



WALKER
PARKING CONSULTANTS

DOWNTOWN PARKING
NEEDS ASSESSMENT

CITY OF MIDDLETON
MIDDLETON, WISCONSIN

Prepared for:
City of Middleton

March 12, 2013



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MARCH 12, 2013

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EXECUTIVE SUMMARY

The City of Middleton, Wisconsin (the "City") engaged Walker Parking Consultants ("Walker") to evaluate the need for additional parking supply in downtown Middleton. The intended purpose of the study is to evaluate the current and future parking adequacy and clearly identify the parking inventory, utilization and availability in Downtown Middleton.

In addition, this evaluation provides ways to improve the efficiency of the parking system, while balancing changes in a way that is supportive of economic development initiatives. Walker's evaluation is intended to provide decision-making information for the City as it considers near- and long-term planning decisions. Based on this analysis Walker developed recommendations for the City to consider. The results of this work are summarized in the Key Findings and Recommendations section and presented in their entirety in the subsequent report.

KEY FINDINGS AND RECOMMENDATIONS

The overall analysis of current parking conditions indicates that the existing downtown parking system can support some increase in the total downtown parking demand. However, because some parking facilities demonstrated higher utilization rates than the overall average, the actual availability of specific parking resources will vary depending on location, level of convenience and restrictions (time limits, tenant parking only, etc.). This results in localized parking deficits that have the ability to shape overall perceptions of parking adequacy for the entire study area. The challenge with parking in downtown Middleton relates more to gaining access to available supply, rather than an actual shortage of supply.

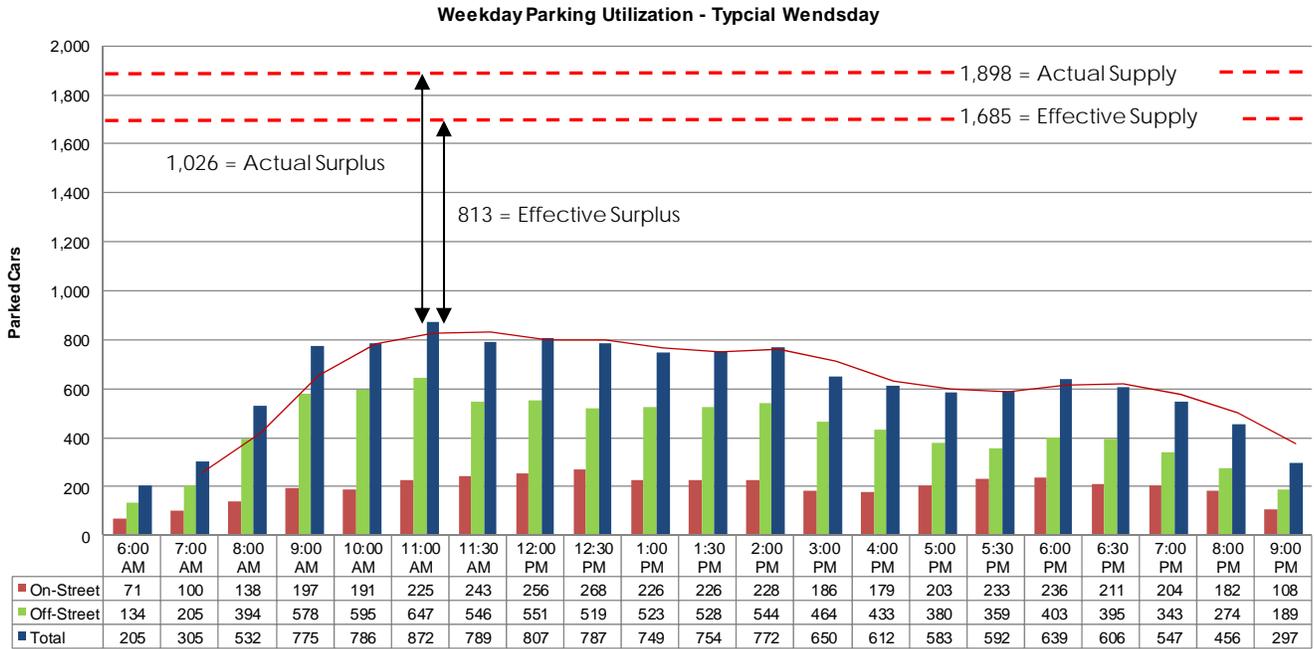
CURRENT PARKING ADEQUACY

The defined study area is generally bound by University Avenue to the north; Terrace Avenue to the south; Bristol Street to the east; and U.S. Highway 12 (Beltline) to the west. A total of 1,898 parking spaces are located in the study area. Of the total supply, 244 spaces are located in public lots, 448 spaces are located on-street, 1,132 spaces are located in privately owned and controlled lots, and the remaining 74 spaces are ADA accessible.

A series of forty-two (42) parking utilization counts were conducted during a two-day observation period to identify local parking characteristics. The primary field observations occurred on Saturday, November 3rd, 2012 and Wednesday, November 7th, 2012, with subsequent field observations conducted during the weeks of December 17th, 2012 and January 14th, 2013. The observed parking occupancy was compared to the effective supply to determine the current parking adequacy during typical market conditions.

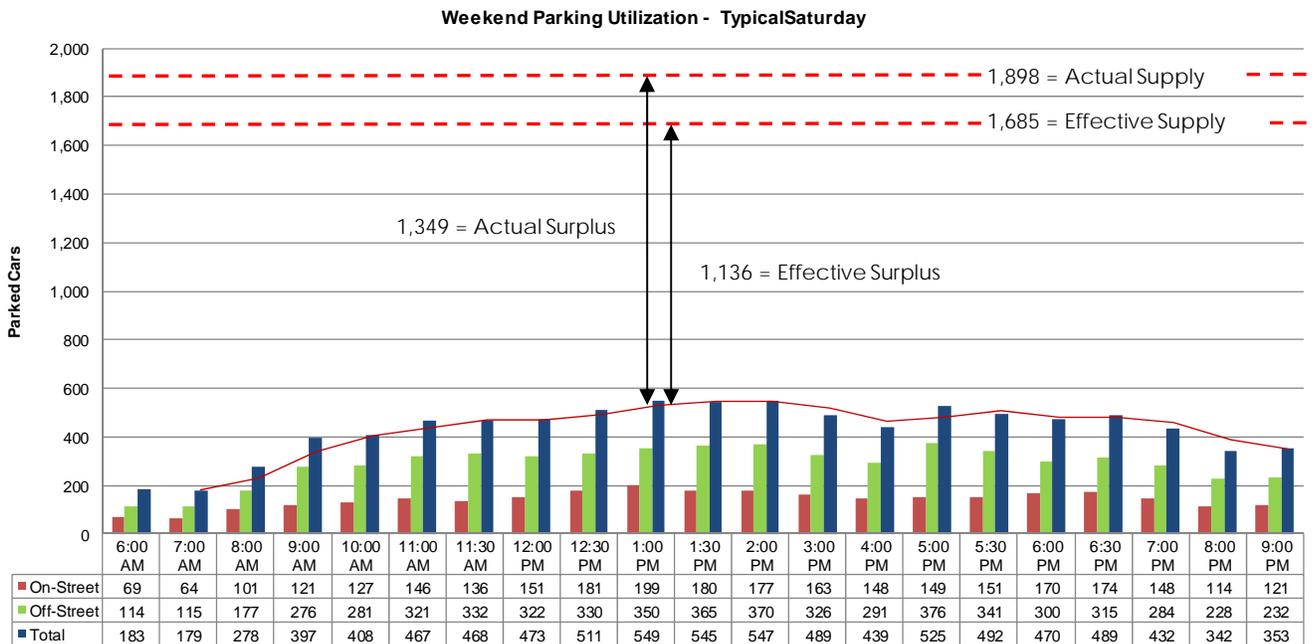
The peak weekday demand occurred near the hour of 11:00 AM with a total of 872 parked cars. This translates to an actual occupancy rate of approximately 46 percent with 1,026 vacant spaces. Peak weekend (Saturday) occurred near the hour of 1:00 PM with a total of 549 parked cars, or approximately 29 percent occupancy with 1,349 vacant spaces. Downtown parking utilization is presented in Figures 1 and 2, on the following page.

Figure 1: Current Weekday Parking Occupancy



Observation Period: Wednesday, November 7, 2012
 Weather Conditions: Partly Cloudy, Temperature: Mean = 39°F, Max = 41°F, Min = 37°F, No Precipitation
 Sources: Walker Parking Consultants and Henneman Engineering, November 2012.

Figure 2: Current Weekend Parking Occupancy



Observation Period: Saturday, November 3, 2012
 Weather Conditions: Partly Cloudy, Temperature: Mean = 38°F, Max = 45°F, Min = 31°F, No Precipitation
 Sources: Walker Parking Consultants and Henneman Engineering, November 2012.

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Some downtown community members shared a concern that parking located at Saint Luke's and Saint Bernard's may not be available for public use. For the purpose of this study, both locations are included with the understanding that employees would likely use the supply and it would not be intended for use by downtown visitors. These parking lots are positioned on the furthest north and east edges of the study area and reflect viable options for long-term employees. It is common for churches in downtown settings to share parking resources for the greater good of the community. Though these locations may currently have some use restrictions during the weekday, the churches are part of the downtown community and within an acceptable walking distance for downtown employees.

For illustrative purposes, the church parking supply is removed from the baseline inventory to demonstrate the impact on overall parking adequacy. The actual supply becomes 1,542 spaces and effective supply changes to 1,372 spaces. When compared to peak weekday conditions, actual parking capacity exceeds demand by 670 spaces and when allowing for the effective supply cushion a 500-space surplus is calculated. This demonstrates the overall impact if the churches decide to segregate and protect their parking supply from public use during peak weekday conditions. In either case, a parking surplus exists within the downtown study area.

FUTURE PARKING ADEQUACY

The calculation of future parking adequacy is based on commercial development, redevelopment and vacancy absorption assumptions applied to downtown Middleton. The projected future parking adequacy considers new demand generated by 54,669 square feet of office space, 16,388 square feet of retail space, approximately 50 additional TDS Telecom employees, and approximately 60 additional library visitors during peak weekday conditions. These assumptions represent potential changes in the study area that may occur over the next 12 to 36 months. Any changes to the program assumptions will impact projected future parking demand. Program assumptions were provided by community stakeholders, local real estate professionals, and the City of Middleton.

Our future projections show a need for an additional 309 spaces during peak weekday conditions if build-out and vacancy absorption occurs as projected. There is an effective surplus of 813 spaces during peak weekday conditions, including 587 private spaces, 65 public spaces, and 147 public on-street spaces. The existing surplus is greater than the need, and could in theory accommodate all of the projected downtown growth in the next one to three years.

RECOMMENDATIONS FOR CONSIDERATION

The field observations and calculations of current and future parking adequacy do not support building new parking supply in the form of a ramp. We recommend that the City undertake an in-depth analysis of the possibilities for making better use of the private parking supply by opening up as much of it as possible, to the public. We think this option should be investigated regardless of new growth, because it will make the existing parking system work more efficiently.

It is recommended that the City, in coordination with the Downtown Middleton Business Association, consider developing a formalized parking management plan that clearly communicates locations for employee, resident and visitor parking. Many of the localized parking challenges can be addressed through improved management of the existing resources.

If the City elects to proceed with the construction of a new parking ramp, it is recommended that the project be considered in relationship to and impact on the traffic flow; the pedestrian experience; activity patterns; downtown aesthetics; density; and sense of place. Another consideration is how to most effectively integrate a parking ramp with the current parking system. At present, the parking system is fee-neutral and parking is managed through regulations and enforcement. Under a fee-neutral system, the addition of supply may not alleviate parking congestion during peak periods since on-street parking will remain the most convenient and first choice for many downtown visitors and employees. Simply adding supply without economic incentives that help redistribute parking demand may result in an underutilized ramp.

INTRODUCTION

The City of Middleton, Wisconsin (the “City”) retained Walker Parking Consultants (“Walker”) to evaluate the need for additional parking supply in Downtown Middleton. The purpose of the study is to provide a quantitative evaluation of the current and future parking adequacy that clearly identifies the parking inventory, utilization and availability in Downtown Middleton.

BACKGROUND

In 2007, the Middleton Plan Commission recommended approval of a Downtown Circulation Study¹, which outlines the downtown parking needs, transit circulation recommendations, bicycle and pedestrian circulation considerations, streetscape recommendations, and a traffic analysis consideration. The Downtown Circulation Study found that while “the downtown currently experiences parking lot capacity issues in the Hubbard Avenue area during lunchtime, the conditions are not severe, and do not indicate a need to expand parking with a ramp.”

Since the Downtown Circulation Study was performed, conditions in the downtown have changed. Specific changes in Downtown since 2007 include the relocation of the Middleton Police Department from City Hall to a new location on Donna Drive, which freed up some on-street parking on Hubbard Avenue. The downtown now has a farmer’s market, which operates in the summer on Tuesday afternoons from May to October. The building that formerly housed the Middleton Antiques Mall (1819 Parmenter Street) was rebuilt and is now home to the National Mustard Museum as well as commercial space. The historic Opera House building (1811 Parmenter Street) has three new tenants: Creative Look Photography Studio and the Neena and Chauette apparel stores. Stark Realty (formerly 1818 Parmenter Street) has left Old Middleton Centre and the retail/office lease space that it formerly occupied is now vacant. There have been other business changes in Downtown Middleton and there are several vacant spaces. In part, these vacancies have prompted calls for providing more parking in Downtown Middleton.

In 2011, the Downtown Middleton Business Association submitted a petition to the City requesting that the City build a parking ramp between the Senior Center and City Hall to provide an additional 100+ parking stalls downtown. The Plan Commission referred the petition to City staff and the City’s Tax Increment Financing consultant to develop initial ideas and comments regarding a parking ramp. It was determined that the first step in the due diligence process was to determine the need for additional parking in Downtown Middleton, before evaluating optimal development sites, facility design configurations, and the financial feasibility of building, operating and maintaining a public parking ramp.

This study provides a basis for evaluating the need for a new parking ramp in Downtown Middleton. The Scope of Services for this study is provided in the following section.

¹ Ayres Associates and SRF Consulting Group Inc. (January 2008) Middleton Downtown Circulation Study

SCOPE OF SERVICES

To identify the need to increase parking supply with a new ramp, Walker was authorized to perform the following Scope of Services.

- A. Meet with Middleton representatives to clarify study objectives, review the scope of work and finalize project schedule.
- B. Contact stakeholders to discuss the study process and obtain stakeholder input with regard to parking in Downtown Middleton.
- C. Obtain information from the City and community representatives with regard to existing and projected future land uses and development in Downtown Middleton.
- D. Confirm the inventory of on- and off-street parking spaces within the study area and tabulate and summarize on a block-by-block basis.
- E. Perform field data collection of parking occupancy within the designated study area on a typical *Wednesday and Saturday*. For each observation day, collect parking occupancy data in one-hour intervals during the following timeframe:

<u>Start Time</u>	<u>End Time</u>
6:00 AM	11:00 AM
2:00 PM	5:00 PM
7:00 PM	9:00 PM

Collect parking occupancy data in 30-minute intervals during the following timeframe:

<u>Start Time</u>	<u>End Time</u>
11:30 AM	1:30 PM
5:30 PM	6:30 PM

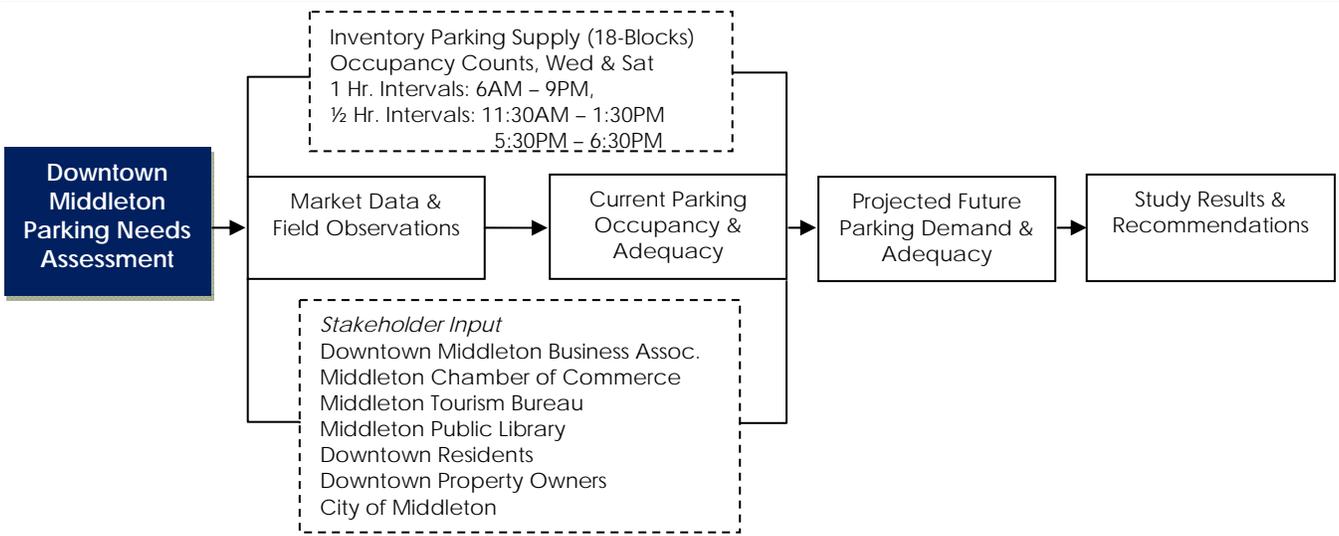
- F. Analyze existing parking demand on a block-by-block basis based upon the parking occupancy counts collected.
- G. Graphically depict the calculated parking demand to the existing parking supply to determine parking occupancy on a block-by-block basis in the study area.
- H. Develop a shared parking analysis utilizing current and projected land use (current and future land use information provided by City of Middleton) to determine future parking surplus and/or deficiency by block within the study area.
- I. Summarize the supply/demand and shared parking analysis in a report submitted to the City.

STUDY APPROACH

Walker conducted a physical inventory of all parking spaces within the study area. The inventory was tabulated by block and categorized as either on-street, off-street, public or private. A series of forty-two (42) parking utilization counts were conducted during a two-day observation period to identify local parking characteristics. The primary field observations occurred on Saturday, November 3rd, 2012 and Wednesday, November 7th, 2012, with subsequent field observations conducted during the weeks of December 17th, 2012 and January 14th, 2013. The observed parking occupancy was compared to the effective supply to determine the current parking adequacy during typical market conditions.

To calculate the projected future parking demand, Walker reviewed proposed future developments and vacancy absorption assumptions in downtown Middleton and applied parking demand ratios according to the type of land use. The projected increase in parking demand was added to the baseline parking utilization data and then compared to the current effective parking supply to determine future parking adequacy.

Exhibit 1: Study Approach



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STAKEHOLDER INPUT

Stakeholder interviews were held with a sample of individuals and business leaders in the downtown community that are directly impacted by public parking policies and decisions. Information was obtained from stakeholders through telephone calls and individual meetings. Each stakeholder was asked to provide insight with regard to the current parking conditions in downtown Middleton based on their experience. The following summary highlights common subjects and reflects key comments obtained from community members.

Exhibit 2: Stakeholder Comments

	Subject	Comment
1	Enforcement	The Library Lot is used by library visitors, restaurant patrons, and employees during the weekday. Very little attention is given to the four-hour limit and enforcement is inconsistent. While Library employees do not park in this lot, it is used by other downtown employees.
3	Enforcement	There seems to be a lack of parking enforcement in the public lots. This creates a situation where short-term parkers are competing for spaces with employees. Private business owners should direct their employees where to park during the daytime and encourage them to leave the on-street and four-hour lots for customers.
3	On-Street Parking	On-street parking is preferred over parking in a surface lot. It would be practical for the City to invest in adding more on-street parking spaces rather than build a ramp on top of existing parking supply.
4	On-Street Parking	The City should investigate opportunities to install more angled parking, similar to the on-street spaces located at the west end of Elmwood. It may cost a lot to relocate some sidewalks, but it would cost a lot more to build a parking ramp. Focus on maximizing on-street parking supply.
5	Time Limits	Two-hour on-street time limits are generally fine, if enforced. The purpose of on-street time limits is to encourage turnover and free up more parking for other patrons. If someone wants to stay longer than two hours they should park in one of the City lots.
6	Time Limits	Two-hour on-street time limits do not provide enough time for someone to attend an appointment, shop and dine. The time limit should be increased to encourage a longer stay downtown.
7	Parking Signage	Each property owner has their own parking signage with stated regulations. The inconsistency makes it difficult for infrequent visitors to know where they are allowed to park. A centralized parking identification program should be implemented by the City in cooperation with private lot owners and the Downtown Middleton Business Association.
8	Terrace Ave. Lot	The Terrace Avenue Lot is underutilized because of the location and lack of centralized regulation of parking. This lot should be used by employees.
9	Private Parking	Most private parking lots are restricted to specific user groups. Very few owners officially share parking during peak times of the day even when they have available supply.
10	Private Parking	Some employers with limited or no parking are willing to pay for access to parking supply at Old Middleton Center, Staybridge Suites, M & I Bank, or St. Bernard's Church. The challenge is that most owners of private parking prefer not to lease a portion of their supply even though spaces are available.
11	Senior Center Lot	The Senior Center Lot is used by Senior Center visitors, downtown visitors, and employees during the weekday. Employees park in this lot four hours or more. Many times visitors of the Senior Center will choose to park on-street rather than hunt for a parking space in the lot.

Topic	Comment
12 Walkability	University Avenue is too busy to walk across, even though there are multiple lights and crosswalks. The distance and road crossing limits the use of parking north of University Ave. for downtown visitors. People in Middleton do not want to walk that far.
13 Walkability	The railroad crossing from Terrace Avenue Lot to the Library Lot presents a challenge for some patrons. A possible improvement to the crosswalk may include better lighting along the walkway and in the Terrace Lot.
14 Parking Need	There is no need for a parking ramp in downtown Middleton. The demand peaks when there are large events, but quickly returns afterwards. The City should not plan to accommodate peak conditions that occur infrequently. Rather, the City or Downtown Middleton Business Association should manage the existing parking supply.
15 Parking Need	Businesses are leaving downtown Middleton because of the poor parking conditions. Those who have relocated or closed their businesses needed more employee and visitor parking. A parking ramp would attract more small businesses downtown.
16 Parking Need	The community should not be asked to subsidize parking for a select few without parking for their building(s) or employees. If a ramp is built, patrons should pay to use the ramp or business owners should pay on behalf of their customers to maintain the ramp.
17 Parking Need	There is no need for a parking ramp in downtown Middleton. The City should invest in managing the existing resources in cooperation with the private owners.
18 Parking Need	A new parking ramp would make it easier to attract small business downtown. It is difficult to lease vacant space in commercial properties especially without parking accommodations. The proposed location of the ramp may not be the best option.
19 Parking Need	Additional parking is not needed in downtown. Space is always available within a block of your destination. Run a campaign that educates people on the parking resources and encourages them to walk and experience downtown Middleton.
20 Parking Need	Parking along Hubbard Avenue and Parmenter will always be a challenge during busy times of the day, but on-street spaces are almost always available if you drive a block east or west on Elmwood or Terrace Avenue. A parking ramp downtown is not necessary, but it may be a good idea if built with a taxable development.
21 Parking Planning	Parking is required for downtown commercial real estate to succeed. By building a public parking ramp, the private developers could use the public supply to meet parking code requirements.

STUDY AREA

The study area is defined for the purpose of this analysis as the geographical area generally bound by University Avenue to the north; Terrace Avenue to the south; Bristol Street to the east; and U.S. Highway 12 (Beltline) to the west. The 18-block geographical area represents two market components, one from which the majority of existing and potential parking patrons will be drawn, and another in which the primary parking resources are located. The 18-block study area is not uniform in size or shape, nor does it extend equally in all directions. Rather, this purposeful configuration encompasses the wide variety of land uses and captures the unique parking characteristics within Downtown Middleton.

A map of the study area is presented in the following exhibit.

Exhibit 3: Study Area



Legend - Study Area / Inventory
- - - - - Study Area
① Block Numbers

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CURRENT CONDITIONS

The assessment of current conditions includes a comprehensive review of parking inventory, the effective parking supply, parking occupancy trends, and parking adequacy during peak conditions.

CURRENT PARKING INVENTORY

A total of 1,898 parking spaces are located within the defined study area. Of the total supply, approximately 60 percent is privately owned and controlled, 13 percent is located in public lots, 23 percent is located on-street, and the remaining 4 percent are ADA accessible parking spaces. For this analysis, private parking is classified as supply that is privately owned and restricted to specific user groups. Inventory by block and type are presented in the following exhibit.

Exhibit 4: Current Parking Inventory

Block Number	Public	% of Total	Private	% of Total	On-Street	% of Total	ADA	% of Total	Total
1	-	-	249	22%	31	7%	12	16%	292
2	-	-	66	6%	18	4%	4	5%	88
3	-	-	45	4%	21	5%	1	1%	67
4	-	-	122	11%	40	9%	4	5%	166
5	62	25%	-	-	-	-	3	4%	65
6	-	-	218	19%	-	-	11	15%	229
7	-	-	-	-	29	6%	-	-	29
8	-	-	38	3%	35	8%	7	9%	80
9	-	-	118	10%	26	6%	3	4%	147
10	-	-	12	1%	17	4%	-	-	29
11	57	23%	10	1%	49	11%	6	8%	122
12	-	-	-	-	34	8%	-	-	34
13	-	-	34	3%	24	5%	2	3%	60
14	-	-	16	1%	22	5%	1	1%	39
15	-	-	45	4%	30	7%	3	4%	78
16	53	22%	36	3%	29	6%	6	8%	124
17	72	30%	10	1%	32	7%	5	7%	119
18	-	-	113	10%	11	2%	6	8%	130
Total	244	100%	1,132	100%	448	100%	74	100%	1,898
% of Total	13%		60%		23%		4%		100%

Source: Walker Parking Consultants and Henneman Engineering, November 2012.

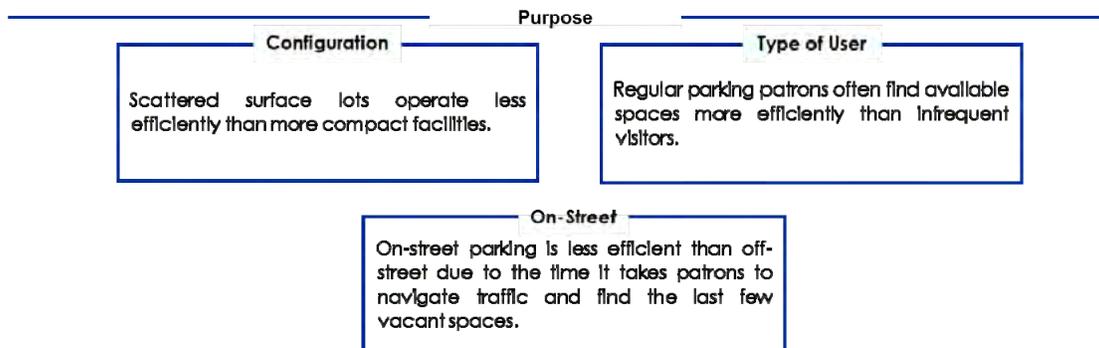
EFFECTIVE PARKING SUPPLY

When discussing the utilization of a parking system, it is important to consider the concept of an effective supply. Effective supply is the maximum number of parking spaces that can realistically be used within a given system. An effective supply cushion helps to protect against the inevitable loss of spaces resulting from temporary disturbances such as construction, misparked cars, snow removal, etc. This cushion also helps to decrease traffic congestion by minimizing the amount of time visitors must spend looking for an empty space. For on-street parking we generally recommend an effective supply equal to 85% of the total capacity. This allows a sizable cushion of spaces so that traffic does not back up on surface streets (such as the through traffic on Elmwood and Hubbard streets). Off-street parking requires less of a cushion – generally 90% to 95% of the actual supply, depending on the type of facility and the anticipated user group. Smaller cushions are needed for long-term parking, since employees tend to be familiar with the facilities and their spaces are not subject to frequent turnover. For the off-street facilities in downtown Middleton, we expect that much of the traffic is generated by a combination of frequent visitors and employees, and therefore use an effective supply of 90% of the total capacity. The parking supply may be perceived as inadequate even though there are some spaces available in the parking system. Thus, when we evaluate whether the system is currently impacted, we do not look for occupancy rates of 100% but rather occupancy rates over 85% for on-street or 90% for off-street. A weighted average of those effective supplies in the Middleton parking system is 89% of the total supply.

The study area includes a total of 1,898± spaces before any adjustments are made to account for an effective supply. After the effective supply factors are applied, the study area’s effective supply is 1,685± spaces, as shown below.

Exhibit 5: Effective Supply Factor

Effective Supply Calculations				
Parking	Actual Supply	Effective Supply Factor	Effective Supply	Operating Cushion
Public	264	.90	238	26
Private	1,186	.90	1,067	119
On-Street	448	.85	380	68
Total	1,898	.89	1,685	213



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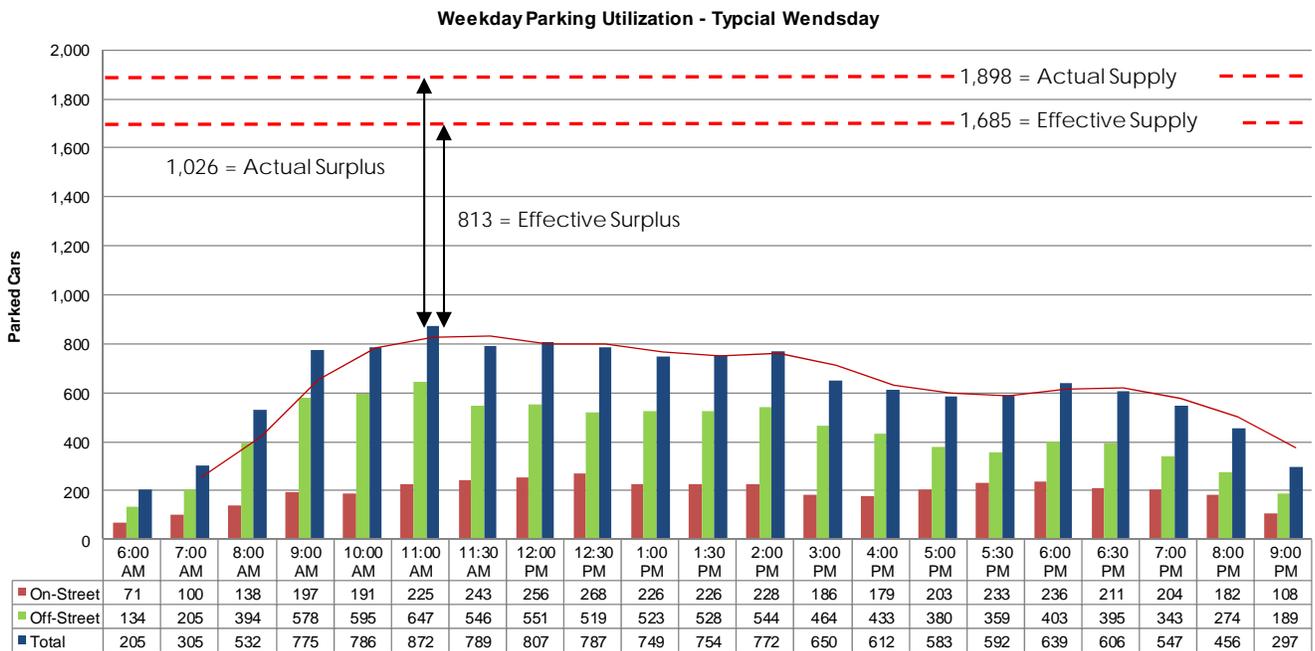
CURRENT PARKING OCCUPANCY

In order to project the future impact of parking demand generated by proposed land uses, we must first determine how much parking demand is generated by existing downtown businesses. The current occupancy data reflects performance-based parking demand and serves as a baseline for typical weekend and weekday conditions.

PEAK WEEKDAY OCCUPANCY

Peak conditions occur near the hour of 11:00 AM on a weekday with a total of 872 parked vehicles. When compared to the actual parking supply of 1,898 spaces, there is a 1,026-space parking surplus. When the peak demand is compared to the effective supply of 1,685, there is an 813-space parking surplus.

Exhibit 6: Current Weekday Parking Occupancy



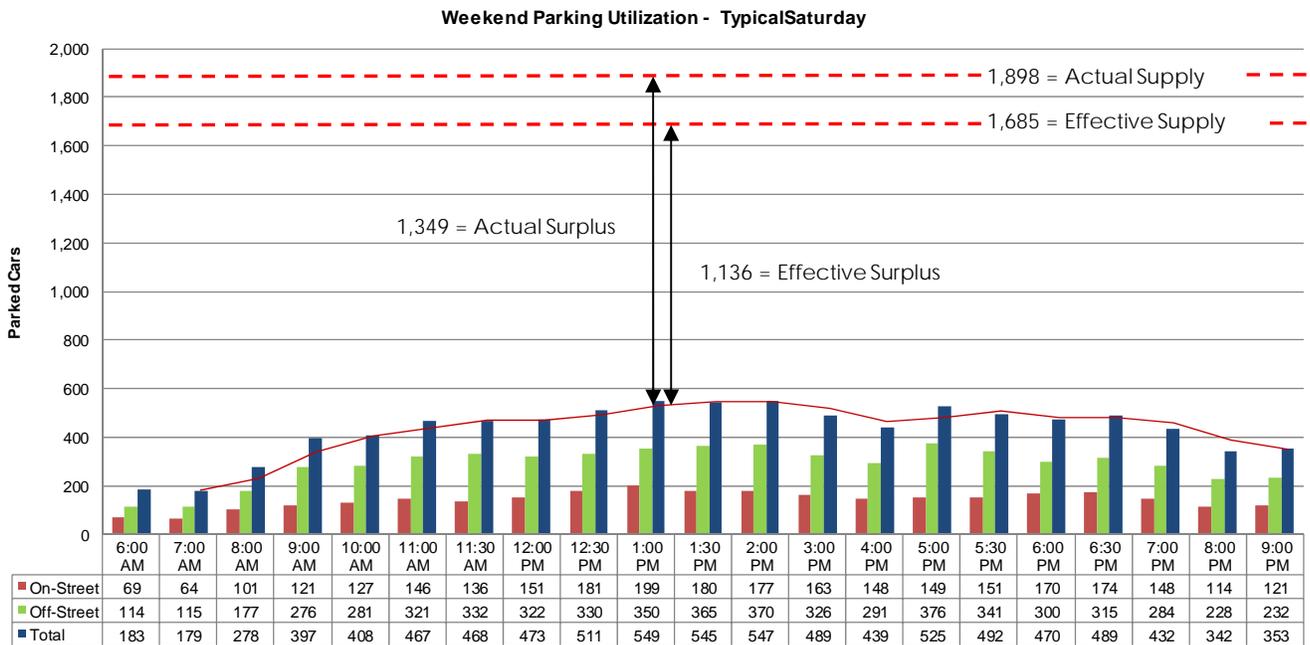
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 Sources: Walker Parking Consultants and Henneman Engineering, November 2012.

PEAK WEEKEND PARKING OCCUPANCY

The parking occupancy rates documented during on a typical Saturday are summarized and presented in the following exhibit.

In summary, peak conditions occur near the hour of 1:00 PM on a Saturday with a total of 549 parked vehicles. When compared to the actual parking supply of 1,898 spaces, there is a 1,349-space parking surplus. When the peak demand is compared to the effective supply of 1,685, there is a 1,136-space parking surplus.

Exhibit 7: Current Weekend Parking Occupancy

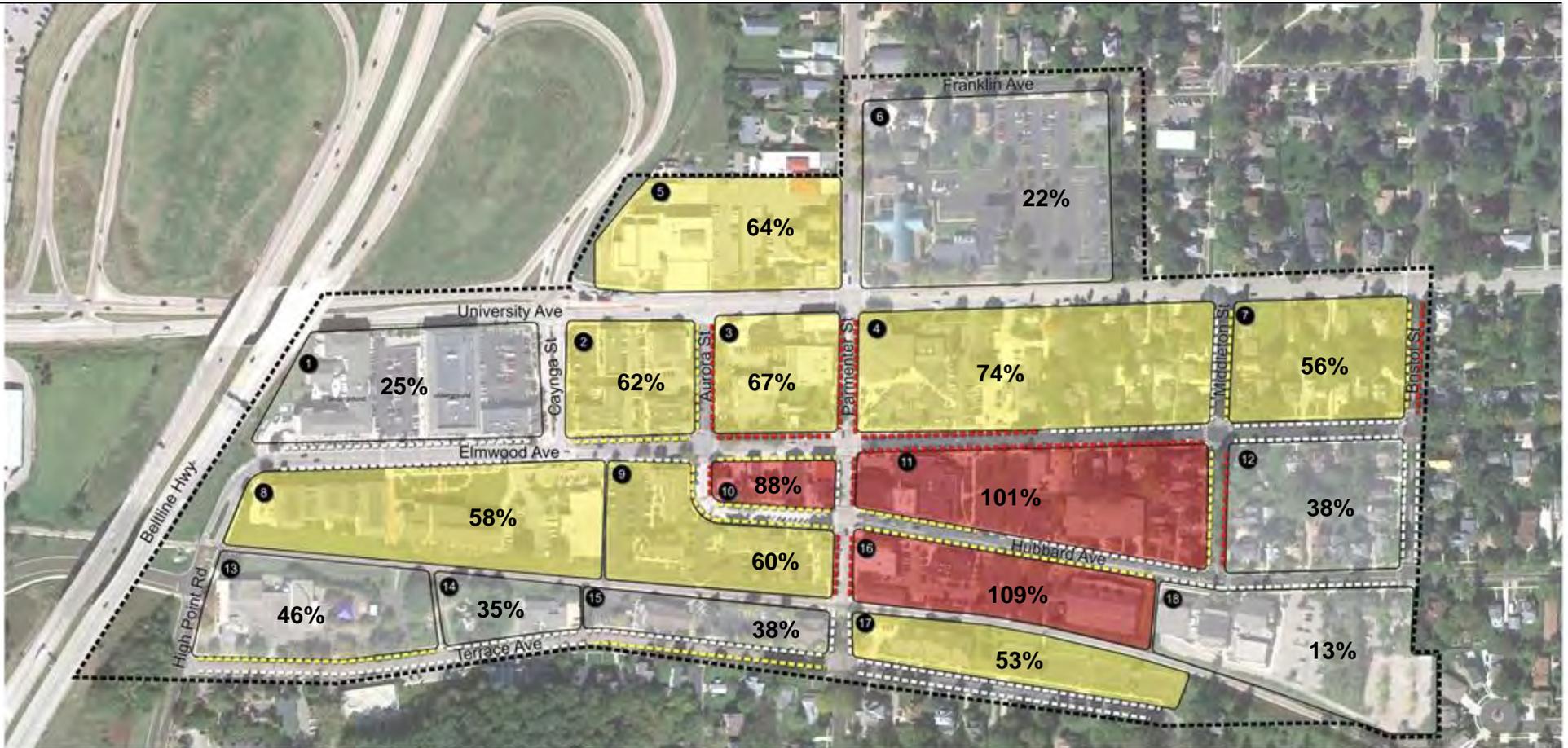


Observation Period: Saturday, November 3, 2012
 Weather Conditions: Partly Cloudy, Temperature: Mean = 38°F, Max = 45°F, Min = 31°F, No Precipitation
 Sources: Walker Parking Consultants and Henneman Engineering, November 2012.

The current weekday peak parking occupancy and adequacy is presented on a block-by-block basis in the next four exhibits.

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Exhibit 8: Current Weekday Peak Parking Occupancy by Block (%) at 11:00AM



Weekday Peak – Wednesday near 11:00 AM

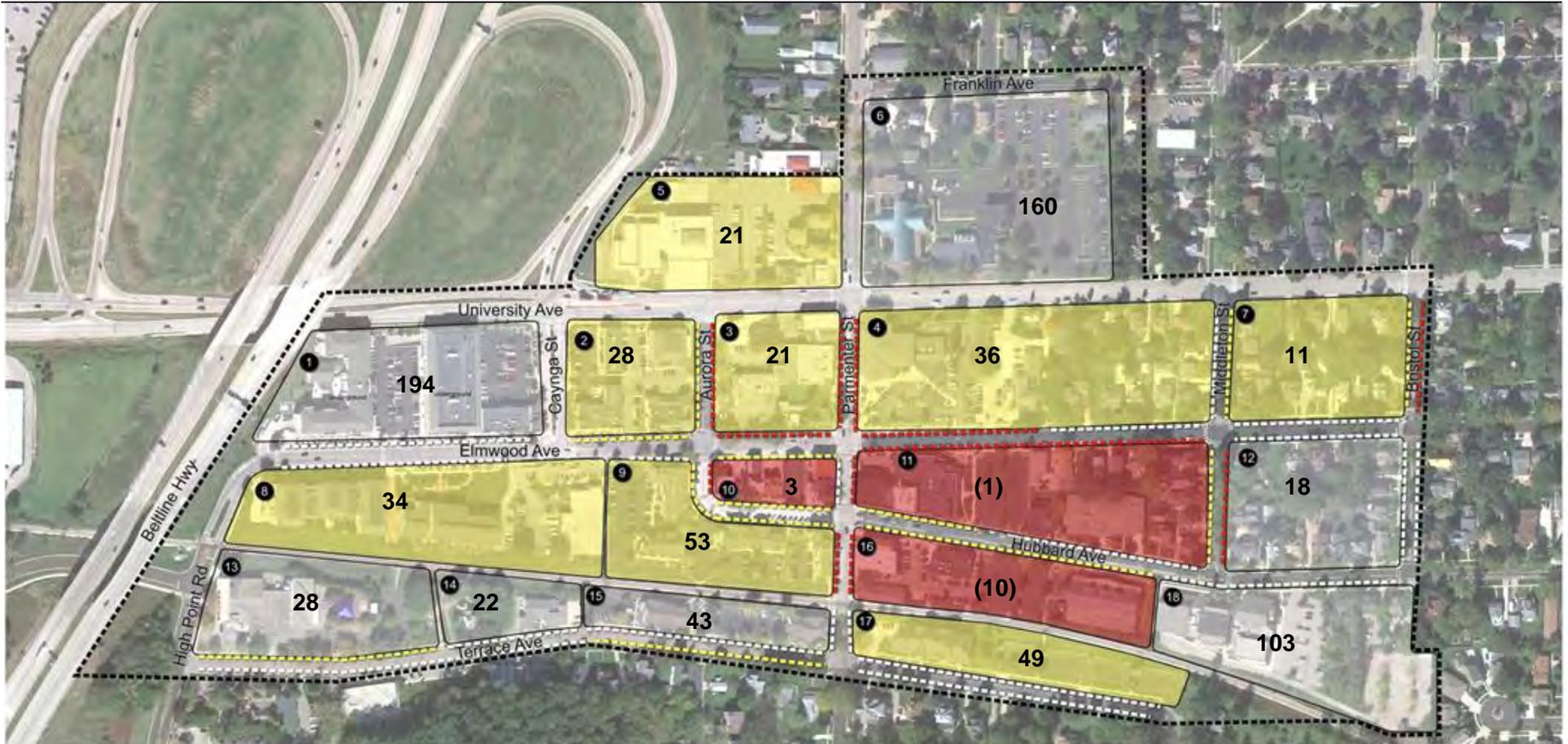
Parking Type	Peak Occupancy Rate	Parked Cars	Effective Supply	Available Supply
Public Off-Street	72%	169	238	65
Private Off-Street	45%	480	1,067	587
On-Street	59%	223	380	156
Total	52% Rounded	872	1,685	813

Legend

- Study Area
- ⊙ Block Numbers
- 80% or greater Adequacy off-street
- 50% - 79% Adequacy off-street
- 49% or less Adequacy off-street
- 80% or greater Adequacy on-street
- 50% - 79% Adequacy on-street
- 49% or less Adequacy on-street

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Exhibit 8: Current Weekday Peak Parking Availability by Block at 11:00AM



Weekday Peak – Wednesday near 11:00 AM

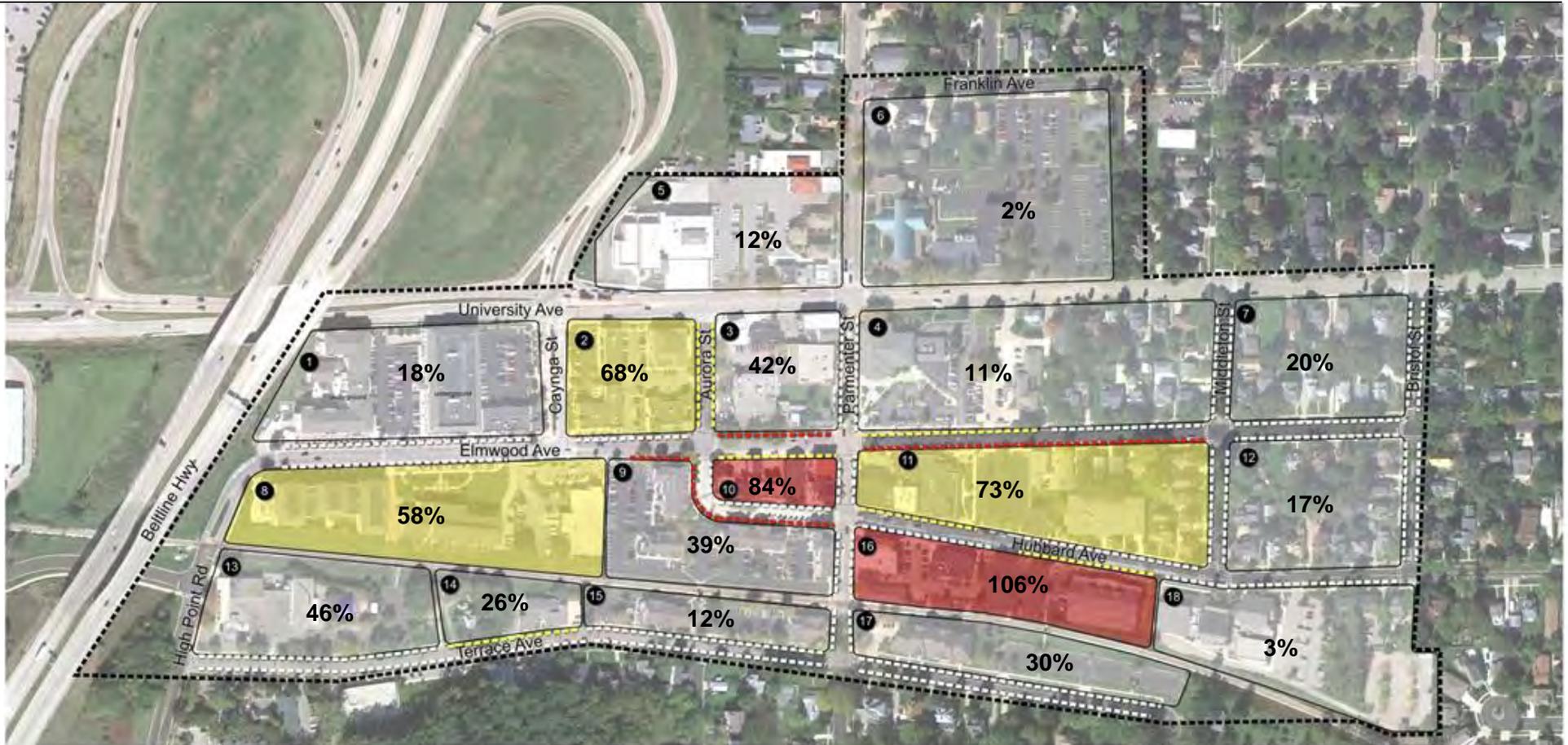
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Legend

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Exhibit 9: Current Weekend Peak Parking Occupancy by Block



Weekday Peak – Saturday near 1:00 PM

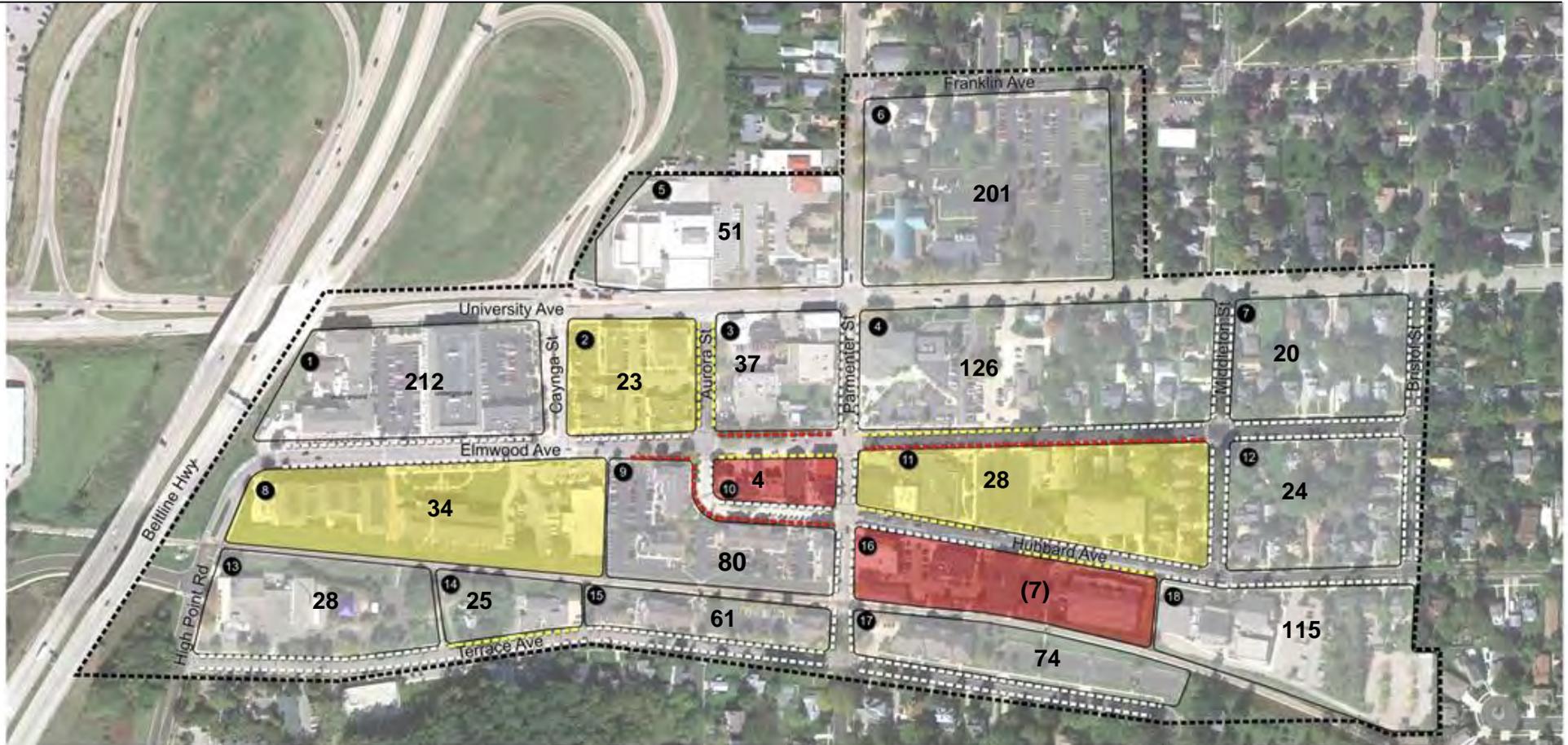
Parking Type	Peak Occupancy Rate	Parked Cars	Effective Supply	Available Supply
Public Off-Street	49%	118	238	120
Private Off-Street	22%	232	1,067	835
On-Street	52%	199	380	181
Total	33% Rounded	549	1,685	1,136

Legend - Current Adequacy Weekend

- Study Area
- Block Numbers
- 80% or greater Adequacy off-street
- 50% - 79% Adequacy off-street
- 49% or less Adequacy off-street
- 80% or greater Adequacy on-street
- 50% - 79% Adequacy on-street
- 49% or less Adequacy on-street

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Exhibit 11: Current Weekend Peak Parking Availability by Block



Weekday Peak – Saturday near 1:00 PM

Parking Type	Peak Occupancy Rate	Parked Cars	Effective Supply	Available Supply
Public Off-Street	49%	118	238	120
Private Off-Street	22%	232	1,067	835
On-Street	52%	199	380	181
Total	33% Rounded	549	1,685	1,136

Legend - Current Adequacy Weekend

- Study Area
- ⊙ Block Numbers
- 80% or greater Adequacy off-street
- 50% - 79% Adequacy off-street
- 49% or less Adequacy off-street
- 80% or greater Adequacy on-street
- 50% - 79% Adequacy on-street
- 49% or less Adequacy on-street

SUMMARY OF CURRENT PARKING CONDITIONS

The overall analysis of current parking conditions indicates that the existing downtown parking system can support some increase in the total downtown parking demand. However, because some parking facilities demonstrated higher utilization rates than the overall average, the actual availability of specific parking resources will vary depending on location, level of convenience and restrictions (time limits, tenant parking only, etc.). This results in localized parking deficits that have the ability to shape overall perceptions of parking adequacy for the entire study area. As shown in this section, the challenge with parking in Downtown Middleton relates more to gaining access to available supply, rather than an actual shortage of supply.

It has been Walker's experience that an overall performance based parking ratio of approximately 3.0 parking spaces per 1,000 square feet of commercial space represents a generally acceptable level of parking supply for mature business districts with a semi-urban character such as downtown Middleton. This accounts for sharing parking spaces. Specific conditions vary, of course, from location to location, but this provides a useful "rule of thumb" to determine the overall adequacy of the available parking supply. Our analysis indicates there are approximately 3.80 parking spaces per 1,000 square feet of commercial space located in the study area. When compared to the effective supply, there are approximately 3.09 parking spaces per 1,000 square feet of commercial space.

Some downtown community members shared a concern that parking located at Saint Luke's and Saint Bernard's may not be available for public use. For the purpose of this study, both locations are included with the understanding that employees would likely use the supply and it would not be intended for use by downtown visitors. These parking lots are positioned on the furthest north and east edges of the study area and reflect viable options for long-term employees. It is common for churches in downtown settings to share parking resources for the greater good of the community. Though these locations may currently have use restrictions during the weekday, the churches are part of the downtown community and within an acceptable walking distance for downtown employees.

For illustrative purposes, the church parking supply is removed from the baseline inventory to demonstrate the impact on overall parking adequacy. The actual supply becomes 1,542 spaces and effective supply changes to 1,372 spaces. When compared to peak weekday conditions, actual parking capacity exceeds demand by 670 spaces and when allowing for the effective supply cushion a 500-space surplus is calculated. This demonstrates the overall impact if the churches decide to segregate and protect their parking supply from public use during peak weekday conditions.

FUTURE PARKING CONDITIONS

The calculation of future parking adequacy is based on commercial development, redevelopment and vacancy absorption assumptions applied to Downtown Middleton. Walker obtained market assumptions from community stakeholders, local real estate professionals, and City staff. These assumptions represent potential changes in the study area that may occur over the next 12 to 36 months.

FUTURE MARKET ASSUMPTIONS

The projected future parking adequacy considers new demand generated by 54,669 square feet of office space, 16,388 square feet of retail space, approximately 50 new TDS employees, and approximately 60 new library visitors during peak weekday conditions. Future parking needs are based on the following development assumptions and any change to the assumptions will impact the projected future parking demand.

Exhibit 12: Future Development Assumptions

Block	Office (SF)	Retail (SF)	TDS	Library	New Parking	Description
1	31,266	3,888	-	-		Cayuga Court Office & Retail - Vacancy Absorption
2	3,403	-	-	-		7601 University Avenue Building - Vacancy Absorption
3	-	-	50 Emp.	-		Downtown Middleton TDS Office - Employee Consolidation
3	15,000	-	-	-	10	New Office Space - Redevelopment Project
3	-	5,000	-	-		New Retail Space - Redevelopment Project
8	-	2,500	-	-		Proposed Retail Development Site
9	5,000	-	-	-		Old Middleton Center - Vacancy Absorption
11	-	2,500	-	-		Commercial Building - Vacancy Absorption
16	-	-	-	60 Visitors		Public Library - New Children's Programs
16	-	2,500	-	-		National Mustard Museum Building - Vacancy Absorption
Total	54,669	16,388	50 Emp.	60 Visitors	10 Spaces	

Note: Supply gained from Terrace Avenue Reconstruction Project is excluded from the calculation of future adequacy.
 Sources: TDS Corporation, Middleton Public Library, City of Middleton Department of Planning, Walker Parking Consultants Stakeholder Interviews.

LIMITING FACTORS

Walker has relied on community stakeholders, real estate professionals, and the City to provide the estimate for the one to three-year build-out and reabsorption of vacant space. This report assumes that 100% build-out and absorption does occur as it is outlined in Exhibit 11. We also assume that new downtown businesses will be successful and generate parking demand at a level consistent with national averages. If for any reason there are changes to the square footages or land-use projections, future parking demand may also be affected. Also, the addition of new parking facilities or the destruction of existing supplies will have an impact on the future adequacy projected later in this report.

SHARED PARKING MODEL

In order to project the demand generated by future developments in downtown Middleton, we created a shared parking model. The model estimates the number of cars that will be generated by the combination of land uses in the study area over the course of a day, week, and year. The Walker model is initially based on parking ratios that have been established for many different land uses by transportation industry research. The ratios describe the number of cars that are generated per 1,000 square feet (measured in gross leasable area when available) of a given land use. A restaurant, for example, can generate many more people per square foot than an office, and thus requires a higher ratio.

Some of the typical base, unadjusted ratios include the following:

Land Use	Community Retail	General Office	Quality Restaurant
Employee	0.8 cars/1,000 SF GLA	2.85 cars/1,000 SF GLA	1.8 cars/1,000 SF GLA
Visitors	3.2 cars/1,000 SF GLA	0.15 cars/1,000 SF GLA	15.2 cars/1,000 SF GLA
Peak Period	1:00 PM	11:00 AM	6:00 PM

However, any given study area will have unique characteristics that make it different from the averages developed through national research. Walker uses its knowledge of parking patterns, research on the study area, and client input to adjust the model to reflect conditions in the project area. Specifically, we look at local use of transit (or other alternatives to driving), captive market effects, and other local factors that may affect parking demand (such as a particularly dense office complex that may be generating at a higher rate than average). Having adjusted the ratios used in the model to reflect conditions in the local area, we further adjust the model to account for the fact that not all land uses will be at their peaks at the same time. For example, restaurants peak on weekend evenings when offices are at their lowest. Therefore, it would be an error to plan the parking system such that spaces are built to accommodate both peaks at once (though this is how spaces are planned according to many city codes) – this would result in an oversupply of parking, which is wasteful. The adjustment for hourly, daily and seasonal fluctuations is the basis of a shared parking analysis.

The projected new parking demand generated during peak weekday and weekend conditions are presented on the following page.

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Exhibit 13: Projected New Peak Weekday Parking Demand

Land Use	Unadj Demand	Month Adj December	Pk Hr Adj 11:00 AM	Non Captive Daytime	Drive Ratio Daytime	December 11:00 AM
Community Retail	48	100%	100%	85%	99%	40
Employee	11	100%	100%	95%	98%	10
Office	16	100%	100%	98%	98%	15
Employee	184	100%	100%	98%	98%	177
TDS Employee Consolidation	5	85%	100%	98%	98%	4
Employee	50	100%	100%	98%	100%	49
Library - New Daytime Programs	15	85%	100%	98%	95%	12
Employee	3	85%	100%	98%	98%	2
Subtotal Customer/Guest Spaces	64					55
Subtotal Employee/Shared Resident Spaces	195					187
Subtotal TDS Employee Consolidation	55					53
Subtotal Library - New Daytime Programs	18					14
Total Parking Spaces	332					309
					% reduction	7%

Exhibit 14: Projected New Peak Weekend Parking Demand

Land Use	Unadj Demand	Month Adj December	Pk Hr Adj 1:00 PM	Non Captive Daytime	Drive Ratio Daytime	December 1:00 PM
Community Retail	52	100%	95%	85%	95%	40
Employee	13	100%	100%	95%	98%	12
Office	2	100%	80%	98%	98%	2
Employee	18	100%	80%	98%	98%	14
TDS Employee Consolidation	0	85%	100%	98%	98%	0
Employee	0	100%	100%	98%	100%	0
Library - New Daytime Programs	30	85%	100%	98%	95%	24
Employee	3	85%	100%	98%	98%	2
Subtotal Customer/Guest Spaces	54					42
Subtotal Employee/Shared Resident Spaces	31					26
Subtotal TDS Employee Consolidation	0					0
Subtotal Library - New Daytime Programs	33					26
Total Parking Spaces	118					94
					% reduction	20%

Source: Walker Parking Consultants, March 12, 2013.

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NET IMPACT OF FUTURE MARKET ASSUMPTIONS

The future parking adequacy is measured according to the impact of projected new demand on the total effective surplus during peak conditions. The impacts are shown in the following exhibit.

Exhibit 15: Impact of Projected Development on Total Effective Surplus

Weekday	On-Street	Off-Street		Total
		Public	Private	
Actual Supply	448	264	1,186	1,898
Effective Supply	380	238	1,067	1,685
Current Peak Demand (Wednesday 11:00 AM)	-223	-169	-480	-872
<i>Current Effective Surplus</i>	157	69	587	813
Future Supply Added			10	10
Future Demand Added (Peak Weekday 11:00 AM)				-309
Total Peak Weekday Adequacy				514

Weekend	On-Street	Off-Street		Total
		Public	Private	
Actual Supply	448	264	1,186	1,898
Effective Supply	380	238	1,067	1,685
Current Peak Demand (Saturday 1:00 PM)	-199	-118	-232	-549
<i>Current Effective Surplus</i>	181	120	835	1,136
Future Supply Added			10	10
Future Demand Added (Peak Weekday 1:00 PM)				-94
Total Peak Weekend Adequacy				1,052

Source: Walker Parking Consultants, March 12, 2013

SUMMARY OF FUTURE PARKING CONDITIONS

Our parking analysis showed an effective surplus of 587 spaces vacant in the private supply at the weekday peak hour. Our future projections showed a need for an additional 309 spaces if build-out and vacancy absorption occurs as projected. The existing surplus in the private supply is greater than the need, and could in theory accommodate all of the projected downtown growth in the next one to three years.

We recommend that the City undertake an in-depth analysis of the possibilities for making better use of the private parking supply by opening up as much of it as possible, to the public. We think this option should be investigated regardless of new growth, because it will make the existing parking system work more efficiently.

PARKING PLANNING CONSIDERATIONS

While parking is clearly one important part of downtown development, it should not detract from intrinsic qualities such as a pedestrian-friendly environment and a unique sense of place that make downtown Middleton the distinctive destination that people seek. This unique environment and combination of attractions bring people downtown. With that in mind, parking should be viewed as a supportive tool to help make downtown attractions easier to access. Based on the analysis of current and future parking adequacy, there is a surplus of parking in downtown during peak weekday conditions. This section of the report presents opportunities to make better use of existing parking resources and capitalize on the strengths already in place. In addition, this section provides information on parking management, an overview of parking economics, and basic parking geometrics for the City to consider.

ACCEPTABLE WALKING DISTANCES

Though a total parking surplus exists in downtown Middleton during peak conditions, the type of parking and perceived walking distances are a concern to some downtown community members. These concerns are based on expectations that parking options should be adjacent to or on the same block as a destination. It is important to note that standards for visitors and patrons should differ from downtown employees. On-street parking is intended for short-term patrons visiting downtown businesses, while parking areas such as the Terrace Avenue Lot and University Avenue Lot are intended for long-term employee parking. This allocation of supply aligns with reasonable expectations for walking distances. Downtown Middleton offers safe and walkable streets that connect parking locations and destinations and already support a park-once environment.



When planning for parking solutions that include shared parking or the location of a future parking facility, it is important to consider the walking distance from parking facilities and the intended user's final destination within the study area. Walker has developed the Level of Service (LOS) approach to parking design. The Level of Service classification system is similar to the grading system used in traffic engineering: LOS A is best or ideal, LOS B is good, C is average, and D is below average but minimally acceptable.

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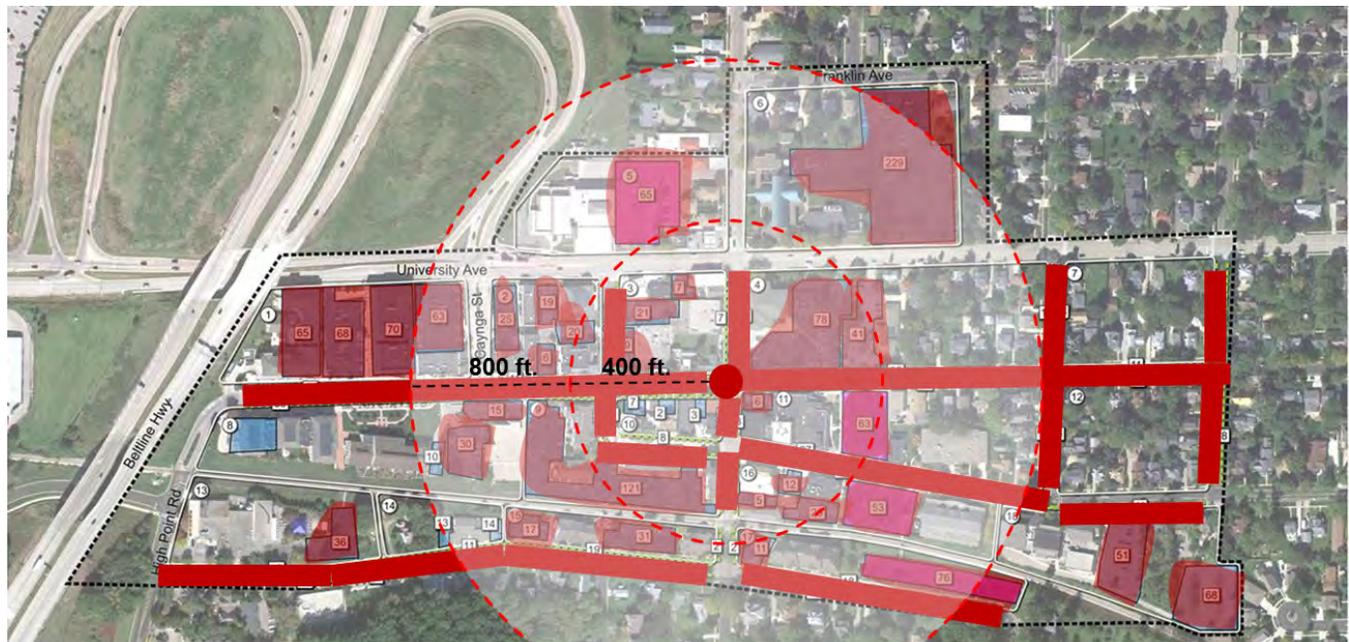
The following table includes the level of service walking distances for various parking environments. Walker applies the level of service for outdoor/uncovered parking when considering shared parking opportunities in downtown Middleton.

Exhibit 16: LOS Conditions: Walking Distances

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

Source: Parking, May/June 1994, Butcher, T. and Smith, M.

Exhibit 17: Downtown Middleton Parking Level of Service A and B

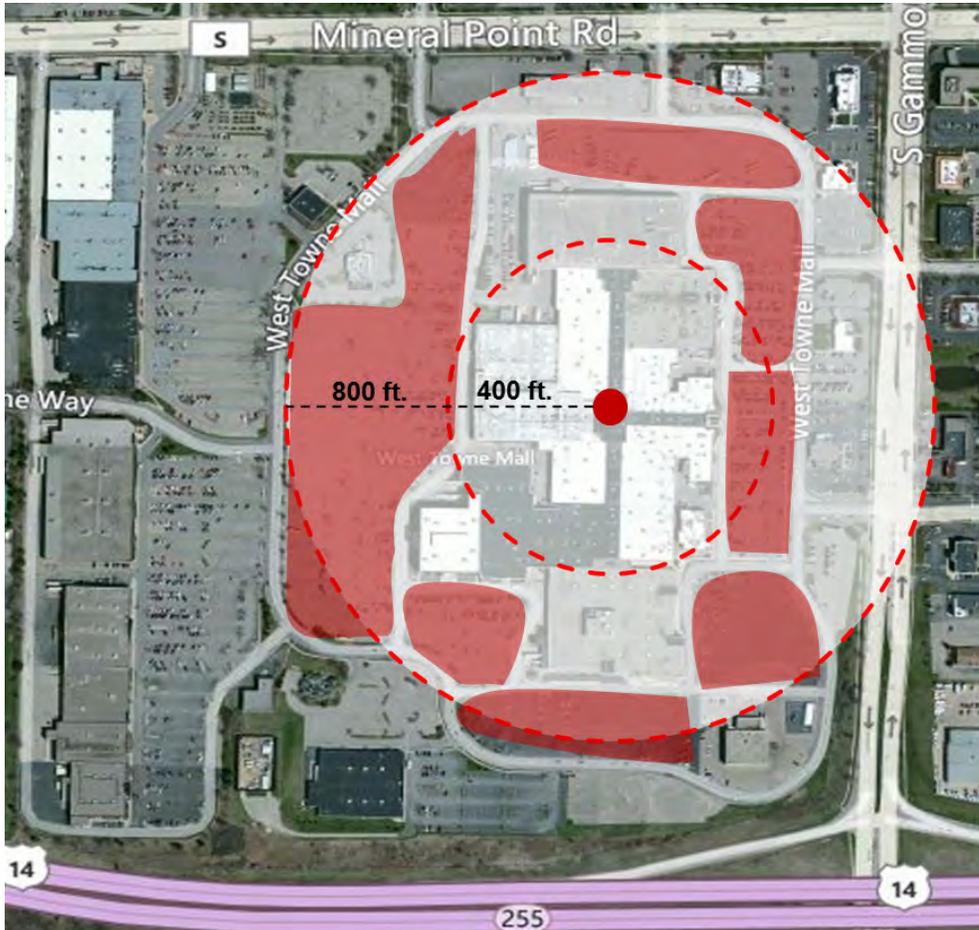


- Legend**
- Study Area
 - ⊙ Block Numbers
 - Off-street Private Parking
 - Off-street Public Parking
 - On-street Parking
 - Parking Inventory

Majority of Parking Supply is Located within a 3 to 5 Minute Walk

In comparison, the parking used on average or typical days at shopping centers is designed to provide LOS A and B, while the parking that only gets used for a few hours on the busiest days of the year might be designed for LOS C. Additionally, employee parking at a shopping mall is most often provided at LOS C, due to the willingness of employees to walk farther than customers and the desire to provide customers with the most proximate parking options.

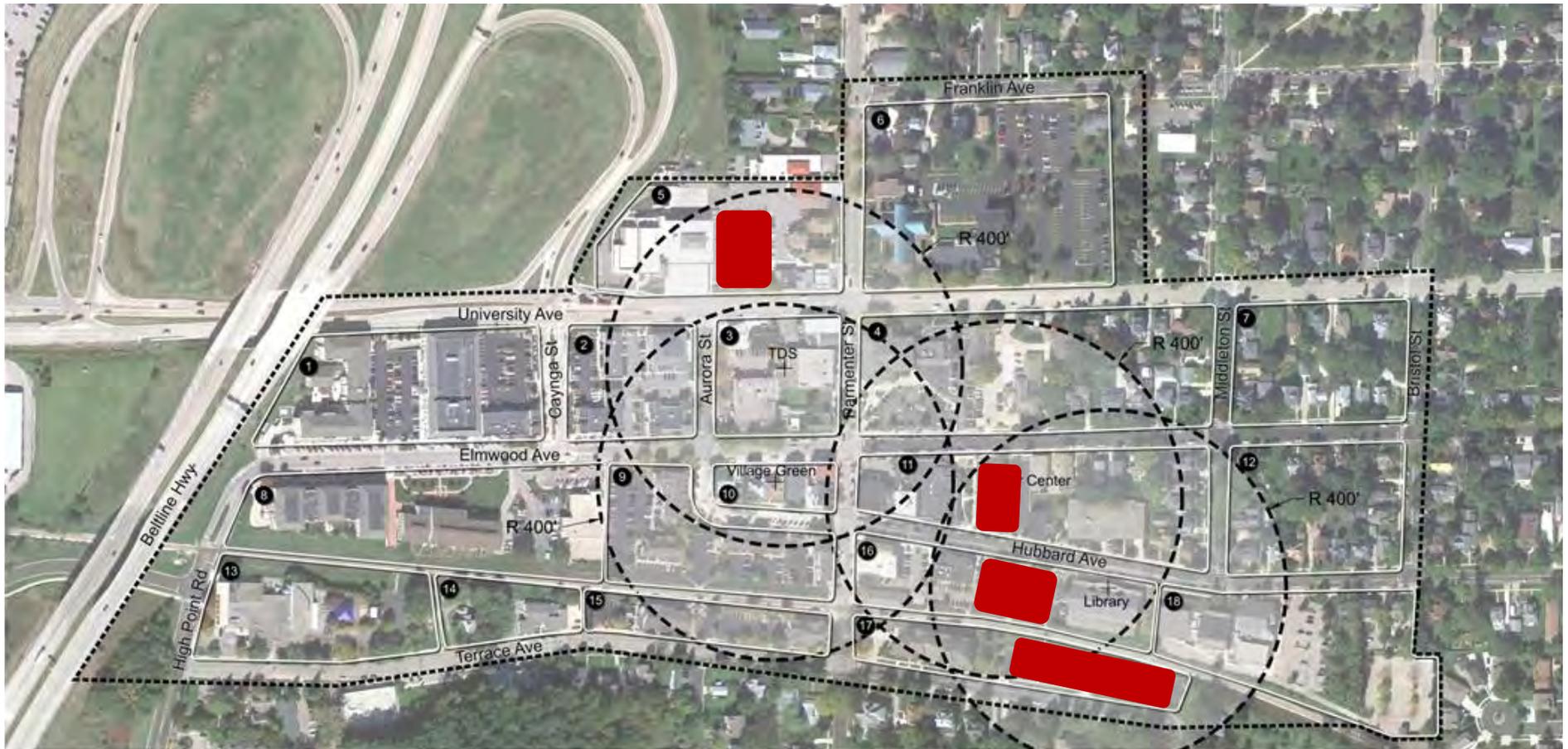
Exhibit 18: Shopping Mall Parking Level of Service



The following figures provide reference points and walking distances to available parking supply in Downtown Middleton. Even though research shows a parking level of service A is within a 400 ft. radius, there are anomalies in every community that require more proximate parking options. For example, the Middleton Senior Center requires proximate parking that is easy to navigate for drivers and pedestrians. In addition, the Middleton Public Library requires proximate parking that accommodates families with young children and mitigates street crossings. These considerations are represented in our analysis of viable parking options.

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Exhibit 19: Level of Service A Walker Distances from Key Areas of Demand



- Legend
- Study Area
 - Block Numbers
 - 400' Walking Radius
 - City Lots

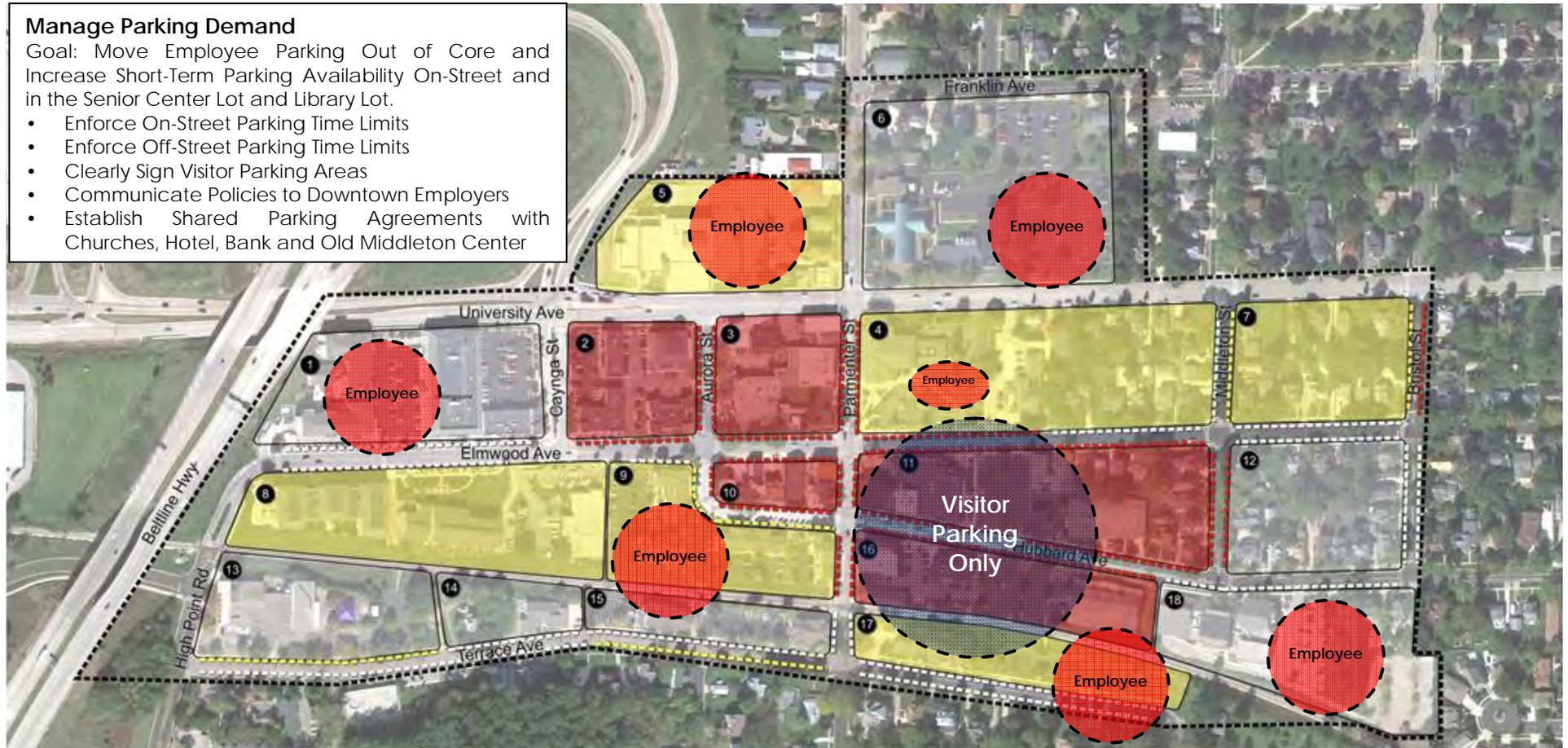
MARCH 12, 2013

Exhibit 20: Shared Parking Opportunities – Weekday Peak at 11:00 AM

Manage Parking Demand

Goal: Move Employee Parking Out of Core and Increase Short-Term Parking Availability On-Street and in the Senior Center Lot and Library Lot.

- Enforce On-Street Parking Time Limits
- Enforce Off-Street Parking Time Limits
- Clearly Sign Visitor Parking Areas
- Communicate Policies to Downtown Employers
- Establish Shared Parking Agreements with Churches, Hotel, Bank and Old Middleton Center



Legend - Future Adequacy Weekday

- Study Area
- Block Numbers
- 80% or greater Adequacy off-street
- 50% - 79% Adequacy off-street
- 49% or less Adequacy off-street
- 80% or greater Adequacy on-street
- 50% - 79% Adequacy on-street
- 49% or less Adequacy on-street

PARKING MANAGEMENT CONSIDERATIONS

There are areas of downtown Middleton that temporarily experience high levels of demand that strain local parking supply, while nearby areas experience a parking surplus. Even though available supply may exist within one or two blocks, these localized challenges form perceptions that parking is inadequate. The community can either address the parking challenges by building more supply or better managing the existing resources. Many suburban communities are rethinking how best to address the challenges of downtown parking and pursuing management solutions before committing to a long-term capital investment. This course of action may improve perceptions and increase access to available supply.

There are cases where parking management alone is not the solution. While an organized parking system provides the framework for future growth, additional supply in the form of a parking ramp may be required to support new development. It is rare that a community would build a fully subsidized, stand-alone parking ramp without clear plans for new commercial development. The preferred approach is to develop new parking in coordination with a high-density mixed-use project. This approach maximizes development space by integrating parking into the development program.

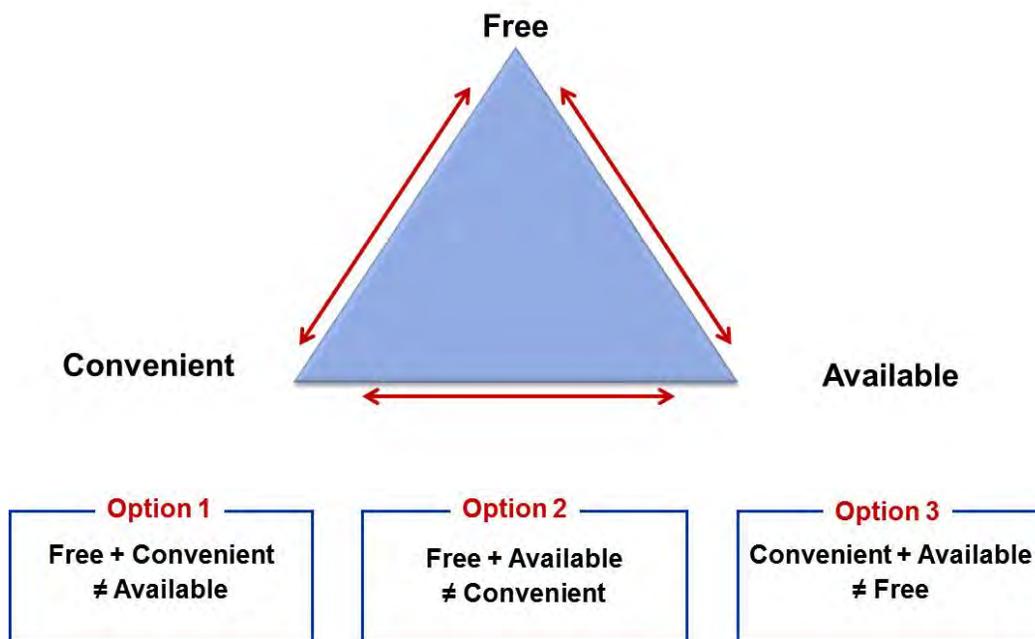
The following exhibit provides an overview of how communities are starting to think about parking planning.

Exhibit 21: Community Approach to Parking Planning

Old Parking Paradigm	New Parking Paradigm
<ul style="list-style-type: none"> • “Parking Problem” means inadequate parking supply. 	<ul style="list-style-type: none"> ✓ There are many types of parking problems (management, pricing, enforcement, etc.)
<ul style="list-style-type: none"> • Abundant parking supply is always desirable. 	<ul style="list-style-type: none"> ✓ Too much supply is as harmful as too little. Public resources should be maximized and sized appropriately.
<ul style="list-style-type: none"> • Parking should be provided free, funded indirectly, through rents and taxes. 	<ul style="list-style-type: none"> ✓ Users should pay directly for parking facilities. A coordinated pricing system should value price parking with on-street the highest.
<ul style="list-style-type: none"> • Innovation faces a high burden of proof and should only be applied if proven and widely accepted. 	<ul style="list-style-type: none"> ✓ Innovations should be encouraged. Even unsuccessful experiments often provide useful information.
<ul style="list-style-type: none"> • Parking management is a last resort, to be applied only if increasing supply is infeasible. 	<ul style="list-style-type: none"> ✓ Parking management programs should be applied to prevent parking problems.

There is a resistance in some downtown communities to charge for parking out of fear that the added cost will turn customers away. Our research has identified that customers are more concerned with availability than having to pay a nominal fee to park their car. A fee-based parking program serves as a management tool that aims to increase availability on-street, while offering lower-cost alternatives for long-term patrons. Parking challenges often arise from a community's desire to offer free, convenient and available parking at all times. The reality is that only two of the three objectives can be achieved simultaneously. The figure below illustrates three possible options.

Exhibit 22: Parking Triangle



Source: Walker Parking Consultants

OVERVIEW OF PARKING ECONOMICS

This section provides a general overview of basic parking economics that an owner must consider when planning for a new parking ramp. A brief discussion is provided on capital costs, operating expenses, breakeven pricing, structural repair budget, and minimum parking dimensions.

CAPITAL COSTS

Walker understands that future parking improvements in downtown Middleton may be developed as a stand-alone parking ramp or incorporated with the design of a future mixed-use building. A parking facility that is built into a project as either the upper or lower floors of that development, compared to a stand-alone parking facility, requires that the garage use short-span construction. Short-span construction uses an increased number of columns to support the weight of the structural elements above it. In short-span construction, the column grid is roughly 30 feet on center. The efficiencies of short-span construction are less than long-span construction because of the column projections that interfere with the parking layout. A typical short-span construction garage has an efficiency in the range of 400-450 square feet per space, depending upon the geometrics of the footprint. If the ramp is a stand-alone structure, the columns can be located at the front of the parking stalls so that there are no column projections; this is long-span construction. The efficiency of the garage can be increased to an approximate range of 315 to 350 square feet per space, depending upon the geometrics of the footprint. The increase in efficiency is due to the ability to increase the number of parking spaces inside the same footprint.

A general guideline for determining the conceptual estimate of probable cost for a parking ramp is to apply a cost per space figure to the target capacity. The cost of parking ramps vary greatly based on location, architectural features, sustainability features, and whether the facility is above or below-grade. A reasonable range for an above-grade, 200-300 space parking facility is \$15,000 to \$18,000 per space, assuming long-span construction. The cost per space can increase significantly when built below ground.

OPERATING COSTS

Expenses can vary dramatically since these depend on a number of independent variables. Traditional expenses can include costs associated with labor, utilities, daily maintenance, supplies, management and accounting, and insurance. Key factors in determining operating costs include the proposed hours of operations, type of parking access and revenue controls, and the application of active or passive security measures. The operating expenses for a parking facility are typically presented on a cost per space basis. Walker's 2012 research indicates actual operating expenses that range from \$150 to over \$1,000 per space annually. The operating costs are lower at facilities that do not maintain revenue and access controls, and have limited hours of operation. Conversely, operating costs are higher at facilities that are staffed; monitor access to the property with revenue and access controls; and operate 24 hours, 7 days a week. All facilities require some degree of daily janitorial service that includes trash removal, sweeping, and minor repairs and maintenance such as lighting replacement. These responsibilities are often delegated to a city's public works department, if a parking department does not exist.

BREAKEVEN PRICING

The City of Middleton does not presently charge patrons to park on-street or in any of the public surface lots. However, the following table provides a contextual reference of the breakeven price needed for a freestanding parking ramp to breakeven. If we assume a \$15,000 to \$18,000 range for cost per space, and annual operating expense of \$150 to \$200 per space, the breakeven monthly income per space would range from \$117 to \$142. This table demonstrates why most municipal parking ramps are financed and operated as part of a larger parking system. The insolvent parking ramps are often subsidized by more profitable on-street parking within a system. This allows for a municipality to charge fees that are below breakeven if lower market rates dictate.

Exhibit 23: Breakeven Considerations – Monthly Income Required to Breakeven

Cost per Space	Annual Operating Expense Per Space									
	\$25	\$50	\$75	\$100	\$125	\$150	\$175	\$200	\$225	\$250
\$ 1,000	\$9	11	13	15	17	19	22	24	26	28
\$ 3,000	23	25	27	29	31	33	36	38	40	42
\$ 5,000	37	39	41	43	45	47	49	52	54	56
\$ 8,000	58	60	62	64	66	68	70	72	75	77
\$ 9,000	65	67	69	71	73	75	77	79	82	84
\$ 10,000	72	74	76	78	80	82	84	86	88	91
\$ 11,000	79	81	83	85	87	89	91	93	95	98
\$ 12,000	86	88	90	92	94	96	98	100	102	105
\$ 13,000	93	95	97	99	101	103	105	107	109	111
\$ 14,000	100	102	104	106	108	110	112	114	116	118
\$ 15,000	107	109	111	113	115	117	119	121	123	125
\$ 16,000	114	116	118	120	122	124	126	128	130	132
\$ 17,000	121	123	125	127	129	131	133	135	137	139
\$ 18,000	128	130	132	134	136	138	140	142	144	146
\$ 19,000	135	137	139	141	143	145	147	149	151	153
\$ 19,500	138	140	142	144	146	148	151	153	155	157
\$ 20,000	142	144	146	148	150	152	154	156	158	160
\$ 21,000	149	151	153	155	157	159	161	163	165	167

Assume 100% Financed, 20-Year Term, 5.5 Percent
Source: Walker Parking Consultants

STRUCTURAL REPAIR BUDGET

In addition to operating expenses, Walker highly recommends that funds be set-aside on a regular basis to cover structural maintenance costs at a minimum of \$75 per structured space annually, to be placed in a sinking fund. Once a sinking fund is established, contributions to this fund accumulate over time and are available to cover structural maintenance and structural repairs. Even the best designed and constructed parking facility requires structural maintenance. For example, expansion joints need to be replaced and concrete invariably deteriorates over time and needs to be repaired to ensure safety and to prevent further deterioration. The structural maintenance cost typically represents the largest portion of the total maintenance budget. Property owners tend to grossly underestimate the structural maintenance cost and do not budget adequately for timely corrective actions that must be performed to cost effectively extend the service life of the structure. The cost of structural maintenance is relatively small considering the potential waste of the improvements associated with the failure to perform proper maintenance on a timely basis.

The periodic structural maintenance includes items such as patching concrete spalls and delaminations in floor slabs, beams, columns, walls, etc. In many instance there are maintenance costs associated with the topping membranes, the routing and sealing of joints and cracks, and the expansion/construction joint repairs. The cost of these repairs can vary significantly from one structure to another. The factors that will impact the maintenance cost include, but are not limited to the value the owner places on the maintenance of the facility, the local climate, and the age of the structure.

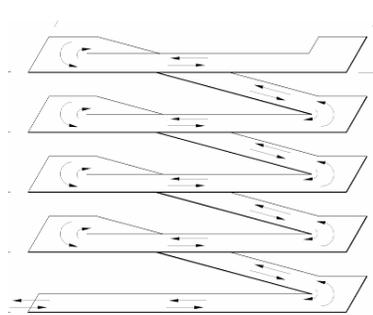
A review by a restoration specialist is usually necessary to identify the preventive maintenance needs of a facility. In addition to the annual or other periodic inspections, material testing and examinations may also be necessary to determine and recommend maintenance measures. One example of this is the chloride monitoring testing that is necessary to monitor the effectiveness of sealer and coatings. The chloride testing also helps to determine the frequency and extent of sealer reapplications. The results of the periodic inspections may also indicate the need for other material examinations and laboratory testing.

MINIMUM PARKING STRUCTURE DIMENSIONS

There are several variables and options to consider when selecting the type of structure, including the desired traffic flow (one way or two way), the type of users, the Level of Service (LOS), and height restrictions. The following table provides the minimum dimensions for two types of structures, as well as a variation on the level of service. Characteristics of a single-threaded helix include two-bays, two-way traffic flow, and 90-degree parking, with the motorist ascending one floor for every 360-degree revolution. By contrast, a double-threaded helix features angled parking and one-way traffic flow, providing a continuous travel path up and then down through the structure. In a double-threaded helix, the motorist climbs two levels for every 360-degree revolution, thus requiring a longer site than a single-threaded helix. These are examples only and do not represent a specific site or design. The dimensions do not include required setbacks or green space; therefore, each site would likely need to be five to ten feet wider to provide for these set-backs.

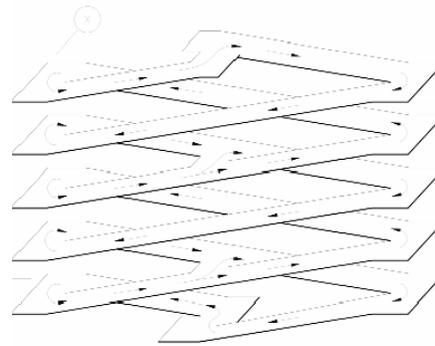
Exhibit 24: Minimum Parking Structure Dimensions

Garage Type	Traffic	Space	LOS D Dimensions	LOS A Dimensions
Single Threaded Helix	Two Way	90°	120' x 135'	120' x 187'
Double Helix	One Way	75°	112' x 188'	112' x 282'



ISOMETRIC

SINGLE THREADED HELIX



ISOMETRIC

DOUBLE THREADED HELIX

Parking structures could be built on smaller footprints. However, implied in this discussion is the desirability to achieve a relatively efficient parking structure design, as measured by square foot of floor area per space.

