



Naperville

CITY COUNCIL AGENDA ITEM

SUBJECT: 2010 Continuous Improvement Model Report: A Decade of Data

TYPE OF VOTE: Simple Majority

ACTION REQUESTED:

Endorse recommendations from the 2010 Continuous Improvement Model for Downtown Parking.

BOARD/COMMISSION REVIEW:

The Downtown Advisory Commission approved the 2010 CIM recommendations as presented by staff with additional recommendations (8-0)

COUNCIL ACTION PREVIOUSLY TAKEN:

Date	Item No.	Action
N/A	N/A	N/A

DEPARTMENT: TED

SUBMITTED BY: Anastasia Urban, Project Manager - TED

FISCAL IMPACT:

N/A

BACKGROUND:

The presence of adequate and appropriately located parking was a primary issue raised in the 2000 Downtown Plan. Through the Downtown Plan update, this key principle is carried forward into the vision that expresses the desired parking environment for downtown Naperville in 2030:

Adequate and conveniently located off-street parking is available throughout the downtown, and on-street parking immediately adjacent to businesses has been retained to enhance shopper convenience. The downtown parking experience has improved as a result of enhancements made to both on- and off-street parking. Naperville's

commitment to parking satisfaction is systematically measured and evaluated in order to plan for future parking needs.

In the late 1990's, there was a general consensus that there was a parking problem downtown and efforts were swift to begin construction on the original Van Buren Parking Facility in 2001. Since parking is such a costly asset, the Downtown Plan Implementation Committee (now DAC) recognized the benefit of building a model to look at the long term parking needs within the downtown as well as to determine the impacts of parking strategies on parking usage and satisfaction levels in the downtown. In order to achieve those goals, the Continuous Improvement Model for Downtown Parking (CIM) was developed.

The CIM has been conducted annually since 2001 and consists of three components:

- Existing parking supply and occupancy data for downtown parking;
- Customer satisfaction data for downtown parking; and
- Assessment of the parking impacts of future development/redevelopment.

Having conducted the Continuous Improvement Model since 2001, we now have a *decade of data*, which provides a solid basis for important policy decisions to address long-term parking needs in the downtown area, as well as to determine the impacts of parking management strategies that have been employed.

DISCUSSION:

In 2010, parking occupancy and customer satisfaction surveys were conducted on Friday, July 30 and parking occupancy surveys were conducted on Saturday, July 31. The attached report summarizes the findings to date. It should be noted that 196 spaces in the Central Parking Facility were out of service due to garage maintenance during the study.

2010 Model Findings

1. Measured parking occupancy rates in 2010 increased from 2009. Peak overall occupancy reached 77% for all of the parking downtown, which is consistent with last year at 76%. When considering the 196 spaces that were unavailable in the Central Parking Facility due to garage maintenance. The measured peak occupancy was 82%.
2. The peak parking occupancy occurred on Friday at 8:00 PM, which was closely followed by Saturday at 8:00 PM and Friday at 1:00 PM, and is consistent with previous years' findings.
3. The customer satisfaction rate in 2010 was 64%, which is slightly lower than 66% in 2009. A factor influencing the customer satisfaction rate may have been the number of unavailable spaces at the Central Parking Facility.
4. The signage for the Parking Guidance Systems was installed at the time of the survey event, however was not yet activated to display the number of available spaces at the two

decks. Once visitors become accustomed to this signage, it is anticipated to improve the motorists' ability to find a parking space quickly and improve overall customer satisfaction.

5. The parking generation rate is defined by the number of parked vehicles (measured during the peak hour) per 1,000 s.f. of building gross square footage. The adjusted average calculated in 2010 was found to be 2.01, which is the same as 2009.
6. The future parking demand was calculated to be 800 to 1,000 spaces over the next five years. It should be noted that this parking demand is associated with new development, however does not yet reflect the addition of any new public spaces provided with future parking decks (i.e. Water Street). The projected demand is in-line with previous years.

A Decade of Data

The 2010 Continuous Improvement Model survey event fulfills a *decade of data* for downtown parking. After ten years, it is believed that the model is functioning as intended through consistent, expected results which help to predict and proactively plan for future parking conditions. From the annual analysis, certain trends have been identified and verified in the downtown Naperville parking system:

Parking Occupancy Rates – Peak parking occupancy rates have been identified to coincide with dining hours of 1 PM and 8 PM on Fridays and 8 PM on Saturdays.

Customer Satisfaction Rates – High customer satisfaction rates correspond with lower parking occupancy rates.

Parking Generation Rate – This value has consistently been reported at approximately 2 vehicles per 1,000 square feet of building gross square footage. Lower parking generation rates, with relatively high parking occupancy levels indicate that the mix of uses support multiple visits in a single trip (i.e., patrons who park visit multiple destinations).

Development Forecasting – While future parking demand associated with anticipated development growth has remained high, the need for additional parking supply is directly related to timing of new development in the downtown. Development forecasts are estimated for a five-year horizon, however initial parking demand is relatively low until new buildings are constructed, tenant spaces leased, and then ultimately occupied. A five-year horizon is used for estimation purposes, however may be longer based on actual market conditions.

Future Parking Demand – Future parking demand is estimated by applying the parking generation rate to the net square footage projected from development forecasts, accounting for additional build-out or significant vacant tenant space, assessing future changes in parking supply and applying a target occupancy. Since future parking demand is an estimated value, establishing a 70% target occupancy applies a conservative factor

for planning purposes, and strives to provide an adequate buffer of available spaces upon build-out of anticipated new development.

Timing of Continuous Improvement Model – The CIM has been conducted annually on a Friday and Saturday during the summer on a weekend without large special events. This is intended to capture the peak of typical conditions. Although parking needs may exceed parking supply during Ribfest or the “peak of the Christmas shopping season”, it is not economical, nor practical from a land use standpoint to provide parking to meet the needs during absolute peak conditions. The use of data from the parking guidance system, discussed below, will be evaluated to determine whether the CIM should be completed during the same timeframe.

New Data Opportunities - Parking Guidance System

In addition to the CIM conducted annually, staff has previously monitored parking in the downtown on a monthly basis during the week. This year, a parking guidance system was installed in the Central Parking Facility (CPF) and Van Buren Parking Deck. Although the primary benefit is to display the number of available spaces in each deck for visitors looking for a parking space, the new parking guidance system will now provide real-time continuous data for over 1/3 of the parking spaces downtown (approximately 550 spaces in CPF and 800 spaces in Van Buren). This data is ideal for identifying parking trends as it is anticipated these spaces generally serve as “overflow”, since visitors typically occupy on-street and surface lots first. The system was initially activated in August 2010 and was functional prior to the holiday season.

The data obtained from the parking guidance system can be used to identify other patterns in the downtown parking system (weekday and seasonal), which can be used in combination with targeted marketing efforts to promote downtown parking. It is also believed that once visitors become accustomed to this signage, it will improve overall customer satisfaction.

Status of 2009 Continuous Improvement Model Report Recommendations

1. *Install Parking Guidance Systems* – Parking guidance systems were installed in August 2010 at the Central Parking Facility and Van Buren Parking Deck, which identifies the total number of available parking spaces at these two parking decks.
2. *Implement Signage Improvements Recommended from the Downtown Parking Management Study* – Several short-term signage improvements have been made in the downtown including improvements to the signage designating short-term parking and loading zone spaces. A more extensive review of existing signage will be considered in future years when staffing and budget levels permit.
3. *Renew Partnership with the DNA on Employee Parking* – The DNA has led a number of efforts in promoting the CBD employee parking programs through their weekly newsletters and creation of promotional materials to share with individual businesses.
4. *Review Opportunities to Increase Private Parking Usage* – With approximately 1,000 private parking spaces in downtown Naperville, there are opportunities to increase usage of private

spaces, either by encouraging individual properties to maximize use of these spaces, or enter into alternate parking arrangements. As opportunities arise, staff has discussed parking options with private property owners. It should also be noted that a number of valet parking services partner with private property owners, which removes these vehicles from the public decks and puts them in private parking lots, maximizing customer parking in the downtown.

5. *Continue to Monitor Downtown Parking Management, Supply, and Customer Feedback Annually* – Completion of the 2010 Continuous Improvement Model survey event marked the 10th year data has been collected.

DAC Discussion

The draft 2010 Continuous Improvement Model report was presented to the Downtown Advisory Committee (DAC) at their November 18, 2010 Transportation and Parking Workshop. In addition to endorsing proposed recommendations listed below, the Committee also discussed marketing the Continuous Improvement Model to other communities and organizations. Since the model was initially developed in 2001, staff has shared our findings upon request and has also presented information on the CIM at parking conferences. This is a similar approach to other projects and reports prepared by city staff. City staff will continue to seek additional ways to promote our findings through participation in workshops and other outlets, such as industry publications and events.

Recommendations as a result of the 2010 Continuous Improvement Model Report

1. *Continue to Market Parking Options in Downtown Naperville* – Marketing efforts should continue to ensure visitors have a positive experience finding a parking space in downtown Naperville. While overall customer satisfaction results are positive at 64%, the data indicates that the actual time to find a parking spot is less than the expected time. This indicates that the general perception is that it will be difficult to find a parking space, however the occupancy data indicates that parking is only full at certain peak hours.

Marketing efforts should also include:

- Parking guidance system signage
 - Employee parking (CBD hangtag permits)
 - Available spaces at the Municipal Center Deck on nights and weekends
2. *Complete the Calibration of the Parking Guidance System* – While the system was activated in August 2010, throughout the fall, staff worked closely with the vendor to calibrate the system. Staff in continuing to fine-tune the system and monitors the data for accuracy. Due to the layout of the entrances, the first floor of CPF and the Van Buren addition have required additional attention. Once the system is fully calibrated, the data obtained from the parking guidance system can be used to identify other patterns in the downtown parking system (weekday and seasonal), which can be used in combination with targeted marketing efforts to promote downtown parking.

3. *Continue to Monitor Downtown Parking Management, Supply, and Customer Feedback -* The Continuous Improvement Model has been conducted annually since 2001 as a tool to proactively plan for additional parking supply. With ten years of data, this tool has been proven to be successful, and has helped to identify key trends. Given existing market conditions, there has been minimal new square footage added in the downtown over the last couple of years, which is likely to continue in the short term. In addition, the recent installation of the parking guidance system will enable staff to monitor parking conditions on a regular basis for over 1/3 of the parking spaces in the downtown. Therefore, consistent with the cost savings recommendations presented to the City Council in November, the CIM will be conducted once every two years until the real estate market adjusts to allow for the construction of new building square footage in the downtown.
4. *Confirm Types of Parking Data Collected and Analyzed –* With ten years worth of data obtained from the Continuous Improvement Model, and the recent addition of the parking guidance system data, there is an opportunity to holistically review the type of data collected and analyzed as part of our downtown parking system. This will verify that data analyzed from the Continuous Improvement Model and parking guidance system is capturing information that is useful both to the city in planning future parking supply, but also to the business community in retaining and marketing tenant space in the downtown. In order to achieve this goal, a small committee would be established with representatives from the NDP Marketing Committee, DAC and the DNA to review the existing CIM survey and types data available.
5. *Conduct an Assessment of Accessible Parking –* Working in conjunction with the Advisory Commission on Disabilities (ACD); conduct an assessment of the availability of accessible parking spaces in the downtown in order to develop a master plan for implementation. The master plan for accessible parking spaces will be coordinated with future planned capital improvement projects in the downtown.

RECOMMENDATION:

Endorse recommendations from the 2010 Continuous Improvement Model for Downtown Parking.

ATTACHMENTS:

1. 2010 Continuous Improvement Model Report

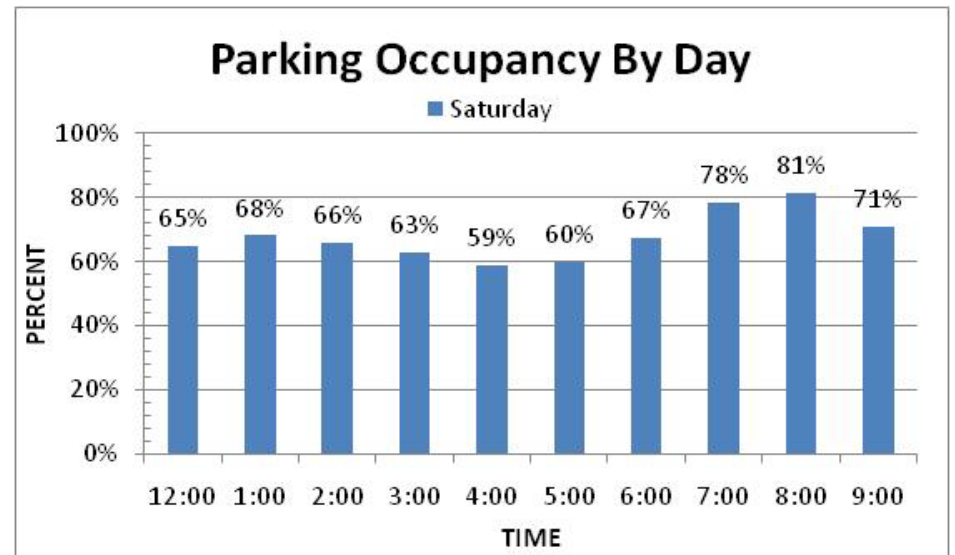
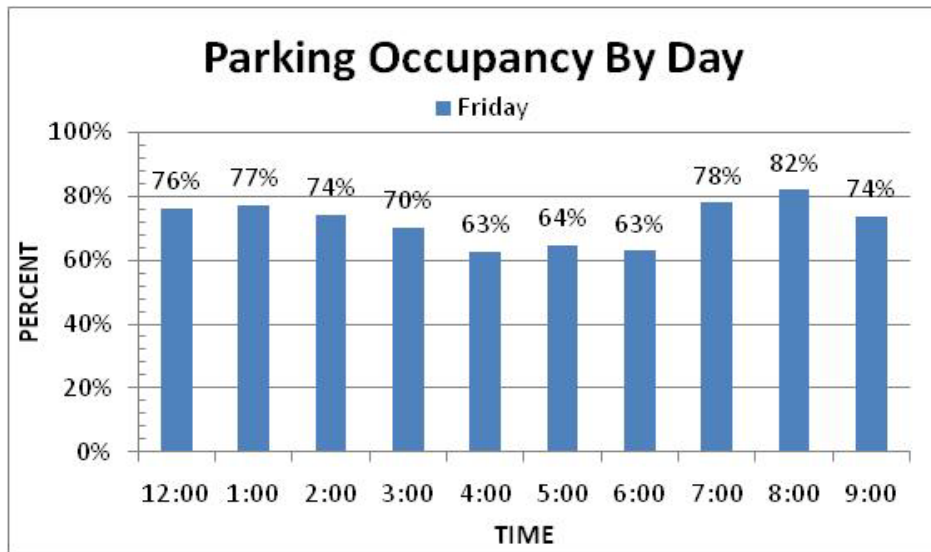
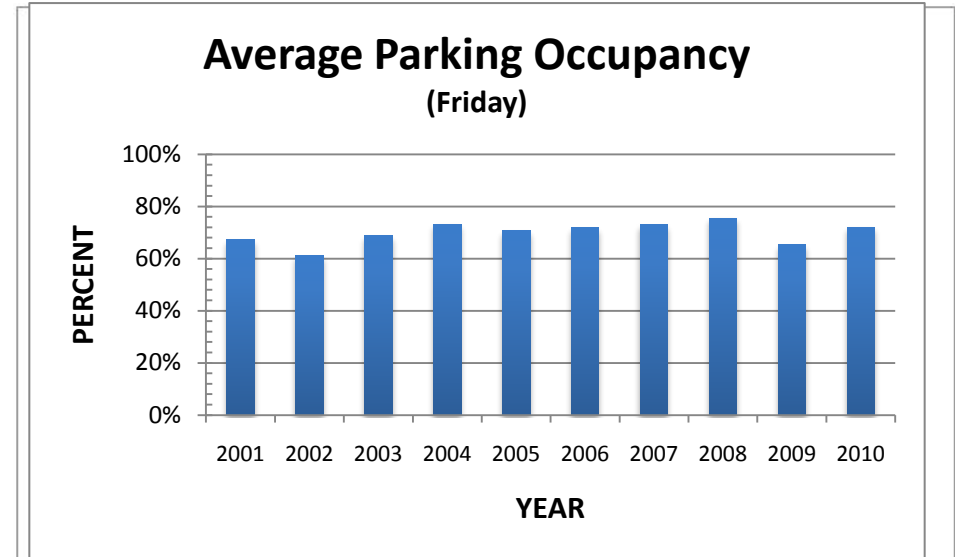
2010 CONTINUOUS IMPROVEMENT MODEL REPORT

PARKING OCCUPANCY

Data Summary		Opening of Van Buren Parking Deck						Opening of Van Buren Deck Addition		196 Spaces Out of Service (CPF)	
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Parking Occupancy	Peak Parking Occupancy (Public + Private)	77%	69%	87%	83%	79%	81%	75%	83%	76%	77% <i>(82% with spaces out of service)</i>
	Time of Peak Parking Occupancy	Friday, 1:00 PM	Friday, 1:00 PM	Friday, 8:00 PM	Friday, 1:00 PM	Friday, 8:00 PM	Friday, 8:00 PM	Friday, 1:00 PM 8:00 PM	Saturday, 8:00 PM	Saturday 8:00 PM	Friday 8:00 PM
	Average Parking Occupancy (12pm – 10 pm)	66% *	61% *	69% *	73%	71%	72%	73%	75%	66%	72%
	Peak Parking Occupancy (Public Only)	73%	65%	91%	90%	88%	90%	83%	88%	84%	85%
	Central Parking Facility <i>Average</i> Occupancy	82% *	82% *	79% *	81%	80%	78%	65%	78%	71%	95%
	Central Parking Facility <i>Peak</i> Occupancy	87%	100%	99%	101%	99%	99%	97%	100%	98%	99%
	Van Buren Parking Deck <i>Average</i> Occupancy	N/A	31% *	45% *	81%	68%	71%	71%	76%	56%	78%
	Van Buren Parking Deck <i>Peak</i> Occupancy	N/A	77%	94%	96%	98%	95%	98%	99%	84%	99%

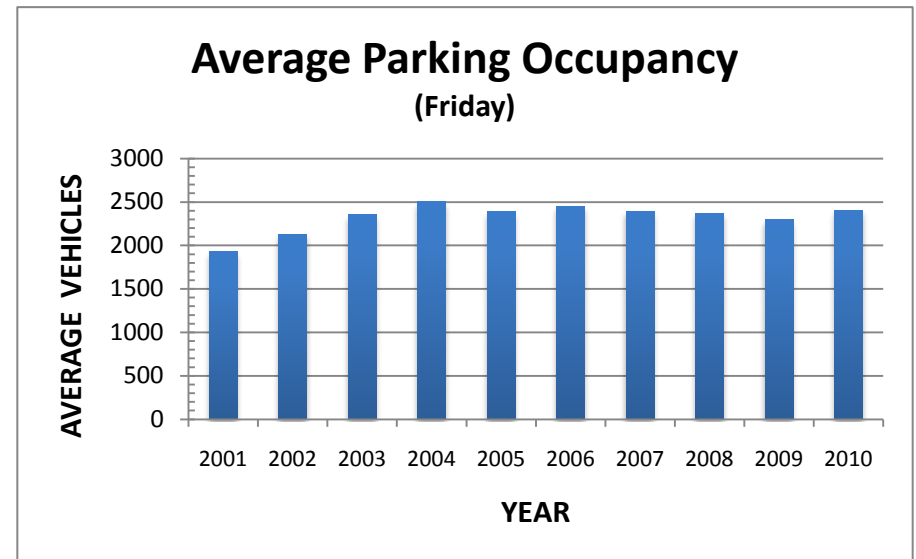
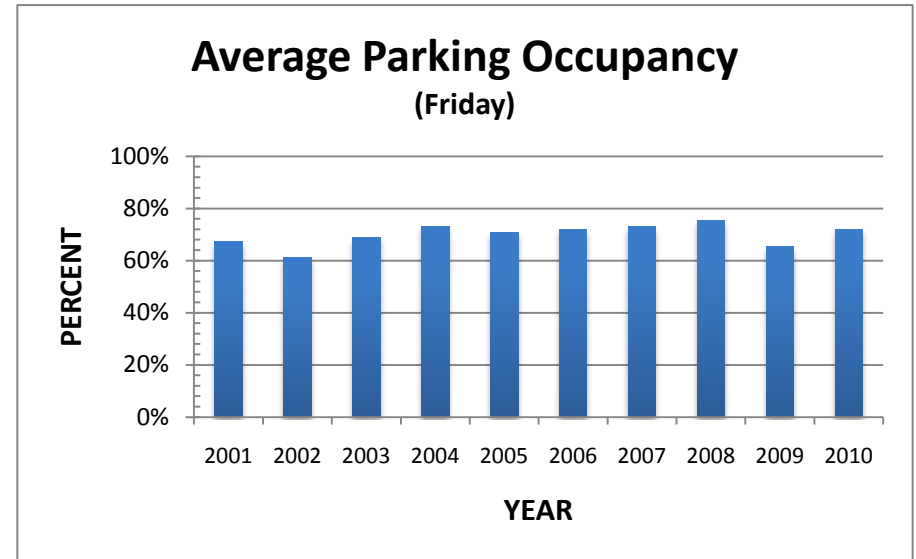
* Studies are conducted between 12 pm and 10 pm. In 2001 and 2002 studies were completed between 12 pm and 8 pm and 12 pm to 9 pm in 2003.

- The occupancy rates in 2010 increased from 2009. Peak overall occupancy reached 77% (or 82% with spaces out of service) for all of the parking downtown (including public and private, non-ADA). This number is in line with last years' peak of 76%. Peak occupancy is defined as the hour surveyed which displays the highest overall parking occupancy rate. **Please note that 196 spaces that were unavailable in Central Parking Facility due to garage maintenance during the survey period.**
- Peak parking occupancy of all parking (public and private, non-ADA) occurred on Friday at 8:00 PM at 82% total occupancy. The times of 1:00 and 8:00 PM Friday or Saturday at 8:00 PM have consistently been peaks for occupancy in all years surveyed, which is also true for this year's data: 77% (1:00 PM - Friday) and 81% (8:00 PM - Saturday). A summary of total (public + private) parking occupancy by hour is provided in the bottom two charts.

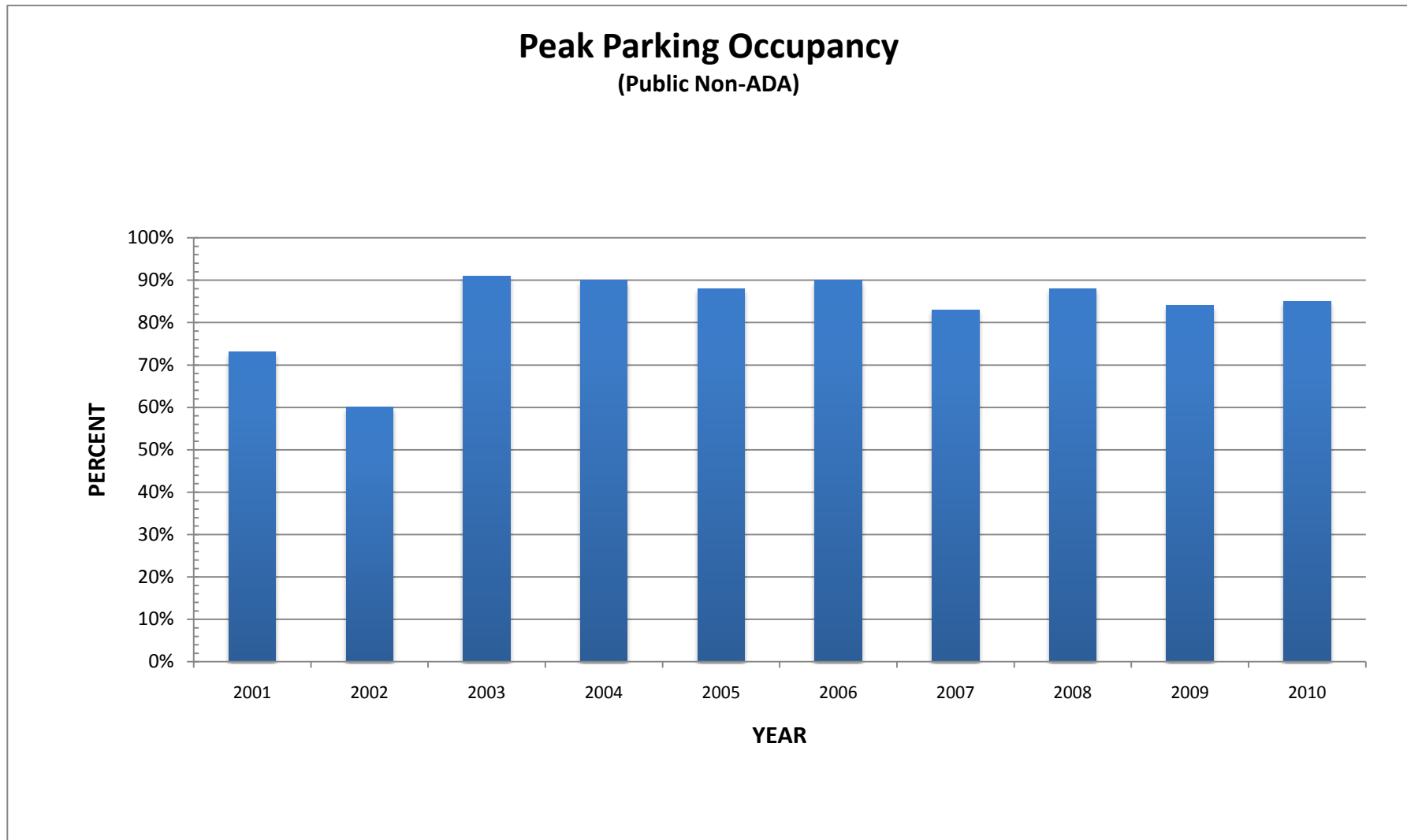


- Average occupancy of all downtown parking (public and private) was 72%, which can be seen in the upper graph. Consistently, Friday's

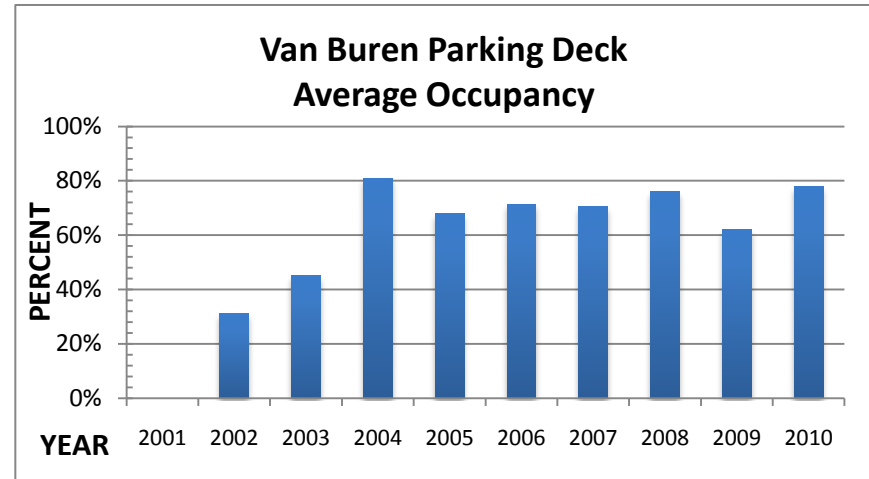
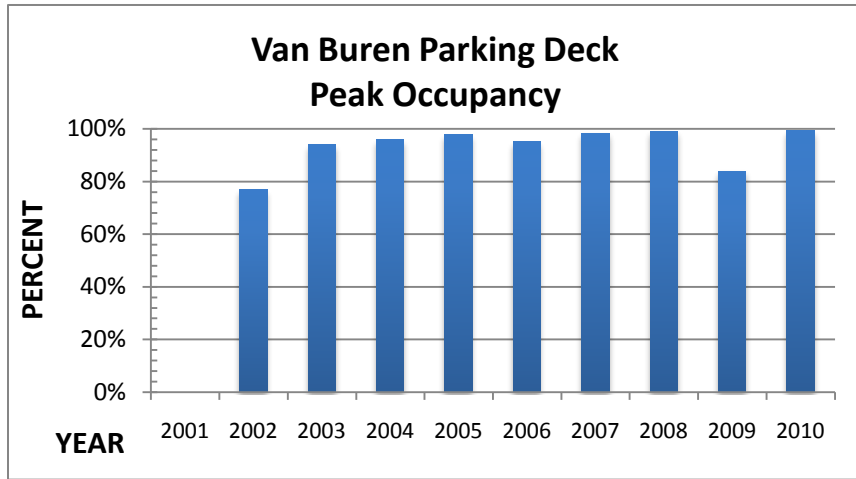
- Average occupancy of all downtown parking (public and private) was 72%, which can be seen in the upper graph. Consistently, Friday's average occupancy has been higher than Saturday's average occupancy, meaning more vehicles are parked in downtown on a Friday versus a Saturday, which is also indicative of weekday office and business activities. As a result, we have consistently used Friday's average for daily parking data comparisons.
- It is important to recall that 196 parking spaces were not available this year in Central Parking Facility, which represents approximately 5% of the total parking supply and 35% of the deck itself. As a result of the total number of available spaces decreasing, this decreases the denominator resulting in higher percentage for occupancy values. The chart on the bottom displays the average parking occupancy in number of vehicles. From this chart, the average number of vehicles has increased slightly compared to 2009.



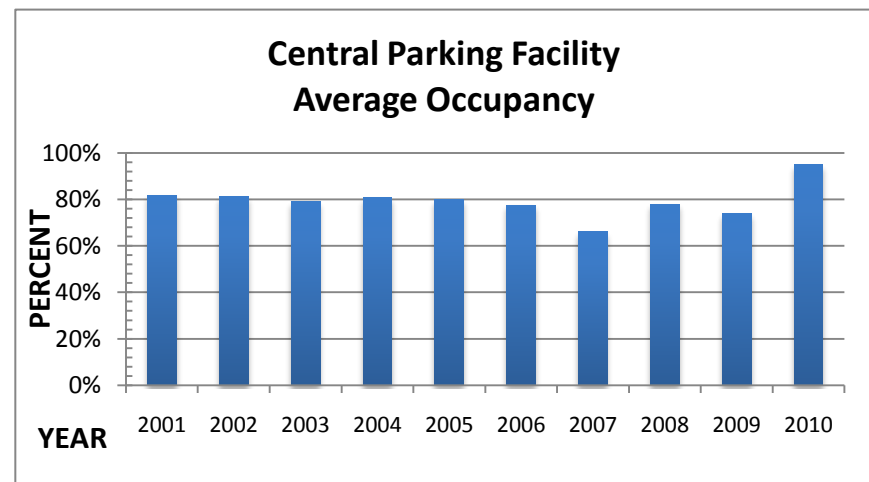
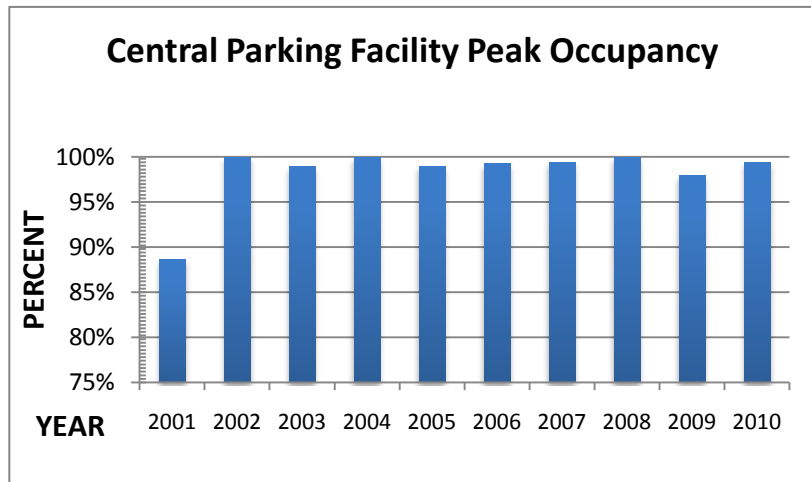
- Peak parking occupancy of public only parking spaces (excludes private parking and ADA spaces) downtown was 85% in 2010, which is higher than last year, but still lower than most previous years. A summary of total peak public occupancies is provided below.



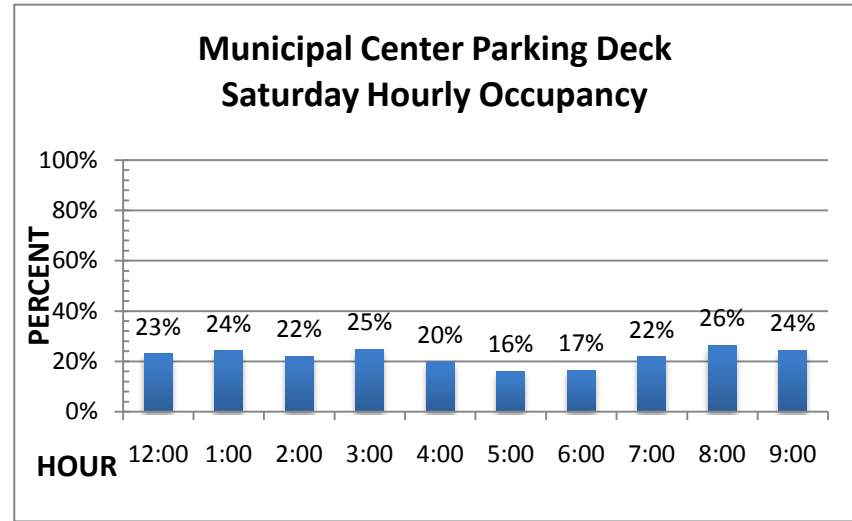
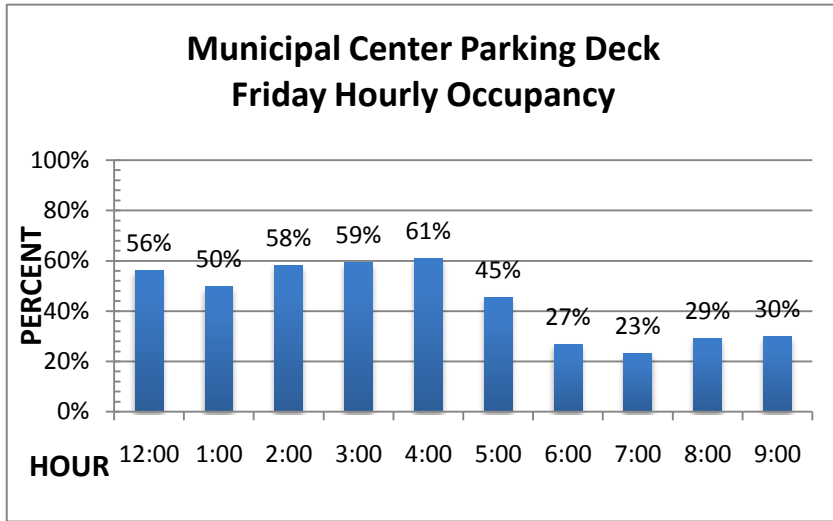
- The Van Buren Parking Deck occupancy was measured to be 99% occupied at its peak time. The calculated percent occupancy of the Van Buren Deck, substantially exceed last year's peak occupancy of 84%. Average usage in 2010 was at 77%. Average parking occupancy is calculated by adding all hourly parking occupancy rates surveyed and dividing the total by the number of hours for which data was collected.



- The Central Parking Facility (CPF) peak occupancy has remained steadily high at 99%. The peak occupancy has been measured to be over 95% since 2002. In 2010, average occupancy was 95%, the highest occupancy recorded since the CIM was first conducted. As noted previously in the report the higher occupancy numbers is attributed to 196 parking spaces that were not available (approximately 35% of CPF's parking supply).



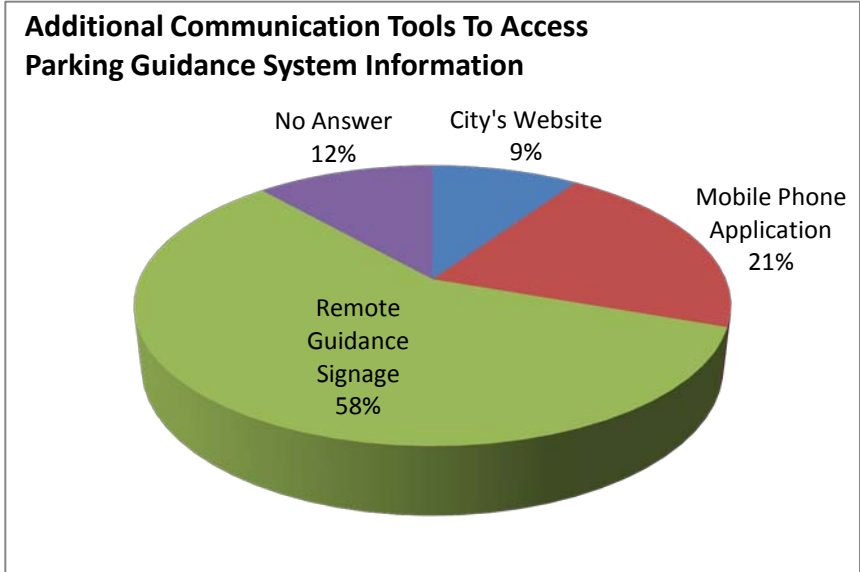
- As in previous years, the Municipal Center reported low occupancy levels after 5:00 PM on Friday. The peak occupancy for the Municipal Center Parking Deck was measured at 4:00 PM at 61%. The average occupancy for Friday was 44%, significantly less than both the Van Buren Parking Deck (78%) and Central Parking Facility (95%).



Parking Occupancy Findings:

- Higher occupancy rates this year can be attributed to 196 spaces that were unavailable in Central Parking Facility due to garage maintenance during the survey period. This was especially evident in the average occupancy for CPF, and increased occupancies for the Van Buren Deck which experienced substantially higher occupancies for this year, compared to last year.
- The peak parking occupancy occurred on Friday at 8:00 PM, which was closely followed by Saturday at 8:00 PM and Friday at 1:00 PM. This is consistent with findings from prior years.
- Consistently, Friday’s average occupancy has been higher than Saturday’s average occupancy, meaning more vehicles are parked in downtown on a Friday versus a Saturday. As a result, we have consistently used Friday’s average for daily parking data comparisons.
- As in previous years, the Municipal Center reported low occupancy levels after 5:00 PM on Friday.
- This year, signage for the parking guidance systems at the Van Buren Parking Deck and Central Parking Facility was installed. While the signage is a great tool for motorists to identify the number of available spaces in each deck, the system will be able to collect parking occupancy data on an hourly basis, throughout the year. From a signage standpoint, the Central Parking Facility will especially benefit from this system since vehicles cannot travel between floors when a section is full.

Although the guidance system was not in operation at the time of the study, it appears it has been well received. As part of the customer satisfaction surveys, visitors were asked the following question: “Which additional communication tool would be helpful to access parking guidance system information in downtown Naperville?” The responses to these questions are provided in the chart to the right. The system was designed so that additional remote signage displaying the total number of available spaces could be added in the future. Real-time information regarding the total number of available spaces at the parking decks can currently be viewed from the city’s website.



CUSTOMER SATISFACTION

- The 2010 customer satisfaction rate of 64% is lower than last year’s satisfaction of 66%. This slight decrease can be likely attributed to the unavailable spaces at the Central Park Facility. However this rate is still very positive compared to the low rate of 59% measured in 2008, when spaces were also out of service due to construction.
- From 2002-2004, overall customer satisfaction levels decreased in conjunction with rising parking occupancy rates. Customer satisfaction levels continued to decrease slightly in 2005 (62%) and 2006 (61%), despite slightly lower occupancy rates than the preceding three years. Even with a rise in 2007 to 70%, customer satisfaction decreased significantly in 2008 to 59%, which is the lowest recorded level since 2001. This decrease may have been attributed to the construction impacting parking spaces in the downtown area during the summer of 2008.

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Customer Satisfaction	Customer Satisfaction Rate	55%	75%	74%	66%	62%	61%	70%	59%	66%	64%
	Customer Able to Find A Parking Spot in 2 Minutes or Less	55%	62%	58%	54%	49%	46%	50%	41%	49%	49%
	Customer Expects It to Take Over 2 Minutes to Find A Parking Spot	82%	74%	70%	78%	82%	79%	78%	84%	77%	79%

Opening of Van Buren Parking Deck

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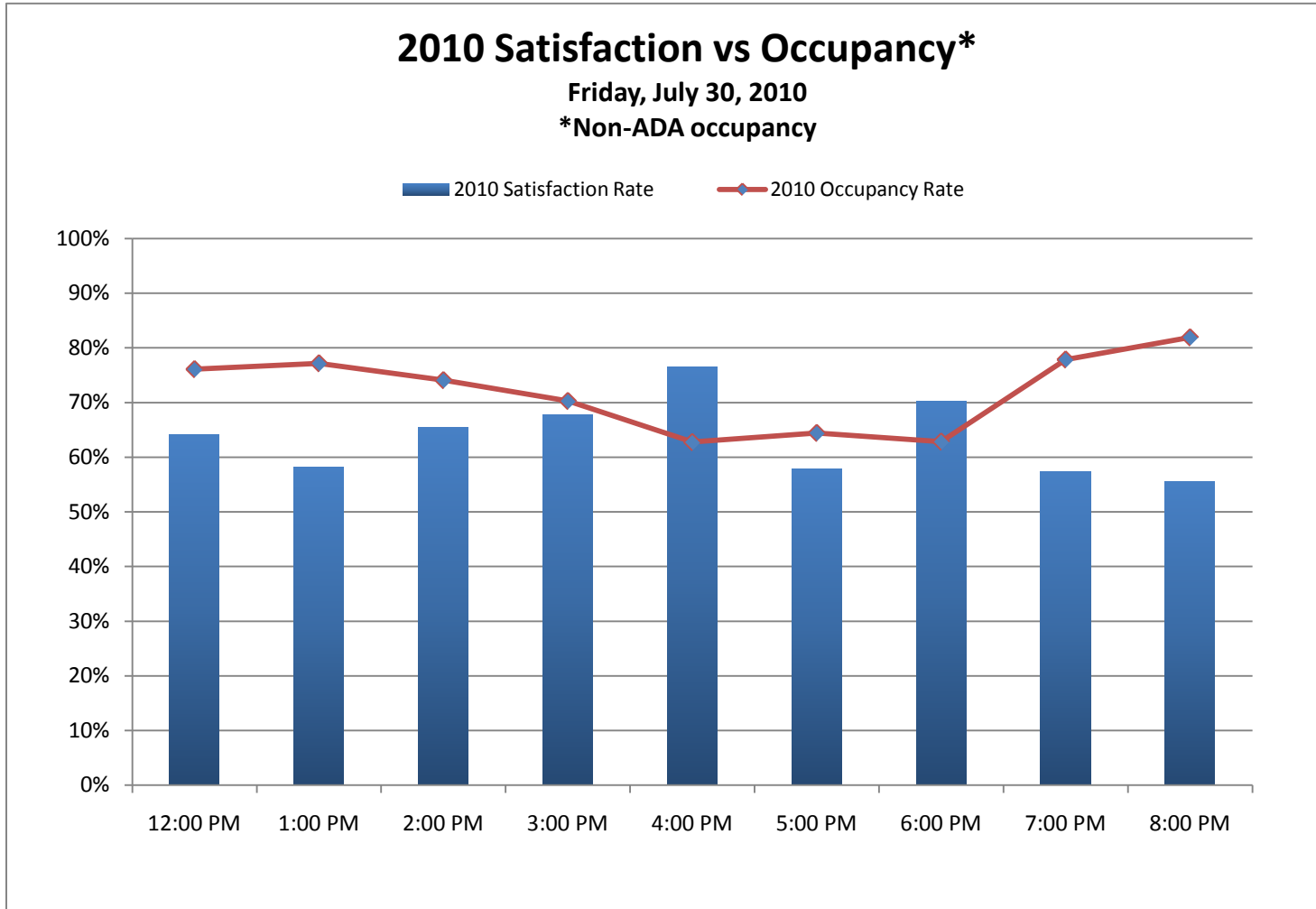
Opening of Van Buren Deck Addition

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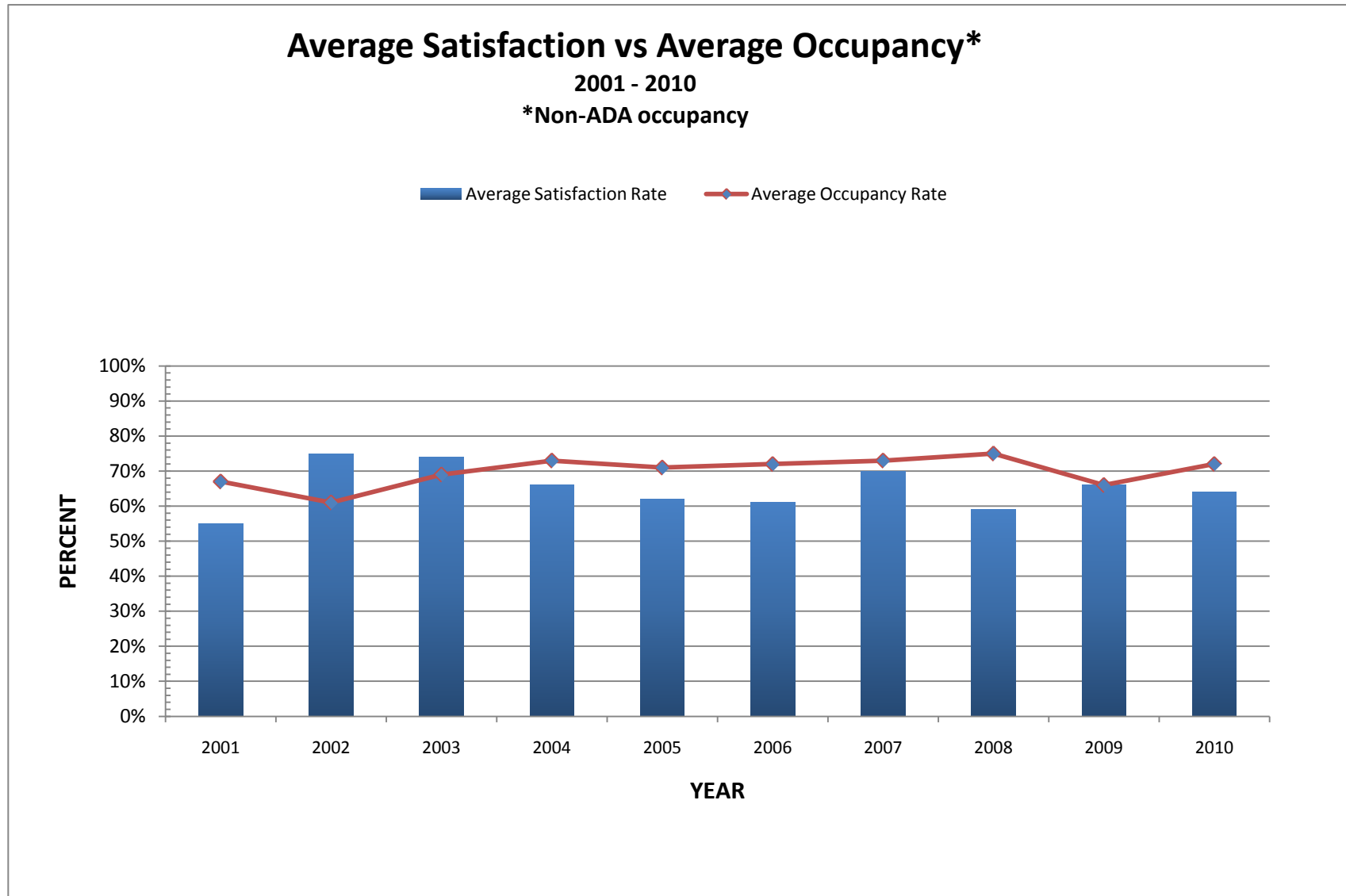
196 Spaces Out of Service (CPF)

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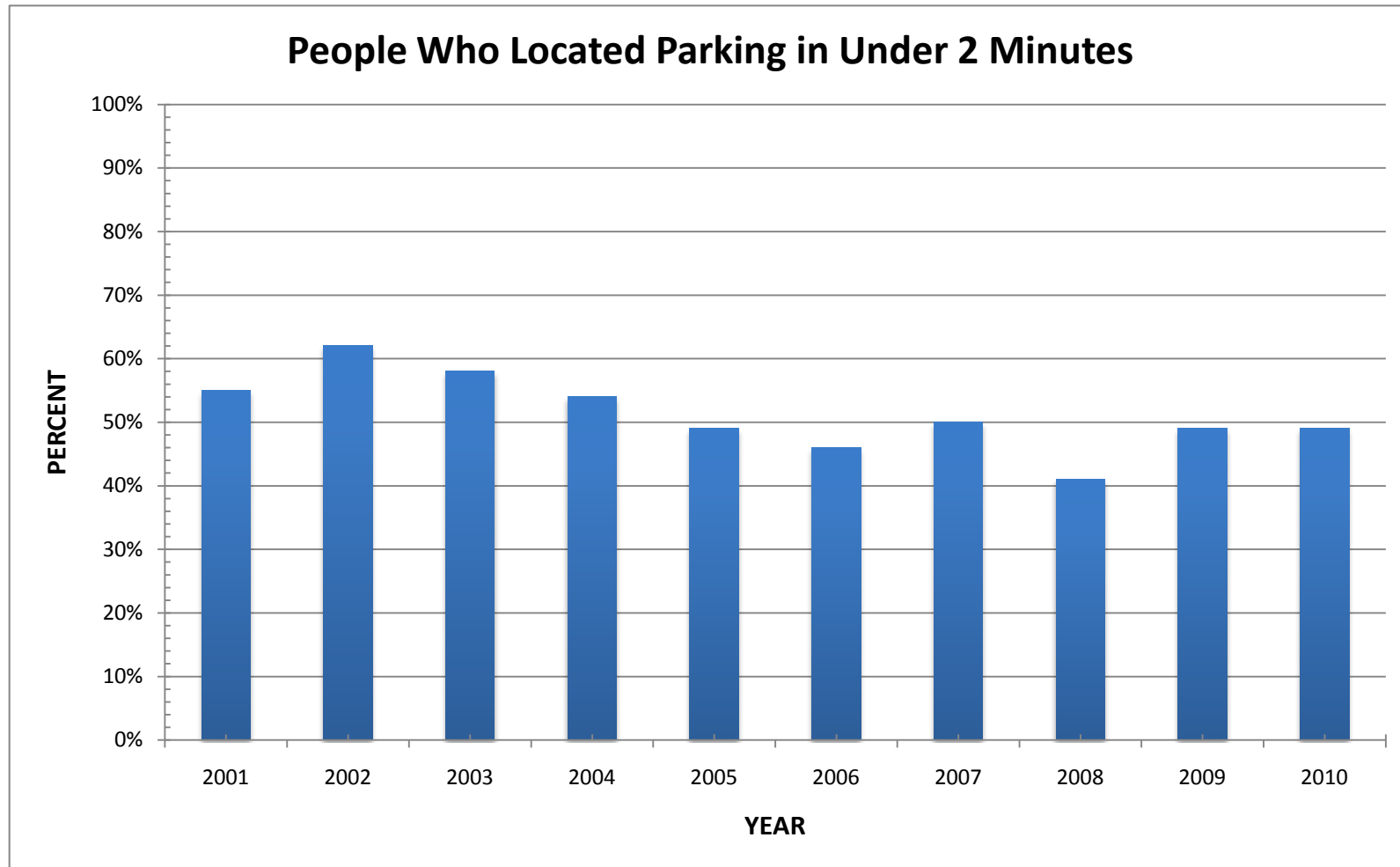
- When the customer satisfaction data is plotted against the parking occupancy data by hour, it can be seen that higher parking occupancy rates generally correspond with lower customer satisfaction rates as there are less spaces available to the public. From the chart below, it can be seen that the highest customer satisfaction rates at 4:00 PM and 6:00 PM occur during times where parking occupancy rates are the lowest.



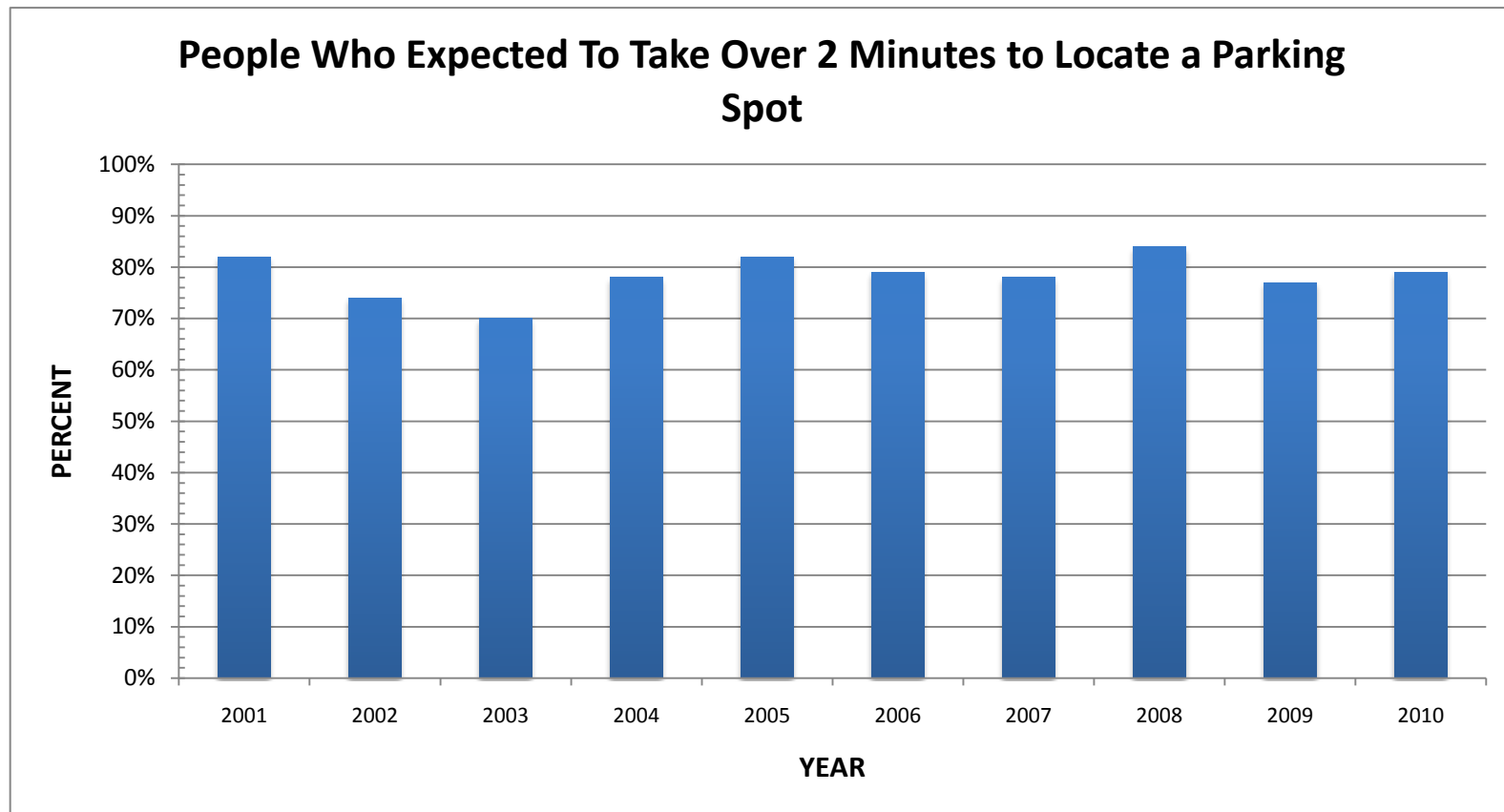
- The chart below compares historical data for average parking occupancy rates against average customer satisfaction rates.



- In 2010 the **number of downtown patrons able to find parking in two minutes or less** was consistent with last year at 49%, an increase of 8% since 2008. The number of downtown patrons able to find parking quickly (i.e. two minutes or less) declined consistently from 2002-2006. In 2007, this number rose slightly to 50%. However, in 2008, we saw a sharp decline to the lowest recorded level of 41% of patrons that were able to find parking in less than two minutes. This was likely due to the number of parking spaces reduced due to construction in the summer of 2008.



- The survey showed that the expectations held by customers for the amount of time it will take to find a parking spot have consistently been high (meaning the overall majority expect to spend over 2 minutes locating a parking spot). In 2010 the number of people expecting to take over 2 minutes to find a parking space increased to 79%, from 77% last year. In 2008, this number rose to a recorded high with 84% reporting that they expect finding a parking spot to take **over two minutes** when coming downtown. This is compared to 78% in 2007, 79% in 2006, 82% in 2005, 78% in 2004, and 70% in 2003.



Customer Satisfaction Findings:

- The decrease of customer satisfaction rate to 64% in 2010, from 66% 2009, can likely be attributed to the unavailable spaces at the Central Parking Facility. However this rate is still very positive compared to the low rate of 59% measured in 2008.
- The surveys have consistently shown that the actual time to find a parking spot is less than the expected time. This indicates that, as in previous years, the customers parking experience is exceeding expectations.
- The general comments from the Customer Satisfaction Survey revealed that parking related concerns varied greatly. A summary of the general comments can be found as Exhibit B for reference. As an example, some of the trends reported in the general comments included:
 - Concerns about overall number and use of employee parking.
 - Dissatisfaction with parking time restrictions.
 - Concerns about traffic and congestion.
 - Satisfied with parking improvements in the downtown.

DEVELOPMENT PROJECTIONS AND FUTURE PARKING DEMAND

The third component of the Continuous Improvement Model (CIM) includes development projections and future parking demand. As such, a five-year development forecast has been established, which is used as a tool to proactively identify upcoming parking needs for the downtown area. These development projections are used as an active planning document throughout the year and help to gauge the need for additional parking supply. A map providing an overview of various projects in the downtown is attached as Exhibit A.

A. 2010 Update: New Development and Square Footage Adjustments

At the time of the 2010 parking counts, Rosebud was closed and not suitable for occupancy due to fire damage occurring prior to the survey. It is unknown at this time, if Rosebud will be reopening for business at the time of next year's update. For the purposes of the 2010 CIM, Rosebud has been accounted for in the vacancy numbers.

In 2009, the Apple Store at Main Place was vacant and under construction. In order to accommodate a building addition, the overall on-site parking supply was reduced by ten spaces. During the 2010 survey, the Apple Store (including the addition) was occupied and operational adding a total of 1,200 additional square feet to the overall total downtown building square footage. The 4,854 square feet counted as vacant in 2009 has been removed from the vacancy total adding a total additional 6,054 square feet of retail space occupied during this year's survey.

Also in 2009, the existing building at 10 W. Jackson Street was demolished and construction began on a new 8,400 square foot office building. At the time of the 2009 survey, the building had not received final occupancy. As of the 2010 survey, the 8,400 square foot space had been occupied by Charles Schwab and has been added to the downtown building square footage number.

B. Anticipated for 2011

For the upcoming model year, one known change will impact the 2010 Continuous Improvement Model. This impact is summarized below:

- **Central Parking Facility:** During the 2010 Continuous Improvement Model, the city was performing maintenance in the Central Parking Facility which caused 196 parking stalls to be out of operation. Since the update, the work in the Central Parking Facility has been completed and the deck has been reopened at full capacity as is expected next year during the update.

C. Development Projections

As previously stated, five-year development projections have been incorporated into the comprehensive development forecasts to determine the future parking demand. Development projections are primarily comprised of pending projects, which include projects

that have received necessary approvals from City Council to proceed, if applicable; “by-right” projects currently under review by staff; or known projects that have been presented to the city through concept submittals.

These projects are listed and classified below (*with associated map number from Exhibit A*). Details regarding project specifics can be found in the following section.

<u>Map ID</u>	<u>Project Name</u>
1	Main Street Promenade Addition
2	Naper Main Street/Van Buren Deck Addition
3	River Main
4	Water Street Development
5	Naperville Riverfront Development
6	12 N. Webster Street (<i>Pending November 2010</i>)

Projects within the Downtown Parking Boundary: These projects are located within the current Downtown Parking Boundary. Through redevelopment, additional parking demand will be created within the downtown by adding additional building square footage and removal of existing parking spaces on-site.

- *Naper Main Street/Van Buren Deck Addition (#2):* In 2007 the City Council approved agreements with Naper Main Street, LLC resulting in an addition of 276 spaces to the Van Buren deck which opened to the public in November 2008. In conjunction with the parking deck addition, a mixed-use building consisting of residential and retail space was also approved in 2007 by the city. The development’s parking demand is included in the overall development projections.
- *River Main (#3):* In the past, staff has held a concept meeting on this property. If redeveloped in the future, additional parking demand would result.
- *Water Street Development (#4):* In 2010, the Plan Commission considered and recommended approval of modifications to the Water Street District Preliminary P.U.D., which includes a 575+ space parking deck. The petitioner presented two options for the Water Street Development. Option 1 consists of commercial and residential; while, option 2 consists of commercial, residential and a hotel. It is anticipated that the parking demand associated with these two options ranges from 269 spaces to 323 parking spaces. A 575+ space parking deck will provide excess capacity that will help reduce the parking demand of the downtown as a whole.

Downtown Fee-In-Lieu-Of Parking: In 2008 the City Council adopted the Downtown Fee-In-Lieu-Of Parking formula. This formula is assessed for those properties that are outside of, or exempt from, the Downtown Parking Boundary and are seeking the benefits of inclusion within the boundary, including the right to provide limited or no parking on site. This formula was created after the former SSA buy-in formula was determined to be insufficient to fund the capital parking demands created by new development. Since adoption of this updated formula, two projects sought and obtained Council approval for Downtown Fee-In-Lieu-Of Parking related to their projects, and 12 N. has requested a parking variance in conjunction with payment of a parking fee. Their associated parking demand has been accounted for in the Model.

- *Main Street Promenade Addition (#1)*
- *Naperville Riverfront Development (#5)*
- *12 N. Webster (#6) (Pending November 2010)*

D. Parking Generation Rate

The parking generation rate is defined by the number of parked vehicles (measured during the peak hour) per 1,000 s.f. of building gross square footage. The parking generation rate in 2010 was calculated to be 1.99, which is a direct correlation to the parking occupancy. In 2007 an adjusted average was applied, removing the highest and lowest measured values, and taking an average of the remaining values. The adjusted average calculated in 2010 was found to be 2.01, which is the same as the 2009 adjusted average rate of 2.01.

	Generation Rate	
2001	1.92	
2002	2.06	
2003	2.58 * (highest)	
2004	2.17	
2005	2.00	
2006	2.05	
2007	1.88 * (lowest)	
2008	1.92	
2009	1.95	
2010	1.99	<i>Average = 2.01</i>

The generation rate also accounts for non-development parking demand in the downtown. In an environment such as downtown Naperville, there are many amenities that attract visitors. This is because the total number of vehicles parked within the downtown area is counted, regardless of their destination. For example, if a visitor parks on Chicago Avenue to visit the Riverwalk, this contributes to the parking generation rate the same as a visitor who parks in the Van Buren Parking Facility for lunch, shopping, and attends a performance at the Community Concert Center. Lower parking generation rates, with relatively high parking occupancy

levels, indicate that the mix of uses support multiple visits in a single trip (i.e. patrons who park visit multiple destinations). This is common to vibrant downtown environments.

These conclusions are further supported from the responses to the survey question:

How many downtown destinations do you intend to visit today?

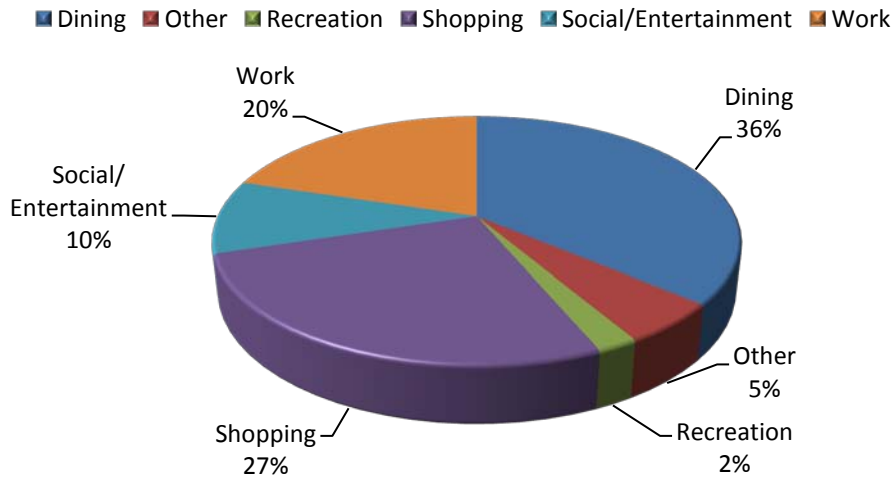
- 1 – 28%
- 2 – 32%
- 3 or more – 40%

Another way to view parking data and trends is to review response to the question: *What was your primary purpose for your visit to downtown today?*

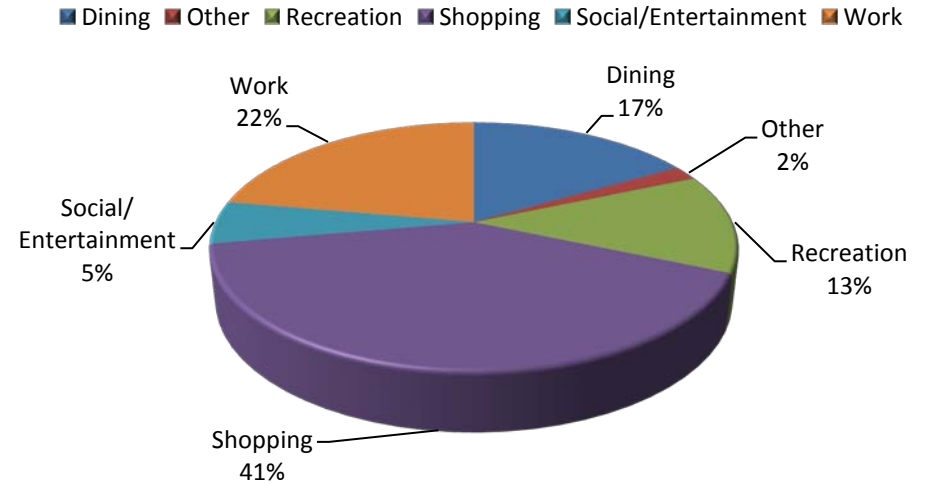
These responses are compiled in the pie charts below for three times throughout the day. A comparison is shown of the destinations for the 12:30-1:30 PM lunch time parking peak, 3:30-4:30 PM mid-day, and 7:30-8:30 PM daily parking peak. Dining ranks the highest reason that people choose to visit downtown Naperville at lunch time and in the evening. Visitors are attracted to downtown during the mid-day to shop and work, in that order. It is noted that not all visitors will answer the same question in the same manner. One person who is visiting downtown to window shop may choose to answer the destination question as “Shopping” while another may choose to answer the question as “Other.”

What was your primary purpose for your visit to downtown today?

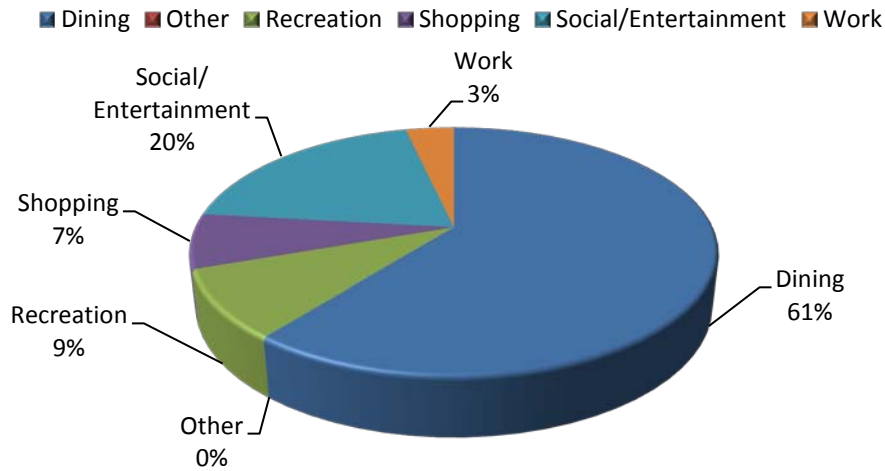
12:30 - 1:30 PM



3:30 - 4:30 PM



7:30 - 8:30 PM



Rank	TIME OF SURVEY		
	12:30-1:30 PM	3:30-4:30 PM	7:30-8:30 PM
1st	Dining	Shopping	Dining
2nd	Shopping	Work	Social/Entertainment
3rd	Work	Dining	Recreation

Future Parking Demand

In general, the future parking demand is obtained by applying the parking generation rate to the net square footage projected as a result of the development forecasting, however it is important to acknowledge other impacts to the downtown parking supply to accurately plan for future parking supply. These considerations are discussed below:

Additional Build-Out/Vacant Tenant Space: As discussed above, the downtown generation rate is defined by the number of parked vehicles per 1,000 s.f. of building gross square footage. Since the total building gross square footage includes buildings which may have vacant tenant spaces at the time of the survey, it is important to acknowledge that once those spaces are occupied with new tenants, the parking demand may be increased accordingly. Properties that were identified to have vacant tenant space were assessed to determine a corresponding parking demand.

Changes in Parking Supply: This estimates the number of parking spaces anticipated to be removed from the overall parking supply, which have not already been accounted for within the development projections. In 2009, the City Council approved the Central Park Master Plan. As a result of future changes, it is estimated that 4 parking spaces will be removed from the parking surrounding Central Park to accommodate parking island bump outs.

Target Occupancy: As was established in the 2005 Development Projections, the future parking demand estimates are adjusted to provide for a 70% parking occupancy rate. As the future parking demand is an estimated value based on a certain set of factors and assumptions, the value should allow for changes in parking conditions and establishing a 70% target applies a conservative factor for planning purposes. Additionally, as parking facilities become more centralized into larger structures with more parking available, it is assumed that acceptable customer satisfaction levels could be established at higher occupancy levels in the future. For practical purposes, the future parking demand has been rounded to the nearest whole values.

In summary, the future parking demand has been calculated based on the following information:

Criteria	Values	Parking Demand
Existing Building Square Footage	1,372,705sf	Current Conditions
Existing Public & Private Parking Spaces	3,532 (w/out ADA)	N/A
Parking Generation Rate	2.0 to 2.5	N/A
Net Development Projections and Associated Parking Demand	220,000 sf	439 to 557 spaces
Additional Build-Out	<i>(Estimated vacancies at time of survey)</i>	140 to 175 spaces
Changes in Parking Supply	<i>(Spaces removed from supply)</i>	4 spaces
Anticipated Parking Demand	<i>(100% Occupancy)</i>	579 to 732 spaces
	<i>70% Target Occupancy</i>	860 to 1,096 spaces
<i>Future Parking Demand (approximate)</i>		<i>800 to 1,000 spaces*</i>

The table above depicts highlights from a detailed analysis of all of the conditions previously discussed. The future parking demand of 800 to 1,000* additional parking spaces *does not yet reflect the addition of any new public spaces provided with future parking decks*. The projected demand is in-line with previous years demonstrating that the Continuous Improvement Model is a successful tool in tracking and monitoring parking supply and demand.

E. Parking Demand vs. Supply Over Time

The table above represents the future parking demand anticipated at the end of a five-year window, however it is important to recognize that parking demand associated with new development increases over time as construction projects are completed, tenant spaces are leased, and then ultimately occupied. For larger developments with multiple tenant spaces, full occupancy of the complete development may not occur for a number of years. Therefore, the initial parking demand is relatively low. A comparison of this methodology is quite similar to cash flow projections used in financial analysis.

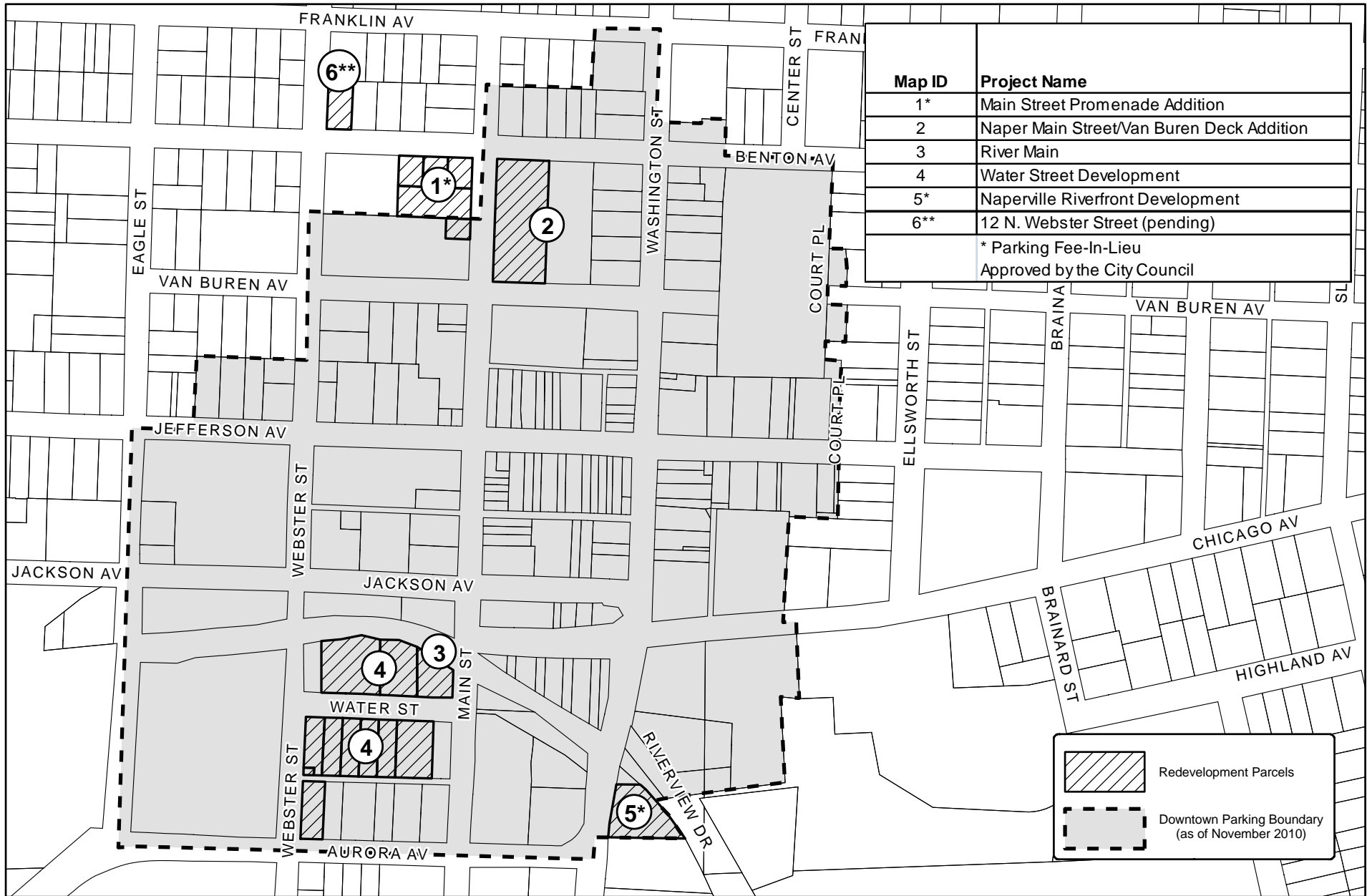
CONCLUSION:

The future parking demand is estimated to be 800 to 1,000 parking spaces in the next 5 years, which does not yet reflect the addition of any new public spaces provided with future parking decks. Staff will continue to monitor and adjust the future parking demand as conditions evolve in the downtown.

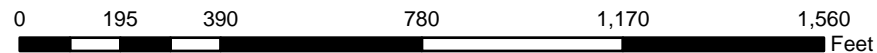
- Attachments: Exhibit A – 2010 Downtown Development Projections
- Exhibit B – Summary of Customer Satisfaction Survey Comments

2010 DOWNTOWN DEVELOPMENT PROJECTIONS (0-5 YEARS)

EXHIBIT A
City of Naperville



Transportation, Engineering and Development Business Group
 Questions Contact (630) 420-6694
www.naperville.il.us
 October 2010



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CUSTOMER SATISFACTION SURVEY – GENERAL COMMENTS

EXHIBIT B

- NEED MORE PARKING SPACES ON WEEKEND.
- NO PARKING ON WASHINGTON STREET.
- UNHAPPY WITH PARKING IN DOWNTOWN.
- PARKING CONVENIENCE IS DEPENDENT ON WHERE YOU ARE GOING. CPF & VAN BUREN VERY CONVENIENT. WEST PART OF DOWNTOWN PARKING IS LESS CONVENIENT.
- 7 PARKING TICKETS – TOO LONG.
- DOWNTOWN EMPLOYEES HAVE A HARD TIME FINDING A PARKING SPACE GIVEN NUMBER OF SPACES THAT HAVE 3 HOUR LIMITATIONS. NON-LIMITED SPACES ARE INCONVENIENTLY LOCATED.
- UNHAPPY WITH PARKING BUT DOES NOT WANT MORE DECKS.
- WHY IS THERE PARKING ON WASHINGTON? GET RID OF IT. IT OBSTRUCTS THE BUSINESSES (NO I DO NOT OWN ONE OF THEM). PEOPLE THAT GET TOWED DON'T COME BACK TO NAPERVILLE. BAD FOR ALL BUSINESSES!
- 3 HOUR LIMIT TOO SHORT. DIFFICULT FOR EMPLOYEES AND VISITORS.
- I DON'T PARK IN THE GARAGE MYSELF – TOO AFRAID. USUALLY WASTE GAS HUNTING FOR A SPOT. CAN STILL WALK SO DON'T MIND GETTING EXERCISE!
- PEOPLE WHO WORK DOWNTOWN WHO HAVE PLACKARDS, WHAT PURPOSE?
- LONGER PARKING TIMES FOR LONG TERM VISITORS.
HANG TAGS NEED BETTER PLACEMENT/ENFORCEMENT.
- DOES NOT LIKE COMING DOWNTOWN DUE TO PARKING.
- MORE PERMIT SPACES FOR WORKERS DOWNTOWN.
- WE NEVER HAVE A PROBLEM BECAUSE WE USE THE PARKING DECK.
- WE LOVE NAPERVILLE!
- BETTER THAN IT USED TO BE!
- WE LOVE NAPERVILLE!
- FIRST TIME HE'S HAD TROUBLE FINDING A PARKING SPOT.
- LIMITED SIZE SPOTS? WHY?
POOR SNOW REMOVAL ON STREETS.
EVENING PARKING NOT GOOD.
- PARKING IS GREAT DOWN HERE!
- IT'S A WONDERFUL PLACE.
- KEEP MAKING IMPROVEMENTS.
KEEP TRAIN PEOPLE FOR DOWNTOWN SHOPS.
- CLEAN DECK STAIRS MORE OFTEN – POWER WASH.
- WOULD LIKE ADDITIONAL PARKING FOR PATRONS-SOMEHOW!
STATED, I DO NOT WALK THE STAIRS, SCARED AT NIGHT.

CUSTOMER SATISFACTION SURVEY – GENERAL COMMENTS

EXHIBIT B

- MORE BIKE RACKS-BEST IN DECK WITH CAMERAS, SOME ON STREET, GREAT LOCKING RACKS.
- PARKING SHOULD START AT 8-8:30 AM FOR WORKERS IN THE DECK.
- NOT THRILLED WITH THE PARKING SIGN TO SHOW NUMBER OF SPOTS, WASTE OF TAXPAYER MONEY!
- TRAFFIC!
- NEVER COMES DOWNTOWN BECAUSE OF PARKING.
SAYS EVERYONE GOES TO WHEATON BECAUSE YOU CAN'T PARK IN DOWNTOWN NAPERVILLE.
- SAW A REMOTE GUIDANCE SIGN IN WISCONSIGN, EXCITED ONE WILL BE INSTALLED HERE.
- PREFER ON-STREET PARKING.
NIGHT PARKING GREATER THAN 15 MINUTES IS IMPOSSIBLE.
POLICE ENFORCEMENT SHOULD BE A GREATER FOCUS.
FREQUENTLY VISIT DOWNTOWN.
- CAR TOURISTS IN TOWN WITH GROUP (BASEBALL). CAR-POOLED WITH 4 CARS AND COULD NOT FIND PARKING. LUCKILY PARKED IN NEIGHBORHOOD AND WALKED. NOT GOOD FOR TOURISTS!
- ON STREET SHOULD BE 30 MIN. ONLY TO PROVIDE TURN-OVER FOR BUSINESSES; LONG-TERM PARKING LIMITED TO LOTS AND DECKS.
- WOULD LIKE MORE THAN 2 HOUR PARKING LIMIT, 2 HOURS IS NOT SUFFICIENT.
- ENJOYS DOWNTOWN FOR DINING ESPECIALLY.
- CAME AT 8:30.
- DOWNTOWN NEEDS MORE SPACES.
- DECKS ARE GREAT – FUNCTIONAL AND LOCATION.
- PARKING OFF WASHINGTON.
- NAPERVILLE MOMS ARE HORRIBLE DRIVERS.
- TOO HARD TO LEAVE AND COME BACK TO FIND PARKING.
NOT A GOOD PLACE TO OPEN SHOP-OFFICE IN PROMENADE. PROBABLY WILL MOVE ELSEWHERE.
- PHONE APPLICATION SIMILAR TO AIRPORT PARKING IS WHAT HE ENVISIONS. MAYBE PUSH PEOPLE TO CERTAIN DECKS OR LEVELS. SIGNS OUTSIDE OF GARAGE WITH PARKING DATA WOULD HELP.
- THINK BUSINESSES LOOSE MONEY BECAUSE YOU CAN'T JUST RUN IN AND OUT.
- NEVER HAD ANY PROBLEM.
- DECK: NOT TOO DIFFICULT TO FIND A SPACE.
ON- STREET: FEELS THAT THE MERCHANTS (EMPLOYEES) TAKE ALL THE PARKING.
LOVES THE FREE PARKING.
- NEED MORE PARKING IN THE DOWNTOWN TO KEEP UP WITH CUSTOMER DEMANDS.
- CITY IS GREAT ABOUT PROVIDING FREE PARKING.

CUSTOMER SATISFACTION SURVEY – GENERAL COMMENTS

EXHIBIT B

WORRY ABOUT PEDESTRIAN SAFETY NEAR CHICAGO AND WASHINGTON. ALSO NEAR CENTRAL PARK DURING BAND CONCERTS. MAYBE SHUTTLE BUS FOR BAND CONCERT NIGHTS.
DRIVERS – ENFORCEMENT.

- DOWNTOWN IS BEAUTIFUL.
- NEED MORE PARKING SUPPLY DOWNTOWN AND AT TRAIN STATION.
- PARKING IS SO BAD THAT HE AVOIDS DOWNTOWN UNLESS NECESSARY.
- NEED MORE PARKING BUT KEEP AESTHETIC AS IT IS.
MAKE PARKING ATTRACTIVE.
- PARKING IS ROUGH DOWNTOWN, BUT TO BE EXPECTED OF ANY SUCCESSFUL DOWNTOWN.
- OWN COMMERCIAL TRUCK AND PARK ON CORNER TO UNLOAD MATERIALS, 5 MINUTES MAXIMUM. GOT TICKET. UPS, POST OFFICE AND OTHERS PARK.
- PARKING ON WASHINGTON SHOULD BE ELIMINATED BECAUSE IT CREATES SAFETY AND CONGESTION ISSUES.
- DON'T ALLOW PARKING ON WASHINGTON.
- SOMETIMES PARKING IS SO BAD THAT HE WANTS TO AVOID COMING DOWNTOWN.
- NEED MORE PARKING FOR THE SHOPPERS.
- THERE SHOULD BE ANOTHER PARKING GARAGE – HAVE TALKED FOR TOO LONG.
PEOPLE WILL START TO GO ELSEWHERE GIVEN THE PARKING SHORTAGE.
HAVE FRIENDS WHO HAVE TURNED AROUND AND GONE HOME. (MISSED LUNCH DATE) BECAUSE PARKING WAS TOO HARD TO FIND.
- CHIPOLTE PARKING SHOULD BE 15 MINUTES ONLY. IMPOSSIBLE TO ACCESS.
- CAN BE DIFFICULT.
- NEED MORE PARKING.
- DOESN'T HAVE A PARKING PROBLEM WHEN SHE VISITS.
- PARKING IS THE PRIMARY DISCOURAGING FACTOR IN WHETHER TO STOP HERE IF HE'S IN THE AREA.
- GOES TO WHEATON MORE BECAUSE OF DOWNTOWN PARKING SITUATION.
PARKING DECK IS NOT CENTRAL.
CONCERNS WITH COMMUTER PARKING.
- DOWNTOWN CONGESTION IS A CONCERN.
- QUESTIONS WHY VALET CAN USE THE PARKING GARAGE-DISAGREES WITH VALET USAGE DUE TO TAXPAPER FUNDING,
REDUCES SUPPLY FOR OTHER FOLKS WHO COME DOWNTOWN.
WHY DOES BANK RESERVE HALF OF UPPER DECK @CPF?
- 1ST VISIT.
- NEED MORE PARKING – ADD ONTO VANBUREN DECK.
- DOWNTOWN RESIDENT PARKING PERMITS; NEED BIKE RACKS.

CUSTOMER SATISFACTION SURVEY – GENERAL COMMENTS

EXHIBIT B

- PUT A PARKING DECK AT BURLINGTON PARK FOR TRAIN STATION.
- NO LIBRARY DECK.
- IMPROVED DAILY PARKING @ 5TH AVENUE STATION.
- PARKING AT WASHINGTON POST OFFICE IS MISERABLE.
NO DEDICATED PARKING AT NICHOLS.
IF MORE PARKING, RESIDENT WOULD VISIT MORE OFTEN.
- CONGESTION WAS AN ISSUE, NOT PARKING. ALMOST LEFT DOWNTOWN ONCE SHE GOT HERE.
- PARKING HAS IMPROVED.
- UNUSUALLY CROWDED.
- IMPROVE LUNCHTIME PARKING.
- DOWNTOWN NOT SHOPPER FRIENDLY BECAUSE OF PARKING.
WILL NOT SHOP IN WINTER BECAUSE THERE IS NO PARKING NEARBY.
- THE TRAFFIC IN NAPERVILLE IS BECOMING A PROBLEM. IT'S MORE FURIOUS THAN THE PARKING. PERHAPS LOCAL TRAFFIC COULD IMPROVE WITH A BUS SYSTEM TO CONNECT THE CENTER WITH PARKING FACILITIES.
- WORKS IN BUILDING NEXT TO CPF DECK – CAN NEVER FIND PARKING.
- NICE VIEWS
- ADD MORE PARKING.
- I WORK AT BARNES AND NOBLE AND WOULD LIKE TO HAVE A GUARANTEED PARKING SPOT BECAUSE I DID PAY FOR THE TAG AND I CANNOT WALK OR TAKE TRAIN TO WORK.
- DELETE TIME RESTRICTED AREAS.
- NAPERVILLE RESIDENT (OLD DAYS).
- NO PARKING ON WASHINGTON.
- NO PARKING ON WASHINGTON – MAYBE CLOSE JACKSON.
- BETTER SIGNAGE TO 3RD LEVEL OF THE DECK.
- LOOSE ON-STREET WASHINGTON PARKING.
LIKES FREE PARKING EVEN AT THE EXPENSE.