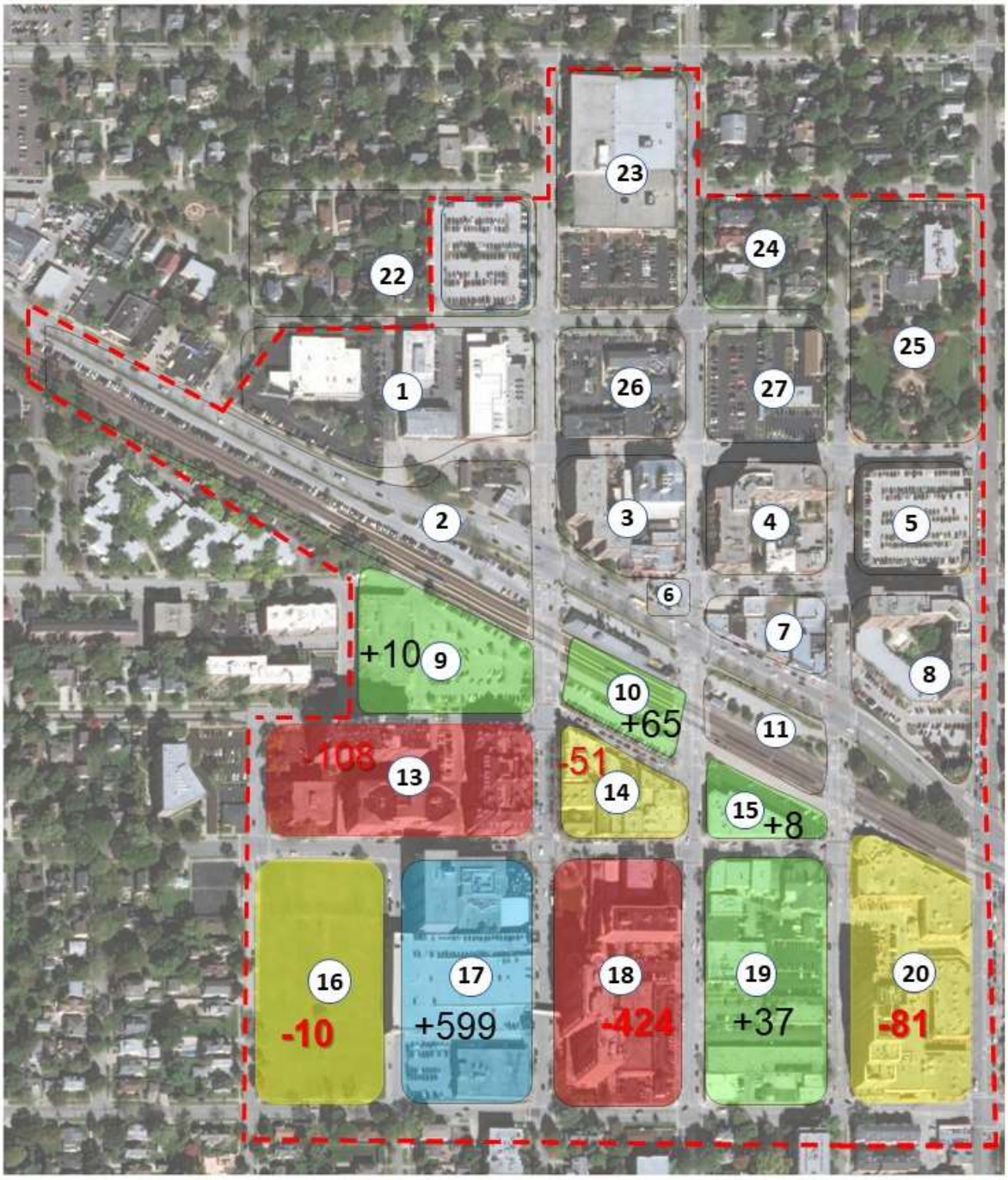
Future Evening Parking Demand vs. Supply

Applying the evening parking generation rates to the increased retail, office and restaurant square footage from the block 16 development plus the higher attendee values as a result of the Hey Nonny opening and a larger wedding factored in the Metropolis Ballroom shows that the evening parking demand would increase from 2,191± spaces needed to 3,096± spaces. This reduces the gross parking surplus to 268± spaces from 506± and the net parking surplus to just 46± spaces. This is demonstrated by Table 20 below.

Table 20 – Future Evening Surplus / Deficit by Block

Future Surplus / (Deficit) - Peak Evening (7:00 PM - 8:00 PM)

	Retail	Office	Restaurant	Metropolis Theater	Residential	Movie Theater	Banquet Hall	Commuters	Total Demand	Public Parking			Private Parking	Total			Gross Surplus / (Deficit)	Net Surplus / (Deficit)
	Parking Generation Rate (Shared Use)									On-Street	Off-Street	Total	Off-Street	On-Street	Off-Street	Combined		
	0.48	0.13	10.49	0.32	1.64	0.17	0.60	0.17										
Block #	Parking Spaces Required at Parking Generation Rate																	
9	12	0	0	0	0	0	0	0	12	10	0	10	116	10	116	126	114	10
10	0	0	0	0	0	0	0	3	3	11	57	68	0	11	57	68	65	65
13	11	1	123	0	459	0	0	0	594	42	0	42	444	42	444	486	(108)	(108)
14	7	1	57	0	20	0	0	0	85	32	0	32	2	32	2	34	(51)	(51)
15	0	2	0	0	0	0	0	0	2	8	0	8	47	8	47	55	53	8
16	3	1	63	0	670	0	0	0	737	59	0	59	668	59	668	727	(10)	(10)
17	10	10	74	105	103	0	228	51	583	36	1,097	1,133	49	36	1,146	1,182	599	599
18	17	1	63	0	461	0	0	0	542	47	0	47	71	47	71	118	(424)	(424)
19	20	3	29	0	43	0	0	0	94	37	0	37	168	37	168	205	111	37
20	28	4	143	0	151	119	0	0	445	0	314	314	50	0	364	364	(81)	(81)
Total	108	22	552	105	1,907	119	228	55	3,096	282	1,468	1,750	1,615	282	3,083	3,365	268	46



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ADA Parking

The Village has also asked as part of this study for an assessment of the requirements for ADA parking within the downtown parking system.

Off-Street Parking

The United States Access Board specifies the number of accessible spaces that must be provided in each parking lot. Accessible parking spaces must be located on the shortest accessible route to an accessible entrance, relative to other spaces in the same parking facility. A maximum travel distance is not specified in the Standards.

Accessible spaces required for one parking facility can be located in another if doing so results in substantially equal or better access in terms of travel distance to an accessible entrance, parking fee, or user conveniences such as protection from weather, better security and lighting. The minimum number must still be determined separately for each parking facility. Locating accessible spaces required for a parking structure in a surface lot often will not qualify for this exception because such a location typically offers less convenience, security, and protection from the elements.

Table 21 – Accessible Spaces Required by Lot Size

Parking Facility Total	Minimum Number of Accessible Spaces		
	Standard	Van*	Total (Standard + Van)
1-25	0	1	1
26-50	1	1	2
51-75	2	1	3
76 – 100	3	1	4
101 – 150	4	1	5
151 - 200	5	1	6
201 – 300	5	2	7
301 – 400	6	2	8
401 – 500	7	2	9
501 – 550	9	2	11
551 – 600	10	2	12
601 – 650	10	3	13
651 – 700	11	3	14
701 – 750	12	3	15
751 – 800	13	3	16
801 – 850	14	3	17
851 – 900	15	3	18
901 – 950	15	4	19
951 – 1000	16	4	20
1001 –1100	17	4	21

1,001 & over: 20 + 1 for each 100 or fraction thereof over 1,000

On the south side of downtown Arlington Heights, public parking facilities include the Vail Garage, Evergreen Avenue Underground Garage, Lot E and Village Hall Garage. For the first three (the Village Hall Garage was not included as part of this parking study assessment because of the on-going construction of the new police building), the required versus provided number of handicap accessible spaces are detailed below. Although the three facilities meet the total space requirement, it is undetermined if the assessment contain the minimum number of van accessible spaces. This needs to be reviewed.

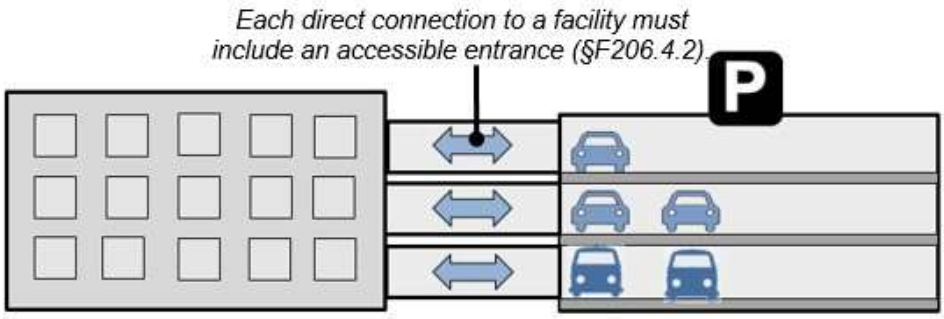
Table 22 – South Side ADA Requirement Accessible Spaces

Facility	Total Facility Capacity	Provided # Accessible Spaces	Required # Accessible Spaces (Standard)	Required # Accessible Spaces (Van)	Surplus / (Deficit)
Vail Garage	1,097	24	17	4	3
Evergreen Ave	314	8	6	2	0
Lot E	57	3	2	1	0
South Side Total		**35**	**25**	**7**	**3**

Garage Parking

The Standards apply to parking garages, including those provided below grade. At sites that also include surface lots, a garage is treated as a separate parking facility for scoping purposes.

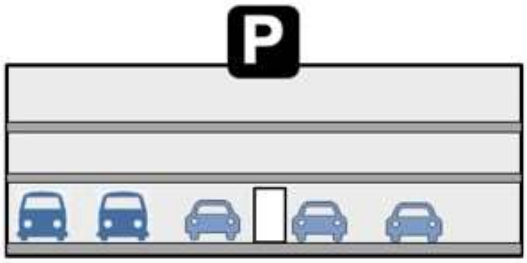
Multi-Level Parking Garage with Direct Connections to Facility



Dispersing accessible spaces among accessible entrances requires placement of non-van accessible spaces on different levels. All van spaces can be grouped on one level (§F208.3, Ex. 1).

Multi-Level Parking Garage Not Serving a Particular Facility

In parking garages that do not serve a particular facility, accessible spaces must be located on the shortest accessible route to an accessible pedestrian entrance of the garage (§208.3).



Accessible spaces, including van spaces, must be located so that they provide the same level of protection and security as other spaces in the garage. Locating accessible spaces required for a garage on the exterior is not usually acceptable.

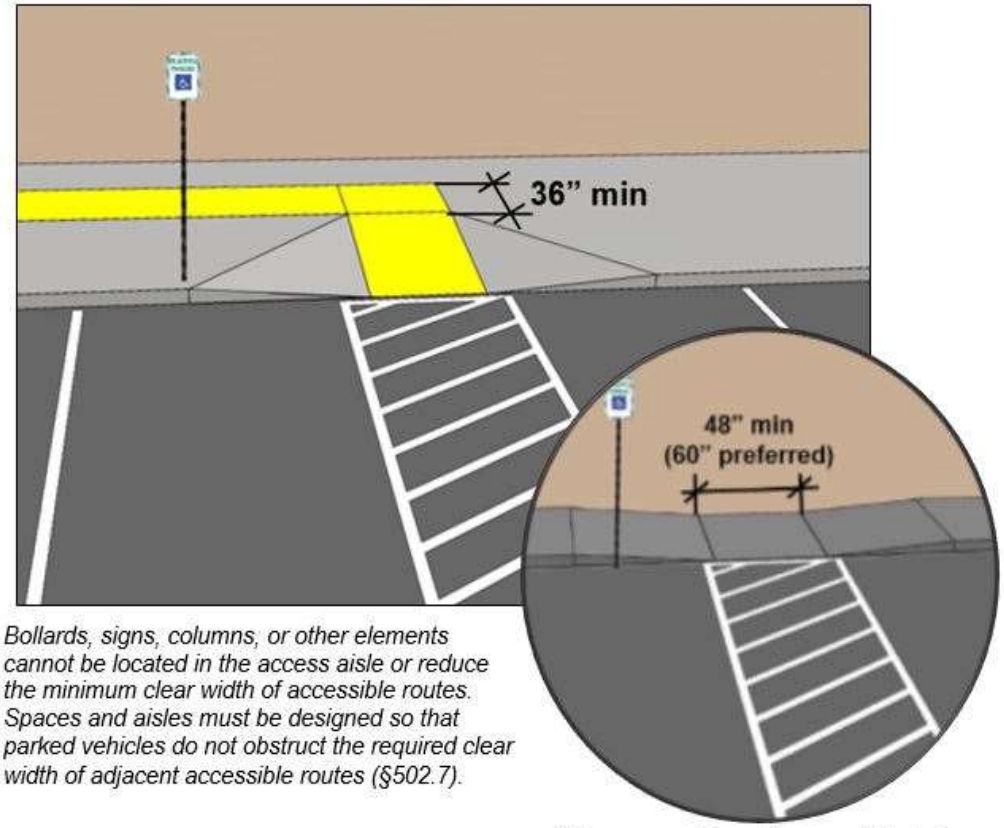
Notwithstanding the information above, the Vail Garage has 12 handicap accessible spaces on level 1 which provides an accessible route to an accessible pedestrian entrance to the garage. Nine handicap spaces are also provided on Level 2 which provides a direct connection to Dunton Tower as required. Combined, these 21 spaces meet the requirements for the garage per Table 21 above. Two additional handicap accessible spaces are provided on the 3rd floor and 1 more space on the 4th floor that would be acceptable from a convenience standpoint as being dispersed throughout the garage and are not required to be on levels 1 or 2 so long as they provide an accessible path to an accessible elevator.

Accessible Parking Spaces

Requirements for accessible parking spaces address the size and marking of regular and van spaces and access aisles, surfaces, vertical clearance at van spaces, identification, and connecting accessible routes.

Accessible Routes and Access Aisles

Accessible routes must connect directly to access aisles. Curb ramps, where provided, cannot protrude into access aisles (which cannot slope more than 1:48 max.) to accommodate wheelchair transfers and vehicle ramps or lifts (§502.4). A landing at least 36" deep is required at the top of curb ramps; in alterations where space for this landing is unavailable, curb ramps must have side flares with a 1:12 max. slope (§406.4).



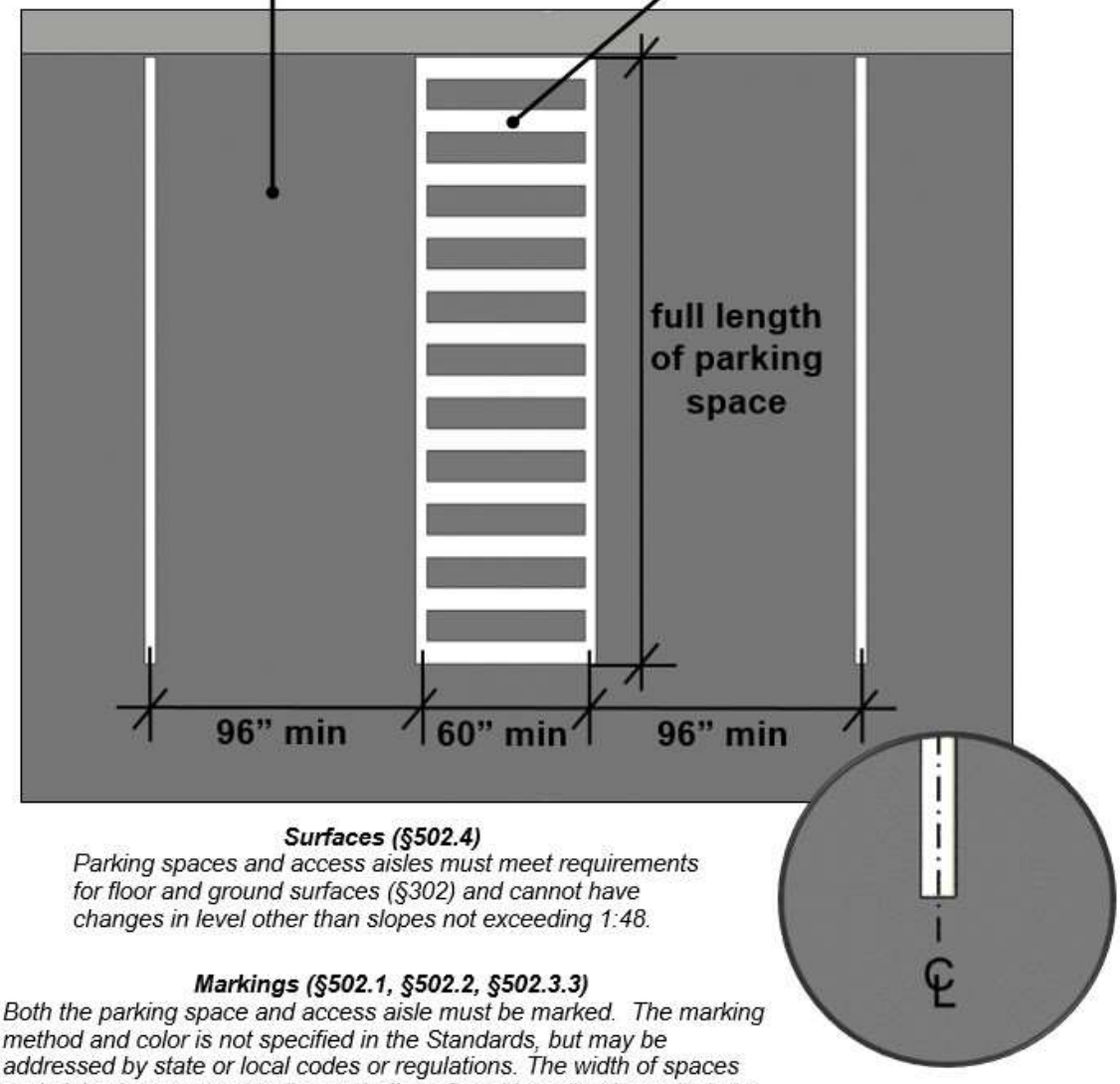
Bollards, signs, columns, or other elements cannot be located in the access aisle or reduce the minimum clear width of accessible routes. Spaces and aisles must be designed so that parked vehicles do not obstruct the required clear width of adjacent accessible routes (§502.7).

Where space for curb ramps is limited, including in alterations, parallel ramps can provide an alternative.

Accessible Parking Space

Access Aisle (§502.3)
An access aisle at least 60" wide and at least as long as the parking space is required on either side of the parking space and must be marked to discourage parking in it. Two spaces can share one aisle. Access aisles cannot overlap vehicular ways.

Vehicle Spaces (§502.2)
Spaces must be marked to define the 96" minimum width.



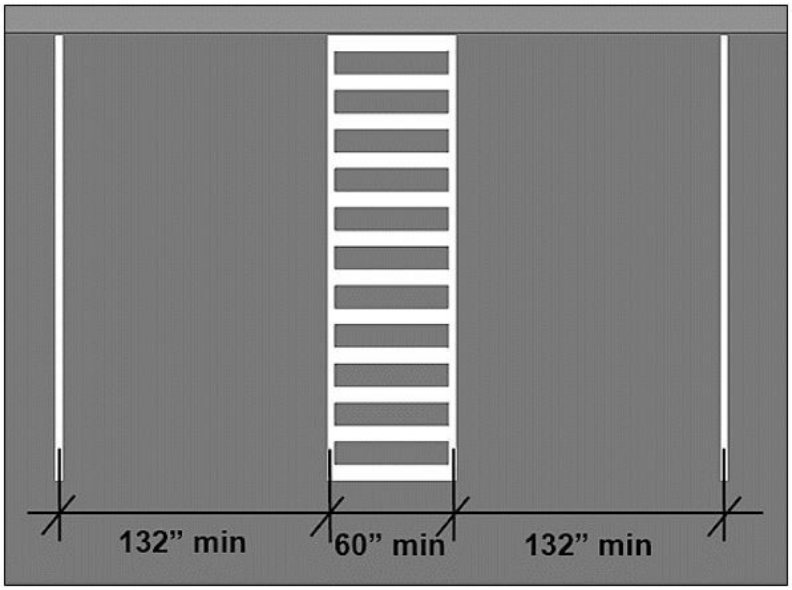
Surfaces (§502.4)
Parking spaces and access aisles must meet requirements for floor and ground surfaces (§302) and cannot have changes in level other than slopes not exceeding 1:48.

Markings (§502.1, §502.2, §502.3.3)
Both the parking space and access aisle must be marked. The marking method and color is not specified in the Standards, but may be addressed by state or local codes or regulations. The width of spaces and aisles is measured to the centerline of markings (but it can include the full width of lines where there is no adjacent parking space or aisles).

Van Accessible Parking Spaces [§502.1 - 502.5]

At least one space for every 6 or fraction of 6 accessible spaces must be van accessible. Van spaces provide an additional 3 feet of width to accommodate vehicles equipped with ramps or lifts. This extra space can be added to either the parking space or to the access aisle. A wider access aisle saves space since two spaces can share one aisle, but wider spaces can help prevent misuse of the access aisle as a parking space.

Van Space: Wider Parking Space



Pay Stations

Pay stations and other elements that serve accessible parking spaces must comply with requirements for operable parts and be served by an accessible route. Requirements for operable parts cover clear floor space, operating characteristics, and location within accessible reach ranges.

Requirements for operable parts include:

- Clear floor space for a forward or side approach (§309.2)
- Location within accessible reach ranges (§309.3)
- One-hand operation without tight grasping, pinching, twisting of the wrist, or more than 5 pounds of force (§309.4)

On-Street Requirements[7]

For some time there has been discussion by the United States Access Board for on-street handicap accessible requirements. Although it is our understanding that the requirements and standards have not yet been adopted, the Village should consider that eventually these standards will be required. ***It is further understood however that design requirements for on-street handicap parking will only be required when there are substantial changes to the roadway.***

Sidewalks, street crossings, and other elements in the public right-of-way can pose challenges to accessibility. The Board's ADA and ABA Accessibility Guidelines focus mainly on facilities on sites. While they address certain features common to public sidewalks, such as curb ramps, further guidance is necessary to address conditions and constraints unique to public rights-of-way.

The Board is developing new guidelines for public rights-of-way that will address various issues, including access for blind pedestrians at street crossings, wheelchair access to on-street parking, and various constraints posed by space limitations, roadway design practices, slope, and terrain. The new guidelines will cover pedestrian access to sidewalks and streets, including crosswalks, curb ramps, street furnishings, pedestrian signals, ***parking,*** *and other components of public rights-of-way. The Board's aim in developing these guidelines is to ensure that access for persons with disabilities is provided wherever a pedestrian way is newly built or altered, and that the same degree of convenience, connection, and safety afforded the public generally is available to pedestrians with disabilities.* ***Once these guidelines are adopted by the Department of Justice, they will become enforceable standards under title II of the ADA.***

Number of Spaces to be Provided

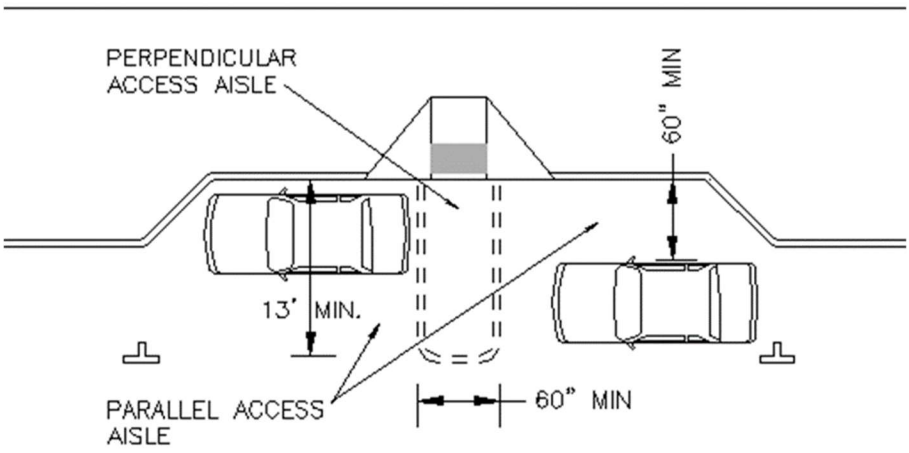
The number of accessible spaces to be provided would follow the standards as shown in Table 21 above.

X02.6.1.3 Minimum width and length. Accessible spaces shall not be smaller in width or length than that specified by the local jurisdictions for other spaces and in no case less than 8 feet (2449 mm) wide and 18 feet (5490 mm) long.

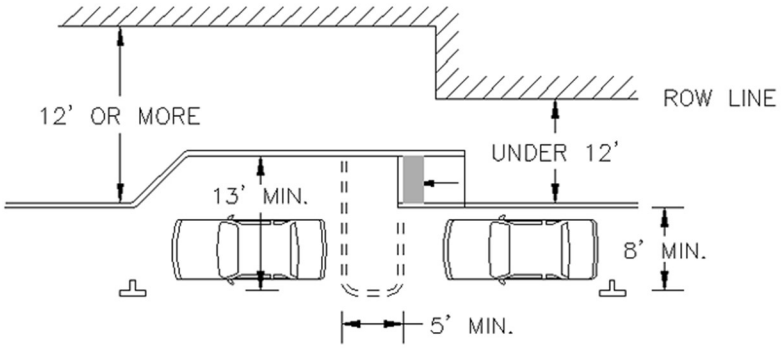
X02.6.1.4 Parallel parking spaces. Where accessible parallel parking is provided, a parallel access aisle at least 60 inches (1525 mm) wide shall be provided at street level the full length of the accessible parking space. The parallel access aisle shall connect at the head or foot of the parking space to a 60-inch wide minimum perpendicular access aisle that shall extend the full width of the parking space. Two parallel parking spaces may share a perpendicular access aisle. The vehicular travel lane shall not encroach on any required access aisle. The area

[7] https://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way

between any curb and the *pedestrian access route* shall comply with Section X02.1.5 in order to allow the deployment of a side lift from a wheelchair accessible space and shall be connected to the pedestrian access route.



EXCEPTION: Where the width of the public pedestrian right-of-way between the extension of the normal curb and boundary of the public right-of-way is less than 12 feet (3660 mm), a parallel access aisle is not required at parallel parking spaces.



Where the dimensions or existing site conditions do not allow proper access from the roadway, the spaces should be provided at the ends of a block where they can use the curb ramps.

One final critical note however is that Rich is aware of a court case *Fortyune v City of Lomita* where the Ninth Circuit U.S. Court of Appeals ruled that cities have an obligation under the Americans with Disabilities Act to provide on-street parking that is accessible to people with disabilities. Although the City moved to dismiss the suit because federal standards for design of ADA-compliant facilities do not contain any requirements related to on-street parking, the Ninth Circuit found that, despite the lack of accessibility standards, on-street parking is a "normal function" of a city and therefore must be made accessible.

Village Downtown Parking Ratios

The Village has also asked for assistance in determining the methods used by the Village in determining parking demand for new projects/businesses. Information provided by the Village cites Village Code, Rich & Associates 2002 study, a study by HNTB and ITE for how the Village determines the amount of parking needing to be provided by new projects or businesses. Village code which is often the first source for the determination of parking space needs has as a variable the placement of the business such as whether it is located on the ground floor or an upper floor. The requirements for retail or office uses also exclude an initial amount of square footage from the calculation.

One issue with the method employed by the Village is that it appears to be subjective with no clear standards being applied but a combination of factors being considered. In Rich's experience, municipalities typically have uniform zoning requirements that are followed in each instance. They may exclude the first X number of square feet from the proposed use and then calculate the number of parking spaces to be provided based on the balance. Uniform application of requirements can prevent a developer whose project is denied while another may be approved from bringing suit against the Village because no uniform guidelines have been employed.

The use of the Institute of Transportation Engineers' (ITE) Parking Generation handbook to set requirements must be used with caution because earlier editions (1st and 2nd) used data averaging the maximum observed in "isolated, suburban sites" while the 3rd edition begins to factor variables such as walkability, time of day and transit access. While the 3rd and 4th editions have a broader range of data, it should only be used in conjunction with area specific research.[8]

Where the developer cannot provide the required number, municipalities may employ a "fee in lieu of" where a set amount is paid by the developer to the municipality for every space short from the required number. However, this puts the burden on the municipality to provide the parking.

More municipalities are encouraging residential developers to unbundle the parking from the residential unit. Forty-four percent of the resident responses to the surveys indicated that parking was included in the price of their home or rent. Fifty percent said that they pay separately for parking. Paying for the parking separately rather than having it included in the rent or purchase price of the unit can help in the understanding of the high cost of parking. Those residents with fewer cars or who have or are willing to make other arrangements can save while it also incentivizes some residents to have fewer cars. This helps the market to determine the number of parking spaces to be provided.

[8] Chicago Metropolitan Agency for Planning, 2012 "Parking Strategies to Support Livable Communities" pg. 19 http://www.cmap.illinois.gov/documents/10180/96911/StepByStep3.pdf/39fa6452-2e19-4691-87bd-abac8b06c248

One other consideration is that when analyzing parking needs, rather than applying strict guidelines, the zoning ordinance should allow for shared parking arrangements. As the analysis has shown, the parking in downtown Arlington Heights experiences periods of peak need which is driven during the day by retail, office and commuter parking needs and during the evening by restaurant and entertainment needs. Allowing for shared use in the zoning code would consider that a new office development will have the bulk of its parking needs during the daytime hours when the Village has surplus capacity compared to needs for a restaurant which would have its highest demand during the evenings when the Village is also experiencing its period of greatest need. The current ordinance excludes an initial square footage amount in the determination of parking needs. Although this results in only the larger uses having to provide parking, it also requires the larger office uses to provide parking even though their peak demand is during the daytime hours when the Village currently has surplus parking. This may lead to an overbuilt condition. For example, the Arlington Heights Municipal code requires an office use to provide parking:

First Floor: One space for each 600 square feet in excess of 1,500 square feet of floor area
Second Floor or Basement: one space for each 750 square feet in excess of 2,000 sf.
Above Second Floor: One space for each 1,250 square feet in excess of 2,500 sf.

Although the exclusion does help to reduce the number of parking spaces to be provided, it still may require parking when surplus capacity currently exist.

A shared parking consideration in the zoning ordinance may not require that the office development provide parking, or at least limit the amount, which contributes to an overabundance of parking but that the restaurant would be required to provide a set number or pay for any for which it is short. Alternatively, spaces built as part of the office development can serve the downtown if these spaces can be used in the daytime by the office use and then in the evening for restaurant or other uses and not completely closed off by the owner. This type of arrangement may be particularly important considering not only the existing conditions but more importantly the projected future demand patterns that will be experienced in downtown Arlington Heights.

Strict applications of parking requirements without regard for shared use, can result in 30 percent more parking spaces being required than actually needed. Shared parking allows for complementary uses (office and cinema for example) to share the same parking spaces because their peak needs occur at different times of the day or on weekends.

Analysis – North Side Downtown Arlington Heights

Land use data and parking supply information for the north side of downtown was also provided by the Village. Additionally, occupancy counts were performed and current and future parking needs calculated based on the collected and provided information. Results for the north side are considered independently from south side parking needs.

Parking Supply

The parking supply serving the north portion of downtown Arlington Heights consists of 1,930 off-street spaces and 258 on-street spaces for a combined 2,188 spaces. Sixty-eight percent (1,494 spaces) of the parking supply is publicly provided on the north side with 32 percent (694 spaces) privately controlled. The proportion of public to private parking is similar as for the south side of the downtown. As such it is still significantly above Rich's benchmark that a municipality control at least 50 percent of the downtown parking supply. Again, this allows a patron to park once and walk to multiple destinations as opposed to having to move their vehicle between each stop. It should also be noted however that a significant number of the publicly available spaces on the north side are commuter related with spaces in various lots along the Metra tracks as well as commuter permit and daily fee spaces in the North Garage.

Table 23 – North Side Parking Supply Summary

North of Tracks - Downtown Arlington Heights						
	Public		Private		Total	
On-Street	239	7.4%	19	1.4%	258	5.7%
Off-Street	1,255	38.7%	675	53.6%	1,930	42.9%
Total	1,494	46.1%	694	55.0%	2,188	48.6%
	68.3%		31.7%		100.0%	

Map 16 on the following page shows the on and off-street parking supply. The letter designations are keyed to **Table 24** on page 90.

Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS NORTH # BLOCK NUMBER	LEGEND: STUDY AREA PUBLIC PARKING PRIVATE PARKING 2 HOUR ON-ST PARKING 4 HOUR ON-ST PARKING BLOCK FACE KEY PLAN: A D # B C	Sheet Title: PARKING SUPPLY	MAP Number: MAP 16

Table 24 – North Side Off-Street Parking Supply Detail

																Private Parking			
Block		Description	# Of Total Spaces	HCP	2hr parking	3hr parking	4 hr Parking	Daily Fee	HCP	Commuter	Scooters	Reserved	Permit or 4hr Shopper	Permit	Total	Resident	Cust/Vis/Staff	HCP	Total
1	B	Baird & Warner	99												0		99		99
	D	Sweet Floral Design	57												0		57		57
	F	Vacant AT & T Building Lot	8												0		8		8
1		**Block 1 Total**	**164**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**164**	**0**	**164**
2	A	Commuter	58	9					9	46	8	4			67				0
	P	Commuter Parking	107					107							107				0
	G	Crowley Brian S Attorney Westside	7												0		7		7
	H	Crowley Brian S Attorney Eastside	5												0		5		5
	H2	Gas Station Lot	3												0		3		3
2		**Block 2 Total**	**180**	**9**	**0**	**0**	**0**	**107**	**9**	**46**	**8**	**4**	**0**	**0**	**174**	**0**	**15**	**0**	**15**
3	I	201 W Eastman St Lot	10	1											0		10	1	11
	J	Lot next to 201 W Eastman St	3												0		3		3
3		**Block 3 Total**	**13**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**1**	**14**
4	K	299 N Dunton Ave Lot	9												0		9		9
	L	Uptown Café Lot	9												0		9		9
4		**Block 4 Total**	**18**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**0**	**18**
5	M	North Garage	800	11			57	199	11					544	811				0
5		**Block 5 Total**	**800**	**11**	**0**	**0**	**57**	**199**	**11**	**0**	**0**	**0**	**0**	**544**	**811**	**0**	**0**	**0**	**0**
7	N	Village Grill of Arlington	8												0		8		8
7		**Block 7 Total**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**8**
8	O	Egg Harbor Cafe plus Other Commercial Lot	57		57										57				
8		**Block 8 Total**	**57**	**0**	**57**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**57**	**0**	**0**	**0**	**0**
	R	Train Station Lot	13	5				9	5			4			18				0
10		**Block 10 Total**	**13**	**5**	**0**	**0**	**0**	**9**	**5**	**0**	**0**	**4**	**0**	**0**	**18**	**0**	**0**	**0**	**0**
11	T	Lot H (T) Free Parking 3 Hr Limit	16	3				13	3			3			19				0
11		**Block 11 Total**	**16**	**3**	**0**	**0**	**0**	**13**	**3**	**0**	**0**	**3**	**0**	**0**	**19**	**0**	**0**	**0**	**0**
22	S	Lot S Daily Fee Parking	174	2				174	2						176				0
22		**Block 22 Total**	**174**	**2**	**0**	**0**	**0**	**174**	**2**	**0**	**0**	**0**	**0**	**0**	**176**	**0**	**0**	**0**	**0**
23	OO	North Library Parking	109												0		109		109
	PP	South Library Parking	110												0		110		110
23		**Block 23 Total**	**219**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**219**	**0**	**219**
25	RR	Arlington Heights Park District (AHPD)Northside	22												0		22		22
	QQ	Arlington Heights Park District (AHPD)Westside	21												0		21		21
25		**Block 25 Total**	**43**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**43**	**0**	**43**
26	SS	First Presbyterian Church of Arlington Heights	52												0		52		52
26		**Block 26 Total**	**52**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**52**	**0**	**52**
27	UU	(East of Dunton Ave.)First Presbyterian Church of Arlington Heights	90	4											0		90	4	94
	TT	North St John United Church-Christ	20	3											0		20	3	23
	VV	South St John United Church-Christ	25												0		25		25
27		**Block 27 Total**	**135**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**135**	**7**	**142**
		TOTAL	**1,892**	**38**	**57**	**0**	**57**	**502**	**30**	**46**	**8**	**11**	**0**	**544**	**1,255**	**0**	**667**	**8**	**675**

Table 25 – North side On-Street Supply Detail

			Public				Private	
Block	Face	Description	2 hr free	Loading	3-HR	4-Hr	Commercial	Total
1	A		No Parking this Block Face					
	B		9					9
	C		9					9
	D		No Parking this Block Face					
	E	Highland Ave W. Side					11	11
	F	Highland Ave E. Side					8	8
1		**Block 1 Total**	**18**	**0**	**0**	**0**	**19**	**37**
2	A		8					8
	B		No Parking this Block Face					
	C		No Parking this Block Face					
	D		No Parking this Block Face					
2		**Block 2 Total**	**8**	**0**	**0**	**0**	**0**	**8**
3	A		4					4
	B		8					8
	C		No Parking this Block Face					
	D		4					4
3		**Block 3 Total**	**16**	**0**	**0**	**0**	**0**	**16**
4	A		5					5
	B		8					8
	C		9					9
	D		8					8
4		**Block 4 Total**	**30**	**0**	**0**	**0**	**0**	**30**
5	A		7					7
	B		No Parking this Block Face					
	C		10					10
	D		8					8
5		**Block 5 Total**	**25**	**0**	**0**	**0**	**0**	**25**
6	A		No Parking this Block Face					
	B		No Parking this Block Face					
	C		3					3
	D		No Parking this Block Face					
6		**Block 6 Total**	**3**	**0**	**0**	**0**	**0**	**3**
7	A		7					7
	B		7					7
	C		11					11
	D		No Parking this Block Face					
7		**Block 7 Total**	**25**	**0**	**0**	**0**	**0**	**25**
8	A		6					6
	B		No Parking this Block Face					
	C		No Parking this Block Face					
	D		5					5
8		**Block 8 Total**	**11**	**0**	**0**	**0**	**0**	**11**
22	A		No Parking this Block Face					
	B		4					4
	C		No Parking this Block Face					
	D		No Parking this Block Face					
22		**Block 22 Total**	**4**	**0**	**0**	**0**	**0**	**4**
23	A		No Parking this Block Face					
	B		17					17
	C		No Parking this Block Face					
	D		4			3		7
23		**Block 23 Total**	**21**	**0**	**0**	**3**	**0**	**24**
24	A		No Parking this Block Face					
	B		9					9
	C		No Parking this Block Face					
	D		7					7
24		**Block 24 Total**	**16**	**0**	**0**	**0**	**0**	**16**
25	A		No Parking this Block Face					
	B		No Parking this Block Face					
	C		9					9
	D		9					9
25		**Block 25 Total**	**18**	**0**	**0**	**0**	**0**	**18**
26	A		No Parking this Block Face					
	B		10					10
	C		7					7
	D		No Parking this Block Face					
26		**Block 26 Total**	**17**	**0**	**0**	**0**	**0**	**17**
27	A		No Parking this Block Face					
	B		6					6
	C		6					6
	D		12					12
27		**Block 27 Total**	**24**	**0**	**0**	**0**	**0**	**24**
	TOTAL ON-STREET		**236**	**0**	**0**	**3**	**19**	**258**

Parking Occupancy – North Side

Just as for the south side of downtown, counts of the on-street, off-street and North Garage occupancy levels were conducted. Due to on-going construction and other events and activities on the north side, various spaces were cordoned off on different days and times which slightly affected the number of parking spaces observed. Over the course of the nine survey days 2,133 spaces, on average, were observed for occupancy. This represents 98 percent of the available and accessible parking supply. Spaces that may not have been available at various times on the north side were due to, for example, Library spaces under construction, Lot S spaces lost due to the farmer's market, church spaces taken out of service for church related activities or construction of the new residential building on block 3. Where the peak day for the south side of the downtown occurred during the June counts, the Thursday count day in May (the first day of counts) had the highest observed occupancy when 1,435 spaces were occupied between 1:00 pm and 2:00 pm on this date. For the majority of the other survey dates, peak occupancy typically occurred on the north side between 10:00 am and 12:00 noon after which a steady decline in parking utilization was observed. Results comparing each of the three survey days (Thursday, Friday and Saturday) during each of the three individual months (May, June & July) are summarized by **Figures 16** through **18** which follow the table.

Table 26 – Total (Public & Private) number of occupied spaces by Survey Day (North Side)

North Side

	Description	Spaces	6:00am - 8:00am	8:00am - 10:00am	10:00am - 12:00 N	1:00pm - 2:00pm	2:00pm - 3:00pm	3:00pm - 4:00pm	4:00pm - 5:00pm	6:00pm - 7:00pm	7:00pm - 8:00pm	8:00pm - 9:00pm	9:00pm - 10:00pm	10:00pm - 11:00pm	11:00pm 12:00am	12:00am - 1:00am	1:00am - 2:00am
Thursday	Total May	2,134	790	1,070	1,418	1,435	1,324	1,246	1,192	1,030	857	724	626	515	491	487	483
	Total June	2,137	637	1,075	1,429	1,363	1,364	1,298	1,285	957	850	771	626	551	511	498	492
	Total July	2,094	686	1,122	1,374	1,391	1,343	1,294	1,150	882	864	773	672	527	477	498	484
	Thursdays	**6,365**	**2,113**	**3,267**	**4,221**	**4,189**	**4,031**	**3,838**	**3,627**	**2,869**	**2,571**	**2,268**	**1,924**	**1,593**	**1,479**	**1,483**	**1,459**
	Thursdays Average	**2,122**	**704**	**1,089**	**1,407**	**1,396**	**1,344**	**1,279**	**1,209**	**956**	**857**	**756**	**641**	**531**	**493**	**494**	**486**
	% Spaces Occupied		**33.2%**	**51.3%**	**66.3%**	**65.8%**	**63.3%**	**60.3%**	**57.0%**	**45.1%**	**40.4%**	**35.6%**	**30.2%**	**25.0%**	**23.2%**	**23.3%**	**22.9%**
			2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122
Friday	Total May	2,146	599	1,011	1,332	1,223	1,150	1,056	1,026	721	690	711	620	494	485	469	462
	Total June	2,143	594	1,010	1,346	1,269	1,227	1,134	1,102	787	774	721	613	501	493	481	503
	Total July	2,094	590	926	1,280	1,219	1,169	1,133	1,102	1,019	876	885	776	604	536	517	490
	Fridays	**6,383**	**1,783**	**2,947**	**3,958**	**3,711**	**3,546**	**3,323**	**3,230**	**2,527**	**2,340**	**2,317**	**2,009**	**1,599**	**1,514**	**1,467**	**1,455**
	Fridays Average	**2,128**	**594**	**982**	**1,319**	**1,237**	**1,182**	**1,108**	**1,077**	**842**	**780**	**772**	**670**	**533**	**505**	**489**	**485**
	% Spaces Occupied		**27.9%**	**46.2%**	**62.0%**	**58.1%**	**55.6%**	**52.1%**	**50.6%**	**39.6%**	**36.7%**	**36.3%**	**31.5%**	**25.1%**	**23.7%**	**23.0%**	**22.8%**
Saturday	Total May	2,157	473	563	866	811	798	743	688	709	668	635	579	527	494	461	461
	Total June	2,143	489	614	905	743	695	642	655	687	672	598	542	533	503	483	480
	Total July	2,146	492	625	988	933	909	925	899	881	858	797	806	701	548	501	499
	Saturdays	**6,446**	**1,454**	**1,802**	**2,759**	**2,487**	**2,402**	**2,310**	**2,242**	**2,277**	**2,198**	**2,030**	**1,927**	**1,761**	**1,545**	**1,445**	**1,440**
	Saturdays Average	**2,149**	**485**	**601**	**920**	**829**	**801**	**770**	**747**	**759**	**733**	**677**	**642**	**587**	**515**	**482**	**480**
	% Spaces Occupied		**22.6%**	**28.0%**	**42.8%**	**38.6%**	**37.3%**	**35.8%**	**34.8%**	**35.3%**	**34.1%**	**31.5%**	**29.9%**	**27.3%**	**24.0%**	**22.4%**	**22.3%**

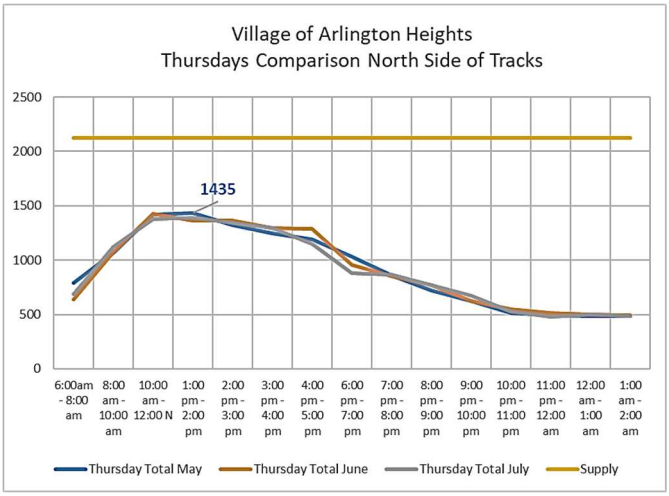


Figure 16 - Thursday Occupancy Comparison North Side

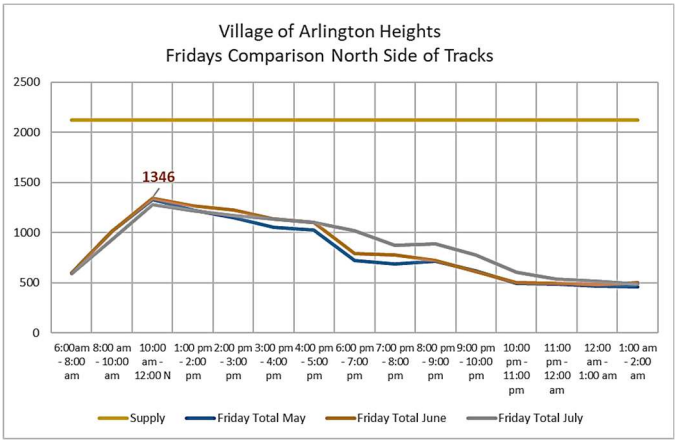


Figure 17 – Friday Occupancy Comparison North Side

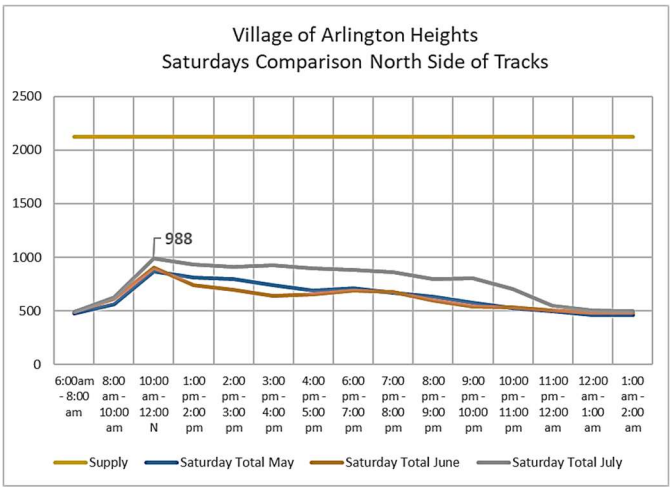


Figure 18 – Saturday Occupancy Comparison North Side

The relatively early peak in parking utilization and the fact that there is not a second evening peak occurring on the north side of the downtown is likely a result of the number of commuters parking on the north side and the relative limitation of other activity venues compared to the south side of downtown. While the north side does have the Library and several restaurants on the north side that would have an evening demand for parking, it does not have similar venues to the Metropolis or movie theater. Also, there is neither the number of restaurants or other choices as on the south side nor the seating capacity.

Public Parking Occupancy

The proportion of public to private parking is slightly greater (68 percent vs. 65 percent) than on the south side. Many of the private spaces are associated with churches, the library or several smaller businesses with their own parking. The public parking supply would primarily be the commuter lots, on-street spaces or the North Garage. While the utilization of the public parking supply approached 80 percent occupancy on the south side during the June counts (in the evening), maximum occupancy of the public parking supply on the north side only reached about 70 percent during the Thursday count dates. For the Friday surveys, the occupancy barely reached above 60 percent although they were higher for the July count in the evening compared to both May and June. The utilization of the public parking was obviously much lower on the Saturday count dates due to the lack of commuter parking use. The early Saturday values showed a spike in both June and July partially due to the weekly Farmer's Market that was held by the time of the June Saturday count date and held at a much higher occupancy rate in July as well because of an Irish Festival on the Saturday count date in July.

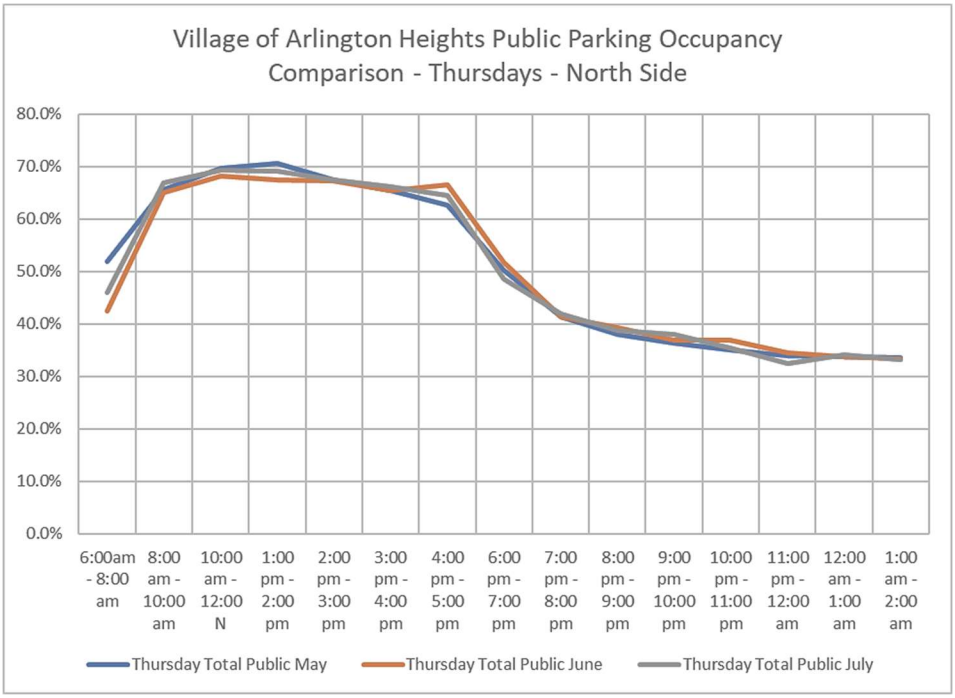


Figure 19 –Thursday Public Parking Occupancy Comparison North Side

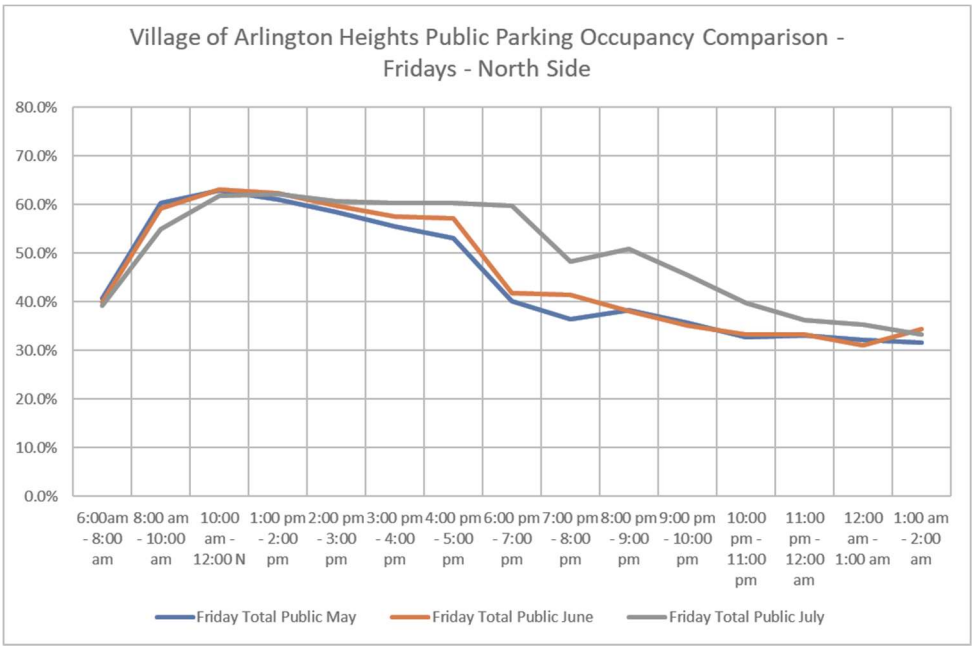


Figure 20 –Friday Public Parking Occupancy Comparison North Side

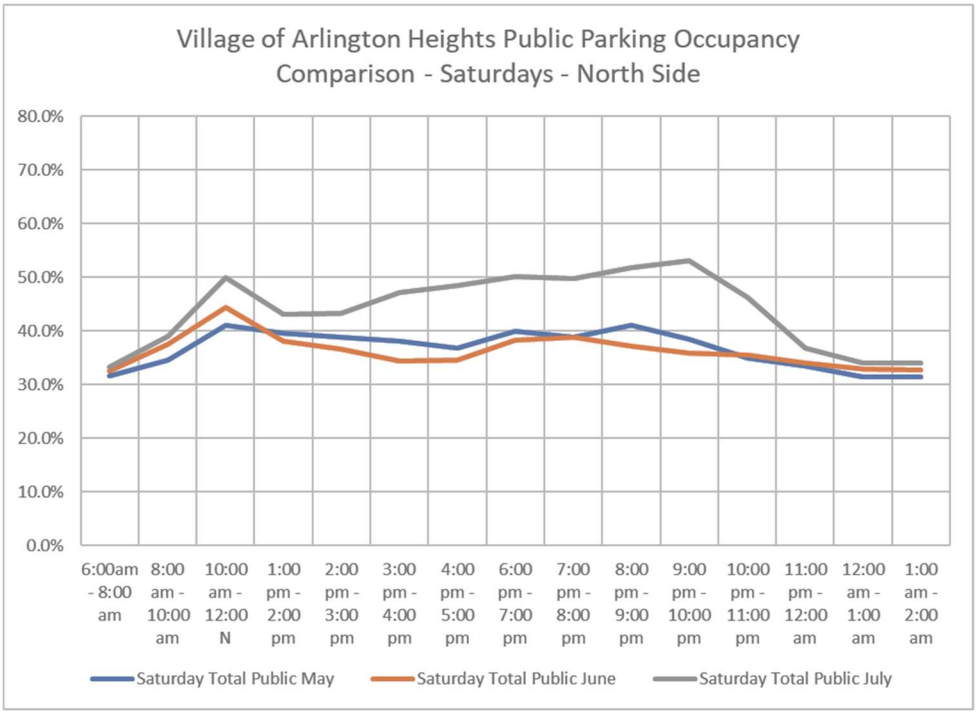


Figure 21 –Saturday Public Parking Occupancy Comparison North Side

North Garage Parking

Observations of the North Garage conducted as part of the occupancy counts showed that the garage peaked at 560 spaces occupied (69 percent occupancy) between 1:00 pm and 2:00 pm coinciding with the first count day (May 3, 2018). All three Thursdays were relatively consistent for the number of parking spaces occupied between 6:00 am and 2:00 am with the exception of the 6:00 pm to 7:00 pm count in June. This count was significantly higher (513 occupied spaces) compared to 421 and 437 occupied spaces for the Thursday count in the North Garage in May and July respectively. One possible explanation is that this was a particularly rainy day although the rain had stopped by evening. All other counts on Thursdays were relatively consistent.

Observed utilization of the North Garage and provided statistics present a bit of an anomaly. While the utilization on the Thursday and Friday as noted above shows an increase in occupancy between the 6:00 am and 8:00 am counts, after this time the occupancy level stays relatively flat or declines. The North Garage has a total of 811 spaces (800 regular plus 11 handicap accessible). Provided statistics report that 650 permits are allocated to Hancock Square. Text taken from the provided agreement states:

1. *Article 2.01 is hereby amended by substituting the following for subsection (i)*

   To park motor vehicles pursuant to parking permits for 439-allocated and specifically designated Parking Spaces for the use at all times by Grantee, its invitees and guests and the residential and commercial tenants of the Buildings and their guests and invitees, plus an additional 211 parking permits for use by Grantee, its invitees and guests and the residential and commercial tenants of the Buildings and their guests and invitees for use at all times in both the allocated and unallocated Parking Spaces in the Garage Facility.

The confusing aspect of the observations is that in addition to these 650 permits allocated to Hancock Square, statistics provided by the Village show 200 commuter permits allocated each month to the North Garage (Garage G – 2018 Commuter). While certainly not all permits translate into an occupied parking space every day, the observations for the North Garage reflects a steady decline in permit parking starting with the 6:00 am counts. Any increase in utilization appears to be the result of arriving daily fee patrons (commuters).

Table 27 – North Garage Occupancy by Type – Thursday May 3, 2018

Description	Spaces	6:00am - 8:00 am	8:00 am - 10:00 am	10:00 am - 12:00 N	1:00 pm - 2:00 pm	2:00 pm - 3:00 pm	3:00 pm - 4:00 pm	4:00 pm - 5:00 pm	6:00 pm - 7:00 pm	7:00 pm - 8:00 pm	8:00 pm - 9:00 pm	9:00 pm - 10:00 pm	10:00 pm - 11:00 pm	11:00 pm - 12:00 am	12:00 am - 1:00 am	1:00 am - 2:00 am
North Garage Permits	544	442	409	357	357	343	348	345	340	350	379	404	426	445	451	459
North Garage 4-Hour	57	4	9	19	25	14	15	15	19	25	13	3	1	1	1	1
North Garage Daily Fee	199	21	136	169	175	173	162	158	60	23	16	9	7	3	3	1
M3-Handicap	11	0	3	3	3	3	2	3	2	2	2	2	4	4	4	4
Total	811	467	557	548	560	533	527	521	421	400	410	418	438	453	459	465

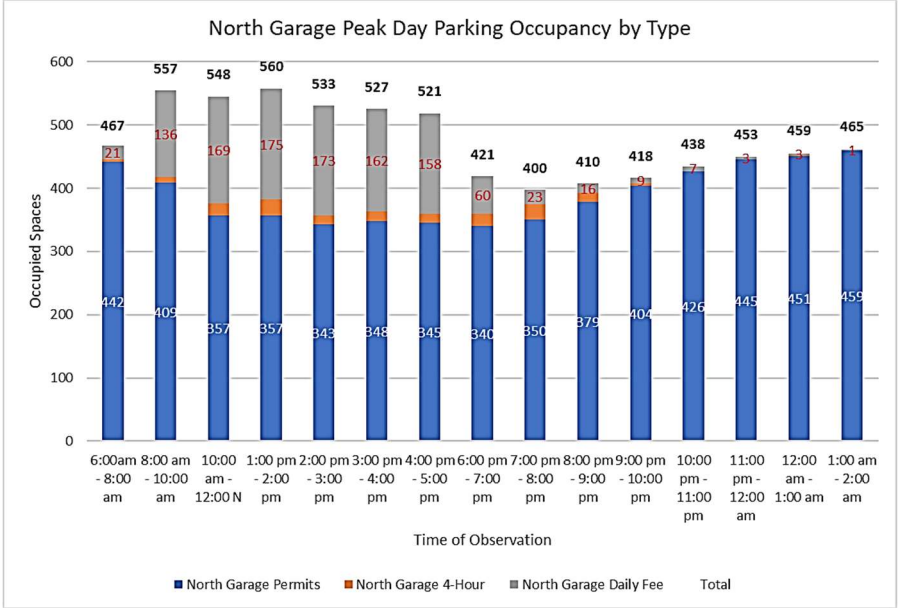


*Figure 22 –North Garage **Peak Day** Occupancy by component group*

Four-Hour Shopper Parking North Garage

The 57 designated 4-hour shopper spaces in the North Garage appear to be most heavily used on Saturdays with all three Saturday observations recording the highest values. The graphs below demonstrate the relatively light usage on the Thursday and Friday count dates compared to the number of designated spaces available. Although the North Garage is only reaching about 70 percent occupancy, this level of utilization for the four-hour spaces suggests that it may be possible to reallocate some of these spaces.

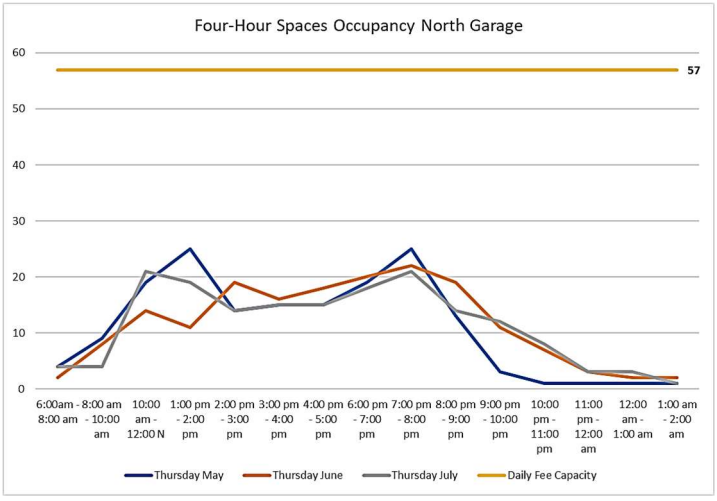


Figure 23 –North Garage 4-hour space occupancy - Thursdays

Figure 23 shows that the four-hour spaces in the North garage peaked at 25 spaces occupied on the Thursday count dates of 57 available spaces (44%).

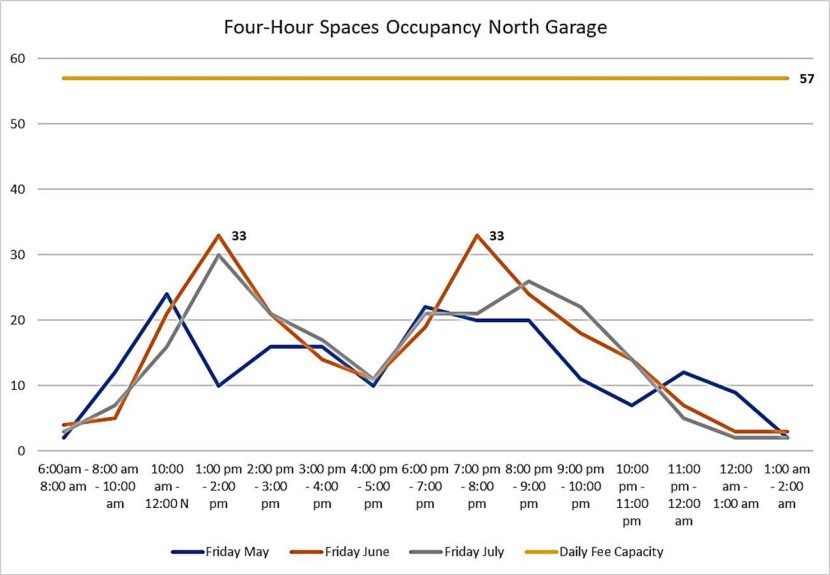


Figure 24 –North Garage 4-hour space occupancy - Fridays

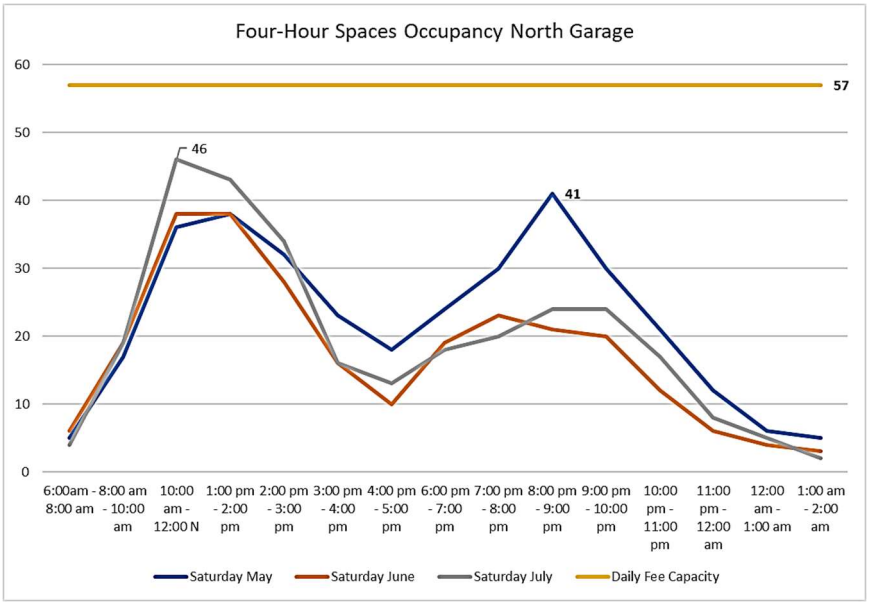
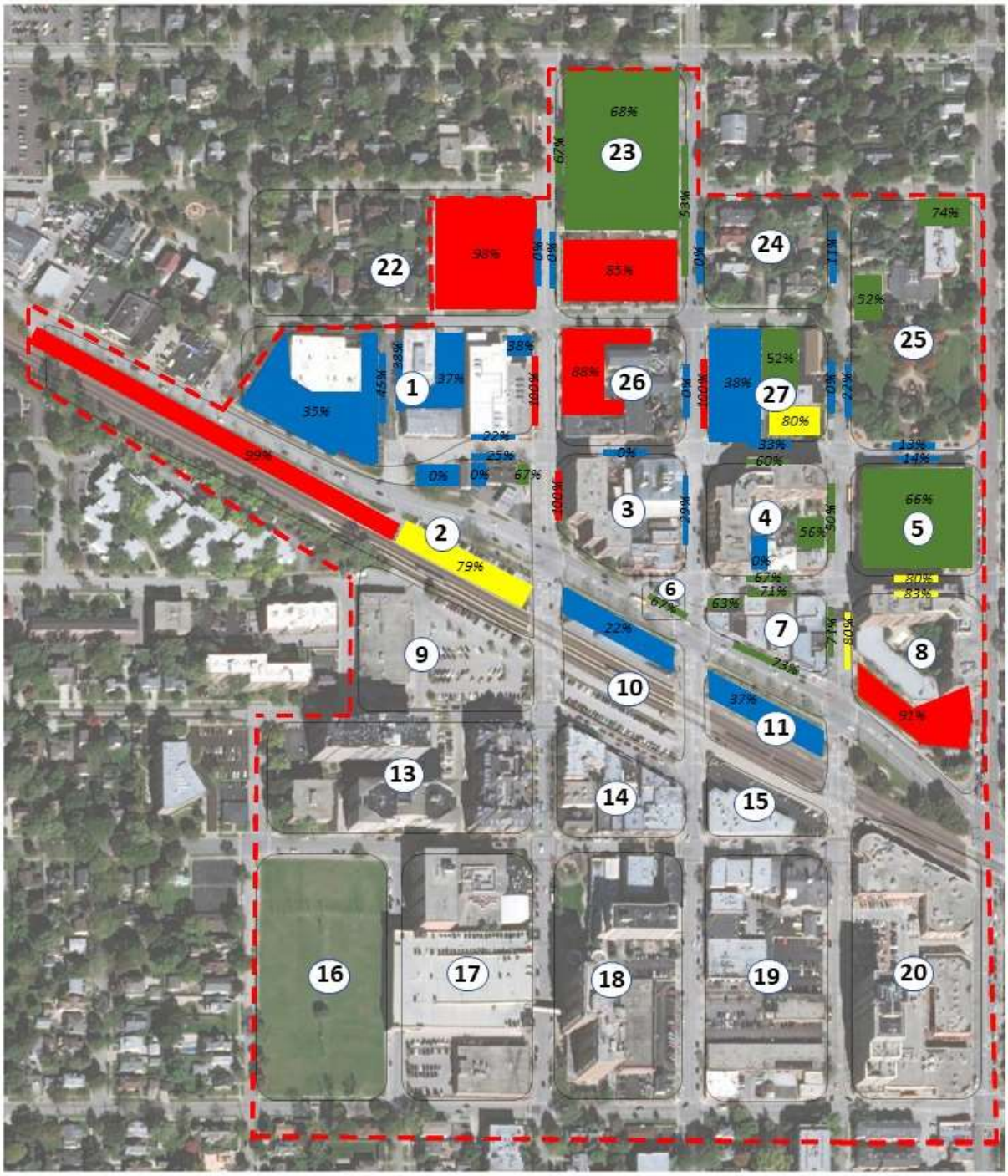


Figure 25 –North Garage 4-hour space occupancy - Saturdays

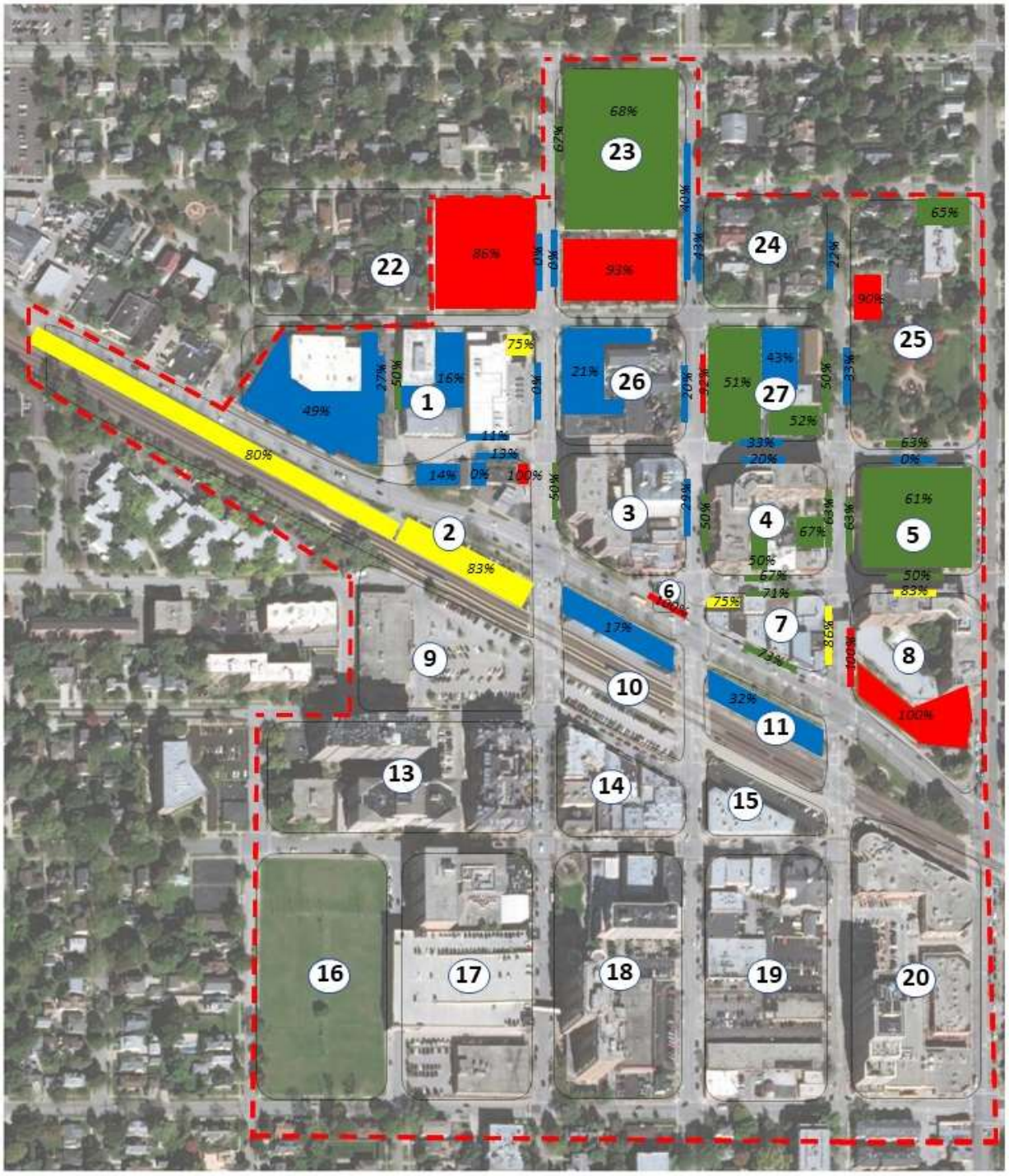
Summary North Side Occupancy Values

The level of activity on the north side of downtown Arlington Heights does not reflect a similar evening increase as that seen on the south side of the railroad tracks. The occupancy appeared to peak relatively early in the day (10:00 am – 12:00 noon) and then show a steady decline throughout the remainder of the day. There is not the second evening spike as observed on the south side likely due to the fact that there are not any venues like the Metropolis or CMX movie theater to create evening demand. Additionally, the designated permit parking in the North Garage shows approximately 450± spaces occupied at the beginning (6:00 am) and end (1:00 am – 2:00 am) of the count days. During the middle part of the day (based on Thursday and Friday count dates), occupancy of the designated permit spaces drops by approximately 100 spaces to about 350± spaces occupied. Beginning in the late afternoon the use of the permit spaces increases in the North Garage which is likely resulting from returning residents replacing departing commuters.

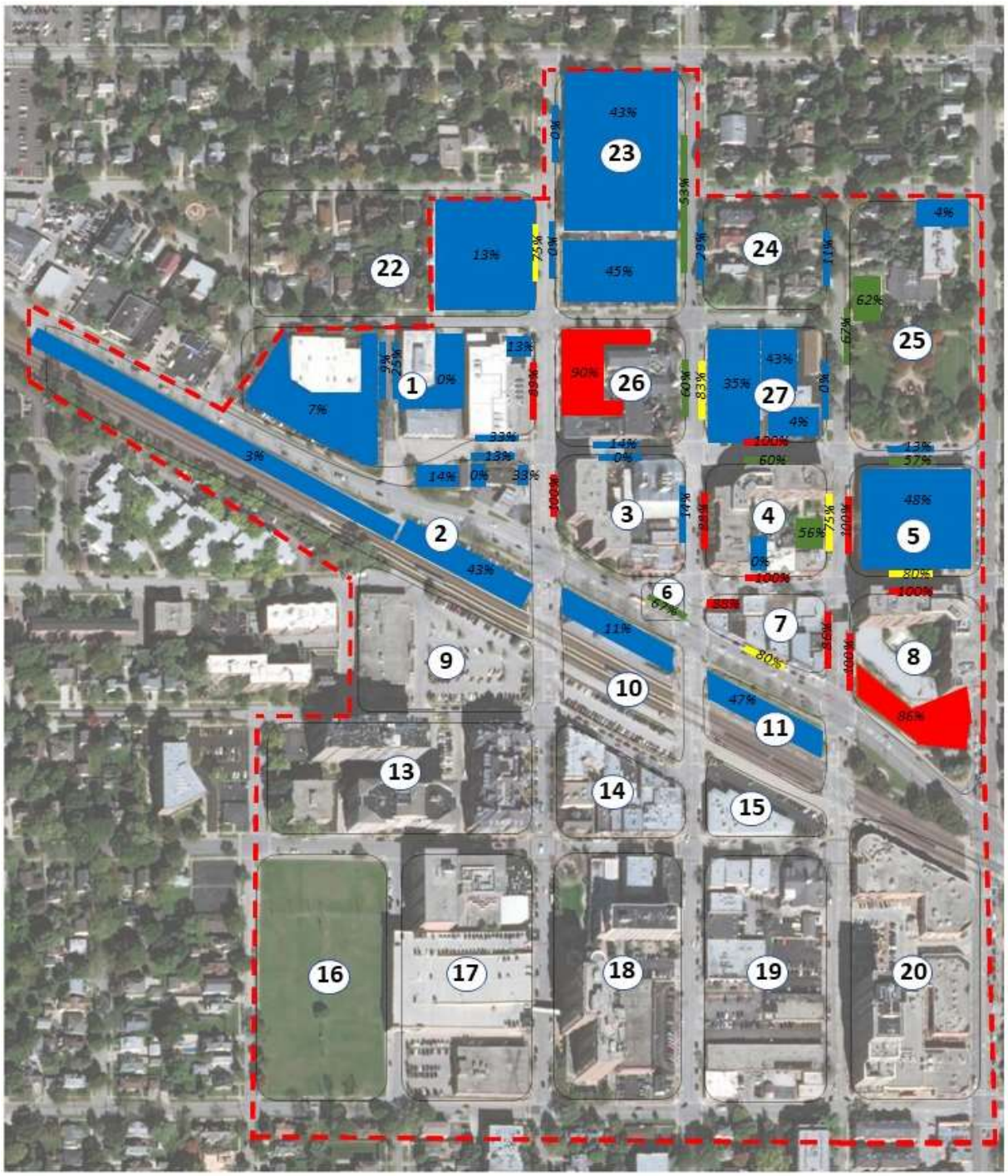
Maps 17 through **25** on the following nine pages demonstrate the peak hour occupancy of each of the on and off-street parking areas for each of the nine survey days.



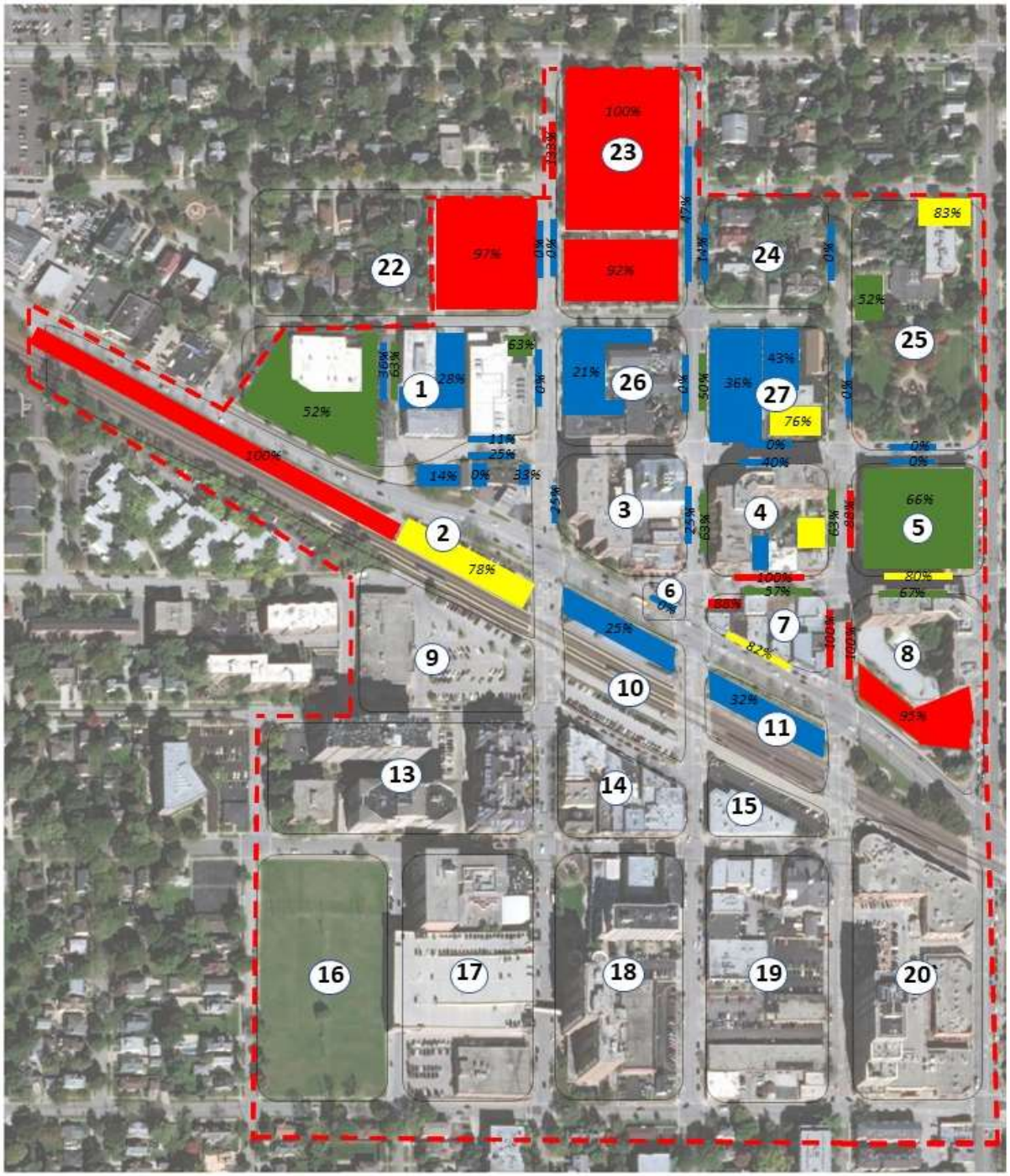
Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY NORTH Thursday May 3, 2018 1:00 pm - 2:00 pm	MAP Number: MAP 17



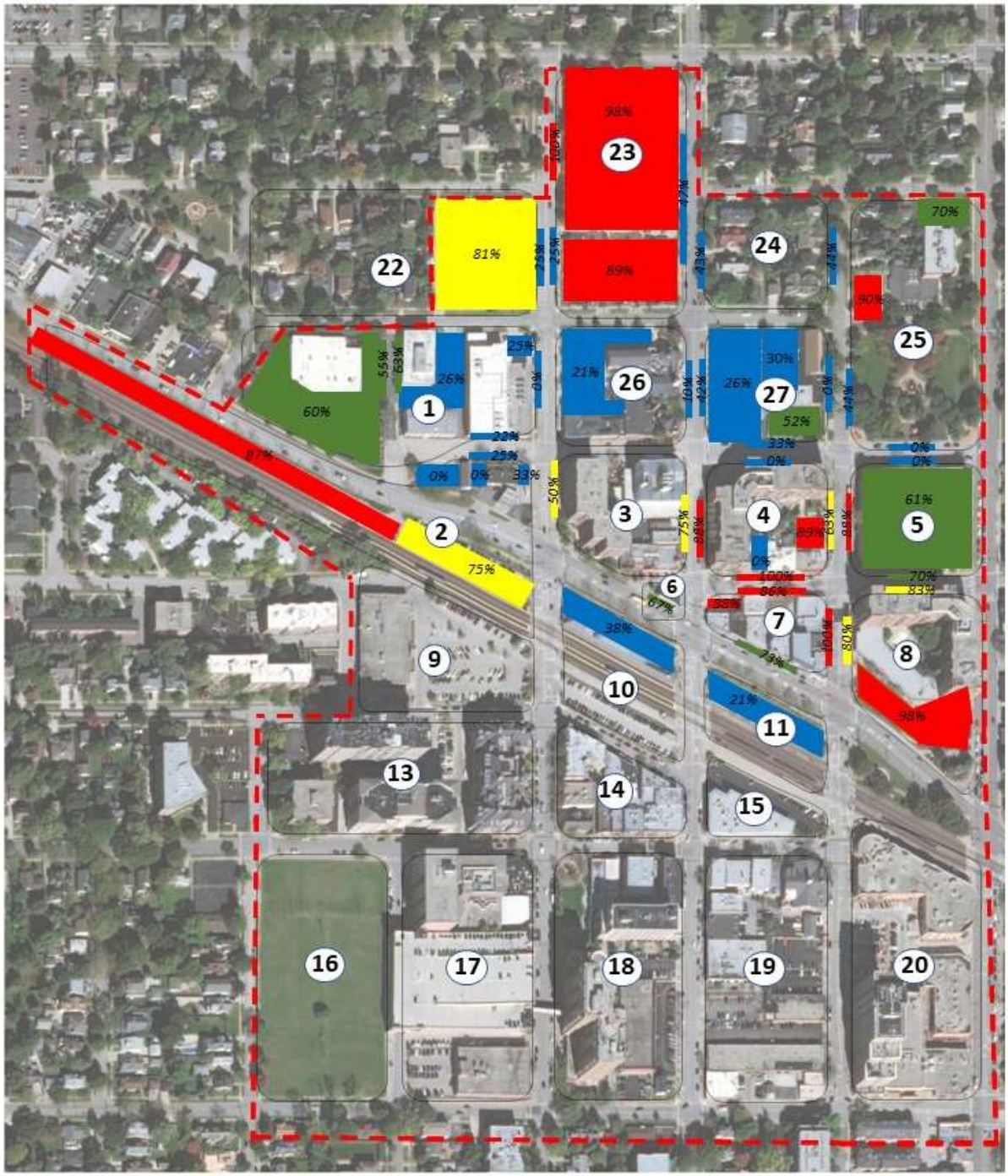
Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS - ENGINEERS - PLANNERS BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY NORTH Friday May 4, 2018 10:00 am – 12 N	MAP Number: MAP 18



Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS - ENGINEERS - PLANNERS BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY NORTH Saturday May 5, 2018 10:00 am – 12 N	MAP Number: MAP 19



Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY NORTH Thursday June 21, 2018 10:00 am – 12 N	MAP Number: MAP 20



Arlington Heights Parking Study

Arlington Heights, IL

RICH & ASSOCIATES PARKING CONSULTANTS

ARCHITECTS · ENGINEERS · PLANNERS

BLOCK NUMBER

LEGEND:

STUDY AREA

BLOCK FACE KEY PLAN: A D # B C

PARKING OCCUPANCY:

- 85% Through 100%
- 75% Through 84%
- 50% Through 74%
- 0% Through 49%

Sheet Title:

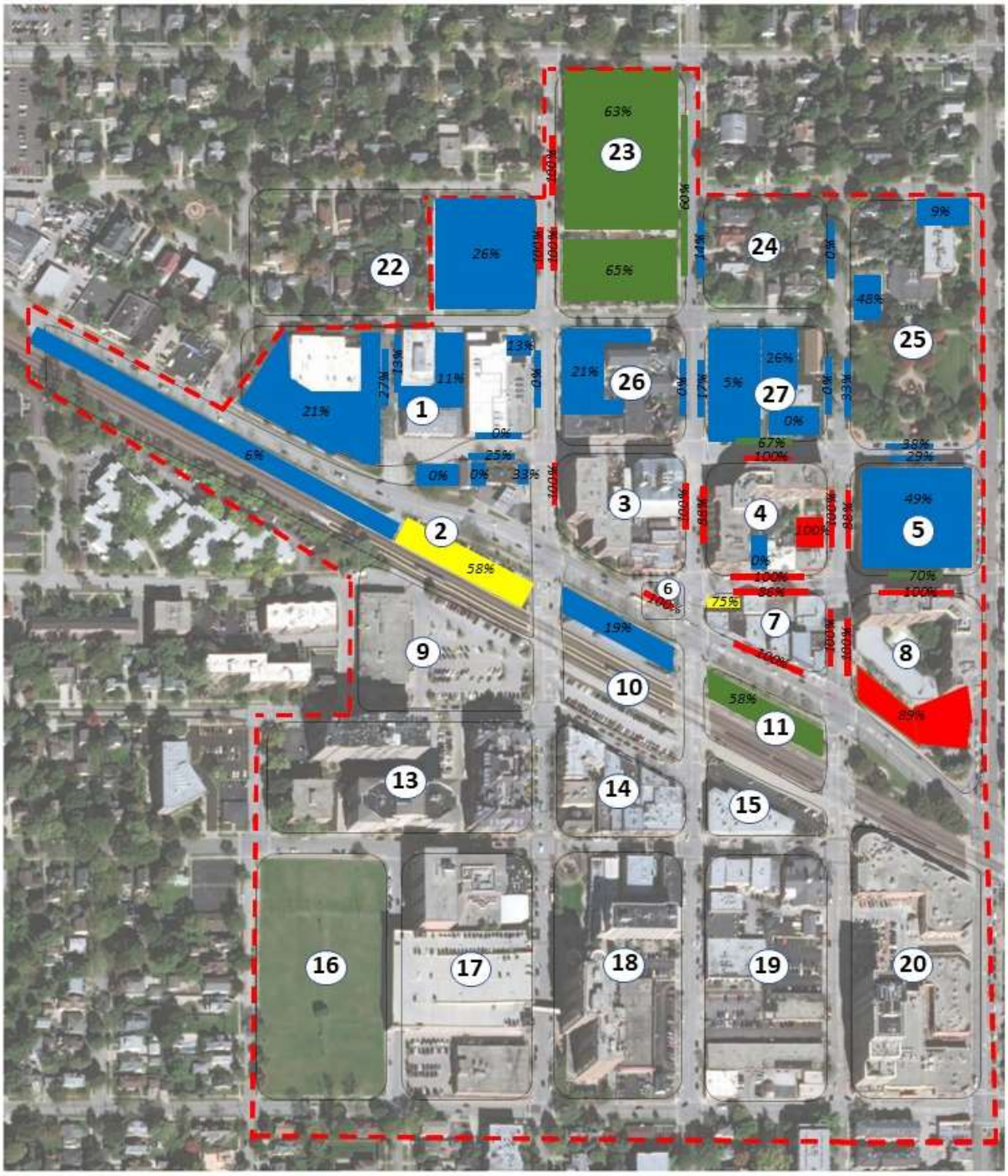
PEAK OCCUPANCY NORTH

Friday June 22, 2018

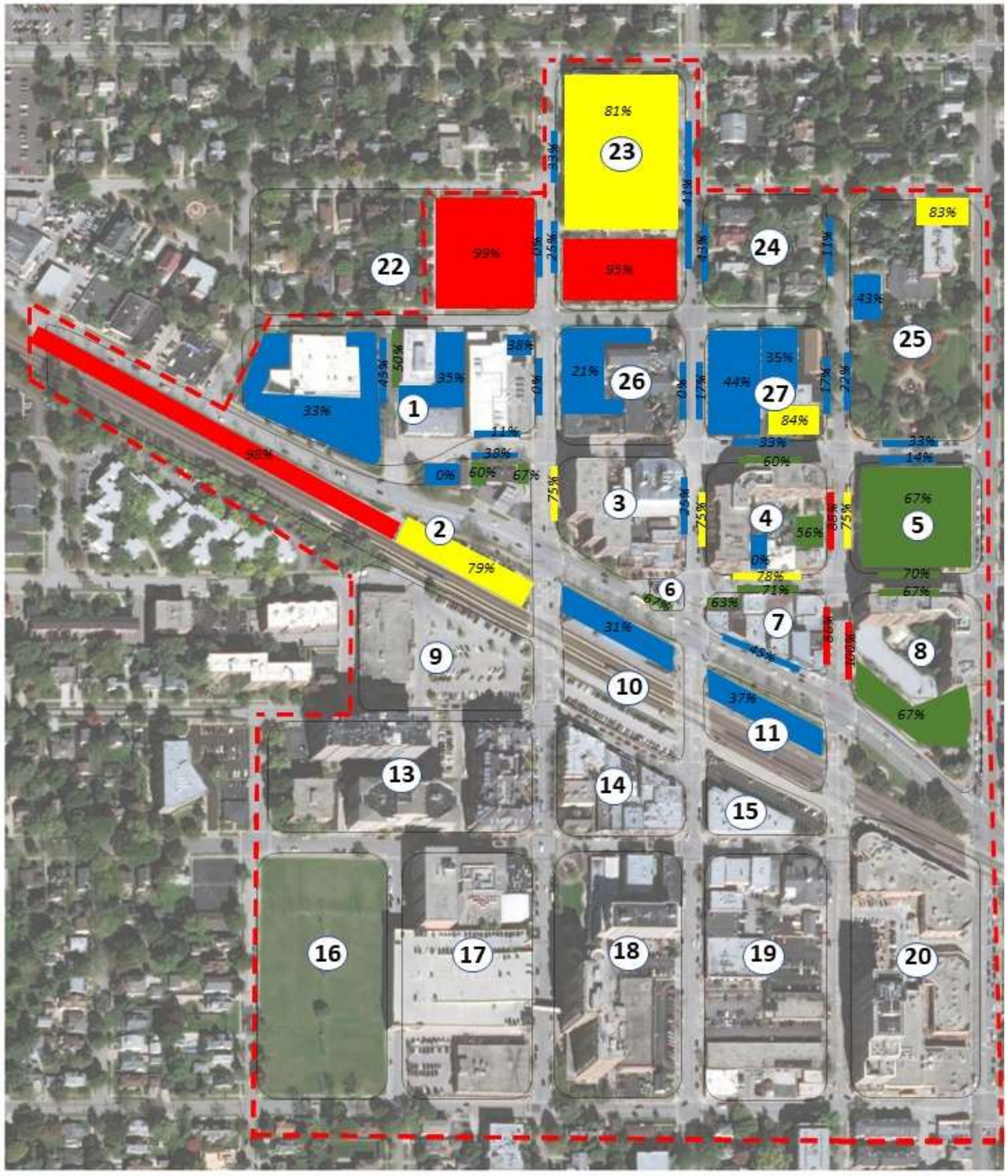
10:00 am – 12 N

MAP Number:

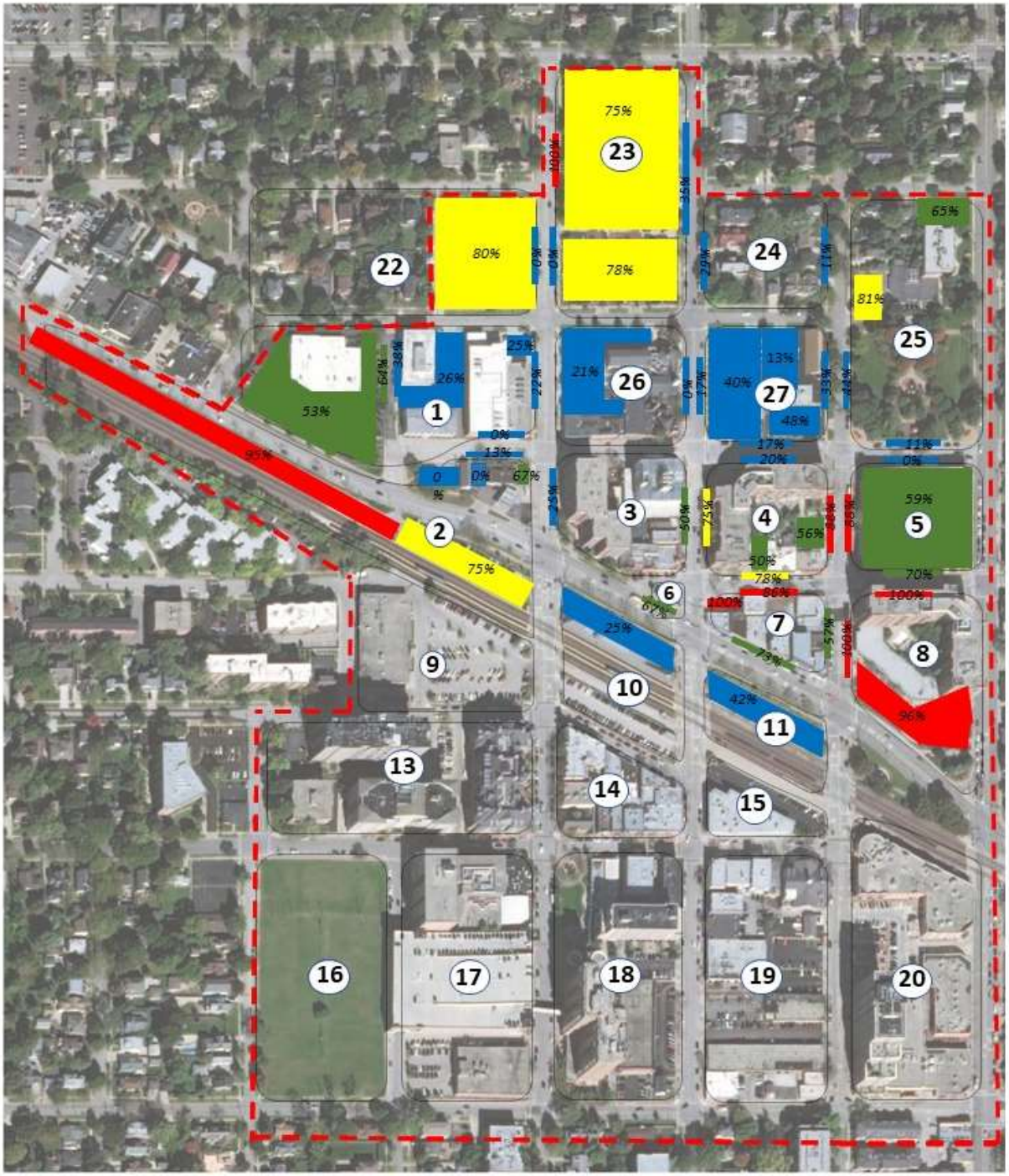
MAP 21



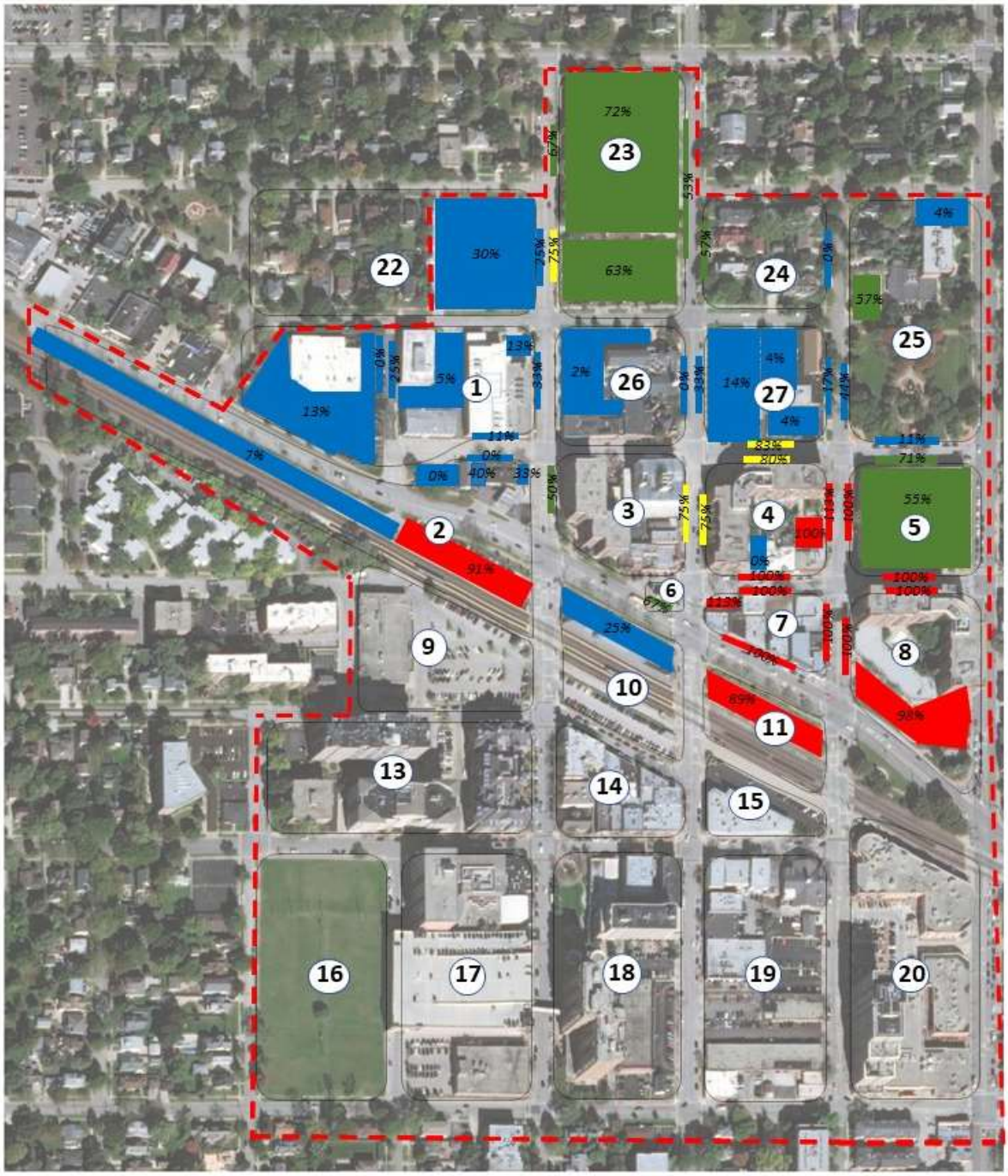
Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY NORTH Saturday June 23, 2018 10:00 am – 12 N
	# BLOCK NUMBER			MAP Number: MAP 22



Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY NORTH Thursday July 12, 2018 1:00 pm – 2:00 pm	MAP Number: MAP 23



Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY NORTH Friday July 13, 2018 10:00 am – 12 N	MAP Number: MAP 24



Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	PARKING OCCUPANCY: 85% Through 100% 75% Through 84% 50% Through 74% 0% Through 49%	Sheet Title: PEAK OCCUPANCY NORTH Saturday July 14, 2018 10:00 am – 12 N	MAP Number: MAP 25

Parking Turnover / Violations

As was completed for the south side of downtown Arlington Heights, Rich & Associates also reviewed the turnover and violation rate for the on-street spaces on the north side. With on-street parking limited to 2-hours and each circuit generally conducted hourly, the number of times that the average vehicle would stay in the same spot should be limited. Similar results were obtained for the north side with cars observed in the same space an average of just 1.29 times which is virtually identical to the 1.28 average calculated for the south side. **Table 28** summarizes the results for the length of stay assessment for the on-street spaces on the north side of the tracks.

Table 28 – Turnover & Length of Stay Assessment North Side On-Street

North Side of Tracks On-Street Spaces						
Month	Day of Week	# Spaces	Car Count	Avg Turnover	Total # of occupied Spaces	Avg Stay (# times car observed) # occupied spaces / # cars
May	Thursday	195	403	2.07	546	1.35
	Friday	200	474	2.37	613	1.29
	Saturday	208	558	2.68	746	1.34
May Average				2.38		1.33
June	Thursday	191	826	4.32	1,024	1.24
	Friday	197	686	3.48	965	1.41
	Saturday	197	613	3.11	794	1.30
June Average				3.63		1.31
July	Thursday	197	634	3.22	809	1.28
	Friday	199	629	3.16	809	1.29
	Saturday	198	923	4.66	1,118	1.21
July Average				3.68		1.25
North Side Average				3.22		1.29

Although, *on average*, patrons appeared to be adhering to the posted 2-hour limit for on-street parking, there were also cars observed that did violate the posted limit. May results showed the highest violation for the three days of counts with 7.3% (105 cars of 1,435 vehicles counted) of the vehicles observed counted in the same space three times or more. In June, the violation rate had declined to 5.6 percent and by July just 5.2 percent of vehicles over the three survey dates were in violation. Again, with a best practice benchmark that the violation rate for overstaying posted time limits should not exceed five percent, the north side of downtown Arlington Heights does not appear to have a particularly serious issue as the overall average of violations over the nine days was just six percent.

Table 29 – On-Street Parking Violations Summary – North Side

North Side Routes			Number of Times Car Observed in Same Space								Violation Summary		
			Legal Cars		Violation Cars								
On-Street Parking	Total Spaces Observed	Total Cars	1 Time	2 Times	3 Times	4 Times	5 Times	6 Times	7 Times	8 Times	# Violations	% Violations (3X or More)	% Violations (4X or More)
Thursday 5/3/18	191	403	325	42	16	12	7	1	0	0	36	8.9%	5.0%
Friday 5/4/18	200	474	392	54	9	12	4	3	0	0	28	5.9%	4.0%
Saturday 5/5/18	208	558	446	71	18	15	6	1	0	1	41	7.3%	4.1%
May Average	599	1,435	1,163	167	43	39	17	5	0	1	105	7.3%	4.3%
Thursday 6/21/18	183	384	320	41	10	10	2	0	1	0	23	6.0%	3.4%
Friday 6/22/18	189	452	380	45	12	9	3	2	1	0	27	6.0%	3.3%
Saturday 6/23/18	189	438	365	52	15	3	3	0	0	0	21	4.8%	1.4%
June Average	561	1,274	1,065	138	37	22	8	2	2	0	71	5.6%	2.7%
Thursday 7/12/18	197	453	382	48	14	4	1	3	1	0	23	5.1%	2.0%
Friday 7/13/18	199	444	380	38	12	10	4	0	0	0	26	5.9%	3.2%
Saturday 7/14/18	198	510	450	36	14	8	2	0	0	0	24	4.7%	2.0%
July Average	594	1,407	1,212	122	40	22	7	3	1	0	73	5.2%	2.3%

Current Parking Demand – North side of Downtown

As on the south side of downtown, the demand model for the north side begins with the Land Use information provided by the Village. This shows that the square footage on the north side (excluding residential units) totals just over 327,000 sf. Data provided by the Village had 535 residential units allocated per the table below.

Table 30 – North Side Residential Units

Block	Residential Units	Using Village Parking	Included in Parking Demand Model
3	106	No	No
4	147	No	No
7	20	Yes	Yes
8	262	Yes	Yes
Total	535		

Residential units on blocks 3 and 4 did not appear to be using (based on provided permit agreements) any Village parking but instead seemed to have their own internal (inaccessible to anyone but the residents) parking supply. Therefore, these residential units are not included in the parking demand model because their supply is not included. Thus, the only residential demand is from the 262 residential units on block 8 in Hancock Square and 20 (16 permits) on block 7 in three buildings.

Table 31 – Current Land Use Allocation – North Side

Current Square Footage by Land Use - North Side									
	Retail	Office	Restaurant	Community (Library)	Residential[1]	Commuters	Total Occupied SF	Vacant	Total SF (includes Vacant)
Block #									
1		158,000					158,000		158,000
2		500				158	500		500
3	12,000	3,000	2,300				17,300		17,300
4		13,750	4,000				17,750		17,750
5						271	0		0
6	600	1,400					2,000		2,000
7	11,600	3,000	1,400		20		16,000		16,000
8	14,400	5,125	5,200		262		24,725		24,725
10	450		1,100			8	1,550		1,550
11							0		0
22						169	0		0
23				89,747			89,747		89,747
24							0		0
25							0		0
26							0		0
27							0		0
Total	39,050	184,775	14,000	89,747	282	606	327,572	0	327,572

(1) Dwelling Units.

Rich also calculated anticipated values for commuters who are occupying spaces on the north side. The value of 606 is derived from:

a) permit and daily fee spaces in the North Garage.
b) Patrons parking in the lots along the tracks on blocks 2 and 10
c) Patrons using the large commuter lot on block 22 west of the Library

Provided data had 200 permits assigned to the North Garage. Rich has assumed 80 percent (160) would be used on any given day. Additionally, peak occupancy of the daily fee spaces in the North Garage between 8:00 am and 10:00 am was about 140 spaces on the three Thursday survey dates. Rich again has assumed that 80 percent (111) would be attributable to commuters. Combined these give the 271 shown on block 5 for the North Garage. The values for commuters on the other blocks are the three Thursdays average for the commuter parking on each of these lots.

While there were many similarities between the north and south side of downtown Arlington Heights, one key difference was the timing and pattern of peak parking needs. On the south side of the downtown, there was both an initial peak during the early afternoon followed by a decline in parking utilization and then a significant increase as patrons came downtown for dinner or other entertainment opportunities.

Peak Day results for the north side had just the early afternoon peak at 1,435 spaces. This is the highest occupancy achieved for the north side based on the turnover and occupancy counts and occurred on the first survey date (Thursday May 3, 2018). This level of occupancy is likely from the combination of commuters, downtown employees, restaurant patrons and other daytime activities. While the restaurants would likely experience a higher demand later in the evening associated with the dinner hour and there would be added demand from residents returning home, this was not sufficiently high enough to overcome the peak early afternoon peak. The peak occupancy is demonstrated by **Figure 26** below.

Rich & Associates also calculated the parking demand for the north side using a shared-use model based on ULI's (Urban Land Institute) *Shared-Use Manual*. The comparison of the calculated parking demand corresponding to each observation is also demonstrated by Figure 26. This shows the very good correlation between the calculated and observed values.

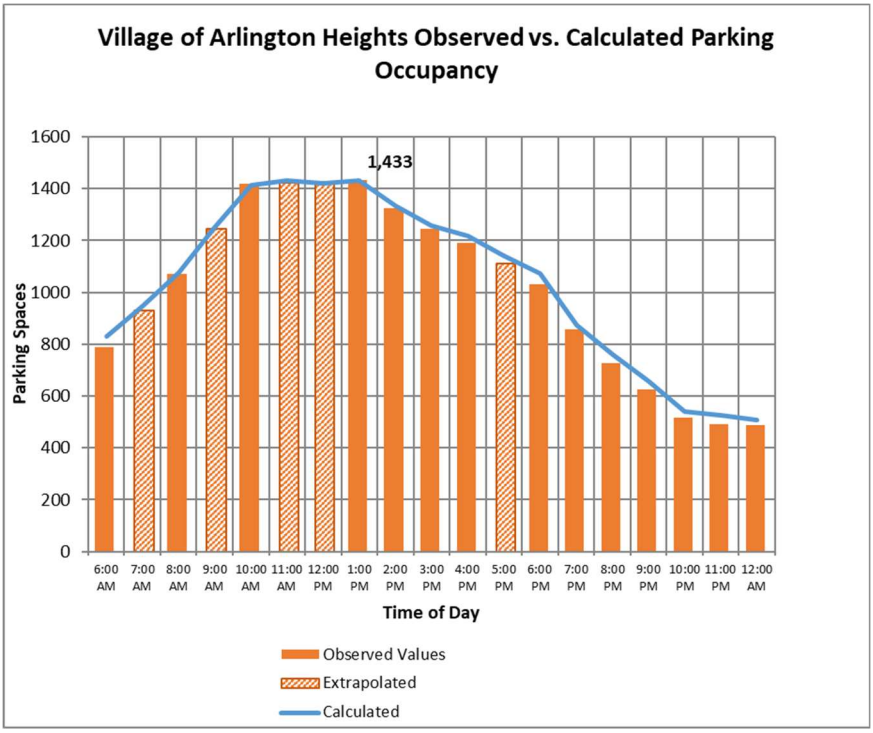


Figure 26 –Observed Peak Day Occupancy – Total North Side

As the graph shows, the calculated parking demand corresponding to the 1:00 pm to 2:00 pm time period calculates as 1,433± spaces which is very close to the number of observed occupied corresponding to this time of 1,435 spaces. Rich then takes the calculated parking generation rate corresponding to each land use (demand generator) as shown in Table 31 above. Applying these parking generation rates results in a calculated demand for each type of land use associated with each block. Comparing this calculated parking demand against the available parking supply on each block results in a calculated surplus or deficit figure for each block which can then develop down to a total surplus or deficit for the entire north side study area. This is shown by **Table 32** below.

Figure 18 – Comparison of Peak Day Observed to Peak Day Calculated Parking Demand

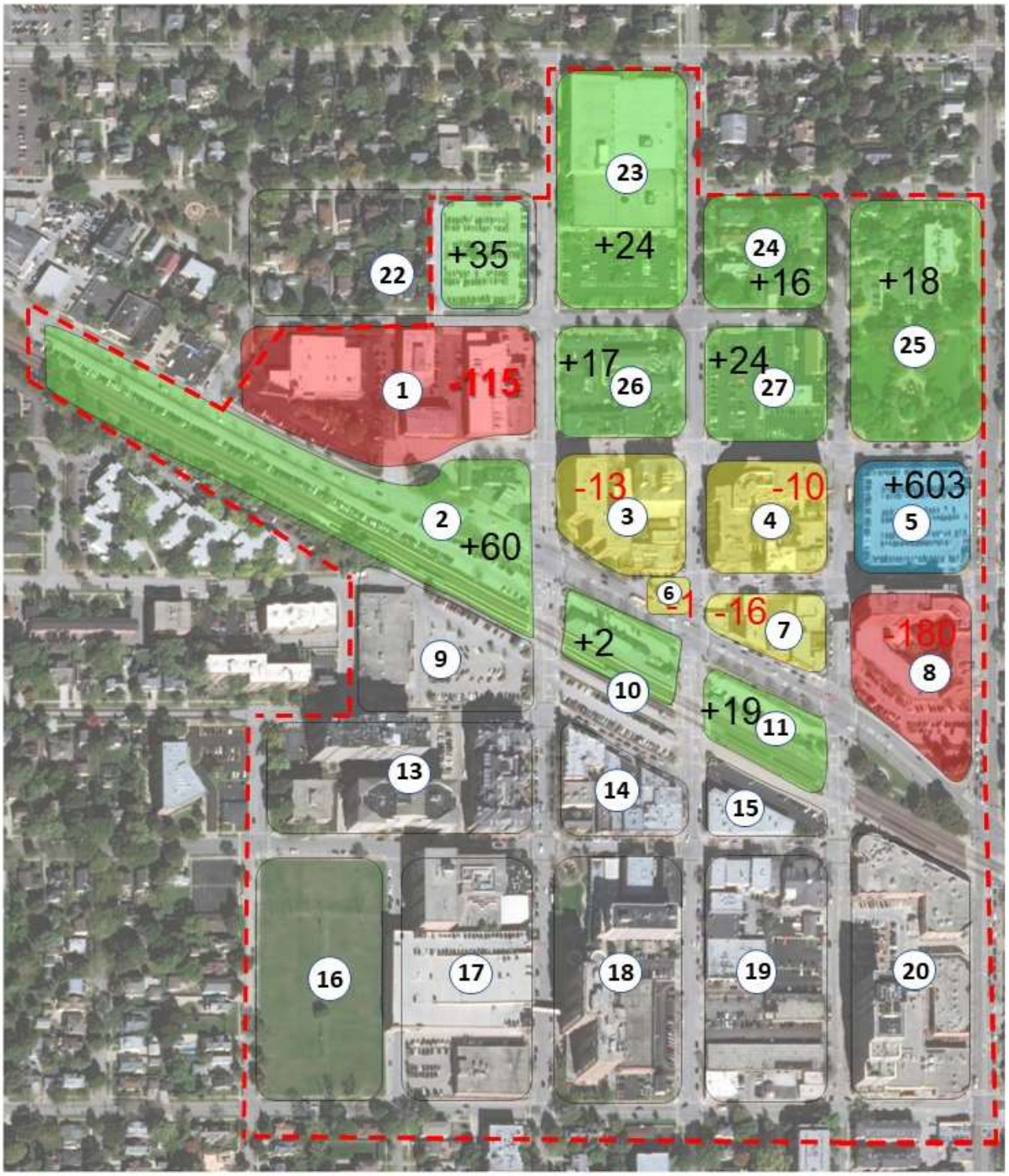
Table 32 – Current Surplus / Deficit Condition Peak Day – North Side

Current Surplus / (Deficit) - Peak Daytime (1:00 PM - 2:00 PM)

	Retail	Office	Restaurant	Community (Library)	Residential	Commuters	Total Demand	Public Parking			Private Parking		Total			Gross Surplus / (Deficit)	Net Surplus / (Deficit)
	Parking Generation Rate (Shared Use)							On-Street	Off-Street	Total	On-Street	Off-Street	On-Street	Off-Street	Combined		
	1.59	2.00	7.64	2.05	0.67	0.86											
Block #	Parking Spaces Required at Parking Generation Rate																
1	0	316	0	0	0	0	316	18	0	18	19	164	37	164	201	(115)	(115)
2	0	1	0	0	0	136	137	8	174	182	0	15	8	189	197	60	60
3	19	6	18	0	0	0	43	16	0	16	0	14	16	14	30	(13)	(13)
4	0	28	31	0	0	0	58	30	0	30	0	18	30	18	48	(10)	(10)
5	0	0	0	0	0	233	233	25	811	836	0	0	25	811	836	603	603
6	1	3	0	0	0	0	4	3	0	3	0	0	3	0	3	(1)	(1)
7	18	6	11	0	13	0	49	25	0	25	0	8	25	8	33	(16)	(16)
8	23	10	40	0	176	0	248	11	57	68	0	0	11	57	68	(180)	(180)
10	1	0	8	0	0	7	16	0	18	18	0	0	0	18	18	2	2
11	0	0	0	0	0	0	0	0	19	19	0	0	0	19	19	19	19
22	0	0	0	0	0	145	145	4	176	180	0	0	4	176	180	35	35
23	0	0	0	184	0	0	184	24	0	24	0	219	24	219	243	59	24
24	0	0	0	0	0	0	0	16	0	16	0	0	16	0	16	16	16
25	0	0	0	0	0	0	0	18	0	18	0	43	18	43	61	61	18
26	0	0	0	0	0	0	0	17	0	17	0	52	17	52	69	69	17
27	0	0	0	0	0	0	0	24	0	24	0	142	24	142	166	166	24
Total	62	370	107	184	189	521	1,433	239	1,255	1,494	19	675	258	1,930	2,188	755	483

As the table shows, at peak time six blocks (1,3,4,6,7 & 8) have calculated parking deficits which means the supply on each of these blocks is insufficient to support the calculated level of parking demand. The largest calculated deficit at this time of day is on block 8 which includes the residents and commercial entities of Hancock Square. This building has an agreement with the Village to use parking in the adjacent North Garage and therefore, the parking need is likely being met by patron's parking in the north garage or other publicly available supply such as adjacent on-street parking.

As was done for the south side of downtown, the comparison of total demand to total supply and the determination of a gross surplus or deficit for the entire north side of downtown is slightly misleading because it includes private parking supply that is likely not available to outside parking patrons. On the north side, this private supply would include parking lots associated with several churches, the library parking lot as well as the parking lots adjacent the Park District offices and several other private entities. When the surplus private supply is excluded, the surplus calculated on the "gross" basis (total demand less total supply) is reduced from 755± spaces to 483± spaces on the "net" basis. The surplus or deficit by block reflecting the "net" value (discounting surplus private parking spaces) is demonstrated for the existing conditions by **Map 26** on the following page.



Arlington Heights Parking Study Arlington Heights, IL	RICH & ASSOCIATES PARKING CONSULTANTS ARCHITECTS · ENGINEERS · PLANNERS NORTH # BLOCK NUMBER	LEGEND: STUDY AREA BLOCK FACE KEY PLAN: A D # B C	SURPLUS OF PARKING +100 0 Thru 99 DEFICIT OF PARKING -99 Thru -1 - 100 +	Sheet Title: NORTH SURPLUS/ DEFICIT CURRENT PEAK 1:00PM-2:00PM	MAP Number: MAP 26

Future Demand – North Side

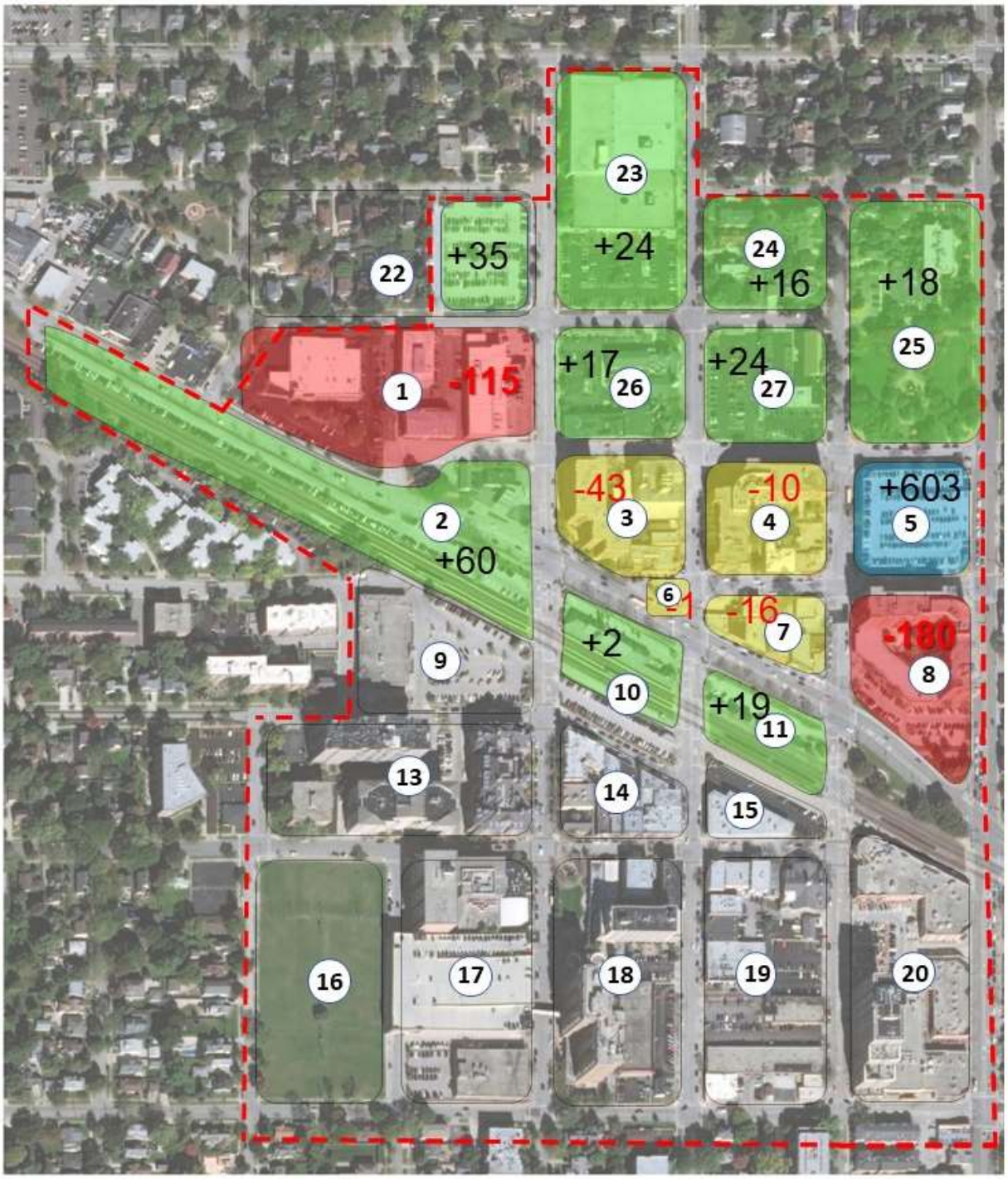
Projections of future parking demand assumes that the existing parking generators will remain. In addition to this demand, the future parking assumes that the residential building under construction on block 3 will be completed and fully occupied. Data provided by the Village shows this to be 45 residential units. Adding these 45 residential units on block 3 increases the total residential component from 282 (blocks 7 & 8) to 327 dwelling units. This is the only change projected at this time for the north side with all other square footage and commuter volumes remaining the same.

Table 33 shows the peak hour (1:00 pm – 2:00 pm) calculation for the future condition. The 45 residential units are projected to have a parking need of 30± spaces needed at this time of day. With no change in the amount of parking supply, this increases the peak calculated demand from 1,433± spaces (existing condition) to 1,463± spaces for the future. The 755± space gross surplus is reduced to 725± spaces while the net surplus is reduced to 453± spaces. The deficit on block 3 (site) increases from 13± spaces to 43± spaces.

Table 33 – Future Surplus / Deficit Condition Peak Day – North Side

Future Surplus / (Deficit) - Peak Daytime (1:00 PM - 2:00 PM)

	Retail	Office	Restaurant	Community (Library)	Residential	Commuters	Total Demand	Public Parking			Private Parking		Total			Gross Surplus / (Deficit)	Net Surplus / (Deficit)
	Parking Generation Rate (Shared Use)							On-Street	Off-Street	Total	On-Street	Off-Street	On-Street	Off-Street	Combined		
	1.59	2.00	7.64	2.05	0.67	0.86											
Block #	Parking Spaces Required at Parking Generation Rate																
1	0	316	0	0	0	0	316	18	0	18	19	164	37	164	201	(115)	(115)
2	0	1	0	0	0	136	137	8	174	182	0	15	8	189	197	60	60
3	19	6	18	0	30	0	73	16	0	16	0	14	16	14	30	(43)	(43)
4	0	28	31	0	0	0	58	30	0	30	0	18	30	18	48	(10)	(10)
5	0	0	0	0	0	233	233	25	811	836	0	0	25	811	836	603	603
6	1	3	0	0	0	0	4	3	0	3	0	0	3	0	3	(1)	(1)
7	18	6	11	0	13	0	49	25	0	25	0	8	25	8	33	(16)	(16)
8	23	10	40	0	176	0	248	11	57	68	0	0	11	57	68	(180)	(180)
10	1	0	8	0	0	7	16	0	18	18	0	0	0	18	18	2	2
11	0	0	0	0	0	0	0	0	19	19	0	0	0	19	19	19	19
22	0	0	0	0	0	145	145	4	176	180	0	0	4	176	180	35	35
23	0	0	0	184	0	0	184	24	0	24	0	219	24	219	243	59	24
24	0	0	0	0	0	0	0	16	0	16	0	0	16	0	16	16	16
25	0	0	0	0	0	0	0	18	0	18	0	43	18	43	61	61	18
26	0	0	0	0	0	0	0	17	0	17	0	52	17	52	69	69	17
27	0	0	0	0	0	0	0	24	0	24	0	142	24	142	166	166	24
Total	62	370	107	184	219	521	1,463	239	1,255	1,494	19	675	258	1,930	2,188	725	453



Arlington Heights Parking Study

Arlington Heights, IL

RICH & ASSOCIATES PARKING CONSULTANTS
ARCHITECTS · ENGINEERS · PLANNERS

BLOCK NUMBER

LEGEND:
STUDY AREA

BLOCK FACE KEY PLAN:
A
D # B
C

SURPLUS OF PARKING
+100
0 Thru 99

DEFICIT OF PARKING
-99 Thru -1
- 100 +

Sheet Title:
NORTH SURPLUS/ DEFICIT FUTURE
1:00PM-2:00PM

MAP Number:
MAP 27

Summary – North Side Demand

The current and future parking demand calculations with the calculated net surplus for the north side study area combined with the level of occupancy experienced in the North Garage (69 percent at peak) suggests that parking needs on the north side of the tracks should be able to be met for the foreseeable future given the amount of new construction projected and provided. While block 1 has a significant calculated deficit owing to its 158,000 square feet of office space, it should be able to be met by use of nearby daily fee spaces or available capacity in the North Garage. If the daily fee spaces are not available when needed by these workers, their alternative is use of the North Garage which would be an approximate three block walk.

ADA Parking – North Side

Just as was evaluated on the south side of Downtown Arlington Heights, Rich reviewed the number of accessible spaces provided versus required for public lots on the north side. A key consideration for the north side however is that the number of parking spaces required a parking lot are not necessarily required in that lot if they can be provided closer or along a more accessible path. However, the total number per the individual lots must be provided. Given the distance of some lots to the train station or other destinations, this means that some spaces should be provided in closer facilities.

Table 34 –Accessible Spaces Required by Lot

Parking Facility Total	Minimum Number of Accessible Spaces		
	Standard	Van*	Total (Standard + Van)
1-25	0	1	1
26-50	1	1	2
51-75	2	1	3
76 – 100	3	1	4
101 – 150	4	1	5
151 - 200	5	1	6
201 – 300	5	2	7
301 – 400	6	2	8
401 – 500	7	2	9
501 – 550	9	2	11
551 – 600	10	2	12
601 – 650	10	3	13
651 – 700	11	3	14
701 – 750	12	3	15
751 – 800	13	3	16
801 – 850	14	3	17
851 – 900	15	3	18
901 – 950	15	4	19
951 – 1000	16	4	20
1001 –1100	17	4	21

1,001 & over: 20 + 1 for each 100 or fraction thereof over 1,000

Table 35 shows that in total, the north side is five spaces short of the minimal number of spaces. Additionally, it is undetermined if the minimal number of van accessible spaces have been provided. As noted previously, placing spaces required in a garage in a surface lot would likely not satisfy the requirements. Therefore, the North Garage will need to have additional accessible spaces designated. Spaces in some other lots (Lot S, Lot P) may be able to be provided in an alternative public lot if it creates a more accessible path to intended destinations.

Table 35 – North Side Public Parking Accessible Spaces

Facility	Total Facility Capacity	Provided # Accessible Spaces	Required # Accessible Spaces (Standard)	Required # Accessible Spaces (Van)	Surplus / (Deficit)
Lot A	67	9	2	1	6
Lot P	107	0	4	1	-5
North Garage	811	11	14	3	-6
Hancock Sq Lot	57	0	1	1	-2
Train Station Lot (Lot R)	18	5	0	1	4
Lot H (T)	19	3	0	1	2
Lot S	176	2	5	1	-4
North Side Total		**30**	**26**	**9**	**-5**

Conclusions

User Experience

1. Signs are inconsistent or lacking in easily conveying critical information to patrons.
2. Although occupancy values show that currently capacity exists in the Vail Garage, patrons do not have information that spaces are available on levels four or five unless and until they drive up to those floors.
3. Some on-street stall markings are faded leaving to occasions of inefficient use of parking spaces.
4. The system for daily fee payment is antiquated and does not reflect existing technologies such as pay-by-phone.
5. High occupancy (100% plus) of on-street parking during the evening hours may be creating frustration for some customers and visitors and lead to a perception of insufficient parking.

Management / Operations – Time Limits

1. The two-hour limit for on-street parking appears to be sufficient during the daytime hours. The violation rate at just over five percent is not excessive.
2. Analysis of length-of-stay data from the on-street parking counts showed that the average number of times vehicles were recorded was 1.28 times. This suggests an average stay of less than 2-hours.
3. Analysis of data showing the number of times vehicles were observed in each on-street space suggests an average stay of 1 hour 18 minutes.

4. Customer / Visitor survey data results showed an average stay of 3 hours 22 minutes if all responses (from less than one hour to more than 8 hours) are considered. Rich believes that responses longer than 5 hours are inconsistent with the majority of patrons needs. If these responses are discounted, the average length of stay becomes 2 hours 47 minutes.
5. Customer / Visitor survey results showed that 35 percent of visits downtown were two-hours or less.
6. Current 4-hour limit of shopper parking combined with free parking available at 12:00 noon allows employees to take convenient free 1st floor parking and then move to upper floor free parking.

Management / Operations – Allocation

1. Splitting the Vail Garage into a north / south transient / permit allocation would likely result in a reduced availability of permit spaces during their periods of greatest need and a consequently higher proportion of the spaces being used at peak time. This split would also not allow for the potential spaces needed by the former vacant AT&T building just south of the garage if it were to be sold and re-occupied as office space.
2. The high occupancy of on-street parking during the evening hours is likely from a combination of both increased activity and the elimination of the two-hour limit. This may encourage some evening restaurant staff to park in these convenient spaces to the detriment of some other downtown customers or visitors.
3. The dual use of permit spaces in the Vail Garage by residents and commuters means that some residents may be forced to fourth floor parking because spaces have appeared to not opened up on designated permit floors. During the later evening permit parking is available but inaccessible to transient users. Residents may be parking on fourth floor even though capacity on 2nd or 3rd.

Parking Demand & Supply

1. Sixty-five percent of the parking on the south side of downtown is publicly provided. This exceeds Rich's best practice that a municipality control at a minimum 50 percent of the parking in order to facilitate a walkable "park once" environment.
2. For the north side of downtown, 68 percent is publicly provided and available.
3. During the daytime hours, the Village has sufficient parking capacity. For the south side of downtown, the calculated peak daytime demand shows that 57 percent of the available public and private parking is occupied. For the north side, this peak calculated demand uses 65 percent of the available public and private parking supply.
4. The north side exhibits a peak need during the early afternoon after which there is a steady decline in parking utilization.
5. The south side has its highest need during the evening hours.
6. Existing peak demand (evening hours) calculates as approximately 2,191 spaces needed. This represents 81 percent of the total parking supply.

7. At peak time, approximately 80 percent of the public supply is occupied. Adding in patrons parking outside the defined study area along Campbell and Wing streets west of Chestnut plus creating "illegal" parking at the ends of several blocks or in other undesignated on-street areas effectively increases the occupancy of public parking to 82 percent.
8. During the peak evening hours, occupancy will become tight with development on the vacant parcel on Block 16 and the opening of the new music venue "Hey Nonny".
9. The added parking demand on Village parking resources from development on Block 16 west of the Vail Garage would only be realized from the commercial space. The 438 residential units would have 100 percent of their parking needs provided for on site. Use of Village parking would come from the 18,000 sf of commercial space developed on this site which is assumed allocated as 6,000 sf retail, 6,000 sf of office and 6,000 sf restaurant). At peak time during the evening, this block would have a minimal gross and net shortage of 10 spaces. With this new demand included, the entire south side of downtown Arlington Heights would have a minimal net surplus of 46 spaces at peak time.
10. Use of surplus capacity just north of the tracks combined with unallocated parking in the Village Hall Garage during peak evening hours plus use of surplus private parking can help to mitigate the need for developing additional public parking supply.

Miscellaneous

1. The Village hosts a multitude of events in the Downtown. From the summer schedule provided, it appears that most events will only impact one side of the tracks or the other. This suggests that parking may be available a short distance away on the opposite side of the tracks to accommodate some events or needs. This may need to be marketed to the public and included in special event parking planning needs.
2. Current ADA regulations detail the number of accessible spaces to be provided in individual lots based on the capacity of the lot. Regulations have not yet been finalized for requiring barrier-free (handicap accessible) spaces for on-street parking but are likely to be needed.
3. The North Garage appears to be significantly short of the required number of ADA accessible spaces.
4. The method used by the Village for determining parking needs for new developments/businesses is based on a combination of zoning ordinance, Rich & Associates 2002 study, a study by HNTB and ITE standards. The zoning ordinance does not provide for shared-use opportunities. The method may appear to be too subjective which may encourage a developer denied permission to build their project to bring a suit against the Village.

Recommendations

The recommendations proposed by Rich & Associates are designed to improve the user experience through initiatives that address:

- Wayfinding and signage deficiencies
- Guidance to available parking
- Payment systems
- Time limitations / free parking hours
- Operational / space allocation changes
- American's with Disabilities Act compliance
- Village guidelines for addressing future needs for new businesses

Rich has developed a number of recommendations to address identified deficiencies while at the same time prioritizing parking in the downtown so that the most convenient spaces are made available to the key groups, particularly downtown shoppers and residents who have invested in the downtown. Employees in particular should not be able to "game the system" by shuffling between free convenient short-term parking to parking that becomes free after 12:00 noon. Similarly, with peak needs occurring during the evening hours, application of shared-use practices means that designated parking should be provided for certain groups that will not conflict with peak evening uses allowing for more the more efficient use of spaces

It should be noted that some examples or discussion may reference existing conditions or methods of operation that could be conflicting to later recommendation discussions and which may depend on the Villages acceptance and implementation of these other recommendations.

User Experience

1. User Experience - Signage

Discussion

Signage serves a vital role to any downtown parking patron. For the persons unfamiliar with the downtown, signs provide the information necessary regarding permitted parking locations, hours of operation, costs, time limits and / or other restrictions. Proper signage also helps with wayfinding. Consistent signs should be placed not only throughout the downtown directing patrons to available public parking locations, but if placed along routes before entering Downtown (Arlington Heights Boulevard, Northwest Highway) the Villages P logo with "Parking Ahead', drivers can be informed and instructed what to look for once they have entered downtown. To those frequent visitors or patrons of downtown parking, signs will provide critical information should any changes in how the parking has historically operated be implemented. In both cases, in order for signs to function appropriately, they must:

a) be quickly and easily understood by the patron
b) stand out from background clutter
c) accurately and consistently convey the necessary information.

In Rich's opinion and as an example, the multitude of signs at Lot E are confusing and do not quickly and easily convey the necessary information.

Recommendations

1.1. The Village had been considering a large blade sign for placement on the Vail Avenue Garage. This should be implemented to convey the availability of the garage as public parking. Add the name of the garage to the sign. Similar signs should be placed on the other garages (North, Village Hall and if possible near the Evergreen underground Garage).
1.2. Develop a consistent series of signs for permit parking areas, daily fee lots and free 3-hour parking with the necessary information as shown by the examples below.
1.3. Similar to how the garages are named (Vail, Evergreen), name lots with Street Names (North Vail (Lot S), Northwest Commuter (Lot P), Vail/Davis (Lot E) etc.) to assist with wayfinding rather than letter designations.
1.4. Clearly indicate on the beams and columns of the garages the designation of the floor for parking (permit only, shopper parking, daily fee parking (free after X time).

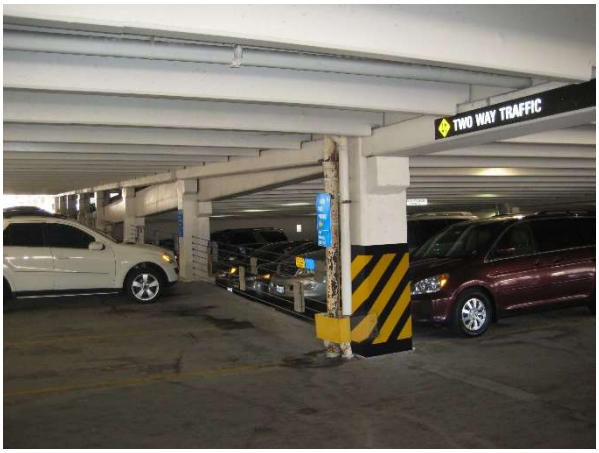
1.5. Consistently color code the floors at the stair and elevator towers with both the floor number and permissible parking (permit, daily fee, shopper etc.).

Parking Lot Signs

Signs at the parking lots should easily convey the allowable parking to the patron and hours of operation. Consistency in the logo and color helps user to identify parking areas.

Interior Garage Signs

Interior garage signs should make it clear the allowable parking on each level and inform the user on what level they have parked as well as the name of the stair or elevator tower.



2. User Experience - Parking Guidance

Discussion

In surface lots, available parking is more easily seen than in a parking garage. In the garage, patrons may have to circulate down multiple aisles and across multiple floors in order to find available parking. The present system in the Vail Avenue Garage uses signs to direct patrons to 4-hour shopper parking, permit parking or up the ramps to daily fee parking. The Vail Garage provides 63 percent of the south side public parking supply. Four-hour shopper parking is confined to the 1st floors of both the Vail and North Garages. During periods of higher activity, these first-floor spaces quickly become filled forcing patrons to seek parking further up into the garages requiring non-permit holders to circulate up to at least the fourth floor. Patrons entering the Vail or North Garages will have to travel past floors two and three (designated permit spaces) before finding parking designated for non-permit holders (beyond the limited number of first floor shopper parking). Even after doing so, there is no guarantee that they will find an available space but are entering the garage with the hope and expectation that parking will be available but certainly no guarantee. This creates both frustration and apprehension on the part of the patron.

Recommendations

2.1 Install a space availability reporting system, at a minimum, in the Vail Garage. This would indicate the number of available spaces on each floor. If parking is available on upper floors, it would inform non-permit holders that if they travel to the fourth or fifth floor that they will find available parking. If full, it would inform them of that condition before traveling to the upper floors. It would also help with the efficient utilization of the permit parking floors by informing permit holders the number of spaces available on the 2nd or 3rd floors rather than the permit holder simply assuming that the parking is full and simply going to the fourth floor where they may be taking a space away from a transient parking patron. The sign showing the floor and available number of spaces should also clearly indicate those floors which are permit parking only so that a non-permit holder doesn't inadvertently park there. Clear signs indicating permit parking only will still be required on the designated permit parking floors.

2.2 As budgets allow, incorporate system into North Garage, Village Hall and Evergreen Underground Garages.

2.3 System could simply keep count of total spaces available in Evergreen Underground Garage and display outside garage since the majority of these spaces are more likely to be needed during the evening due to the movie theater.

3. User Experience - Payment Systems

Discussion

Paid parking is fairly limited in the Village. Currently, all on-street parking is free, spaces in both the Vail, North and Evergreen garages provide 4-hour free shopper parking and even daily fee spaces are free after 12:00 noon. The current daily fee payment system in use in the garages and numerous commuter lots requires inserting cash into numbered slots corresponding to the space number. Such a system has an obvious number of disadvantages:

a) Patrons must have proper amount in order to pay for their parking in daily fee spaces (no change given).
b) It takes added time to fold the bills to insert into the numbered slots which may be problematic if someone is rushing to catch a train
c) Enforcement must visit each box and open the box to validate that payment has been made
d) It creates accounting issues because of the cash basis and accessibility
e) It takes time for Village staff properly account for collections

While the present system has a very low capital investment, issues with accountability, cost associated with cash transport, security and accounting may negatively affect the apparent low cost of the operating method.

One option would be to install electronic pay stations at the various lots with several grouped at the train station. Patrons would enter their license plate or lot space number into the station and use either a credit card or cash to pay for their parking stay. These units would cost $7,000 to $10,000 per unit.

Other options available include pay-by-phone options (ParkMobile, Passport, Pay-by-Phone). Patrons set up an account with a pay-by-phone provider contracted by the Village. Passport can customize the App (Park Arlington Heights) similar to Park Chicago. To pay for parking, the patron simply needs to log into their account using the app on the phone, enter or validate their license plate number and/or space number and the parking fee is charged to a credit card or other payment system on file. A small convenience fee (generally $0.25 to $0.35 per use) charged by the contractor is also charged to the user. The Village enforcement staff can obtain a report of all paid license plates / spaces and determine if someone has not paid. This system could supplement the existing system should the Village want to continue with this system giving users a choice to use the phone app or the cash and slot system. Users choosing the phone app can get an email receipt proving payment. Other than the costs for additional or changing signs informing patrons of the pay-by-phone option, this system would not have any additional costs to the Village. Such a system as this would allow the user to pay for parking more quickly and conveniently.

Other systems (albeit more expensive) could further simplify the process where users would not need to do anything. Simply driving into the daily fee area, an LPR (License plate recognition) system would record their plate and start the parking session. They wouldn't have to stop at a

pay station or open a phone app. These systems can send a text to the patron so that they know that their license plate was properly read. A person who does not have an account set up, would need to stop at a pay station and enter their license plate number and payment.

In conjunction with the pay-by-phone system, the patron could either pay using their phone or stop by the pay station (located similar as they slot system now on the ground floor) enter their license plate or space number and payment (cash or credit card) to pay their daily fee. Systems without the bill handlers (credit card only) in the machine are less expensive but may be required for some users.

Pay stations would likely costs between $7,000 per unit and $10,000 per unit. For the software, the annual recurring costs would be between $9,000 and $10,000 per year and an annual warranty would run $300 to $800 per unit.

Recommendations

3.1. Install electronic pay stations. Patrons have the option of using an electronic pay station or logging into a pay-by-phone app to pay for their parking. This would allow users to pay for parking as they are waiting for their train saving time. Those who do not wish to have the app on their phone could use the individual pay station. It would however require them knowing their license plate number. Install pay stations in each garage and in each lot (near the closest pedestrian path from the lot to the most likely destinations) and group several pay-stations together at the train station. This system could be expanded with pay-stations on street if the Village decides to implement paid on-street parking (to be discussed).

3.2 Partner with Pay-by-phone provider to allow users to use phones while waiting for train to pay for parking

Management / Operations

Introduction

The Village of Arlington Heights, like many municipalities, is trying to use time restrictions to control parking. This is one step in the process employed. When free abundant parking is available, municipalities do little to manage the system. As parking become more congested, increasing steps are implemented including implementing time restrictions for various lots and on-street spaces as an attempt to control access to parking. When time restrictions don't work with a limited parking resource, the next step would be to employ pricing as a means of control.

4.0 Management & Operations - On-Street Parking

Discussion

On-street parking in any downtown provides some of the most valuable parking because of its perceived convenience to many destinations. Often providing direct access to local businesses, these are the most sought-after parking. As long as the time limits meet the patrons needs and traffic flow doesn't make accessing or egressing from on-street parking difficult, patrons will seek these spaces. Analysis of data from the turnover and occupancy study showed an average stay for on-street parking of approximately 1 hour and 20 minutes. Survey data from the customer / visitor surveys showed 35 percent of downtown visits were two-hours or less. As such, during the daytime hours, on-street parking functions effectively operating at between 60 percent and 80 percent of the spaces occupied at peak time during the afternoon.

During the higher activity levels experienced during the evening hours, on-street parking was operating in excess of 100 percent occupancy as patrons created "illegal" spaces from non-designated space at the ends of blocks or in other locations. In Rich's opinion the excessive occupancy being experienced with the on-street parking is a combination of the increased activity and the elimination of the two-hour limit after 7:00 pm. This may be encouraging some restaurant staff who may begin arriving for their shift after 3:00 or 4:00 pm to "take a chance" and use these convenient spaces with the belief that they cannot all be monitored before the 7:00 pm cutoff. Management of the on-street parking can therefore be done either by charging for on-street parking during the peak evening hours and/or extending the two-hour limit later into the evening to encourage parking patrons needing or desiring to stay longer to park in off-street locations.

Additionally, stall markings on the street help inform the user that not only is on-street parking permitted but helps in the efficient use of the valuable curb spaces. Where stall markings are lacking, cars may leave too much cushion between adjacent spaces or occasionally a car will squeeze into a space making it difficult for other vehicles to leave.

Recommendations

4.1 Extend the two-hour limit for on-street parking until 8:00 pm. This approach is used successfully in several communities local to Rich's offices which have significant evening restaurant activity. It may discourage restaurant staff from parking in these close convenient spaces to the detriment of downtown customers and visitors

4.2 Annually review the condition of on-street stall markings and repaint as necessary to ensure clearly defined.

4.3 Depending on how successful continuing the two-hour limit later into the evening is in controlling on-street parking utilization, consider charging for on-street parking. This may require a considerable investment in additional pay stations ($210,000 – $300,000) to

appropriately cover the on-street parking so Rich is recommending extending the two-hour limit be employed first.

4.4 Because of the required investment in pay stations and the need that parking will really only need to be controlled during the evening hours, Rich recommends initial rates of $2.00 per hour after 4:00 pm. A user is paying for convenience. The pay stations would be the same type of units employed for the various lots. Again, the use of pay stations could be combined with a pay-by-phone option. After creating and account and registering a credit card, the patron can pay for on-street parking. Again, these providers generally charge a convenience fee (typically $0.25 to $0.35 per transaction) payable by the patron. Therefore, for example, someone parking on-street who parks at 5:00 pm and wishing to stay for two hours pays $4.35 ($2.00 per hour plus $0.35 convenience fee to pay-by-phone provider contracted by the Village).

Arlington Heights Parking Study

Arlington Heights, IL

RICH & ASSOCIATES
PARKING CONSULTANTS
ARCHITECTS · ENGINEERS · PLANNERS

BLOCK NUMBER

LEGEND:

STUDY AREA

ON-STREET (if required)

OFF-STREET

BLOCK FACE KEY PLAN:

A
D # B
C

Sheet Title: PAY STATION LOCATIONS

MAP Number: MAP 28

5.0 Management & Operations – Four Hour Time Limit

Discussion – 4-hour Off-Street Parking

The Village currently allows 4-hour shopper parking on the ground floors of both the Vail and North Garages and in the Evergreen underground garage. The four-hour limit is enforced between 5:00 am and 6:00 pm weekdays. One of the potential issues with this time limit is that it allows a downtown employee who may use one of these spaces to only have to move their vehicle just once during an eight-hour shift. Although based on a very small sample, analysis of downtown employee arrival information from the employee surveys showed 25 percent of responding employees start their shifts at around 8:00 am and 32 percent said they start at around 9:00 am. Given these schedules, these employees can take advantage of the convenient ground floor free four-hour parking and during lunch breaks, move their cars to the now free daily fee spaces. This effectively gives them free parking. Further reducing the time limit to two hours could obviously further discourage employees from abusing the system but would likely impact some if not many customers and visitors where two hours simply is not enough time for their visits. Rich does not recommend reducing the shopper time limit to less than three hours.

Recommendations

5.1 Reduce 4-hour Free Parking Limit to 3-hours.
5.2 Extend time that 3-hours of free parking is permitted until 8:00 pm
5.3 Maintain 4-hour parking in Evergreen Garage because of length of some films but monitor 4-hour free parking for abuse by employees

6.0 Management & Operations - Free Parking Hours

Discussion – Free Parking Hours

Rich believes that there are a number of potential issues with time limits for free short-term parking and when payment for Daily Fee parking is no longer required. While not an intent to pick on downtown employees, the current methods of operation and time limits, in our opinion, allow an employee to "game the system" either to get free all-day parking or to park in the most convenient spaces to the detriment of downtown customers and visitors. While most downtown businesses generally recognize that they exist to serve customers, employees without the investment, may be more likely to park in the convenient parking to the detriment of the customers on which their business may depend.

Recommendations

6.1 Delay start of extended (beyond 3-hours) free parking until 3:00 pm

7.0 Management & Operations – Vail Garage

Discussion – Vail Garage

One suggestion put forth was to split the Vail Garage into two separate facilities. The north half (546 spaces) would operate as strictly customer / visitor parking while the entire south half (551 spaces) would be controlled and restricted permit parking. Residents, merchants and commuters with permits would park on this side. Analysis of current operations shows that during the morning hours which is the peak time that permit parking is needed, 95 percent of the revised capacity of 551 spaces would be occupied. This is without accommodating permits that may be needed by the former AT & T building per agreement. Similarly, because the current method of operation allows customers to use available fourth floor parking in the afternoon and evening which is their highest period of need, splitting the garage would reduce the number of spaces available for customers and visitors during this period from 665 (less any spaces occupied by permit holders) to 546 (-119 spaces).

The analysis of count data also showed that it is likely that some residents may elect to park on the fourth floor (where they are permitted to park) of the garage rather than take the time to see if a space is actually available on the floors restricted to permit parking only. This creates potential issues of unused spaces on the permit only floors and added congestion on floors intended to be shared by permit and non-permit holders.

Recommendations

7.1 Do Not Split the Vail Garage into a north / south half

7.2 Assign commuters and merchants to 4th floor (extended to 5th as needed). Most of these would be expected to have vacated the garage by the time that these spaces are needed in the evening. Resident permit holders should be directed to park on 2nd and 3rd floor parking.

8.0 Management & Operations – Village Hall Garage

Discussion – Village Hall Garage

Although this study did not analyze the Village Hall Garage, many control methods being proposed are intended to direct employees to less convenient spaces to ensure that the most convenient parking is available to customers and visitors of the downtown. Currently, Village staff have covered parking directly adjacent their workplace while 3rd floor daily fee spaces appear to be lightly used. Moving Village staff to the 3rd floor while permitting daily fee parking (at the same price as other daily fee) to park in the covered spaces may re-allocate some commuters or other patrons freeing up more convenient spaces for shoppers.

Recommendations

8.1 Move Village Hall Staff from 2nd to 3rd Floor of Village Hall Garage

8.2 Designate covered spaces (2nd floor) as daily fee parking (5am – 3:00 pm)

9.0 Management & Operations – Lot E

Discussion – Lot E

Rich believes that the parking should operate as efficiently as possible. Lot E (just south of the railroad tracks) has 57 spaces. Twenty of these are signed as commuter parking for Arlington Heights residents only with 34 designated as 3-hour shopper parking and three spaces designated handicap accessible. Throughout the daytime hours, the occupancy count data showed full utilization of the commuter spaces but only about half the 3-hour spaces full at any peak (1:00 pm – 2:00 pm). During the evening hours, the lot was well utilized reaching 100 percent occupancy. License plate data from this lot when separated by day of week showed that for the Thursday counts between five and eight percent of cars stayed beyond 3 hours. The Friday count data showed this was from four to five percent which increased to between 5 and 10 percent on the Saturday count dates likely due to the lifting of the three-hour limit restrictions. This suggests a greater proportion of use by downtown employees on weekends.

Recommendations

9.1 Consider making Lot E as permit parking. The twenty daily fee commuter spaces could be sold as permit parking to Arlington Heights residents. Assuming $2.00 per day and 22 workdays per month this averages $44.00 per month or $528.00 annually. Sell monthly permits at the current $40.00

9.2 The 34 underutilized 3-hour spaces could be converted to employee permit parking. This would operate as permit parking 5:00 am until 6:00 pm after which it would become free parking for customers and visitors. These permits could be offered to downtown employees at $22.00 monthly ($1.00 per day) which is a slight reduction from the $30.00 per month charged for merchant parking to park in the Vail Garage which is covered parking versus uncovered in the lot.

10.0 Special Event Parking

Discussion

Special events provide unique challenges in any downtown environment. While many events may occur weekends, when many demand components (commuters and office needs) are decreased, there are events that will begin on Fridays and impact Friday night events. Weddings and performances at the Metropolis will continue as will movies at the theater during the special events adding to downtown parking needs.

Friday evening events will pose the most concern because not all commuter spaces may have emptied. Friday data from June showed about 600 available spaces in the daily fee lots and July showed approximately 400 daily fee spaces available between 6:00 and 7:00 pm.

While Saturdays occurring on Saturdays should have the majority of the commuter spaces available, other opportunities to use surplus private lots should also be pursued.

Recommendations

10.1 Seek opportunities to use church lots or other private parking areas to provide additional public parking during special events.
10.2 Although the commuter lots in combinations with existing parking supply should accommodate most events, for especially large or popular events, consider parking areas outside immediate downtown and operate shuttle bus system. Pickup and drop off should be on the periphery of the downtown to minimize congestion and maximize shuttle bus cycle time.
10.3 Develop sandwich board type signs that can be placed to direct patrons to available parking during special events.

11. Parking Demand & Supply

Discussion

The existing parking demand calculations show that at peak time during the evening 2,191 parking spaces are needed of a total parking supply of 2,697 spaces resulting in a gross surplus of 506± spaces. This represents 81 percent of the total parking supply. This surplus figure however is slightly misleading because it includes private parking associated with residential buildings, banks and Jewel/Osco that is not available to the general public unless their destination happens to be that business. When surplus private parking is discounted from the calculation, the "net" surplus is 283± spaces. Although parking is tight, spaces are still available.

The near-term opening of Hey Nonny combined with the anticipated development on the vacant parcel west of the Vail Garage will create additional employee and customer/visitor parking demand that will need to be satisfied by existing parking assets. The residential component of the new development is planned to all be accommodated on site. The total calculated demand for the near-future condition will be 3,096 spaces compared against a total projected parking supply of 3,365± spaces. This results in the gross surplus being reduced from 506± spaces to 268± spaces. However, the "net" surplus would be just 46 spaces. This will require both a re-allocation of existing parking assets and a more efficient use of the existing parking.

Existing parking at the Village Hall Garage plus opportunities to partner with private lot owners for use of their un-needed spaces in the evening as well as use of commuter lots just across the tracks can supplement existing south-side parking supply. Development of additional parking supply must be carefully considered given the anticipated revolution in personal vehicle ownership in coming years. While significant use and ownership of personal autonomous vehicles that will not need to be parked proximate to the ultimate destination is not expected in the near-term, future development will need to consider this possibility. Although estimates are

that this may be 15 to 20+ years out, the lifespan of parking structures (40+ years) mean that design considerations for any new use will need to factor for re-purposing of any new garage developed. This can add considerably to the cost of construction.

Recommendations

11.1 Encourage evening restaurant employees to park in the Village Hall Garage. The 290 spaces in the Village Hall Garage is not included in the current surplus / deficit calculations. This garage was not included in this analysis because of the on-going construction of the new police building. These spaces however could provide a valuable "relief valve" to support the existing and new businesses anticipated to soon be opening. Marketing efforts should note that this parking is adjacent to the police station which can impart an added sense of security. Grouping a number of employees with likely similar arrival and departure schedules can also help.

11.2 Seek opportunities to partner with private businesses (particularly the banks) to have their parking available as additional public parking after hours. Signs could be placed "Bank Customer Parking Only 8:00 am – 5:00 pm – Free public parking 5:00 pm – 2:00 am"

11.3 Market Lot A (block 2) as additional evening parking for either employees or to the general public. These spaces just north of the tracks may in fact be closer to some restaurants than some other parking. The non-reserved, non "scooter" parking in this lot totals 46 spaces many of which, based on the count data, appear available on Thursdays and Fridays after 5:00 pm.

11.4 Additional parking not recommended until maximum use of existing parking has been attempted.

12. ADA Parking

Discussion

There are currently standards for the number of parking spaces to be provided for each off-street lot, garage or parking area. On the south side of downtown, the Vail Garage, Evergreen Underground Garage and Lot E are the only public parking facilities. The Vail Garage surpasses the minimal number of accessible spaces to be provided while both the Evergreen Garage and Lot E meet the requirements. Because the Village Hall Garage was not included in this assessment, Rich cannot say whether it meets the requirements or not.

Although not yet formally adopted, on-street handicap accessible spaces are likely to be required based on at least one court case where the Ninth Circuit U.S. Court of Appeals ruled that cities have an obligation under the American's with Disabilities Act to provide on-street parking. The court found that despite the lack of accessibility standards, on-street parking is a "normal function" of a city and therefore must be made accessible. The proposed rules, per Rich's understanding, would require that the design standards for on-street accessible parking must be met when there are substantial changes to the roadway.

The north side of downtown is short in the number of handicap accessible spaces provided as is the North Garage.

Recommendations

12.1 Evaluate the Village Hall Garage for compliance with the number of accessible spaces required and for placement and access to Village Hall.

12.2 The Village should consult their legal counsel regarding the necessity to immediately provide accessible parking on street. Although it is Rich's understanding that on-street design standards would only be required when there are substantial changes to the roadway, this should also be evaluated by the Village's legal counsel. Should this be determined as necessary, the Village should begin the planning to provide necessary properly signed and designated handicap accessible spaces.

12.3 Even should it be determined that additional modifications are not required to provide handicap accessible spaces, The Village should begin the process of adding on-street handicap accessible parking. These can be done at the ends of blocks where accessible curbs and ramps are provided.

12.4 Increase the number of accessible spaces provided in the North Garage and in accessible lots to meet the minimum requirements. Evaluate whether the number of van accessible spaces are provided.

13. Village Downtown Parking Ratios

Discussion

The Village uses various means including the zoning ordinance, Rich's 2002 study, a study by HNTB and ITE standards to determine the number of parking spaces to be provided. This may be too subjective rather than follow uniform guidelines which opens the possibility that a developer whose project is denied to bring suit against the Village.

The current ordinance does not allow for shared-use parking where complementary uses can share the same parking supply.

Recommendations

13.1 Evaluate the parking standards to be applied. The values shown in this analysis appear to accurately demonstrate true "Shared-Use" needs. Consider use of these values.

13.2 Adjust the zoning ordinance to consider shared use opportunities and apply the zoning ordinance uniformly to new developments.

13.3 Where sufficient parking not provided by new developments, consider implementation of "in-lieu" fee for spaces short of requirements.

13.4 Encourage residential developers to unbundle the parking from the residential units

Issue Addressed			Recommendation	Time Frame	Costs
	User Experience				
1.0	Signage	1.1	Install Blade Public Parking Signs on Garages	0 -6 months	To Be Determined
		1.1.2	Include Name of Garage on Sign	0 -6 months	To Be Determined
		1.2	Develop Consistent Signs for Permit, Daily Fee and Free Parking	0 -6 months	To Be Determined
		1.3	Consider Assigning Names to Lots rather than Letter Designations	6-12 Months	To Be Determined
		1.4	Signs in garage stair and elevator towers with floor designation and permission (free, permit, daily fee etc).	0 -6 months	To Be Determined
2.0	Parking Guidance	2.1	Install Space Available (Parking Guidance) signs in garages (at a minimum initially Vail Garage)	0 -6 months	+82,000 per garage + $400 - $500 / camera. One camera per lane at both top and bottom of each ramp. Alternative system can monitor each stall ..approximately $160 - $200 / stall)
		2.2	As budgets allow incorporate into North, Evergreen and Village Hall Garages	12-36 Months	See Above
3.0	Payment System	3.1	Install Electronic Pay Stations for Pay Lots and eliminate the existing antiquated system.	0 - 6 months	Pay Stations $7,000 - $10,000 per unit (±17 Units required)
		3.2	Partner with pay-by-phone provider	0 - 6 months	No Cost to Village with most providers. Patron pays a small convenience fee
	Management / Operations				
4.0	On-Street Parking	4.1	Extend two-hour on-street parking limit until 8:00 pm	0 - 6 months	Minimal
		4.2	Repaint stall markings as necessary to make sure that clearly define stalls	0 - 6 months	Minimal
		4.3	If extended two-hour limit unsuccessful in managing on-street parking in evening, consider charging for on-street parking in evening	6 - 12 months	Pay Stations $7,000 - $10,000 per unit (±30 units required)
		4.4	Rates of $2.00 per hour	6- 12 Months	NA
		4.5	Partner with pay-by-phone	0 -6 Months	No Cost to Village with most providers. Patron pays a small convenience fee
5.0	4-Hour Limit	5.1	Reduce 4-hour Limit North & Vail Garages to Three Hours	0 - 6 months	Minimal
		5.2	Enforcable until 8:00 pm	0 - 6 months	Cost of Additional enforcement
		5.3	monitor for abuse by employees	0 - 6 months	NA
		5.4	Reduce number of 3-hour spaces in North Garage from 57 to 40.	6-12 Months	NA
6.0	Free Parking Hours	6.1	Change commencement of free parking to 3:00 pm from 12:00 noon	6-12 months	NA

Issue Addressed			Recommendation	Time Frame	Costs
	Management / Operations				
7.0	**Vail Garage**	**7.1**	Do Not Split the Vail Garage	0 - 6 months	NA
		7.2	Assign Commuter and Merchant permit holders to 4th and 5th floor parking. This will help ensure that these spaces will be available in the evening as many will have left by time needed by restaurant customers.	0 - 6 months	
8.0	**Village Hall Garage**	**8.1**	Move Village Hall staff to 3rd Floor	0-6 Months	Cost of Sign chance
		8.2	Assign 2nd Floor (covered) as daily fee. Slightly dimished convenience to station compensated by covered parking	0-6 Months	Cost of Sign Change
9.0	**Lot E**	**9.1**	Convert Lot E to all permit parking. Maintain 20 spaces for Arlington Heights Commuters with $40.00 monthly permit.	0 - 6 Months	Sign Cost
		9.2	Sell balance of lot as Employee Permit	0-6 Months	
10.0	**Special Event Parking**	**10.1**	seek opportunties to use church lots or other private parking areas	0-6 Months	
		10.2	For particularly large events may need to have shuttle system. Have buses pickup and drop off at peripheral areas of downtown	6-12 Months	
		10.3	Develop sandwich board signs to direct patrons during special events to available parking	0-6 Months	
	Parking Demand & Supply				
11.0	**Supply**	**11.1**	Market the Village Hall Garage for evening restaurant employees to park	0 - 6 Months	Cost of Marketing Materials / Effort
		11.2	Seek opportunities to partner with private businesses (particularly banks) to use their parking as public parking after hours	0 -6 Months	Negotiable
		11.3	Market Lot A as available parking during evening hours	0 - 6 Months	Cost of Marketing Materials / Effort
		11.4	Use opportunities to maximize use of existing capacity before adding additonal parking supply	12-24 Months	To Be Determined

Issue Addressed			Recommendation	Time Frame	Costs
	ADA Parking				
12.0	**On-Street Parking**	**12.1**	Evaluate Village Hall for compliance with number of accessible spaces	Immediately	NA
		12.2	Consult Village Legal Counsel for necessity to provide handicap parking on-street (*Fortyune v City of Lomita)* where the Ninth Circuit U.S. Court of Appeals ruled that cities have an obligation under the Americans with Disabilities Act to provide on-street parking that is accessible to people with disabilities.	Immediately	Could be substantial if roadway changes required. Rich's understanding roadway changes to meet Handicap design standards only required if substantial changes to the adjacent roadway are made
		12.3	Begin Process to provide accessible on-street parking	6 - 12 Months	To Be Determined
	Village Downtown Parking Ratios				
13.0	**Municipal Code**	**13.1**	Consider adjustment in the Village Code to consider shared use in the determination of parking needs	6 - 12 Months	To Be Determined
		13.2	Uniformly apply standards to future developments	6 -12 Months	To Be Determined
		13.3	Consider implementing "in-lieu fee" where if developer cannot provide the parking, fee is charged to offset Villages cost of providing	6 - 12 Months	To Be Determined
		13.4	Encourage Developers of residential parking to "unbundle" parking from the price of the units	0 - 6 Months	NA