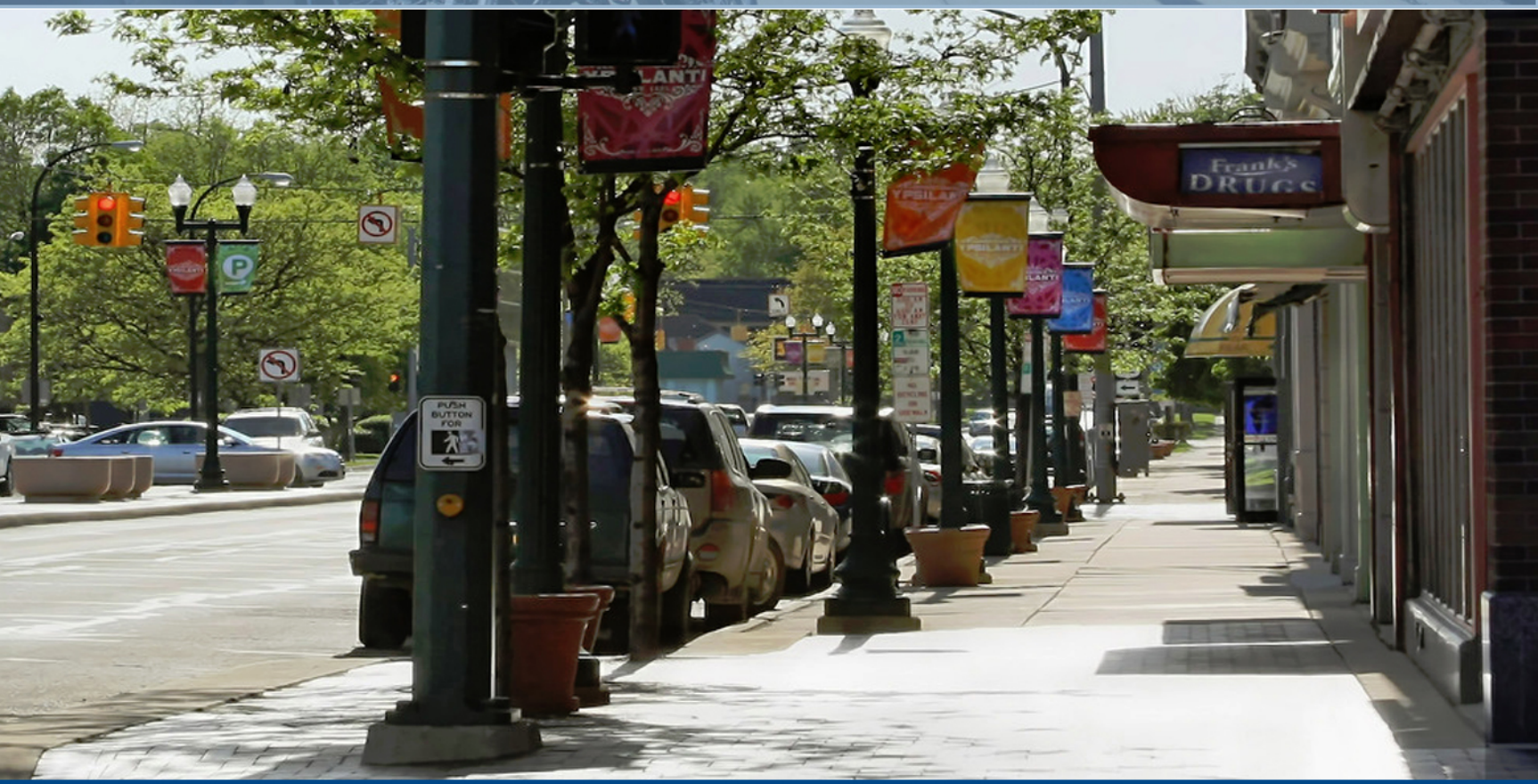
Ypsilanti Central Business District Parking Study and Strategy

Final Report



April 12, 2019

michigan municipal league

City of Ypsilanti
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MEDC
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April 12, 2019

Ms. Bonnie Wessler, AICP
City Planner
Community Development Division, City of Ypsilanti
1 S. Huron Street
Ypsilanti, MI. 48197

Dear Bonnie:

On behalf of the Rich & Associates/Giffels Webster team we are pleased to submit this Final Report for the Ypsilanti Central Business Parking Study and Strategy. This report contains the detailed assessment of parking needs within each of the three Downtown Development Authority Districts and includes a comprehensive strategy for helping the City and DDA operate parking for the benefit of all concerned.

Beginning with the quantified and qualified parking needs in each district, the report provides a number of strategies designed to address identified deficiencies within the existing parking system. In our opinion these recommendations will lead to both a more equitable sharing of costs and provide a means for improving and maintaining the parking system going forward. The strategies are presented in a format that will allow City Administration to see the role of each of these in the overall context and to re-prioritize as budgets and community goals allow. The changes we have suggested range from management and operational changes to improvements in the user experience, maintenance, ADA parking and enforcement. Implementation of these recommendations we believe can have a positive impact on the overall parking system so that it can support the positive growth being experienced in the CBD of Ypsilanti.

We would very much like to thank you, Christopher Jacobs, Joe Meyers and other members of the City of Ypsilanti Planning and Community Development Department for your help and insight in completing this analysis. We would also like to thank Richard Murphy of the Michigan Municipal League for his help in bringing this project to fruition. It has been our pleasure to work with each of you and the community and we look forward to assisting in whatever way possible as the City moves forward with its parking system.

Sincerely,
Rich & Associates, Inc.

David W. Burr
Project Manager

ARCHITECTS • ENGINEERS • PLANNERS b. 248.353.5080 f. 248.353.3830 richassoc.com
26877 Northwestern Hwy. | Suite 208 | Southfield, MI 48033

Appendix

Executive Summary

EXECUTIVE SUMMARY

INTRODUCTION

The Michigan Municipal League and the Michigan Economic Development Corporation contracted with the team of Rich & Associates/Giffels Webster on behalf of the City of Ypsilanti to prepare a Downtown Parking Study. This parking study serves to examine the downtown existing parking system from both a qualitative and quantitative standpoint. The study will also analyze the parking needs in the context of facilitating modal shifts from motorized to non-motorized transportation options both as an initial means of accessing downtown Ypsilanti as well as encouraging a park-once mentality and method of operation to access shops, services and businesses within the various DDA districts.

The City of Ypsilanti has been certified as Redevelopment Ready Community by the MEDC and has received support for this work through the RRC pre-development assistance program. City staff identified a comprehensive strategy for current and future parking needs as a critical first step for the re-occupancy or redevelopment of vacant downtown space.

As such, the purpose of this parking study is to assess the current and future parking needs and conditions of downtown Ypsilanti within a defined study area. Provided is a long-term, sustainable parking strategy. The results of this study include a supply and demand assessment; recommendations to develop, deploy, coordinate or support alternate modes of transportation combined with zoning strategies; and a financing and implementation strategy. The recommendations are intended to facilitate access to downtown for all users of the parking system including visitors, students, employees and downtown residents.

STUDY AREA

The study area identified by the City of Ypsilanti has consisted of three districts with distinct boundaries. Within each of these three districts (Downtown DDA District, West Cross DDA District and Depot Town DDA District) the team evaluated the unique parking supply and demand activity, the conditions of the publicly managed parking supply and how the management of the parking system affects the utilization of parking within each district. Within the defined study area there are a total of 65 blocks with the focus on the three DDA districts noted. Blocks contained within the overall 65 block study area but outside one of the three DDA districts analyzed, have an indirect effect on the parking system. That is because these “out-of-district” blocks generally consist of residential neighborhoods that could be negatively impacted by parking regulations in adjoining districts as displaced parking patrons or students seek other parking opportunities.

PARKING STUDY

FOR

YPSILANTI, MICHIGAN

RICH & ASSOCIATES
PARKING CONSULTANTS
26877 Northwestern Hwy. Suite 209
Southfield, Michigan 48033
Southfield, MI 248.353.5080
Lutz, FL 813.949.9860
ARCHITECTS · ENGINEERS · PLANNERS

LEGEND:

(#) BLOCK NUMBER

STUDY AREA

West Cross DDA District

Depot Town DDA District

Downtown DDA District

BLOCK FACE KEY PLAN:

A
D (#) B
C

Sheet Title:

STUDY AREA

File No	1918
Scale	NTS
Date	12-2018
Checked By	

MAP Number:

MAP 1

METHODOLOGY

In order to accomplish the goals of the overall parking study for the City of Ypsilanti the team of Rich & Associates/Giffels Webster completed a series of tasks designed to collect the unique information appropriate to the parking, traffic and transportation needs for the defined study area. Within each district, the team performed:

- A detailed block-by-block inventory of the parking supply and land-use **(Map 2 on page 7).**
- Thursday and Saturday parking utilization counts.
- Parking demand assessment.
- Public outreach via an open house and focus groups.

These tasks were performed so that the team could assess the quantitative and qualitative values regarding the parking need and capability of the parking supply to meet the unique needs in each district. This parking demand versus parking supply assessment then serves as the initial basis for the formulation of the comprehensive parking plan. This information can help in the determination of whether or if modal shifts can enhance the existing parking supply. Recommendations are then developed to address identified deficiencies and facilitate future community growth. The comprehensive analysis of all three districts also helps to ensure that consistency in parking operations, regulations, management and enforcement can be developed and applied.

A – DOWNTOWN DDA DISTRICT

The Downtown DDA District primarily includes one to one and one-half blocks on either side of Michigan Avenue from the Huron River to Ballard Street and then continuing southwest along Michigan Avenue to include the Washtenaw County Eastern Government Center and City police and fire department facilities on the south side of Michigan Avenue. As such, the Downtown DDA District consists of 17 blocks and contains just over 1.5 million square feet of occupied building area and has a total parking supply (on-street and off-street both public and private) of 2,078 spaces. This equates to about 1.39 parking spaces provided per 1,000 square feet of building area.

This parking supply consists of a combination of publicly provided surface parking lots and on-street spaces totaling 736 spaces. When compared against the 1,342 spaces in privately controlled surface lots, this means that the City of Ypsilanti controls just 35 percent of the downtown parking supply. This is significantly below Rich's recommended benchmark that a municipality control at least 50 percent of the parking supply in order to facilitate a more walkable environment. The high proportion of privately controlled parking can lead to perceptions of insufficient parking availability because parking provided by private businesses are generally intended for use only by their staff, customers or visitors.

Parking occupancy counts conducted within the Downtown District on Thursday October 25, 2018 between 9:00 am and 9:00 pm showed that about 53 percent of the parking supply was occupied at peak time between 1:00 pm and 3:00 pm. Counts conducted on Saturday,

November 3, 2018 between 4:00 pm and 12:00 am showed that the peak occupancy was just about 32 percent of the spaces occupied between 4:00 pm and 6:00pm.

The calculated demand of 1,271± spaces compared against a total available supply of 2,078 spaces means that the downtown has a "gross" surplus of 807± spaces. The "gross" basis simply compares total downtown parking demand to total downtown parking supply. On the "net" basis, which deducts surplus private supply, the surplus is reduced to 221± spaces.

B – WEST CROSS DDA DISTRICT

The West Cross DDA District extends from approximately the Huron River on the east to approximately College Place as the western boundary and includes essentially the commercial frontage along West Cross Street. Fourteen blocks are assigned to the West Cross District and encompass 370,000 square feet of occupied building area. The parking supply serving the West Cross District totals 661 spaces of which 41 percent is publicly provided and available leaving 59 percent privately controlled. The proportion of parking that is publicly available is a slight improvement over the ratio in the downtown but this is still below Rich's best practice recommendation that a municipality control 50 percent of the parking in order to facilitate a walkable community where a patron can park once and visit multiple destinations.

The weekday occupancy count (Thursday October 18, 2018) showed a peak occupancy of 298 spaces occupied between 1:00 pm and 3:00 pm which represents 45 percent of the total available parking supply.

The "calculated" parking demand was 339 spaces. This assessment also shows that just four blocks have calculated parking deficits. On three blocks it is just one space short each while block 5 has a deficit of just 9 spaces. The remaining blocks all have gross surpluses ranging from 4 to as many as 108 spaces. Comparing the 339± space total demand against the 661-space total parking supply would result in a gross surplus of 322± spaces. Applying the parking demand on each block first to the private supply on that block and then discarding any surplus private spaces following the assumption that they are not available to patrons from other blocks or businesses, would reduce the gross surplus from 322± spaces to about half the number at 166± surplus spaces on the "net" basis.

C – DEPOT TOWN DDA DISTRICT

The Depot Town DDA District although the smallest of the three districts in terms of occupied square footage (173,500 sf) is the most congested in terms of patron and visitor parking needs of all the three districts analyzed. It is also unique with two peak parking periods during the day. As an area experiencing the greatest strain on existing parking resources, Depot Town is also the only area that achieves Rich's benchmark of 50 percent of the parking supply publicly available. This parking supply consists of a total of 625 spaces distinguished by 314 public spaces (on and off-street) and 311 privately controlled spaces in various lots. This level of parking supply compared to the land use information shows that Depot Town is also providing

the highest proportion of parking spaces to occupied building square footage of the three districts at just short of four spaces provided (3.61) per 1,000 gsf. of building area. Downtown was just 1.39 provided spaces per 1,000 gsf. while the West Cross District calculates as 1.8 spaces provided per 1,000 gsf.

The occupancy analysis showed not only a daytime peak consistent with the times experienced in both the Downtown and West Cross districts at about 46% occupancy during the 1:00 pm – 3:00 pm period but unlike these areas, Depot Town experienced a second and much more significant peak during the evening hours on the Thursday survey date with 85 percent of the available parking supply occupied between 7:00 pm and 9:00 pm. Data for the Saturday evening counts (conducted on November 3, 2018) showed that peak occupancy occurred between 8:00 pm and 10:00 pm when 77 percent of the parking supply was occupied. Therefore, in projecting the evening demand, we are using the Thursday values.

The high evening occupancy is consistent with Rich & Associates expectations given that nearly one-third (50,000 sf) of the approximate 175,000 sf of occupied building area is dedicated to restaurant / bar use.

The parking demand calculated as 613± spaces. On the "gross basis" this would mean that there is just a 12± space surplus which would be a "net deficit" of 162± spaces on the "net basis". Development of the Thompson Block in the anticipated configuration is expected to increase this "net deficit" to approximately 256± spaces.

PUBLIC PARTICIPATION

A critical component in the development of the Downtown Ypsilanti parking assessment within the three DDA districts was the input collected from various downtown individuals and groups. This input was facilitated via a two-hour open house conducted at City Hall on Wednesday, December 5, 2018. This forum allowed participants to simply indicate modes of travel, parking issues or concerns for each district as well as timing for when they find the parking most challenging. Team staff were available to address any questions but there was not a formal presentation.

A second aspect of the public outreach were a series of focus groups directed to each specific district. As such these meetings which ran approximately one-hour each were designed to have a more in-depth and meaningful dialogue regarding particular parking issues and concerns unique to each district.

Focus Group Summary

Downtown

1. One-hour time limit for parking is not enough time for visitors to park and eat a meal.
2. Public parking is often difficult for visitors to find; wayfinding signs could be larger.
3. More barrier-free parking spaces are needed.
4. Winter parking more difficult because of snow plowing.
5. How will parking improvements be funded?

West Cross

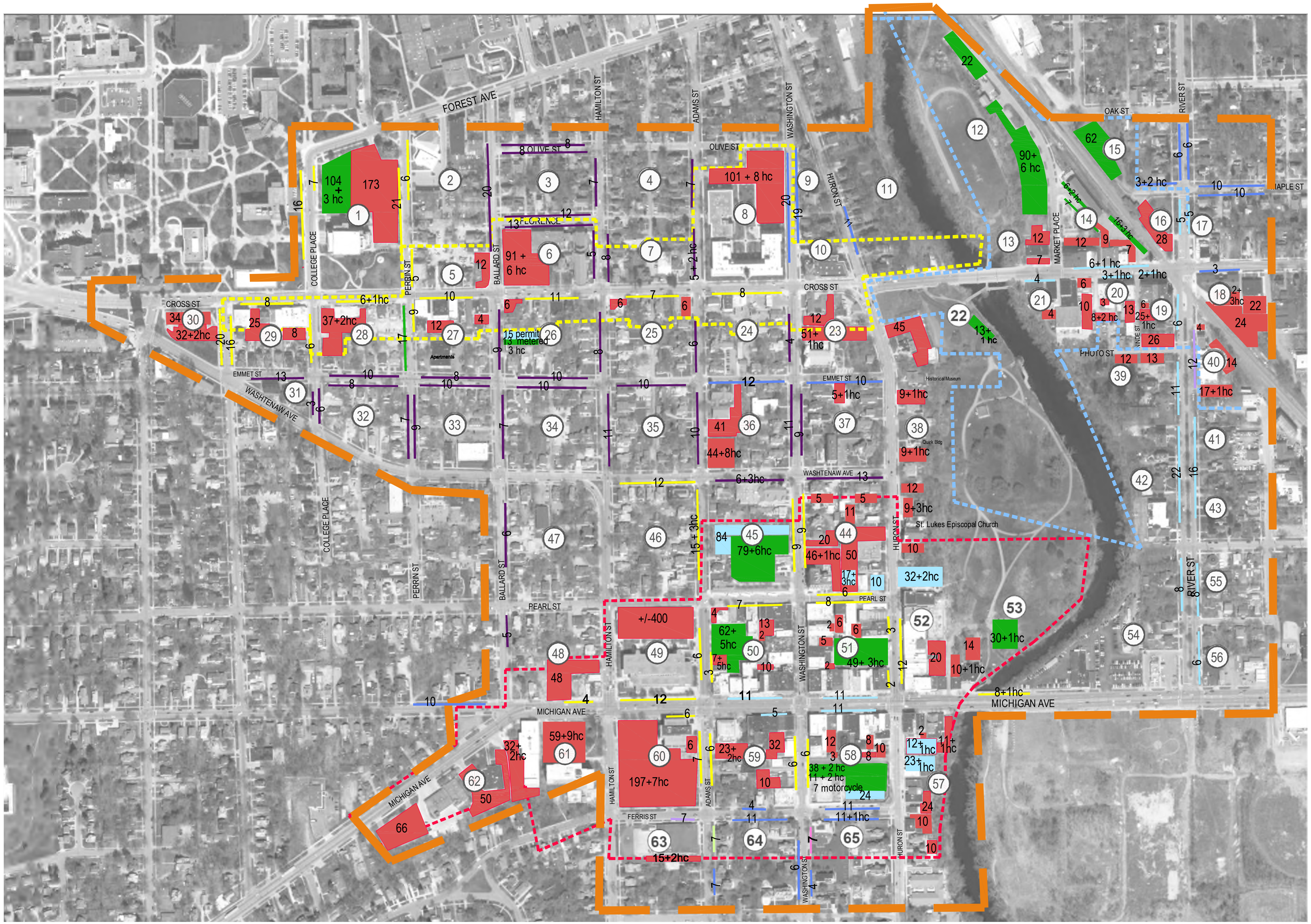
1. Parking meters are helping in preventing all-day parking, leaving spaces available for businesses.
2. Speeding traffic makes walking and parking more difficult.
3. Employees are seen parking in two-hour spaces and periodically moving cars to reset time.

Depot Town

1. It is inconvenient to make short trips (1-2 hours) into Depot Town due to parking issues.
2. Time limits for parking areas is inconsistent and confusing
3. Signs for parking areas are inconsistent and do not adequately inform visitors where to park.
4. Employees need long-term parking.
5. Concern for ability to access retail shops, particularly with increasing number of restaurants.
6. Difficult for visitors to distinguish public from private parking areas.
7. Public parking hard to find. Wayfinding signs could be larger.

On-line Survey Summary

In addition to the open-house and focus group meetings, the team prepared and made available an on-line survey which provided some information on modes of travel to each of the districts, opinions on peak demand hours, parking and vehicle circulation, enforcement, safety and methods of operating paid parking. Detailed results from the on-line surveys are shown beginning on page 83 in Section 6 Public Participation.



PARKING STUDY

FOR

YPSILANTI, MICHIGAN

RICH & ASSOCIATES
PARKING CONSULTANTS
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LEGEND:

- # BLOCK NUMBER
- STUDY AREA

BLOCK FACE KEY PLAN:

A / B / C / D around #

- West Cross DDA District
- Depot Town DDA District
- Downtown DDA District

ON-STREET:

- PUBLIC ON-STREET (UNLIMITED)
- 15 MINUTE - FREE
- 30 MINUTE
- 60 MINUTE
- 90 MINUTE - FREE
- 2 HOUR METER
- 2 HOUR - FREE
- RESIDENTIAL PERMIT
- hc BARRIER FREE

OFF-STREET:

- PUBLIC
- PUBLIC - RESERVED/PERMIT
- PRIVATE / RESERVED LOTS

Sheet Title:

PARKING SUPPLY

File No	1918
Scale	NTS
Date	01-2019
Checked By	

MAP Number:

MAP 2

Recommendation Summary

Successfully operating municipal parking systems are actively managed with the primary goal of serving the downtown business community. This means that revenues are sufficient to maintain and upgrade the system as needs require so that parking is actually a non-event in the consideration of whether or not to visit downtown. In order to achieve this goal, the Rich / Giffels Webster Team is recommending:

Operations / Management

- Parking Services Manager - Appointment of a Parking Services Manager who can serve as the central point of responsibility and answer questions by the business and residential community.
- DDA with larger role in parking management - The City and DDA work together so that the DDA has a larger role in the day-to-day operation of the parking system. Periodic reports to the City will allow the City to have input in the management of the parking system.
- New Parking Control Equipment - Until such time that revenues achieve the necessary level, the City may be required to invest in parking system upgrades for consistent revenue control equipment across all three DDA districts. Once revenues are established the system should be able to fund replacement of parking control equipment with rates that meet the revenue needs of the system.
- Private Parking - Maintain the policy of not requiring parking within the districts with the exception of residential parking combined with maintaining the policy that such developments can pay a fee-in-lieu of providing the required number of spaces. This will help get the proportion of public to private parking more in line with best practices.
- Shared-Use Opportunities - Maximize the use of the existing parking supply by having the City and DDA work with private businesses to use surplus capacity as either public parking during off-hours (nights/weekends) or working with businesses whereby employees of certain businesses can use surplus private parking capacity from other adjoining businesses. This may also mean adjusting the rates for the N. Washington Street lot to encourage use by employees although this may require lighting upgrades.
- Bicycle Parking - Increased use of bicycle parking opportunities combined with ride-share/bike-share or car-sharing options can help in reducing the number of parking spaces that may be needed in the future. Other technologies should also be monitored for their potential impact on future parking needs.
- Residential Parking - The City should help to market opportunities where residential overnight parking can be permitted and under what conditions. The annual renewal period for residential permits should also allow a grace period for issuance of penalty citations to allow new and relocating residents the opportunity to renew permits.
- Parking Duration and Allocations - Rich recommends, as a best practice, that on-street parking convenient to adjacent businesses should have a maximum time limit of two-hours. Less convenient parking or parking where turnover is not required can have longer periods and serve as alternative employee parking. The most convenient off-

street spaces in various parking lots should have a time restriction of three hours to discourage use by employees while affording customers and visitors with parking with longer time frames than on-street.

User Experience

- Parking Signs - Parking signs play an integral role in patrons understanding of where, when and the cost for parking. These signs should be consistent, clearly identifiable and clear in their message. There are a family of signs that best address signage issues. Among the highest priority are lot identification signs with lot names, permitted parking groups and hours of operation.
- Employee Parking - It is generally expected that employees park further than customers and visitors. This requires that the appropriate permit areas (on and off-street) be developed but that the walkability is improved so that employees feel safe parking in these areas and walking to their ultimate destination.
- Lower Cost Bus Permits for Employee - Improving employee parking opportunities or reducing the need for employee parking can also be achieved through a possible partnership with TheRide, similar to the arrangement between the Ann Arbor DDA and the transit authority that provides discounted bus fares.
- Pedestrian Enhancements – Improvements in landscaping, lighting and other walkability issues can improve the perceptions of pedestrians to encourage more of a park-once and walk to multiple destinations. Making appropriate improvements (shade, benches, traffic separation) can increase the acceptable walking distance under various conditions.
- Marketing – Distributing appropriate information to the public through flyers, social media, and the City web-page can help in understanding new policies and procedures and where available parking is located. This media can also help provide information for special events for available parking locations, directions, etc.
- Parking Ambassadors – Parking enforcement officers have a central function of enforcing the rules and procedures necessary to make the parking system function efficiently. As a visible presence in the CBD however, they should also be trained and marketed to help with directions, additional security presence and disseminating information.

Maintenance

- Budgeting / Tracking Parking Revenues / Expenses - Monitoring all parking related revenues and expenses and having these reported in City and DDA budgets. Eventually it should be intended that parking operates as an Enterprise Fund able to handle all operating and capital needs. This may also require development of a parking sinking fund to provide for capital upgrades and long-term parking facility replacement and repair.

- Maintenance Schedule – All public lots should have developed a schedule for daily, weekly, monthly and annual issues to be monitored and addressed. This will help to make the appropriate budgeting decisions to address deficiencies in a timely manner.
- Painting / Striping – Curbs must be painted consistently depending on their use and / or restrictions following the standard colors for no parking, loading zone, and handicap. Stripe on-street spaces so that cars can park more efficiently.
- Communications – Maintain the text alert system to keep the public informed on maintenance issues in lots that may impact access to all or some of the parking spaces.
- Parking Control Equipment – Parking Control equipment must be consistent so that patrons do not have to try to figure out the operation, policies or procedures for different equipment. This may require as noted above investment in new equipment by the City.
- Stormwater – Consider landscaping technologies that can help with runoff from parking areas.

ADA Parking

- ADA Deficiencies – Address deficiencies in parking lots that do not meet the requirements for the number of ADA required spaces. The City should also monitor the need for handicap accessible parking that may require providing more off-street or provision of on-street parking in excess of ADA minimums.

Parking Enforcement

- Staffing – Parking enforcement is a necessary element of any well-run parking system. Maintain the policy of two full-time parking enforcement staff with random scheduling. Enforcement staff should also be trained as CBD ambassadors to provide information and direction to CBD patrons.
- Fines – Develop a policy of issuing courtesy citations to first-time offenders as well as during the residential renewal period and when significant changes are made to parking policies.

Additional Parking

- New Parking – New development particularly in the Depot Town District will increase the strain on parking resources. The City should investigate partnership opportunities for development of additional parking in this district combined with parking mitigation measures (increased bike parking, ride-sharing, pedestrian enhancements) to improve the parking experience.

Project Methodology

METHODOLOGY

Rich uses a comprehensive approach in developing the parking needs within each of the three districts. In all three districts a similar methodology was employed. This included:

- Evaluate the existing parking supply both on-street and off-street (public & private)
- Inventory and assess existing land uses
- Collect square footage attributable to each land use (provided by City)
- Conduct turnover & occupancy studies
    - Depot Town & West Cross – Thursday, October 18, 2019 (9:00 am – 9:00 pm)
    - Downtown – Thursday, October 25, 2018 (9:00 am – 9:00 pm)
    - Depot Town, West Cross, Downtown – Saturday, November 3, 2018 (4:00 pm - 12:00 am)
- Calculate the parking needs correlated to peak observed occupancies
- Adjust the observed day calculated need by +15% to account for likely "peak day" conditions

The public and private supply within each district is totaled and compared. Rich recommends that a municipality control at least 50% of the parking supply in order to facilitate a more walkable environment. Too high a proportion of privately controlled parking can lead to perceptions of insufficient parking availability because parking provided by private businesses are generally intended for use only by their staff, customers or visitors.

In developing the parking generation rates (PGR's) used, Rich uses the just noted occupancy counts as a benchmark. The occupancy counts reflect as many spaces as possible in the direct observations but typically in a large study area, not every space can be directly observed within an efficient route covered in the defined time period. In each district the same proportion of spaces occupied that were directly observed was applied to the spaces not directly observed. This results in the Corrected Observed Value (COV). The highest value then becomes the **C**orrected **P**eak **H**our **O**ccupancy (CPHO).

Once the peak hour (period) has been determined Rich makes a second adjustment. Because it is unlikely that it just so happened that the counts in each district were conducted on the most representative day of the year, we seek to adjust the peak hour demand to reflect what is likely to be a more representative day. Therefore, in order to properly account and plan for peak days, the peak hour observation is increased by a percentage (15 percent in this case) to demonstrate peak hour, peak day occupancy which is the **A**djusted **P**eak **H**our **O**ccupancy (APHO).

Using the APHO as the target demand, Rich then adjusts the Parking Generation Rates (PGR's) which is the number of parking spaces required per 1,000 sf or per residential unit applicable to each land use to reflect the parking needs as the observations suggests are appropriate. The intent is to derive the **C**alculated **P**eak **H**our **D**emand (CPHD) to get as close as possible to the

APHO (APHO ~ CPHD). The demand factor for each land use type includes an estimate for both employees and patrons to that particular land use at this peak period.

In quantifying the "net surplus or deficit," Rich first applies the demand on each block to the private supply on that block. This follows the assumption that any private parking provided by a business would be the most convenient and free. Any spaces not needed, because they are not available to outside users, are then discounted from the calculation and the surplus becomes just the public supply. If the demand on each block exceeds the private supply on each block, the public spaces are added back in to calculate the surplus or deficit for the block.

Turnover

The turnover portion of the analysis, where license plate numbers were recorded, applied mostly to on-street spaces in each of the districts. These same spaces were observed during each two-hour circuit. This is done to determine how long specific vehicles were parked in the most convenient customer spaces. This also allows us to see if any vehicle was parked for extended periods in a time limited space. At the same time, the turnover information also yields occupancy results for the parking area, and therefore for each circuit a composite occupancy can be derived.

Turnover is an indicator of how often a parking stall is being used by different vehicles throughout the course of the day. Turnover is most relevant to the short-term customer trying to find parking for a quick errand. If this customer is unable to find a convenient space, they might not stop to patronize the business. For each district a table was prepared which shows how many times cars are observed parking in the same space. In two-hour spaces, cars should not be observed more than twice and then only if they arrived just prior to the surveyors. Any short-term spaces analyzed such as 30 minutes or 1 hour should not have any vehicle seen more than once or they are clearly in violation because the observations occurred every two hours.

ANALYSIS

Introduction

This analysis provides an assessment of how the existing parking system is operating, the current conditions that affect the system and how potential new developments may affect the system in the future. A primary goal of this analysis is to determine if new parking may be required based on current and anticipated future developments. In completing this study, the team compiled and reviewed turnover and occupancy data, parking inventories, transit access, traffic concerns, multi-modal opportunities and land use inventories to develop a working demand model. The analysis was further refined based on our previous experience with similar communities.

The overall analysis is a multi-step process to evaluate the parking conditions in each of the three DDA districts. Beginning with the detailed land use and parking supply information collected allows us to perform a comparison of the demand for parking against the supply of parking both currently and projected for the future. With an understanding of where parking may be deficient versus available can help in developing changes in signage and wayfinding as well as how modal shifts can enhance the existing parking supply to meet the business needs within each of the three districts.

PARKING DEMAND CALCULATION

Analyses were performed to determine the current and future parking demands and needs for each study area. The data collected and compiled by Rich & Associates to calculate the parking demand included:

- An inventory of the study area on-street and off-street parking supplies.
- Turnover and occupancy studies for public and private on-street and off-street parking areas.
- Block-by-block analysis of square footage and type of land use in the study area. (Building inventory was provided by Ypsilanti staff).
- The demand model is based on a weekday peak between 9:00AM and 9:00PM.

The assumptions used in developing the PGR's and the parking demand calculations are:

Assumption 1: It was assumed that parking demand per block was dependent on the gross floor area contained in the block. Demand computed for one block was not affected by the amount of gross floor area available on surrounding blocks.

Assumption 2: The projected parking demand for the future was derived under the assumption that currently occupied properties would remain occupied at existing levels into the future.

Assumption 3: The projected vacant space is shown reoccupied at a rate of 40% in five years and 80% in 10 years.

The gross square footage of the land use was provided by Ypsilanti staff. ***Tables A-1, B-1 and C-1*** *in the Appendix shows the allocation of the various square footage values by land use and block for each of the three districts.*

Downtown DDA District

DOWNTOWN DDA DISTRICT

Introduction

The Downtown DDA District is a 17-block area focused on either side of Michigan Avenue extending between the Huron River as the eastern boundary to the police and fire department facilities west of the Washtenaw County Eastern Government Center. Land use within this district totals just over 1.5 million square feet of occupied building area and has a total parking supply of 2,078 spaces.

Downtown DDA District Parking Supply

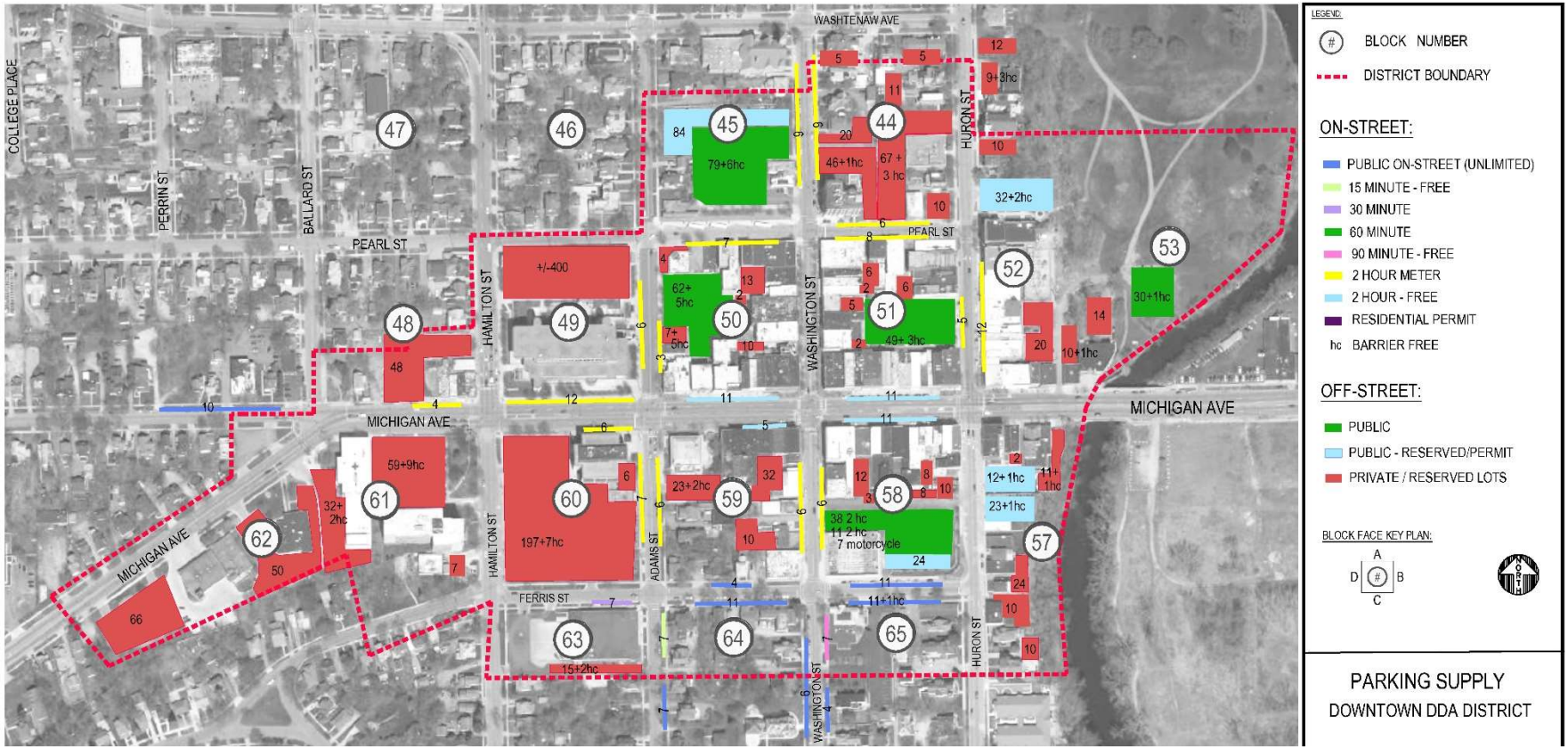
Map DD.1, on the following page, is a spatial view of the Downtown DDA district and of the parking supply for the Downtown District. **Table A** shows that there is a total of 2,078 parking spaces in the Downtown study area. Of these spaces 262 are on-street spaces and 474 are public off-street spaces. The remaining 1,342 spaces are private.

Table A

DOWNTOWN			
PUBLIC PARKING SUPPLY			
		Number	**Percentage**
	ON-STREET	262	36%
	OFF-STREET	474	64%
	PUBLIC PARKING TOTALS	736	**35%**
PRIVATE PARKING SUPPLY			
	PRIVATE PARKING TOTALS	1,342	**65%**
	TOTAL PARKING SUPPLY	2,078	**100%**

The 736 publicly available spaces when compared against the 1,342 spaces in privately controlled surface lots means that the City of Ypsilanti controls just 35 percent of the downtown parking supply which is significantly below Rich's benchmark that 50 percent of spaces should be publicly available.

Map DD.1


WASHTENAW AVE
COLLEGE PLACE
PERRIN ST
BALLARD ST
PEARL ST
HAMILTON ST
WASHINGTON ST
HURON ST
ADAMS ST
MICHIGAN AVE
FERRIS ST
47
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65
79+6hc
46+1hc
67 + 3 hc
+/-400
62+ 5hc
49+ 3hc
32+2hc
30+1hc
59+9hc
197+7hc
23+2hc
38 2 hc
11 2 hc
7 motorcycle
12+ 1hc
23+1hc
15+2hc
LEGEND:
BLOCK NUMBER
DISTRICT BOUNDARY
ON-STREET:
PUBLIC ON-STREET (UNLIMITED)
15 MINUTE - FREE
30 MINUTE
60 MINUTE
90 MINUTE - FREE
2 HOUR METER
2 HOUR - FREE
RESIDENTIAL PERMIT
hc BARRIER FREE
OFF-STREET:
PUBLIC
PUBLIC - RESERVED/PERMIT
PRIVATE / RESERVED LOTS
BLOCK FACE KEY PLAN:
A
D
B
C
PARKING SUPPLY
DOWNTOWN DDA DISTRICT

Detailed Parking Inventory

The parking inventory demonstrated by **Table B** on the following page, shows the number of parking spaces of each type by block. As such, it demonstrates that the on-street parking in the Downtown DDA district consists of a limited number (14) of short-term 15-minute or 30-minute spaces. Sixty percent or 158 of the total on-street parking spaces are limited to two-hours of parking. Three-quarters (120) of the 158 two-hour spaces are metered with the balance allowing two-hours of free parking. There are nearly the same number of unrestricted spaces (39) as two-hour free (38) within the defined downtown district blocks. Just five on-street spaces are designated as handicap accessible.

The Appendix of the report has the detailed inventory of the on-street and off-street parking supply for the Downtown District.

Table B

DOWNTOWN

PARKING SUPPLY BY BLOCK

BLOCK	44	45	48	49	50	51	52	53	57	58	59	60	61	62	63	64	65	TOTALS
PUBLIC ON-STREET																		
15 MINUTE																7		7
30 MINUTE FREE																		0
30 MINUTE METERED															7			7
60 MINUTE																		0
90 MINUTE																	7	7
2 HOUR METERED	15	9	4	18	10	13	12	8		6	12	13						120
2 HOUR FREE					11	11				11	5							38
UNRESTRICTED																24	15	39
RESIDENTIAL PERMIT	13	6	5							11	4							39
BARRIER FREE		3						1									1	5
SUB-TOTAL ON-STREET	**28**	**18**	**9**	**18**	**21**	**24**	**12**	**9**	**0**	**28**	**21**	**13**	**0**	**0**	**7**	**31**	**23**	**262**
PUBLIC OFF-STREET																		
PUBLIC		79			62	49		30		49								269
BARRIER FREE		6			5	3	2	1	2	4								23
MOTORCYCLE										7								7
PUBLIC RESERVED/PERMIT		84					32		35	24								175
SUB-TOTAL PUBLIC OFF	**0**	**169**	**0**	**0**	**67**	**52**	**34**	**31**	**37**	**84**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**474**
PRIVATE																		
OFF-STREET	164		48	400	36	19	30	24	57	41	65	203	59	148	15			1,309
BARRIER FREE	4				5			1	1		2	7	9	2	2			33
SUB-TOTAL PRIVATE OFF	**168**	**0**	**48**	**400**	**41**	**19**	**30**	**25**	**58**	**41**	**67**	**210**	**68**	**150**	**17**	**0**	**0**	**1,342**
TOTALS	**196**	**187**	**57**	**418**	**129**	**95**	**76**	**65**	**95**	**153**	**88**	**223**	**68**	**150**	**24**	**31**	**23**	**2,078**

Source: Rich and Associates Fall 2018

* In cases where parking spaces were not marked (on-street and off-street), the number of spaces were estimated.

Parking Conditions Audit - Downtown

For any parking area to be functional it must appear safe and attractive to potential users. This means that lots must appear to be properly designed with sufficiently wide drive aisles and parking stalls so that damage isn't caused by other vehicles maneuvering through aisles or parking in adjacent stalls which are too tight from being able to simply open the car door without causing damage. Having easy to understand signage, payment equipment, appropriate lighting and a safe path from the parking area to appropriate destinations, is also critical to the user acceptance of a parking area. This acceptance of the public parking areas is critical in the assessment of the adequacy of the downtown parking supply. Comparison of parking needed to the supply may be inaccurate if parking areas are shown and factored into the availability calculations. However, because of issues in the items noted above, patrons may avoid the parking area. Restrictions or fees must be clear, as well as, hours of operation. Therefore, **Table C** on the following page summarizes some of the issues analyzed for each of the public parking lots within the Downtown District.

PARKING CONDITIONS AUDIT

Table C

Downtown Parking Lot Overview

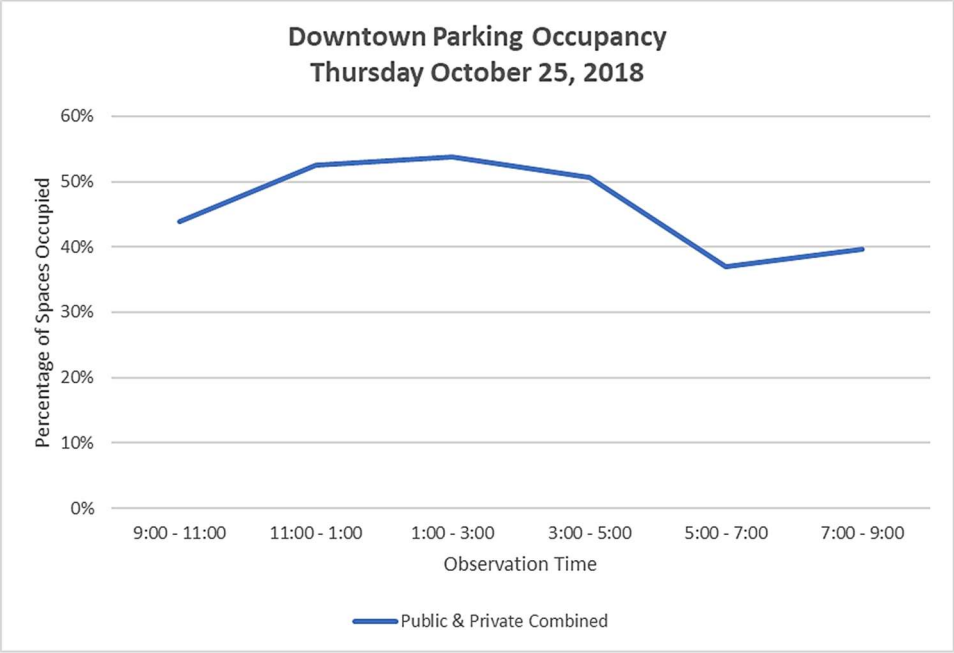
Lot Name or #	Block #	# Stalls	# HC Stalls	Lighting	Striping	Surface Type and Conditions	Control Equipment	Signage	Pedestrian Pathways	Bicycle Provisions	Landscaping	Comments
Riverside Arts Center Lot	43	32 permit use only until 5:00pm	2	Needs additional lighting	OK	OK	Signs	Needs introduction sign.	No	No	Yes	This lot is dark and needs lighting.
North Washington St Lot	45	7-10hr meter, 57-employee/residential permit, 22-Park and ride, 5-AAATA	6	Good	Good	OK	10hr meters and signs, meters are $0.50/hr.	Permit signs ok, no duration signs, signs on meters are faded. Public parking sign at entrance but cannot be seen until at entrance.	Yes	14	Some	Meter posts are at different heights, some have bent poles.
N. Adams Lot	50	62	5	OK	Faded, needs to be restriped.	Ok, some minor cracking	Signs	Poor placement of signs, the identification sign is posted inside the dumpster enclosure and cannot be easily viewed by a driver.	No	No	Yes	Many people parking around the edges of this lot make it difficult to maneuver through.
North Huron St Lot	51	49	3	OK	Faded, needs to be restriped.	Ok, some minor cracking	Signs	Poor placement of signs, the identification sign is posted inside the dumpster enclosure and cannot be easily viewed by a driver.	No	No	Yes	Entrance and exit should be reversed.
Upper City Hall Lot	57	23	1	Needs additional lighting	OK	Large cracks	Signs	Signs in the lot should be replaced.	No	No	No	Permit only until 5pm
Lower City Hall Lot	57	12	1	OK	OK	OK	Signs	There is a location sign, no identification sign.	No	No	No	Permit only until 5pm
South Huron Lot	58	38-1hr, 11-2hr, 24-permit, 7 motorcycle	4	OK	OK	Surfaced patched, some cracks, some potholes.	Signs	Location sign to lot off S. Washington, no identification sign, 1hr and 2hr confusing.	No	No	Yes	Allow for entrance and exit to S. Huron Street.

DOWNTOWN TURNOVER / OCCUPANCY RESULTS

Occupancy – Thursday Counts

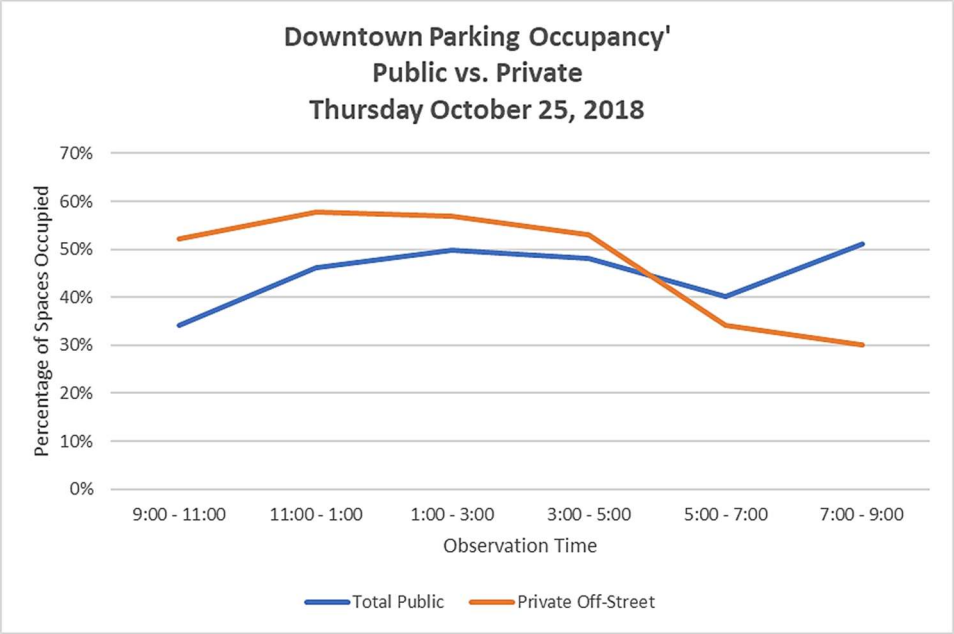
As previously noted, the occupancy results provide critical information as to how the parking supply is currently being utilized. The graphs below and on the following page show that for the downtown, just over 50 percent of the total parking supply is occupied at peak time between approximately 11:00 am and 3:00 pm. The demand then drops off before recovering very slightly presumably due to patrons arriving to downtown restaurants or other entertainment venues or possibly downtown residents returning home.

Graph 1

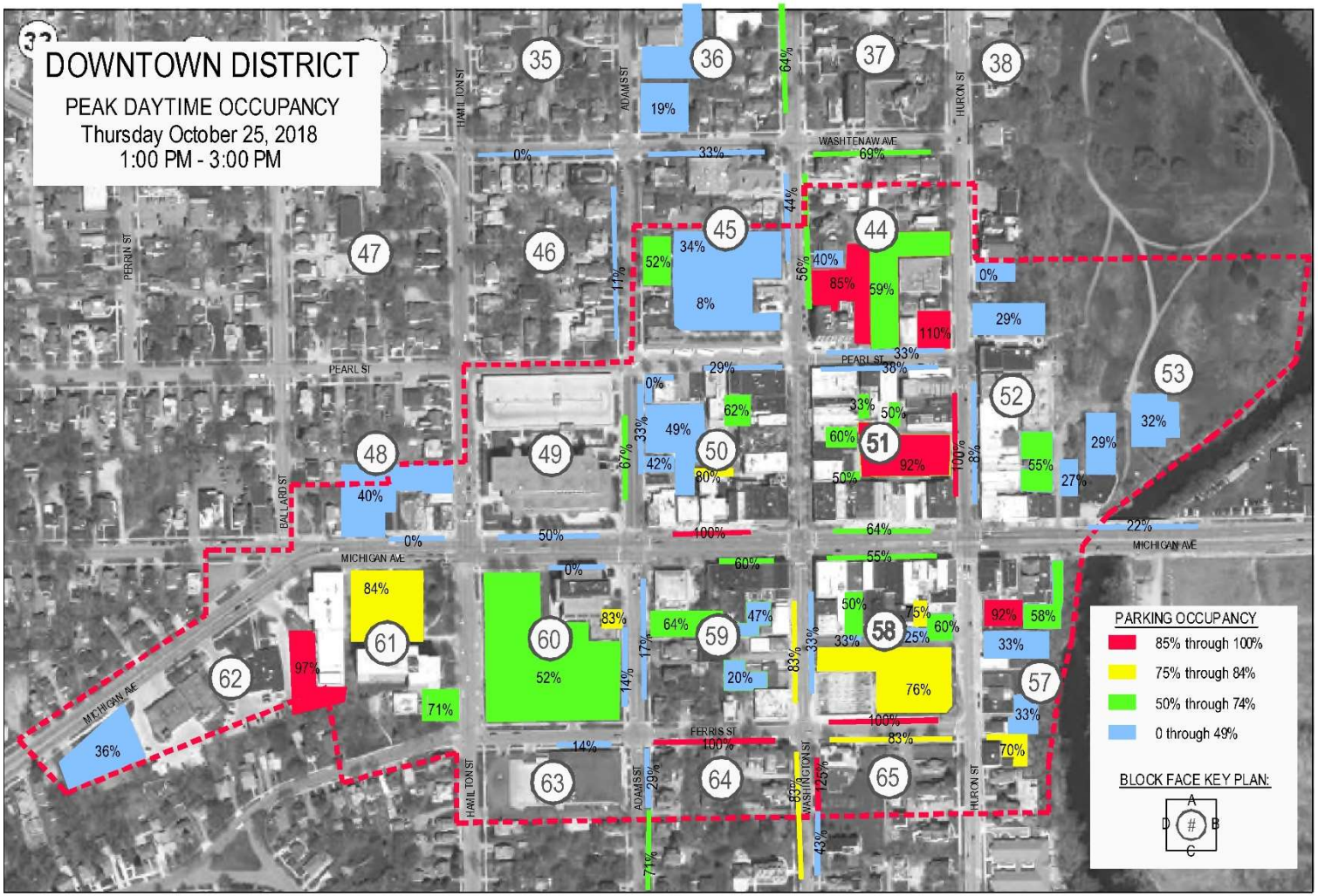


When the parking demand is evaluated separately between that which is publicly provided and available and that which is privately controlled, the results show that a higher proportion of the privately controlled spaces are occupied through much of the day until the evening hours at which time a greater proportion of the public spaces become occupied. This would be expected as workers parking in private spaces leave for the day and these spaces remain unused during the evening hours. The occupancy of the various areas during this peak hour is demonstrated by Map DD.2 on the following page.

Graph 2



Map DD.2


DOWNTOWN DISTRICT
PEAK DAYTIME OCCUPANCY
Thursday October 25, 2018
1:00 PM - 3:00 PM
PARKING OCCUPANCY
85% through 100%
75% through 84%
50% through 74%
0 through 49%
BLOCK FACE KEY PLAN:
PEARL ST
MICHIGAN AVE
WASHTENAW AVE
FERRIS ST
HAMILTON ST
ADAMS ST
WASHINGTON ST
HURON ST
BALLARD ST
PERRIN ST

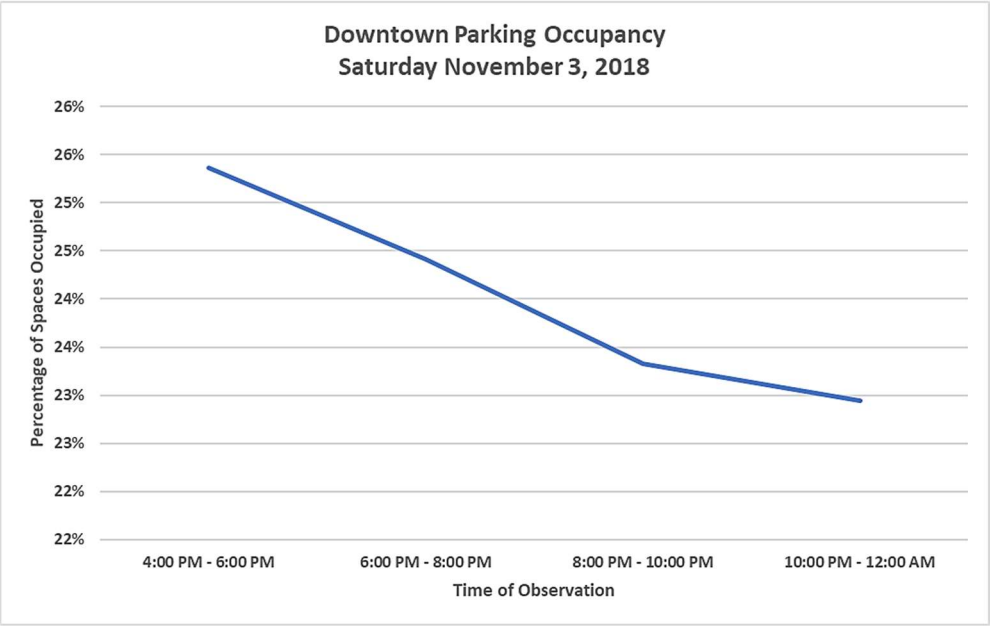
Occupancy – Saturday Counts

While the Thursday counts provided data for what is believed to be a reasonable basis of quantifying parking demand, often communities are interested in understanding how their parking is affected on Saturday afternoons or evenings when restaurant and other entertainment venues will experience higher levels of activity. Obviously, such an analysis would reflect a significant drop in office and some retail employees as many if not most offices are not open while some retail businesses may not be open past early evening on a Saturday. This employee reduction may not be entirely offset from the entertainment venues which will see higher employment and visitors.

The city requested that the Saturday counts be conducted reflecting evening activity and therefore the counts were scheduled for between 4:00 pm and 12:00 am. It was believed that this would encompass the highest expected activity for a Saturday.

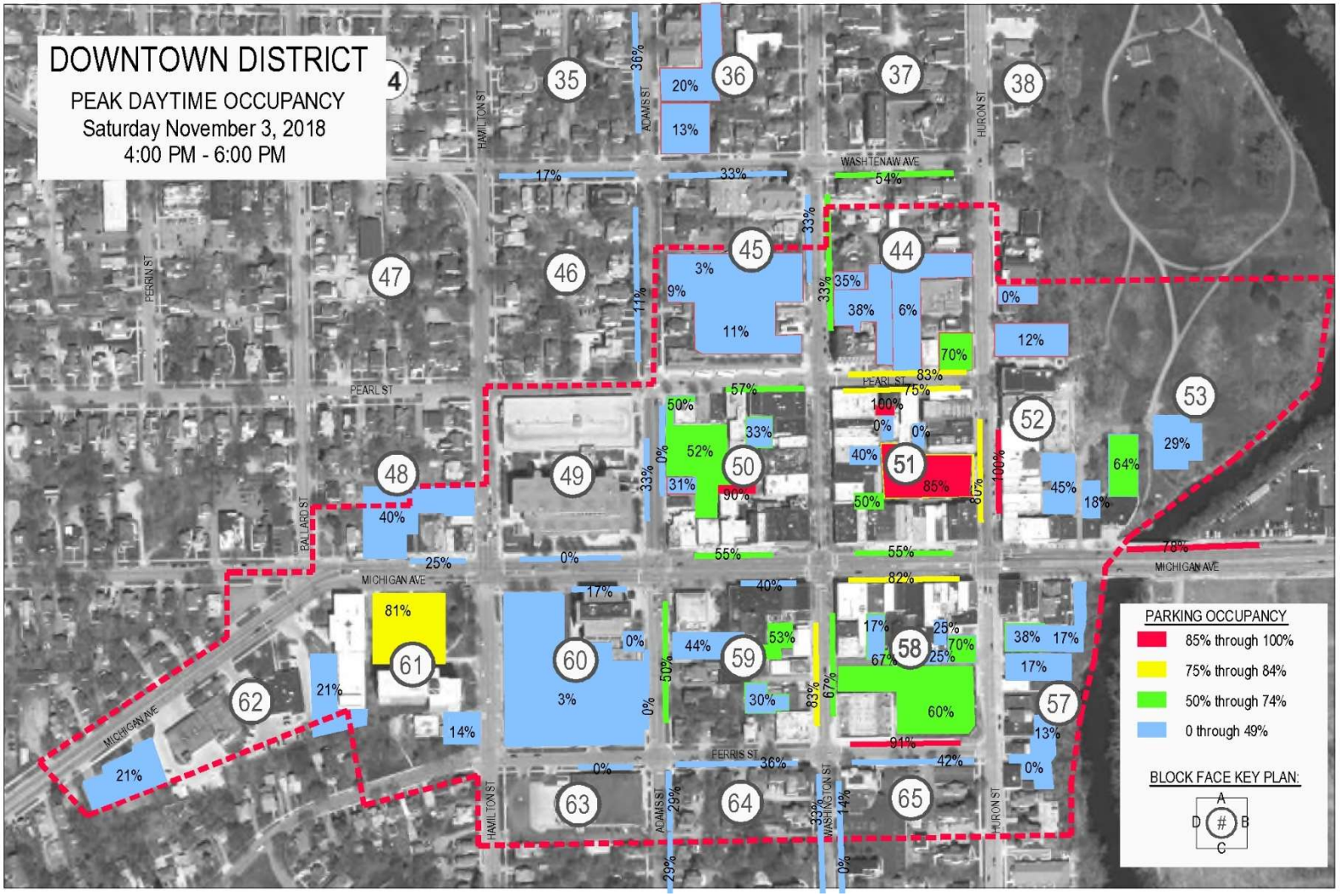
Graph 3 below shows the overall percentage occupancy experienced during the survey hours on the Saturday observation date. Peak occupancy occurred between 4:00 pm and 6:00 pm and then showed a steady decline for the balance of the day and evening. This would be expected when retail shops open during the day are starting to close and the declining demand is not offset by incoming patrons to restaurants or other venues.

Graph 3



These results also show that the downtown occupancy at peak (26%) on the Saturday count day is only about one-half the 53 percent of all spaces occupied at peak experienced on the Thursday observation day.

Map DD.3


DOWNTOWN DISTRICT
PEAK DAYTIME OCCUPANCY
Saturday November 3, 2018
4:00 PM - 6:00 PM
PARKING OCCUPANCY
85% through 100%
75% through 84%
50% through 74%
0 through 49%
BLOCK FACE KEY PLAN:
A
B
C
D
#
HAMILTON ST
ADAMS ST
HURON ST
WASHINGTON ST
PERRIN ST
BALLARD ST
PEARL ST
FERRIS ST
WASHTENAW AVE
MICHIGAN AVE

Turnover

For the Thursday, October 25th observations, the table shows that 31 cars were seen in the same space three times or more which represents a violation rate of just over six percent. Rich's best practice is that a violation rate should not exceed five percent. The violation rate as very slightly over this benchmark is not a great cause of concern and appears to reflect patrons general understanding and adherence to the posted time limits.

The Saturday results showed a violation rate of right about five percent, again not a cause for concern.

Table D

Downtown Turnover Thursday, October 25, 2018										
Block #	Description	Spaces	1X	2X	3X	4X	5X	6X	Turnover	Total Cars
44	44D - 2hr Meters	9	19						2.11	19
44	44C - 2hr Meters	6	11	1		1			2.17	13
45	45B - 2hr Meters	9	18	1					2.11	19
46	46B - 2hr Meters	18	26						1.44	26
48	48C - 2hr Meters	4	2						0.50	2
49	49C - 2hr Meters	12	30						2.50	30
49	49B - 2hr Meteres	6	16	1					2.83	17
50	50C - 2hr Free	11	45	4	2				4.64	51
50	50D - 2hr Meters	3	9	1					3.33	10
50	50A - 2hr Meters	7	11	3					2.00	14
51	51C - 2hr Free	11	30	1					2.82	31
51	51B - 2hr Meters	12	15	2	1				1.50	18
51	51A - 2hr Meters	8	17	1					2.25	18
52	52D - 2hr Meters	5	29	2					6.20	31
53	53C - 2hr Free	9	17						1.89	17
58	58A - 2hr Free	11	18	1					1.73	19
58	58D - 2hr Meters	6	13	1					2.33	14
58	58C - Unmarked	11	10	2	4	2	3		1.91	21
59	59A - 2hr Free	5	11	2	1				2.80	14
59	59B - 2hr Meters	6	17	1			1		3.17	19
59	59D - 2hr Meters	6	8						1.33	8
60	60A - 2hr Meters	6	7	1					1.33	8
60	60B - 2hr Meters	7	9						1.29	9
63	63A - 30min Meters	7	3						0.43	3
64	64A - 2hr Free	11	13	6	7	1			2.45	27
64	64D - 15min Free	7	11						1.57	11
65	65A - 2hr Free	12	9	3	2	3	3		1.67	20
65	65D - 90min Free	7	3	1					0.57	4
	Totals	**232**	**427**	**35**	**17**	**7**	**7**	**0**	**2.17**	**493**

Table E

Downtown Turnover Saturday, November 3, 2018							
Block #	Description	Spaces	1X	2X	3X	Turnover	Total Cars
44	44D - 2hr Meters	9	7		1	0.89	8
44	44C - 2hr Meters	6	5	3		1.33	8
45	45B - 2hr Meters	9	6	2		0.89	8
46	46B - 2hr Meters	18	5	1	1	0.39	7
48	48C - 2hr Meters	4	3			0.75	3
49	49C - 2hr Meters	12				0.00	0
49	49B - 2hr Meters	6	7			1.17	7
50	50C - 2hr Free	11	21	2		2.09	23
50	50D - 2hr Meters	3	3			1.00	3
50	50A - 2hr Meters	7	12	2		2.00	14
51	51C - 2hr Free	11	14	3		1.55	17
51	51B -2hr Meters	12	5			0.42	5
51	51A - 2hr Meters	8	5	4	1	1.25	10
52	52D - 2hr Meters	5	17	5	1	4.60	23
53	53C - 2hr Free	9	8	3	1	1.33	12
58	58A - 2hr Free	11	15	1	3	1.73	19
58	58D - 2hr Meters	6	9	1	1	1.83	11
58	58C - Unmarked	11	8	3		1.00	11
59	59A - 2hr Free	5	8	1		1.80	9
59	59B - 2hr Meters	6	13	2		2.50	15
59	59D - 2hr Meters	6	9		1	1.67	10
60	60A - 2hr Meters	6	4			0.67	4
60	60B - 2hr Meters	7				0.00	0
63	63A - 30min Meters	7	1			0.14	1
64	64A - 2hr Free	11	5	1	1	0.64	7
65	65A - 2hr Free	12	4	1	2	0.58	7
65	65d - 90min Free	7	1			0.14	1
	Totals	**225**	**195**	**35**	**13**	**1.20**	**243**

PARKING DEMAND CALCULATION - DOWNTOWN

With the parking generation rates established that appear to accurately portray the parking needs, (the **Adjusted Peak Hour Occupancy** of 1,277 approximately equals the **Calculated Peak Hour Demand** of 1,271) the analysis compares the parking demand versus the supply both for individual blocks as well as for the Downtown DDA district in total. This is reflected by blocks having a gross surplus (the parking supply exceeds the parking demand on that block) or a gross deficit (the demand exceeds the supply). Having blocks with deficits is not uncommon in an urban area as many times the parking intended to service a specific need is provided on adjacent blocks. The issue becomes when many contiguous blocks all have deficits which means patrons and or staff may be forced to walk to and from parking more distant than they would like.

Table F on **page 30** demonstrates the parking demand matrix for the Downtown DDA District. These results show that the 1,271± space demand compared against the 2,078-space downtown parking supply results in an overall surplus of 807± spaces. It also shows that while overall there is a gross 807-space surplus, six blocks have deficits and one block has neither a surplus nor a deficit. However, this 807± surplus figure is slightly misleading because by using total parking supply and comparing this against the demand for parking, it assumes that surplus privately owned or controlled parking spaces can be used by anyone which is often not the case. These excess spaces although unused are generally not available to users going to other destinations or businesses.

Table F shows how the 807± "gross surplus" is reduced to 221± spaces after the surplus private parking is deducted. The same blocks that have deficits on the gross basis (shown in red numerals) have equivalent net deficits as well. The difference from the net calculation is shown by the shaded cells in the gross and net columns which shows the surplus with the gross supply included and then again after the surplus private spaces are deducted.

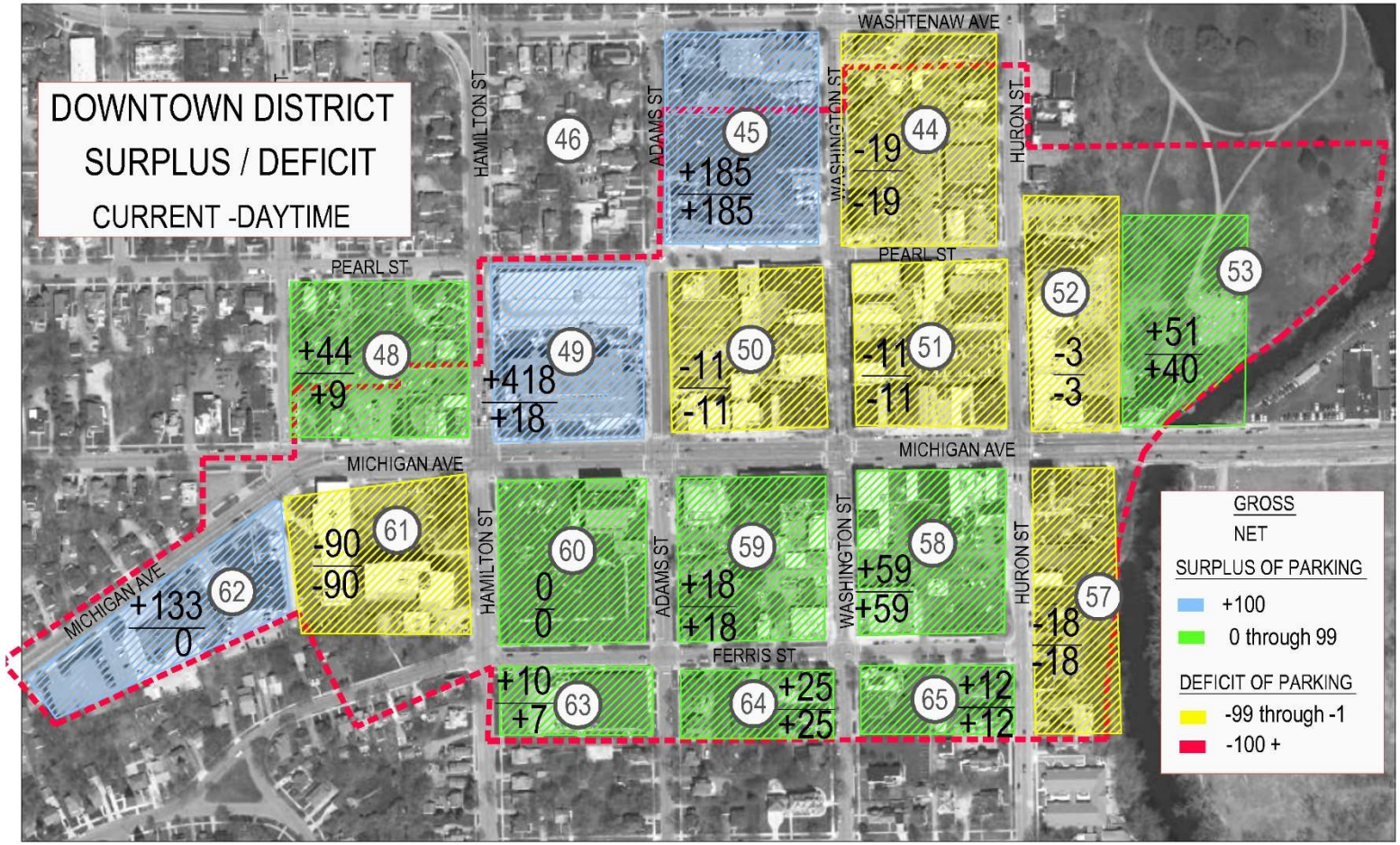
This provides a more representative picture of what some patrons will be experiencing because they cannot park in a private lot that is not their destination. The tables and maps which follow, show the parking demand reflecting both the "gross surplus / or deficit" as well as the calculations reflecting the "net basis"

A spatial representation of the surplus or deficit by block is demonstrated by the **Map DD.4** on **page 31**. It should be noted that the color coding on the maps reflects the "net" condition values.

Table F - Downtown Parking Demand Matrix

Downtown DDA District Parking Demand Matrix																	Existing Conditions	
Block	Office	Government	Medical Office	Retail	Service	Mixed Use	Restaurant /Bar	Library/ Museum	Residential	Community	Vacant	TOTAL	Public		Private	Total	Gross	Net
								(per unit, 850sf)										
Current Parking Generation Ratios	0.90	0.75	0.75	0.75	0.85	0.85	2.00	0.70	0.60	0.25	2.25		On-Street	Off-Street	Off-Street	On & Off-Street	Surplus / (Deficit)	Surplus / (Deficit)
44	179	-	22	2	-	2	-	-	10	-	-	215	28	0	168	196	(19)	(19)
45	-	-	-	-	0	-	-	-	-	1	3	2	18	169	0	187	185	185
48	1	-	-	4	-	-	3	-	-	-	7	9	9	0	48	57	48	9
49	-	-	-	-	-	-	-	-	-	-	-	-	18	0	400	418	418	18
50	33	-	-	10	3	4	56	-	35	-	88	140	21	67	41	129	(11)	(11)
51	38	-	17	18	8	2	4	-	19	0	109	106	24	52	19	95	(11)	(11)
52	-	-	-	8	16	1	30	-	13	11	18	79	12	34	30	76	(3)	(3)
53	-	-	1	13	-	-	-	-	-	-	-	14	9	31	25	65	51	40
57	98	-	-	-	-	-	3	-	12	-	-	113	0	37	58	95	(18)	(18)
58	52	-	-	20	5	13	-	-	3	-	15	94	28	84	41	153	59	59
59	3	-	-	6	-	-	42	4	12	2	26	70	21	0	67	88	18	18
60	185	-	38	-	-	-	-	-	-	-	-	223	13	0	210	223	(0)	0
61	-	57	-	-	-	-	-	-	102	-	-	158	0	0	68	68	(90)	(90)
62	-	17	-	-	-	-	-	-	-	-	-	17	0	0	150	150	133	0
63	-	14	-	-	-	-	-	-	-	-	-	14	7	0	17	24	10	7
64	5	-	1	-	-	-	-	-	-	-	-	6	31	0	0	31	25	25
65	5	-	3	-	-	-	-	-	1	2	-	11	23	0	0	23	12	12
Totals	**600**	**88**	**82**	**81**	**32**	**23**	**138**	**4**	**206**	**17**	**265**	**1,271**	**262**	**474**	**1,342**	**2,078**	**807**	**221**

Map DD.4


DOWNTOWN DISTRICT
SURPLUS / DEFICIT
CURRENT -DAYTIME
WASHTENAW AVE
HAMILTON ST
ADAMS ST
WASHINGTON ST
HURON ST
PEARL ST
MICHIGAN AVE
FERRIS ST
46
45 +185 +185
44 -19 -19
48 +44 +9
49 +418 +18
50 -11 -11
51 -11 -11
52 -3 -3
53 +51 +40
61 -90 -90
62 +133 0
60 0 0
59 +18 +18
58 +59 +59
57 -18 -18
63 +10 +7
64 +25 +25
65 +12 +12
GROSS
NET
SURPLUS OF PARKING
+100
0 through 99
DEFICIT OF PARKING
-99 through -1
-100 +

DOWNTOWN PARKING – FUTURE CONDITIONS

In addition to evaluating the parking for the existing conditions, Rich is also projecting the parking as it might exists in future years. At this point, future development plans are limited and therefore the future demand is based on re-occupancy of portions of the 118,000 sf of existing vacant space in Downtown Ypsilanti.

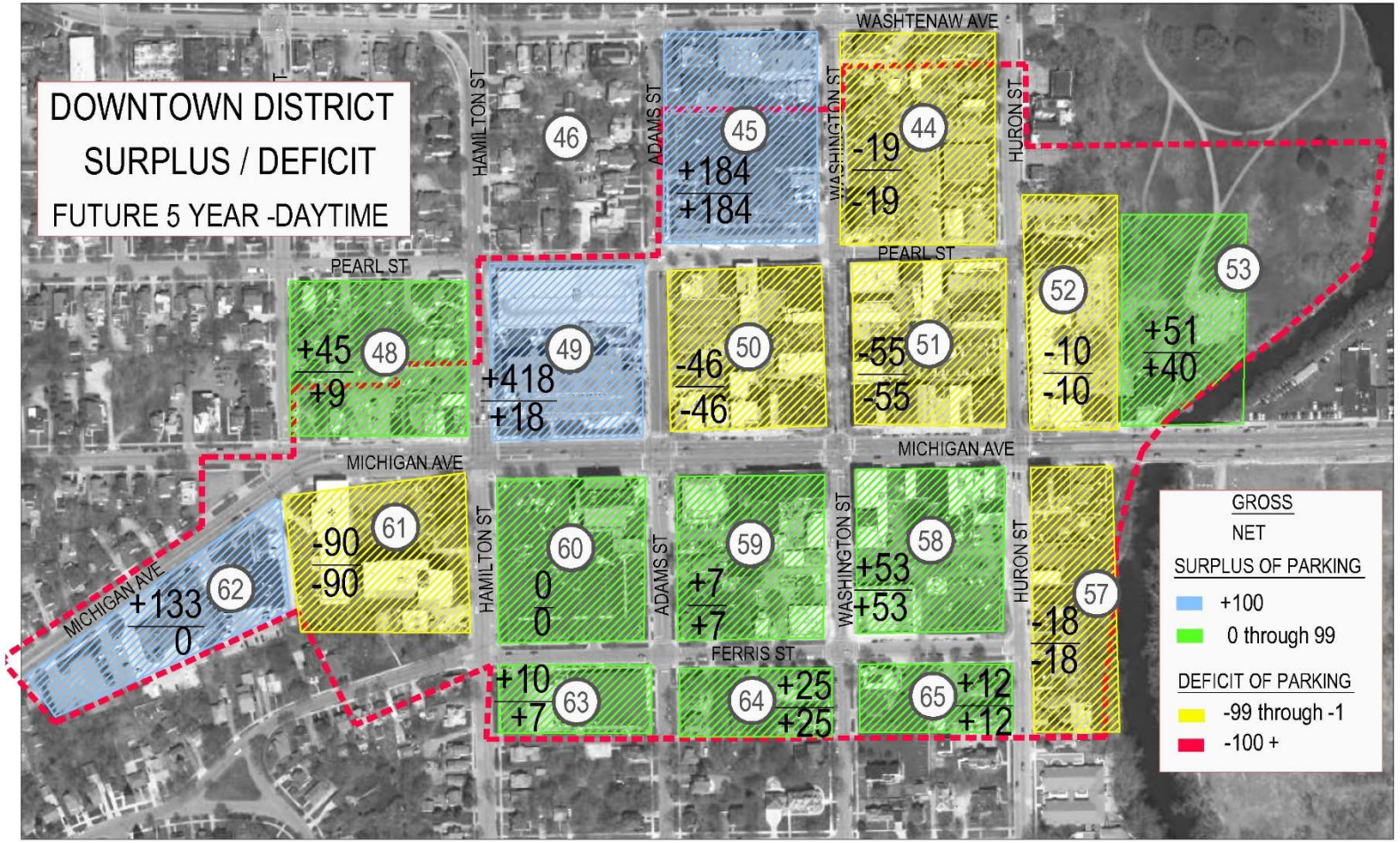
Five Years

The five-year assumption is that about 40 percent (47,000 sf) of the existing 118,000 vacant square feet in downtown Ypsilanti becomes re-occupied. **Table G** below shows seven blocks with existing vacant space would add 106 spaces to the existing 1,271 space calculated demand increasing the downtown parking demand to 1,377± spaces at peak time. This would reduce the gross surplus from 807± spaces calculated for the existing condition to 701± spaces in the future. On the more appropriate "net basis", the added demand would reduce the net surplus from 221± spaces to 117± spaces.

Table G - Five Year Demand vs. Supply Comparison

Downtown DDA District Parking Demand Matrix								Future Conditons with 40% vacant re-occupied	
Block	TOTAL	Vacant	TOTAL	Public		Private	Total	Gross	Net
			40%						
Current Parking Generation Ratios	Existing Demand	2.25	Total demand with 40% of vacant occupied	On-Street	Off-Street	Off-Street	On & Off-Street	Surplus / (Deficit)	Surplus / (Deficit)
44	215	-	215	28	0	168	196	(19)	(19)
45	2	1	3	18	169	0	187	**184**	**184**
48	9	3	12	9	0	48	57	**45**	**9**
49	-	-	0	18	0	400	418	**418**	**18**
50	140	35	175	21	67	41	129	(46)	(46)
51	106	43	150	24	52	19	95	(55)	(55)
52	79	7	86	12	34	30	76	(10)	(10)
53	14	-	14	9	31	25	65	**51**	**40**
57	113	-	113	0	37	58	95	(18)	(18)
58	94	6	100	28	84	41	153	**53**	**53**
59	70	10	81	21	0	67	88	**7**	**7**
60	223	-	223	13	0	210	223	(0)	**0**
61	158	-	158	0	0	68	68	(90)	(90)
62	17	-	17	0	0	150	150	**133**	**0**
63	14	-	14	7	0	17	24	**10**	**7**
64	6	-	6	31	0	0	31	**25**	**25**
65	11	-	11	23	0	0	23	**12**	**12**
Totals	**1,271**	**106**	**1,377**	**262**	**474**	**1,342**	**2,078**	**701**	**117**

Map DD.5


DOWNTOWN DISTRICT
SURPLUS / DEFICIT
FUTURE 5 YEAR -DAYTIME
WASHTENAW AVE
HAMILTON ST
ADAMS ST
WASHINGTON ST
HURON ST
PEARL ST
MICHIGAN AVE
FERRIS ST
46
45 +184 +184
44 -19 -19
48 +45 +9
49 +418 +18
50 -46 -46
51 -55 -55
52 -10 -10
53 +51 +40
61 -90 -90
62 +133 0
60 0 0
59 +7 +7
58 +53 +53
57 -18 -18
63 +10 +7
64 +25 +25
65 +12 +12
GROSS
NET
SURPLUS OF PARKING
+100
0 through 99
DEFICIT OF PARKING
-99 through -1
-100 +

Ten Years

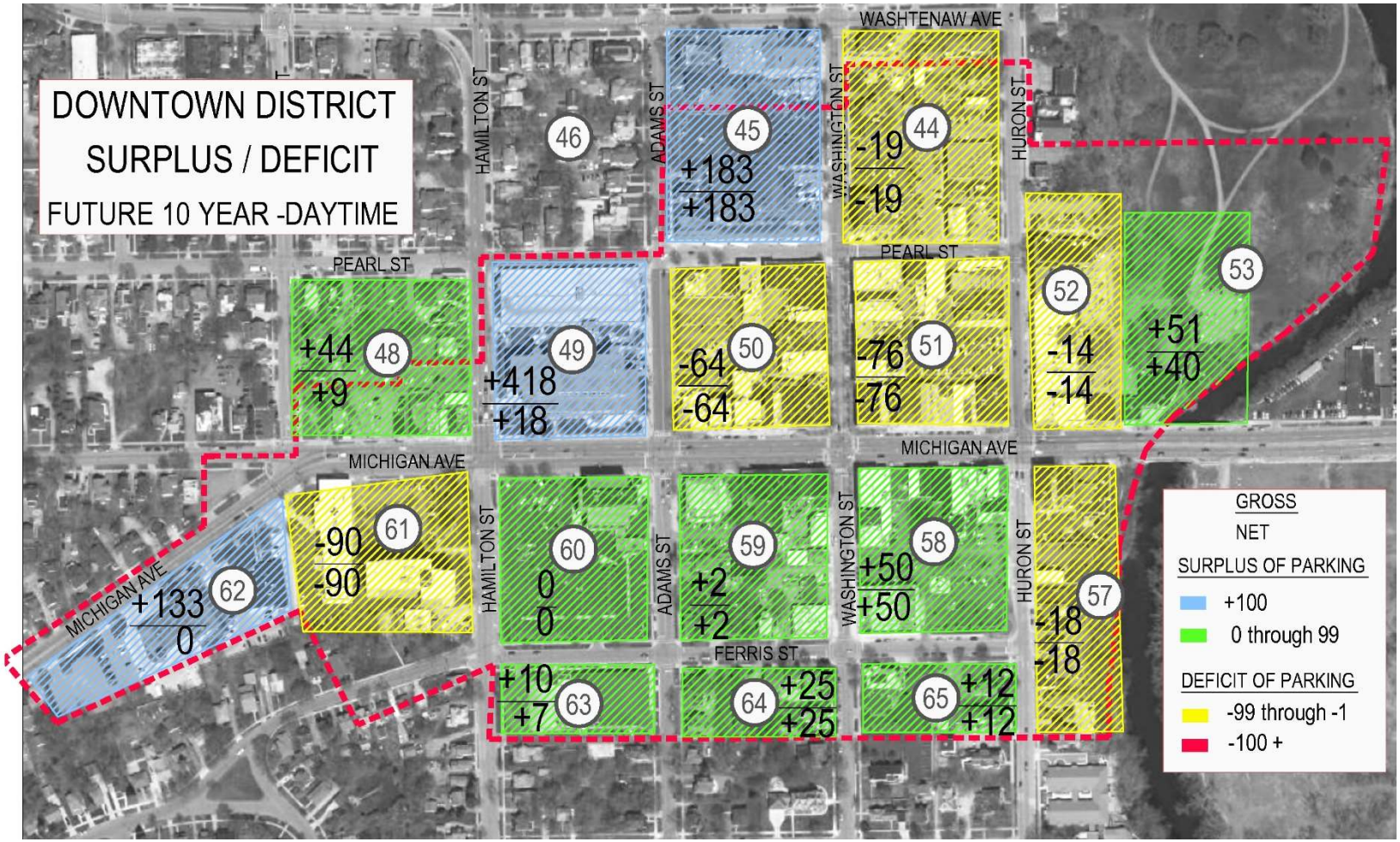
The ten-year assumption is that about 80 percent (94,000 sf) of the existing 118,000 vacant square feet in downtown Ypsilanti becomes re-occupied. This would add 212± spaces to the existing 1,271± for a projected future need of 1,483± spaces. The gross surplus on this basis is reduced to 595± spaces while on the net surplus / deficit basis it becomes a minimal 14± space surplus.

Both the five and 10-year projections assume that the existing occupied space will remain in its existing or a similar configuration and that there will be no reduction in the parking supply either on-street or off-street.

Table H - Ten Year Demand vs. Supply Comparison

Downtown DDA District Parking Demand Matrix								Future Conditons with 80% vacant re-occupied	
Block	TOTAL	Vacant	TOTAL	Public		Private	Total	Gross	Net
			80%						
Current Parking Generation Ratios	Existing Demand	2.25	Total demand with 80% of vacant occupied	On-Street	Off-Street	Off-Street	On & Off-Street	Surplus / (Deficit)	Surplus / (Deficit)
44	215	-	215	28	0	168	196	(19)	(19)
45	2	2	4	18	169	0	187	183	183
48	9	6	15	9	0	48	57	42	9
49	-	-	0	18	0	400	418	418	18
50	140	70	210	21	67	41	129	(81)	(81)
51	106	87	193	24	52	19	95	(98)	(98)
52	79	14	94	12	34	30	76	(18)	(18)
53	14	-	14	9	31	25	65	51	40
57	113	-	113	0	37	58	95	(18)	(18)
58	94	12	106	28	84	41	153	47	47
59	70	21	91	21	0	67	88	(3)	(3)
60	223	-	223	13	0	210	223	(0)	0
61	158	-	158	0	0	68	68	(90)	(90)
62	17	-	17	0	0	150	150	133	0
63	14	-	14	7	0	17	24	10	7
64	6	-	6	31	0	0	31	25	25
65	11	-	11	23	0	0	23	12	12
Totals	1,271	212	1,483	262	474	1,342	2,078	595	14

Map DD.6


DOWNTOWN DISTRICT
SURPLUS / DEFICIT
FUTURE 10 YEAR -DAYTIME
WASHTENAW AVE
HAMILTON ST
ADAMS ST
WASHINGTON ST
HURON ST
PEARL ST
MICHIGAN AVE
FERRIS ST
46
45 +183 +183
44 -19 -19
48 +44 +9
49 +418 +18
50 -64 -64
51 -76 -76
52 -14 -14
53 +51 +40
61 -90 -90
62 +133 0
60 0 0
59 +2 +2
58 +50 +50
57 -18 -18
63 +10 +7
64 +25 +25
65 +12 +12
GROSS
NET
SURPLUS OF PARKING
+100
0 through 99
DEFICIT OF PARKING
-99 through -1
-100 +

West Cross District

WEST CROSS DDA DISTRICT

Introduction

The fourteen block West Cross District encompasses essentially the commercial frontage along West Cross Street from the Huron River to approximately College Place. Currently, the district includes about 370,000 square feet of occupied building area and 662 total parking spaces.

West Cross DDA District Parking Supply

Table I summarizes the existing parking supply in the West Cross study area. **Table J** on **page 37** details the parking throughout the study area and **Map WCD.1** on **page 38**, is a spatial view of the parking supply. There is a total of 662 parking spaces in this area. Of these spaces, 243 are on-street spaces representing 89 percent of the public parking supply with just one lot (Ballard Street Lot) consisting of 31 spaces being the only publicly available off-street parking within the district. The remaining 388 spaces are privately controlled.

Table I

WEST CROSS			
PUBLIC PARKING SUPPLY		Number	Percentage
	ON-STREET	243	89%
	OFF-STREET	31	11%
	PUBLIC PARKING TOTALS	274	41%
PRIVATE PARKING SUPPLY			
	PRIVATE PARKING TOTALS	388	59%
	TOTAL PARKING SUPPLY	662	

The table shows that Ypsilanti manages and controls just 41% of the parking in the West Cross study area. Although this is a higher proportion than observed for the Downtown study area, it still falls short of Rich & Associates experience and best practices where we have found that to successfully manage municipal parking it is desirable for the municipality to have control of at least 50% of the supply. This allows the municipality to effectively manage parking in terms of allocation, changing demand, potential market pricing, and allows the parking to be enforced with greater efficiency. Ypsilanti is not meeting this benchmark.

Detailed Parking Inventory

Table J below shows the allocation of public and private on and off-street parking within the West Cross DDA District by block. Several blocks have minimal supply while several others have significant parking capacity.

Table J

WEST CROSS

PARKING SUPPLY BY BLOCK

BLOCK	5	6	7	8	9/10	11	23	24	25	26	27	28	29	TOTALS
PUBLIC ON-STREET														
15 MINUTE														0
30 MINUTE FREE														0
30 MINUTE METERED														0
60 MINUTE												17		17
90 MINUTE														0
2 HOUR METERED	6							8	7	11	19	6	30	87
2 HOUR FREE														0
UNRESTRICTED				20	19	11								50
RESIDENTIAL PERMIT		18	13					4	6	27	8	10		86
BARRIER FREE			2									1		3
														243
PUBLIC OFF-STREET														
PUBLIC										13				13
BARRIER FREE										3				3
MOTORCYCLE														0
PUBLIC RESERVED/PERMIT										15				15
														31
PRIVATE														
OFF-STREET	12	91		101			63		12	6	16	37	33	371
BARRIER FREE		6		8			1					2		17
														388
TOTALS	**18**	**115**	**15**	**129**	**19**	**11**	**64**	**12**	**25**	**75**	**43**	**73**	**63**	**662**

Source: Rich and Associates Fall 2018

* In cases where parking spaces were not marked (on-street and off-street), the number of spaces were estimated.

Map WCD.1


FOREST AVE
OLIVE ST
HAMILTON ST
ADAMS ST
WASHINGTON ST
HURON ST
PERRIN ST
COLLEGE PLACE
BALLARD ST
FLORENCE
CROSS ST
EMMET ST
104 + 3 hc
91 + 6 hc
101 + 8 hc
37+2hc
6+1hc
15 permit
13 metered
3 hc
51+ 1hc
LEGEND:
BLOCK NUMBER
DISTRICT BOUNDARY
ON-STREET:
PUBLIC ON-STREET (UNLIMITED)
15 MINUTE - FREE
30 MINUTE
60 MINUTE
90 MINUTE - FREE
2 HOUR METER
2 HOUR - FREE
RESIDENTIAL PERMIT
hc BARRIER FREE
OFF-STREET:
PUBLIC
PUBLIC - RESERVED/PERMIT
PRIVATE / RESERVED LOTS
BLOCK FACE KEY PLAN:
A
D
B
C
NORTH
PARKING SUPPLY
WEST CROSS DDA DISTRICT

Parking Conditions Audit – West Cross

The Ballard Street Lot is technically not within the defined West Cross District boundaries but lies just on the border which is why it is being included. In order to be accepted, parking areas must be not only clearly signed as permissible parking but should appear to be designed and maintained that patrons will feel not only that they are safe when parking in the lot but that their vehicle is safe from vandalism or damage from other vehicles parking or maneuvering through the lot. As **Table K** shows there are a number of issues with the condition of the Ballard Street Lot and the meters in the lot.

PARKING CONDITIONS AUDIT

Table K

West Cross Parking Lot Overview

Lot Name or #	Block #	# Stalls	# HC Stalls	Lighting	Striping	Surface Type and Conditions	Control Equipment	Signage	Pedestrian Pathways	Bicycle Provisions	Landscaping	Comments
Ballard St Lot	26	15-permit and 13-2 hr meter	3	OK	Metered spaces OK, Permit side is not striped	This lot is in poor shape. Large potholes and areas of dirt.	Meters and signs. Meters are $0.50/hr, 8:00am - 8:00pm	No identification sign, there is an location sign (arrow pointing wrong way), employee permit signs need repair, no HC signs.	No	No	No	Meters are all different heights in this lot. Some too high for many people to read. Many of the meters window to see durations are scratched or clouded and you cannot see through them. This lot needs to be surfaced.

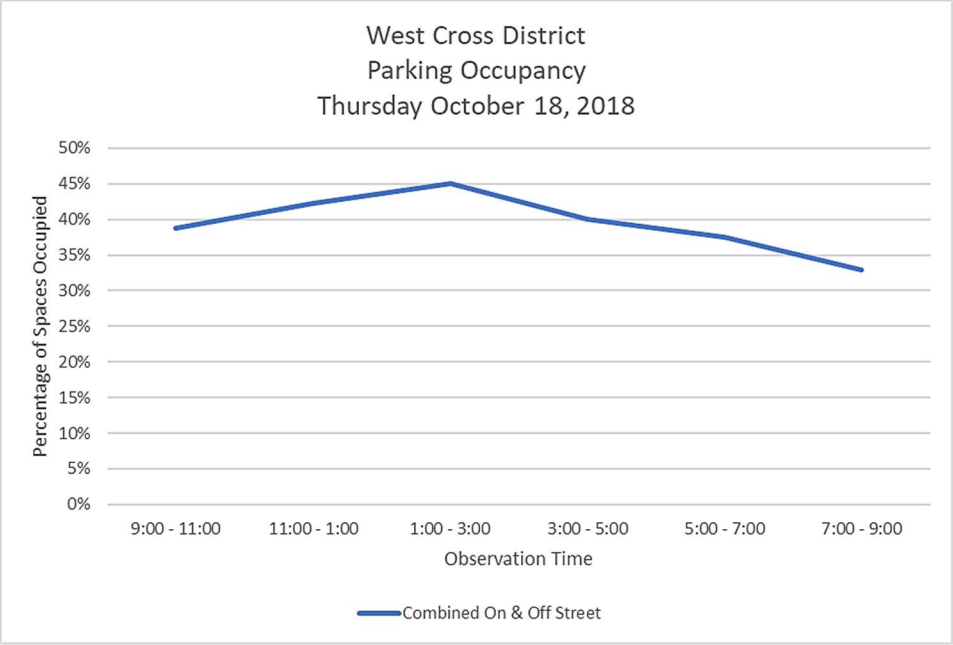
WEST CROSS DISTRICT TURNOVER / OCCUPANCY RESULTS

Turnover and occupancy counts were also conducted in the West Cross District on a Thursday (Thursday, October 18, 2018) and Saturday, November 3, 2018. The Thursday counts were conducted between 9:00 am and 9:00 pm while the Saturday counts at the request of the City were conducted between 4:00 pm and 12:00 am.

Occupancy – Thursday Counts

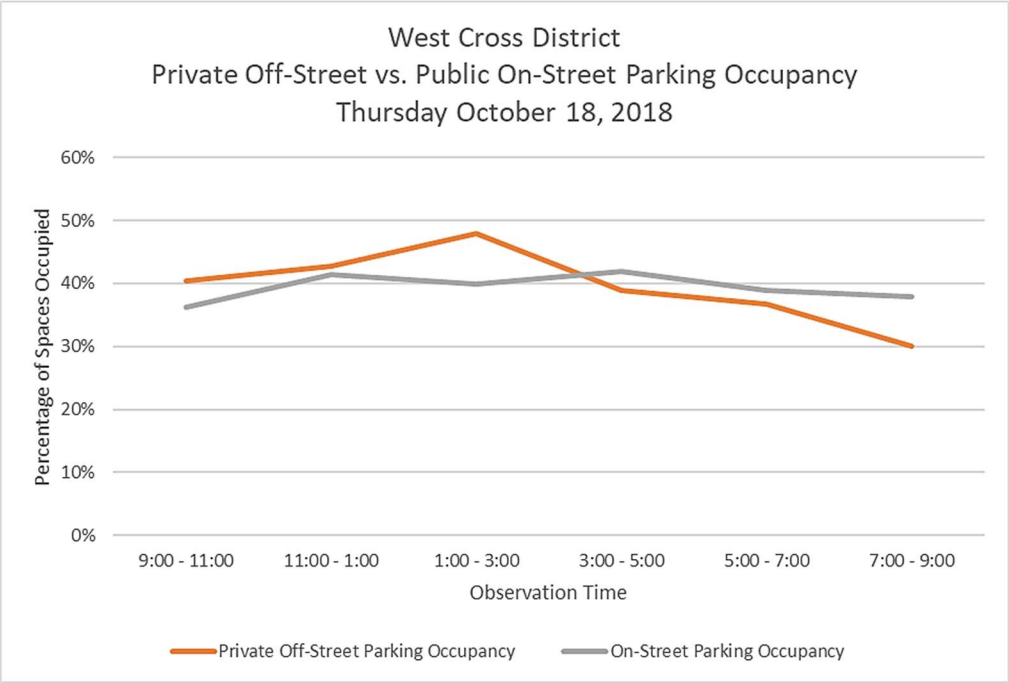
The occupancy results for the West Cross District reflect peak demand occurring coincident with the 1:00 pm to 3:00 pm time period. This was also the peak period observed during the downtown district study.

Graph 3



Occupancy of the private parking increases from 43 percent during the 11:00 am – 1:00 pm period to 48 percent at this peak period. It then drops off to less than 40 percent during the next period. The on-street occupancy holds fairly consistent at about 40 percent occupancy through much of the day. **Map WCD.2** on **page 43** shows the daytime peak hour occupancy for each observed parking area in the West Cross district.

Graph 4



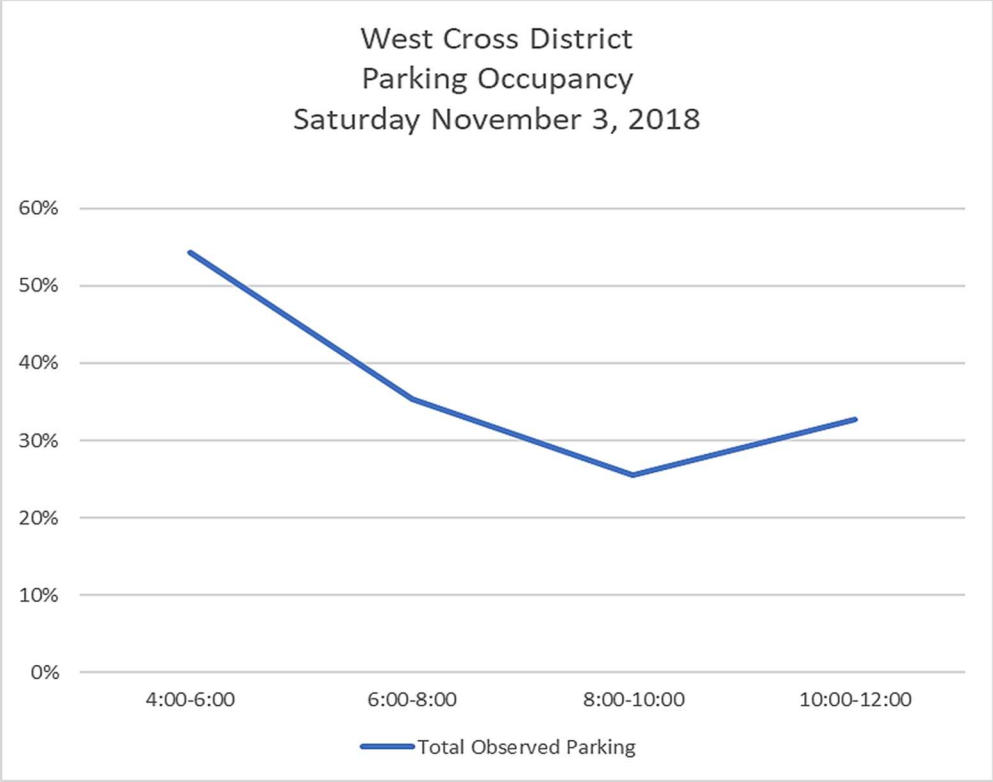
Map WCD.2


WEST CROSS DISTRICT
PEAK DAYTIME OCCUPANCY
Thursday October 18, 2018
1:00 PM - 3:00 PM
PARKING OCCUPANCY
85% through 100%
75% through 84%
50% through 74%
0 through 49%
BLOCK FACE KEY PLAN:
A
D # B
C
FOREST AVE
OLIVE ST
FLORENCE
CROSS ST
EMMET ST
WASHTENAW AVE
COLLEGE PLACE
PERRIN ST
BALLARD ST
HAMILTON ST
ADAMS ST
WASHINGTON ST
HURON ST
Historical Museum

OCCUPANCY – SATURDAY COUNTS

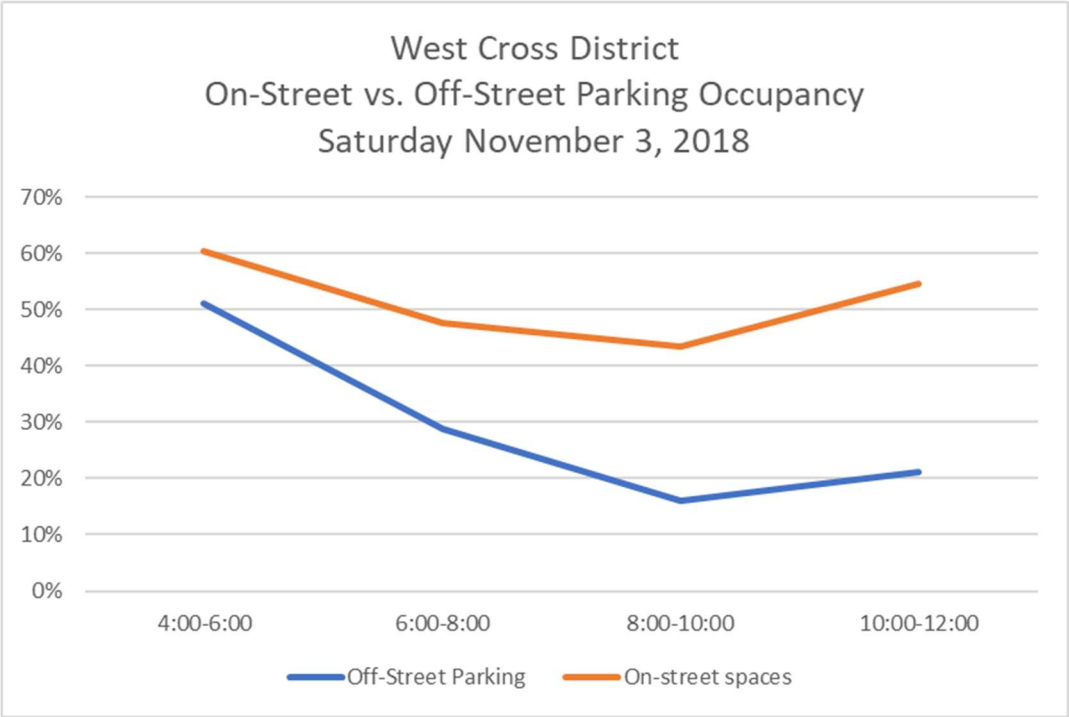
Results from the Saturday counts showed that the West Cross District peaked between 4:00 pm and 6:00 pm. This is partially due to the mass at St. John the Baptist Catholic Church on the Saturday afternoon with the 94-space lot virtually full at this time. After this peak the occupancy exhibited a steady decline although there was a slight increase between 10:00 pm and 12:00 am. The overall Saturday results are demonstrated by **Graph 5** below.

Graph 5



Graph 6 below shows how both the on-street and off-street parking within the West Cross District exhibited a slight increase in occupancy during the late evening observations.

Graph 6



Map WCD.3


WEST CROSS DISTRICT
PEAK DAYTIME OCCUPANCY
Saturday November 3, 2018
4:00 PM - 6:00 PM
PARKING OCCUPANCY
85% through 100%
75% through 84%
50% through 74%
0 through 49%
BLOCK FACE KEY PLAN:
FOREST AVE
OLIVE ST
CROSS ST
EMMET ST
WASHTENAW AVE
PERRIN ST
COLLEGE PLACE
BALLARD ST
HAMILTON ST
ADAMS ST
WASHINGTON ST
HURON ST
FLORENCE
Historical Museum

TURNOVER

The results from Thursday, October 18, 2018 as detailed below show that 207 cars were observed in 117 parking stalls over the course of the 12-hour survey. These results reflect a relatively low turnover of just 1.15 which is likely due to the relatively low occupancy (which peaked at just 45 percent occupied). With circuits conducted every two hours a car conceivably could be observed in the same space and technically not be in violation if it arrived just prior to the initial count and then departed just after the second time it was observed. Therefore, only if cars that are observed three times or more in the same spot are counted, **Table L** below shows that 14 of the 207 cars counted would be in violation. This is a violation rate of 7 percent which is slightly above Rich's maximum recommended value that a community should not exceed five percent.

One important point is shown on block 28B which has 17 spaces designated as 60-minute parking. In this case, any car seen more than once is likely in violation. One final factor that can affect the apparent violation rate would be cars which are observed parked later in the afternoon or evening after enforcement hours end for the day that therefore would not actually be in violation. These results suggest that with the exception of the 60-minute parking violations, the violation rate in the West Cross District is not a cause for significant concern.

Table L

West Cross Turnover Thursday, October 18, 2018									
Block #	Description	Spaces	1X	2X	3X	4X	5X	Turnover	Total Cars
24	24A - 2hr Meters	8						0.00	0
25	25A - 2hr Meters	7	7					1.00	7
26	26A - 2hr Meters	9	4					0.44	4
27	27A - 2Hr Meters	10	15	1		1		1.70	17
27	27D Unmarked	9	39	5		1		5.00	45
28	28A - 2hr Meters	7	3					0.43	3
28	28B - 60min Free	17	40	5	6	2	3	3.29	56
29	29B - 2hr Meters	6	7	1			1	1.50	9
29	29A - 2hr Meters	8	19	1				2.50	20
29	29D - 2hr Meters	16	13	2				0.94	15
30	30B - 2hr Meters	20	29	2				1.55	31
	Totals	**117**	**176**	**17**	**6**	**4**	**4**	**1.15**	**207**

Results are shown by **Table M** for the Saturday evening counts conducted on November 3, 2018. Although it is unlikely that enforcement was being performed during this period, the results show that 12 of the 141 (9%) cars observed in these spaces were clearly staying longer than two hours.

As the occupancy counts showed, the overall occupancy of on-street parking in the West Cross District on Saturday was only about 50 percent which suggests that other spaces should be available.

Table M

West CrossTurnover Saturday, November 3, 2018							
Block #	Description	Spaces	1X	2X	3X	Turnover	Total Cars
24	24A - 2hr Meters	8	3			0.38	3
25	25A - 2hr Meters	7	5		1	0.86	6
26	26A - 2hr Meters	11	7	1	3	1.00	11
27	27A - 2hr Meters	10	11	2	1	1.40	14
27	27D - 2hr Meters	9	14	4		2.00	18
28	28A - 2hr Meters	7	13	2		2.14	15
29	29A - 2hr Meters	8	14	2		2.00	16
29	29D - 2hr Meters	16	18	5	2	1.56	25
30	30B - 2hr Meters	20	26	2	5	1.65	33
	Totals	**96**	**111**	**18**	**12**	**1.47**	**141**

PARKING DEMAND CALCULATION – WEST CROSS

The **Adjusted Peak Hour Occupancy** (APHO) in the West Cross District calculated as 343± spaces. This compares well with the **Calculated Peak Hour Demand** (CPHD) of 339± spaces derived from the parking generation rates established. The next step in the process compares the parking demand versus the supply both for individual blocks as well as for the West Cross DDA district in total. This is reflected by blocks having a gross surplus (the parking supply exceeds the parking demand on that block) or a gross deficit (the demand exceeds the supply). Having blocks with deficits is not uncommon in an urban area as many times the parking intended to service a specific need is provided on adjacent blocks. The issue becomes when many contiguous blocks all have deficits which means patrons and or staff may be forced to walk to and from parking more distant than they would like.

Table N on **page 51** demonstrates the parking demand matrix for the West Cross DDA District. These calculations show four blocks with minimal gross parking deficits while overall the West Cross area has an existing gross surplus of 323± spaces.

As was noted with the assessment of parking supply within the West Cross DDA district, the City controls just 41 percent of the supply with the balance privately owned. As just noted, many of these business owners or controlling entities would not want to make their “extra” parking spaces open since this could presumably make parking more difficult for their customers or visitors. Therefore, in order to demonstrate a more realistic condition that some parking patrons may face, Rich calculates the “net surplus or deficit” for each block and for the West Cross District in total.

The parking demand calculated on this net basis shows the same blocks with deficits as under the gross basis but the overall surplus for the West Cross District is reduced from 323± spaces to just 167± spaces after discounting excess private supply.

A spatial representation of the surplus or deficit by block is demonstrated on the following page. It will be noted that two values are shown for each block. The numerator reflects the surplus or deficit on the “gross” basis, while the denominator shows the surplus or deficit on the “net” basis. The color coding of the maps reflects the net values.

MAP WCD.4

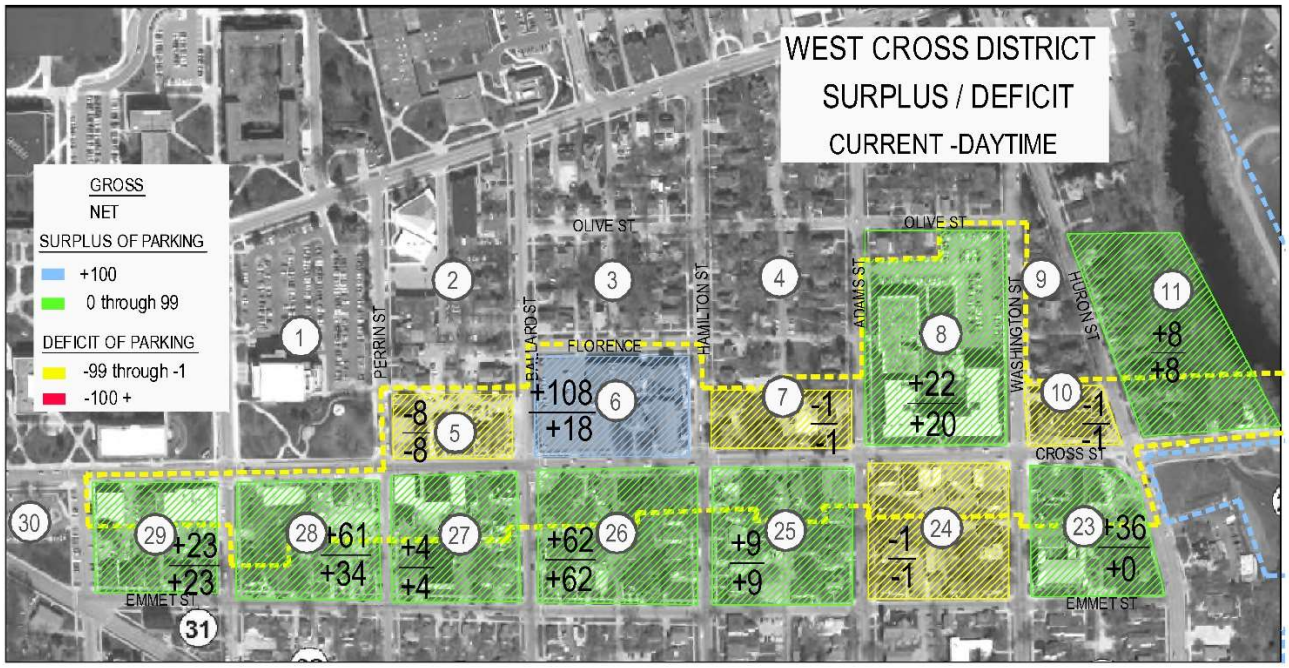

WEST CROSS DISTRICT
SURPLUS / DEFICIT
CURRENT -DAYTIME
GROSS
NET
SURPLUS OF PARKING
+100
0 through 99
DEFICIT OF PARKING
-99 through -1
-100 +
OLIVE ST
FLORENCE
EMMET ST
CROSS ST
PERRIN ST
HAMILTON ST
ADAMS ST
WASHINGTON ST
HURON ST
1
2
3
4
5
-8
-8
6
+108
+18
7
-1
-1
8
+22
+20
9
10
-1
-1
11
+8
+8
23
+36
+0
24
-1
-1
25
+9
+9
26
+62
+62
27
+4
+4
28
+61
+34
29
+23
+23
30
31

TABLE N - WEST CROSS PARKING DEMAND MATRIX

West Cross DDA District																Existing Conditions	
Daytime Parking Demand Matrix																	
Block	Office	Medical Office	Retail	Service	Mixed Use	Restaurant /Bar	Residential	Community	Museum	Warehouse	Vacant	TOTAL	Public		Private	Total	Gross	Net
						(per unit, 850sf)												
Current Parking Generation Ratios	1.25	1.50	1.25	1.50	1.50	2.00	0.60	0.25	1.50	0.45	2.25		On-Street	Off-Street	Off-Street	On & Off-Street	Surplus / (Deficit)	Surplus / (Deficit)
5	-	-	3	-	13	-	11	-	-	-	-	26	6	0	12	18	(8)	(8)
6	-	-	-	-	-	-	-	-	7	-	-	7	18	0	97	115	108	18
7	1	-	-	-	8	-	7	-	-	-	-	16	15	0	0	15	(1)	(1)
8	-	-	-	-	-	-	107	-	-	-	-	107	20	0	109	129	22	20
10	6	-	-	-	-	-	9	6	-	-	-	20	19	0	0	19	(1)	(1)
11	-	-	3	-	-	-	-	-	-	-	-	3	11	0	0	11	8	8
23	-	-	-	-	-	-	-	-	27	1	-	28	0	0	64	64	36	0
24	-	-	1	-	11	-	2	-	-	-	-	13	12	0	0	12	(1)	(1)
25	2	-	-	-	-	6	8	-	-	-	-	16	13	0	12	25	9	9
26	4	-	-	-	-	2	6	-	-	-	-	13	38	31	6	75	62	62
27	-	-	3	-	4	22	9	-	-	-	18	39	27	0	16	43	4	4
28	-	5	-	-	-	-	7	-	-	-	-	12	34	0	39	73	61	34
29	-	-	-	-	17	18	5	-	-	-	6	40	30	0	33	63	23	23
Totals	12	5	9	-	53	48	172	6	34	1	24	339	243	31	388	662	323	167

WEST CROSS PARKING – FUTURE CONDITIONS

In addition to evaluating the parking for the existing conditions, Rich is also projecting the parking as it might exists in future years. At this point, future development plans are limited and therefore the future demand is based on re-occupancy of portions of the 11,000 sf of existing vacant space in Downtown Ypsilanti.

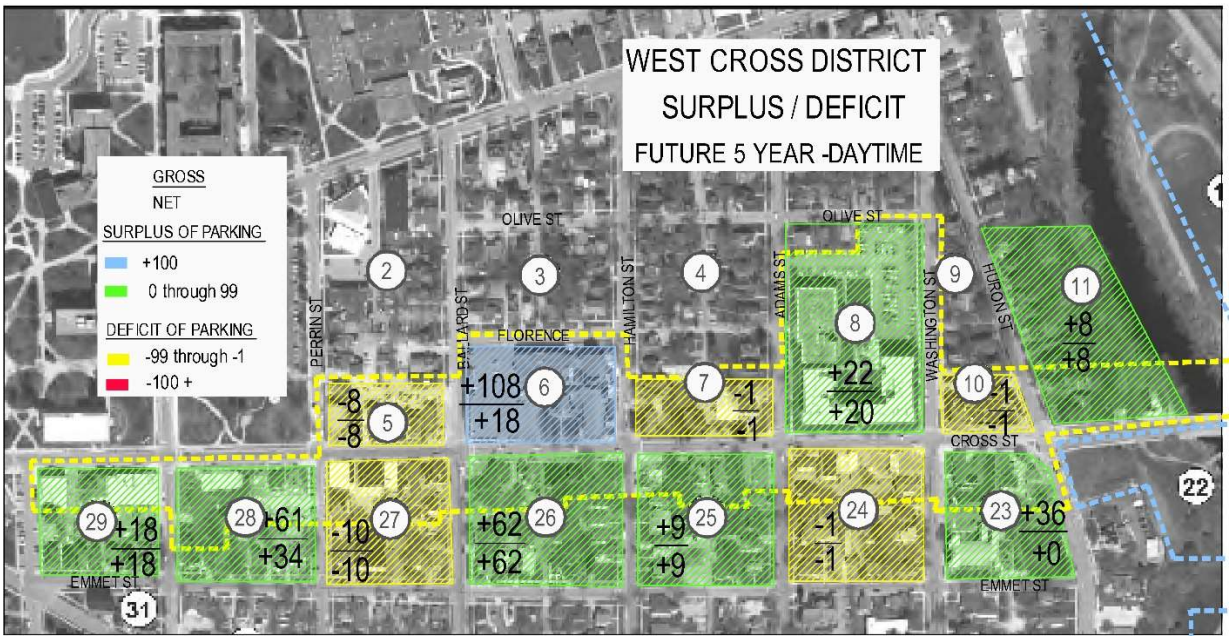
Five Years

The five-year assumption is that about 40 percent (4,300 sf) of the existing 11,000 (10,864 sf) vacant square feet in the West Cross District of Ypsilanti becomes re-occupied. **Table O** below shows two blocks with existing vacant square footage which has a minimal impact on future parking needs. Assuming 2.25 spaces required per 1,000 square feet, these two blocks if 40% re-occupied in five years would add 10 spaces to the existing 339 space calculated demand increasing the West Cross District parking demand to 349± spaces at peak time. This would reduce the gross surplus from 323± to 313± and the net surplus from 167± to 157± spaces.

Table O - Five Year Demand vs. Supply Comparison

West Cross DDA District								Future with 40%	
Daytime Parking Demand Matrix									
Block		Vacant		Public		Private	Total	Gross	Net
			40%						
Current Parking Generation Ratios	Existing Demand	2.25	Total Demand with 40% of vacant occupied	On-Street	Off-Street	Off-Street	On & Off-Street	Surplus / (Deficit)	Surplus / (Deficit)
5	26	-	26	6	0	12	18	(8)	(8)
6	7	-	7	18	0	97	115	108	18
7	16	-	16	15	0	0	15	(1)	(1)
8	107	-	107	20	0	109	129	22	20
10	20	-	20	19	0	0	19	(1)	(1)
11	3	-	3	11	0	0	11	8	8
23	28	-	28	0	0	64	64	36	0
24	13	-	13	12	0	0	12	(1)	(1)
25	16	-	16	13	0	12	25	9	9
26	13	-	13	38	31	6	75	62	62
27	39	7	46	27	0	16	43	(3)	(3)
28	12	-	12	34	0	39	73	61	34
29	40	2	43	30	0	33	63	20	20
Totals	339	10	349	243	31	388	662	313	157

WCD.5



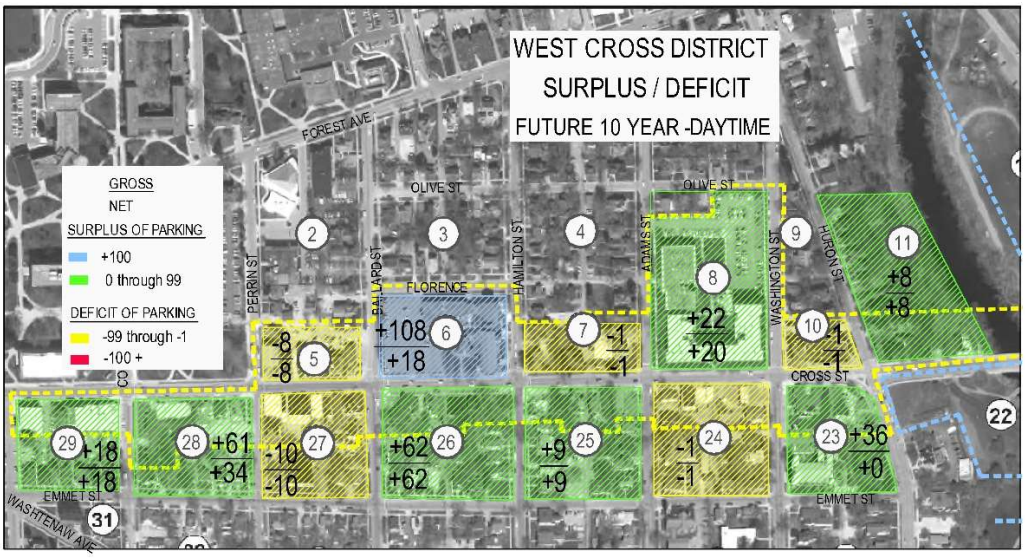
Ten Years

The minimal vacant square footage determined for the West Cross District shows that even at 80% of this space re-occupied as presumed for the ten-year forecast has a minimal impact on the overall parking needs. While **Table P** shows three blocks with very minimal deficits (1 space each), two other blocks have small deficits of just 8 or 10 spaces that should be able to be accommodated on adjacent blocks. At 80 percent of the 11,000 square feet of vacant space re-occupied, this would add just 20 spaces increasing the district demand from 339± (existing condition) to just 359± in ten years. This assumes that all existing square footage remains occupied in similar configurations as now and thus would only slightly reduce the net surplus from 157± spaces at the five-year projection to 148± net surplus spaces at the ten-year forecast.

Table P - Ten Year Demand vs. Supply Comparison

West Cross DDA District								Future with 80%	
Daytime Parking Demand Matrix									
Block		Vacant		Public		Private	Total	Gross	Net
			80%						
Current Parking Generation Ratios	Existing Demand	2.25	Total Demand with 80% of vacant occupied	On-Street	Off-Street	Off-Street	On & Off-Street	Surplus / (Deficit)	Surplus / (Deficit)
5	26	-	26	6	0	12	18	(8)	(8)
6	7	-	7	18	0	97	115	108	18
7	16	-	16	15	0	0	15	(1)	(1)
8	107	-	107	20	0	109	129	22	20
10	20	-	20	19	0	0	19	(1)	(1)
11	3	-	3	11	0	0	11	8	8
23	28	-	28	0	0	64	64	36	0
24	13	-	13	12	0	0	12	(1)	(1)
25	16	-	16	13	0	12	25	9	9
26	13	-	13	38	31	6	75	62	62
27	39	15	53	27	0	16	43	(10)	(10)
28	12	-	12	34	0	39	73	61	34
29	40	5	45	30	0	33	63	18	18
Totals	339	20	359	243	31	388	662	303	148

Map WCD.6



Depot Town District

DEPOT TOWN DDA DISTRICT

Introduction

A total of 12 blocks are included as part of the Depot Town DDA District. Most of the parking demand is centered at the intersection of N. River Street and Cross Street but does include demand at the Freight House and the parking supply at Frog Island Park. The existing residential and commercial square footage (occupied) totals just short of 175,000 square feet with an additional 35,500 square feet of space un-occupied (per data provided by the City).

Depot Town DDA District Parking Supply

Table Q summarizes the existing parking supply in the Depot Town study area. **Table R** on **page 56** details the parking throughout the study area and **Map DTD.1** is a spatial view of the parking supply. There are 625 parking spaces in the Depot Town DDA district study area. Of these spaces 86 are on-street spaces and 228 are public off-street spaces for a total public supply of 314 spaces. The balance of 311 spaces are privately controlled.

Table Q

DEPOT TOWN			
PUBLIC PARKING SUPPLY		Number	Percentage
	ON-STREET	86	27%
	OFF-STREET	228	73%
	PUBLIC PARKING TOTALS	314	50%
PRIVATE PARKING SUPPLY			
	PRIVATE PARKING TOTALS	311	50%
	TOTAL PARKING SUPPLY	625	

Detailed Parking Inventory

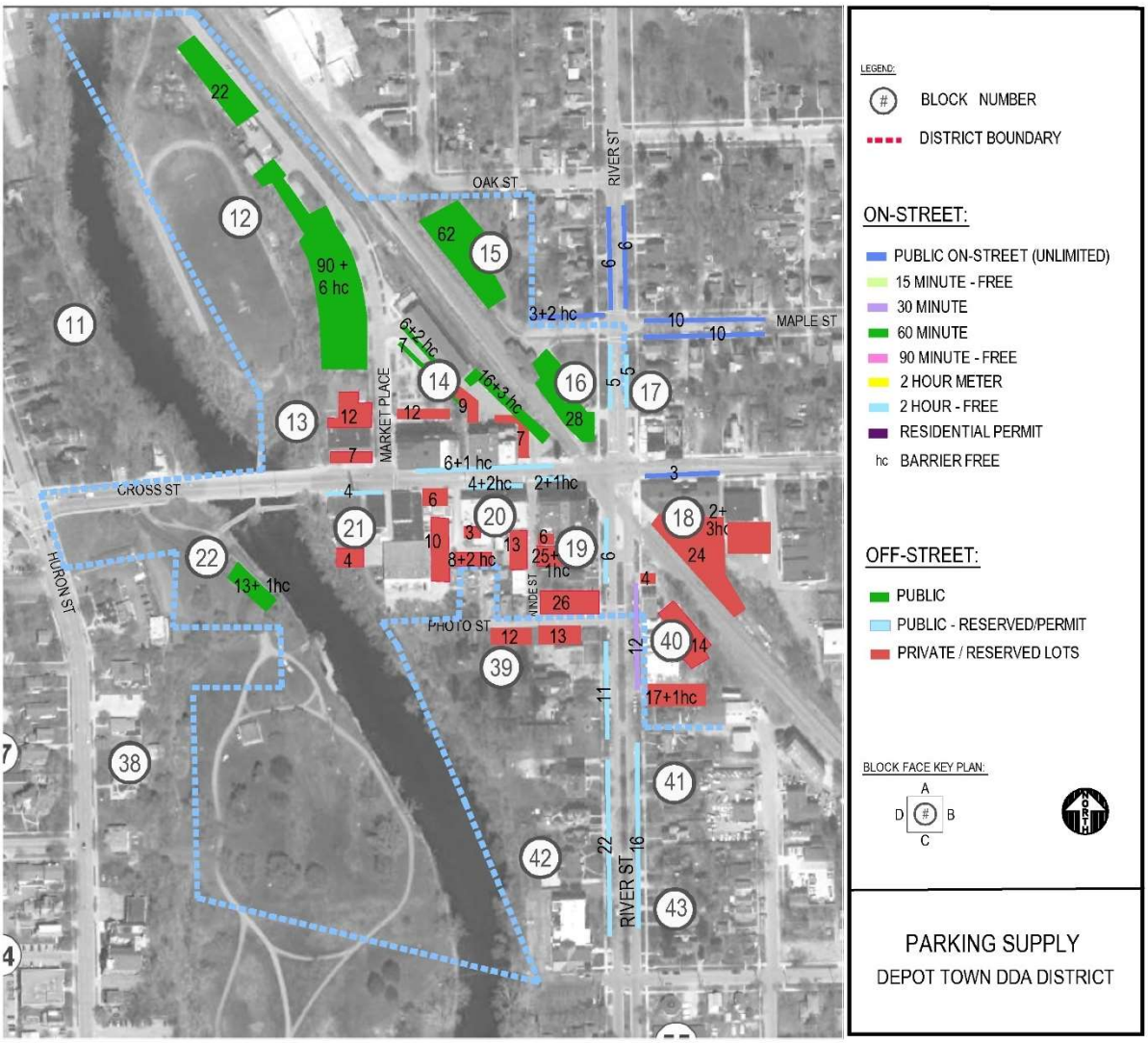
Table R below details the amount of on-street and off-street public and private parking by block. This table shows that none of the on-street parking supply in Depot Town is paid parking. Analysis of the designated public lots which includes the Frog Island lot and 62-space Maple Street along the tracks on block 15 shows that none of the off-street supply is paid either.

Table R

DEPOT TOWN													
PARKING SUPPLY BY BLOCK													
BLOCK	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**40**	**TOTALS**
PUBLIC ON-STREET													
15 MINUTE													0
30 MINUTE FREE												12	12
30 MINUTE METERED													0
60 MINUTE													0
90 MINUTE													0
2 HOUR METERED													0
2 HOUR FREE			6		5	5		8	3	4			31
UNRESTRICTED				15		20	3						38
RESIDENTIAL PERMIT													0
BARRIER FREE			1	2				1	1				5
Total Public On-street	**0**	**0**	**7**	**17**	**5**	**25**	**3**	**9**	**4**	**4**	**0**	**12**	**86**
PUBLIC OFF-STREET													
PUBLIC	112		29	62							13		216
BARRIER FREE	6		5								1		12
MOTORCYCLE													0
PUBLIC RESERVED/PERMIT													0
Total Public Off-street	**118**	**0**	**34**	**62**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**228**
PRIVATE													
OFF-STREET		19	28		28		48	57	24	20	45	35	304
BARRIER FREE							3	1	2			1	7
Total Private	**0**	**19**	**28**	**0**	**28**	**0**	**51**	**58**	**26**	**20**	**45**	**36**	**311**
TOTALS	**118**	**19**	**69**	**79**	**33**	**25**	**54**	**67**	**30**	**24**	**59**	**48**	**625**
Source: Rich and Associates Fall 2018													

* In cases where parking spaces were not marked (on-street and off-street), the number of spaces were estimated.

Map DTD.1



Parking Conditions Audit – Depot Town

While the Frog Island lot is a dirt lot and therefore has some issues with the condition of the parking surface, its biggest liability is that both it and the lot surrounding the Freight House is very confusing for allowable parking. There is some signage for two-hour parking but it is unclear where this parking starts and ends. There is also some parking that is designated just for the businesses that back to the lot.

PARKING CONDITIONS AUDIT

Table S

Depot Town Parking Lot Overview

Lot Name or #	Block #	# Stalls	# HC Stalls	Lighting	Striping	Surface Type and Conditions	Signage	Pedestrian Pathways	Bicycle Provisions	Landscaping	Comments
Freight House Lot	14	23	3	OK	Striping is faded	Cracks, potholes, patches.	No identification sign so it is unclear who can park in this lot, there is a directional sign pointing to the lot on E. Cross. 2hr parking signs, 8:00am - 6:00pm.	No	No	Some	Confusing, hard to tell public parking from private.
Curb parking across from Freight House	14	7	0	OK	OK	OK	2hr signs and a pedestrian wayfinding sign near the parking.	Yes	No	Some	Confusing, there is two- hour parking along a curb that is pained yellow.
Frog Island South	12	78	6	OK	Needs to be restriped	Lot is in poor condition and needs to be resurfaced. There are large potholes with uneven surfaces.	No identification sign so it is unclear who can park here.	No	No	Yes	The landscaping needs better maintenance along the edge of the park and the entrance to the park.
Frog Island North	12	22	0	None	N/A	dirt lot	No	No	No	No	
Maple St Lot	15	62	0	Good	OK	OK, some cracking.	No	No	No	Yes	Trees need to be trimmed, the branches are blocking the lights.
Riverside Park North Lot	22	12	1	OK	OK	asphalt ok, some cracks	No	Yes	No	Yes	

DEPOT TOWN DISTRICT TURNOVER / OCCUPANCY RESULTS

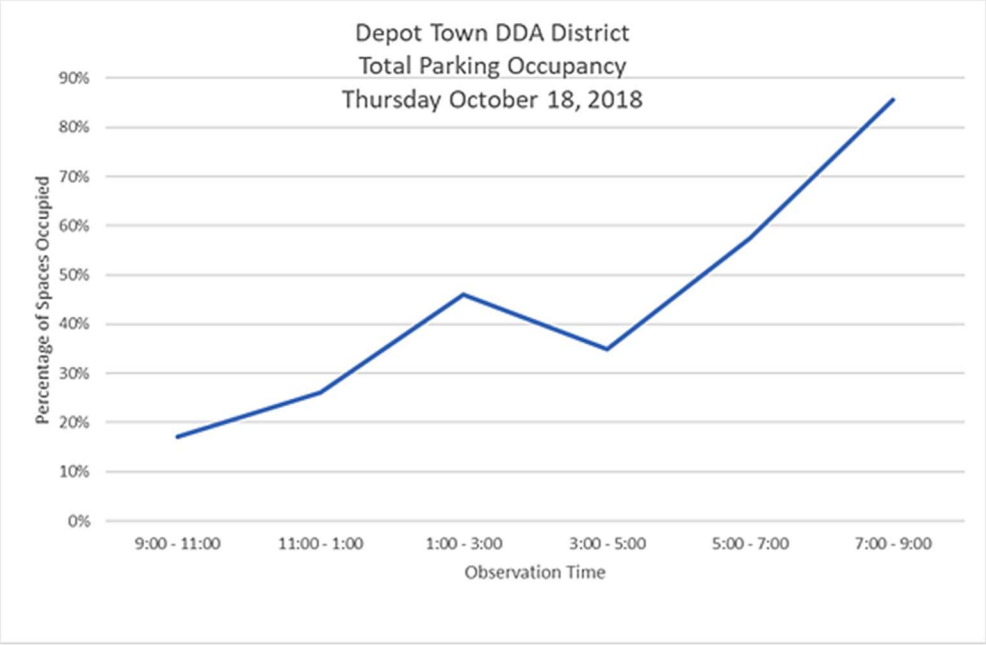
The analysis of the results showed Depot Town to be somewhat unique compared to the Downtown and West Cross districts because while it exhibited a similar afternoon peak, Depot Town also showed a much more significant evening peak.

Occupancy – Thursday Counts

The occupancy analysis in the Depot Town DDA district exhibited conditions unique from the previous two study area districts. Based on the Thursday observations, both downtown and West Cross demonstrated a mid-afternoon peak with steadily declining parking utilization throughout the remainder of the day and evening. This contrasts with the conditions observed in Depot Town that showed an initial early afternoon peak (1:00 pm – 3:00 pm), followed by a slight decrease in parking utilization during the 3:00 pm to 5:00 pm period followed by a sharp increase in parking utilization to where nearly 90 percent of the available parking supply in Depot Town is occupied between 7:00 pm and 9:00 pm. The Saturday observations peaked during the 8:00 pm to 10:00 pm period with a slightly lower 77 percent of the spaces occupied.

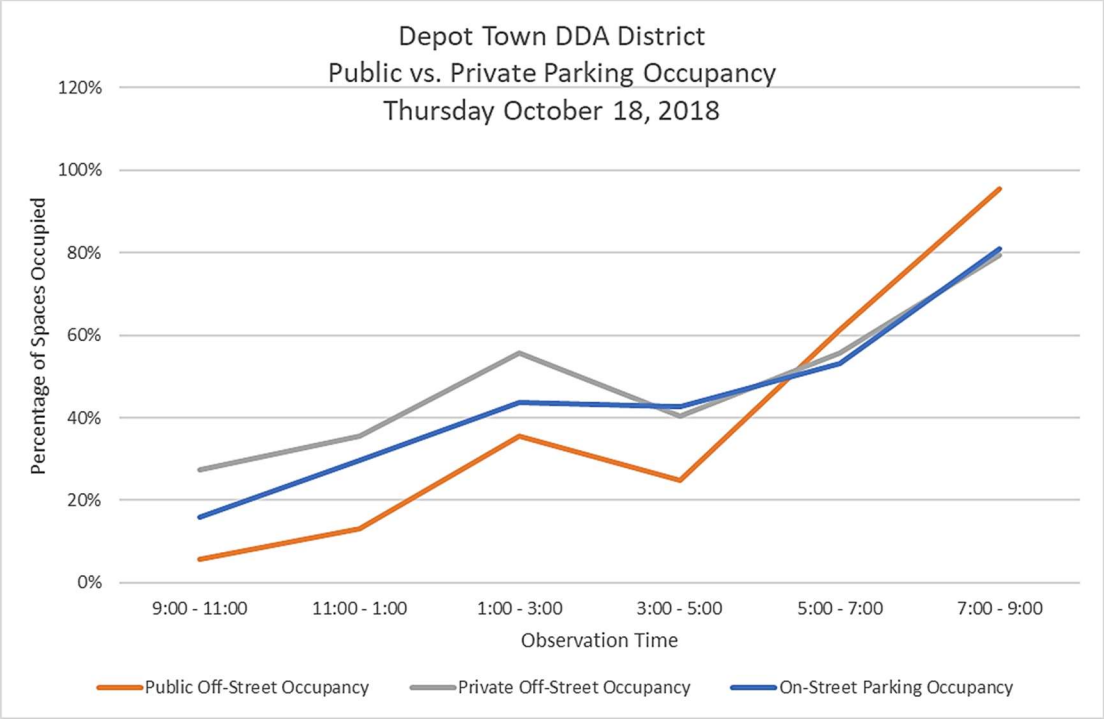
Graph 7 below shows the total occupancy results for the Thursday occupancy count day while **Graph 8** on the following page, shows the results separated into the public and private off-street spaces and the on-street parking occupancy rates for this same day. The peak daytime and peak evening occupancy rates are represented spatially on pages 61 and 62.

Graph 7

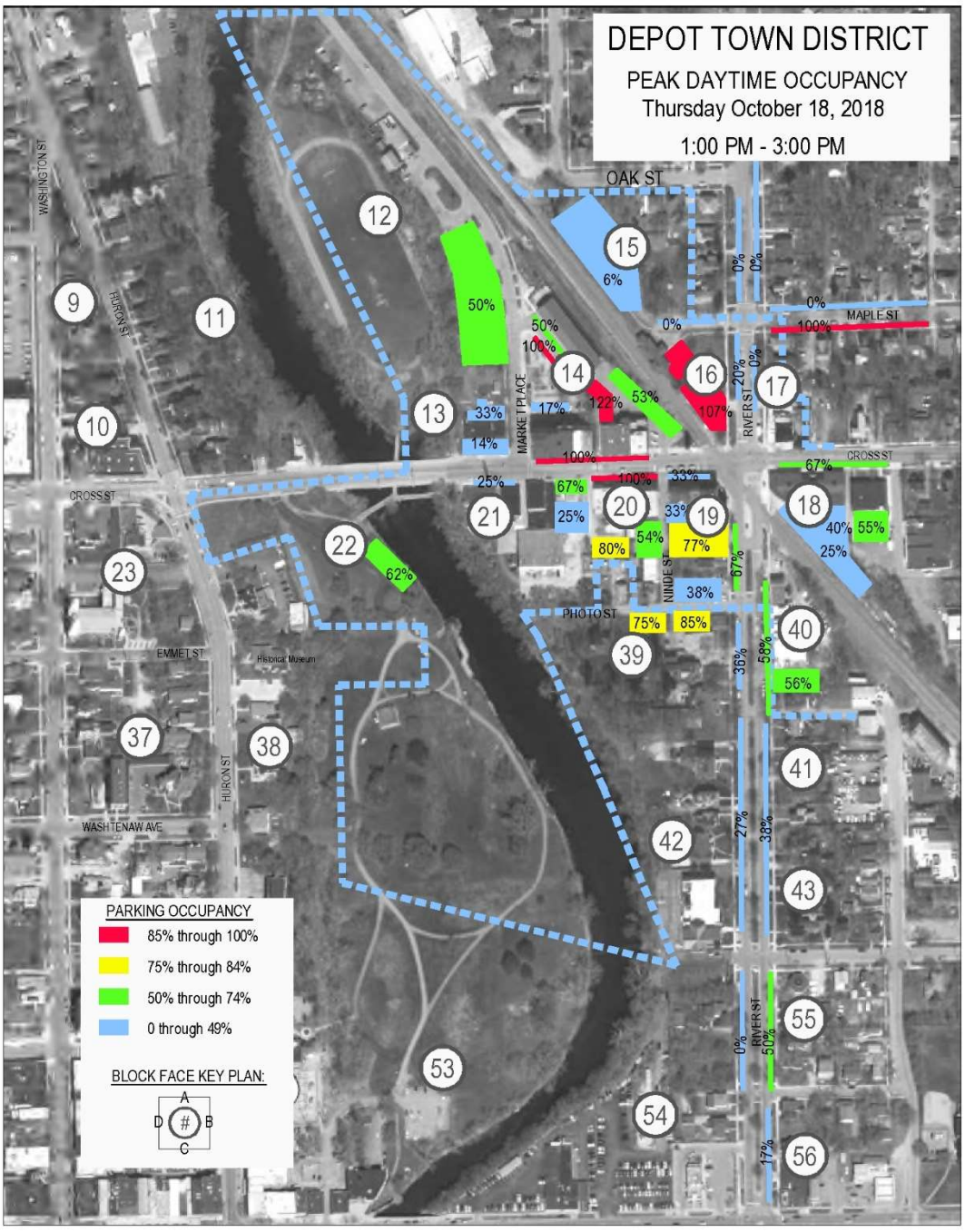


Graph 8 below separates the occupancy results from the public on-street and off-street results from the private off-street. The results show that each classification exhibits similar profiles with occupancy peaking relatively late in the day.

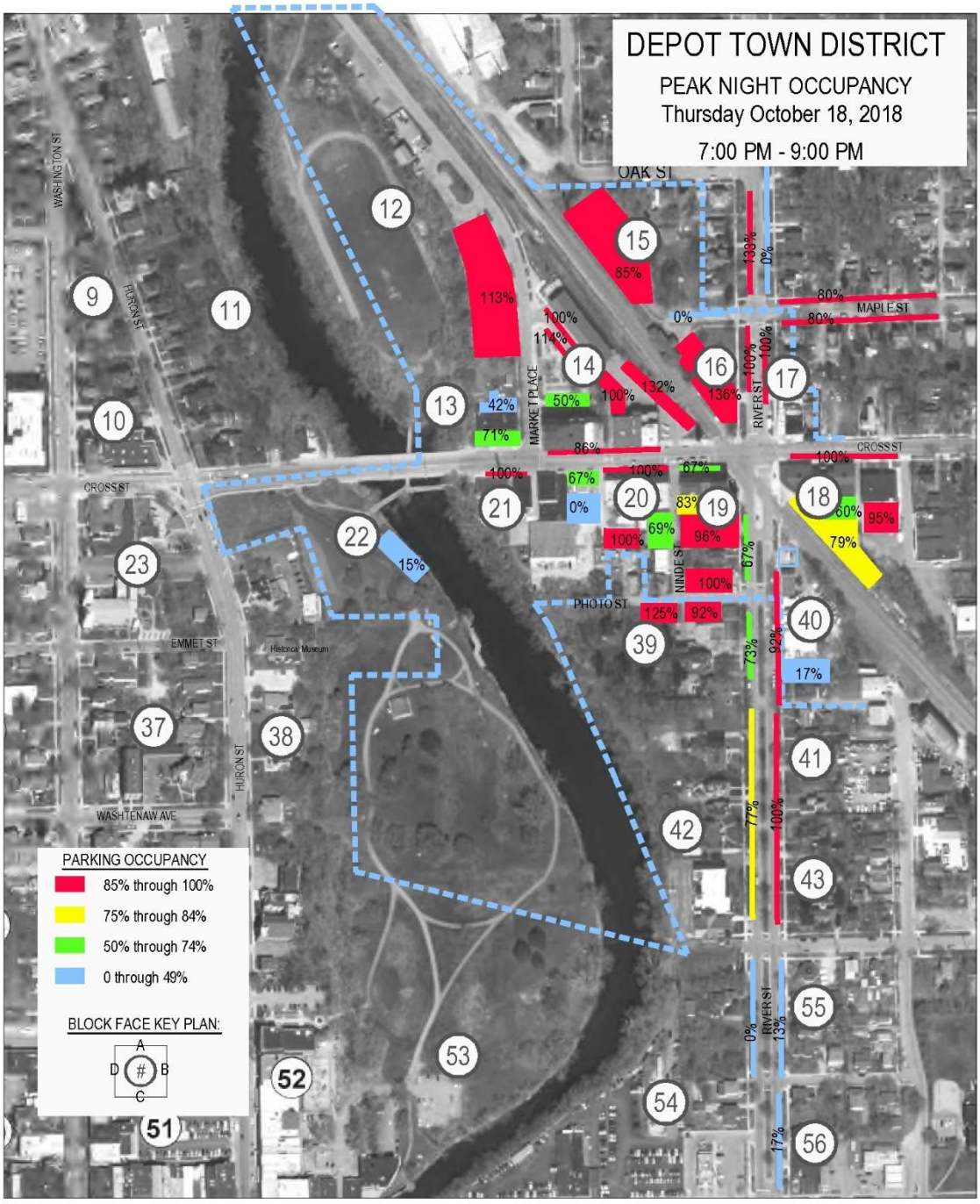
Graph 8



Map DTD.2


DEPOT TOWN DISTRICT
PEAK DAYTIME OCCUPANCY
Thursday October 18, 2018
1:00 PM - 3:00 PM
OAK ST
MAPLE ST
CROSS ST
EMMET ST
PHOTO ST
WASHTENAW AVE
HURON ST
MARKET PLACE
NINDE ST
RIVER ST
Historical Museum
PARKING OCCUPANCY
85% through 100%
75% through 84%
50% through 74%
0 through 49%
BLOCK FACE KEY PLAN:

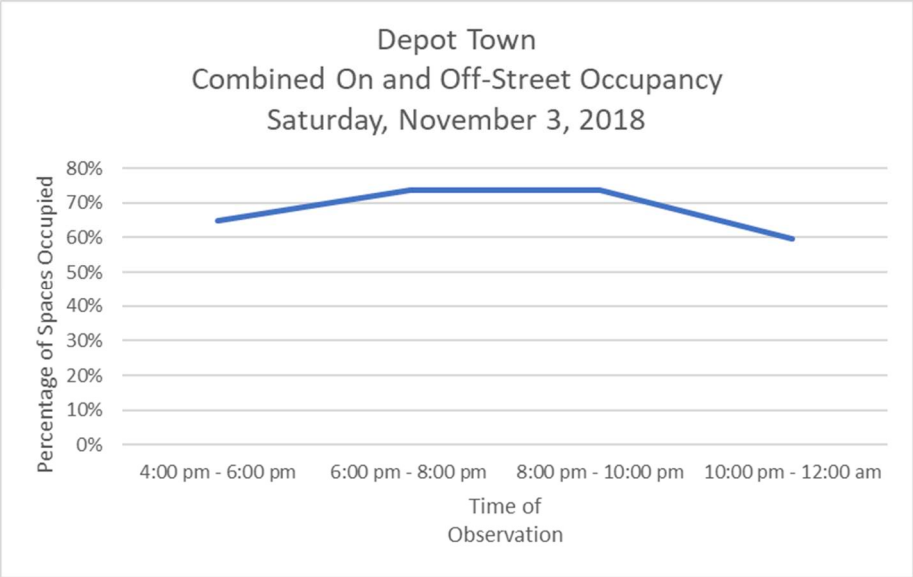
Map DTD.3


DEPOT TOWN DISTRICT
PEAK NIGHT OCCUPANCY
Thursday October 18, 2018
7:00 PM - 9:00 PM
PARKING OCCUPANCY
85% through 100%
75% through 84%
50% through 74%
0 through 49%
BLOCK FACE KEY PLAN:
A
D # B
C
WASHINGTON ST
HURON ST
OAK ST
MAPLE ST
MARKET PLACE
RIVER ST
CROSS ST
NINDE ST
PHOTO ST
EMMET ST
WASHTENAW AVE
Historical Museum

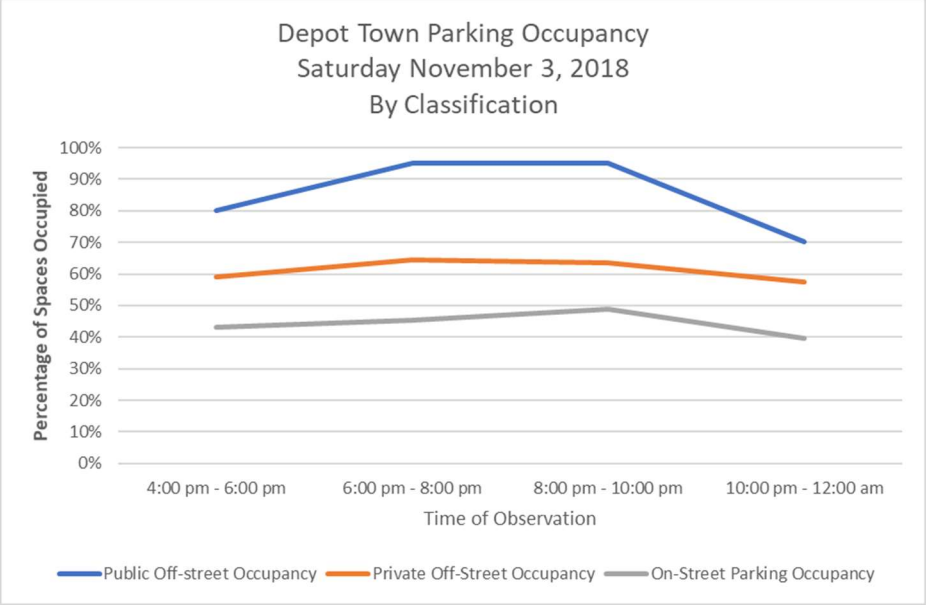
Occupancy – Saturday Counts

While the Thursday counts showed peak occupancy during the evening (7:00 pm – 9:00 pm) of all spaces approaching 90 percent, the Saturday counts peaked at about this same time (6:00 pm – 10:00 pm) with about 75 percent of all spaces occupied. In both cases the public off-street lots were approaching 100 percent full on the Thursday date and reaching 95 percent occupancy on the Saturday count date.

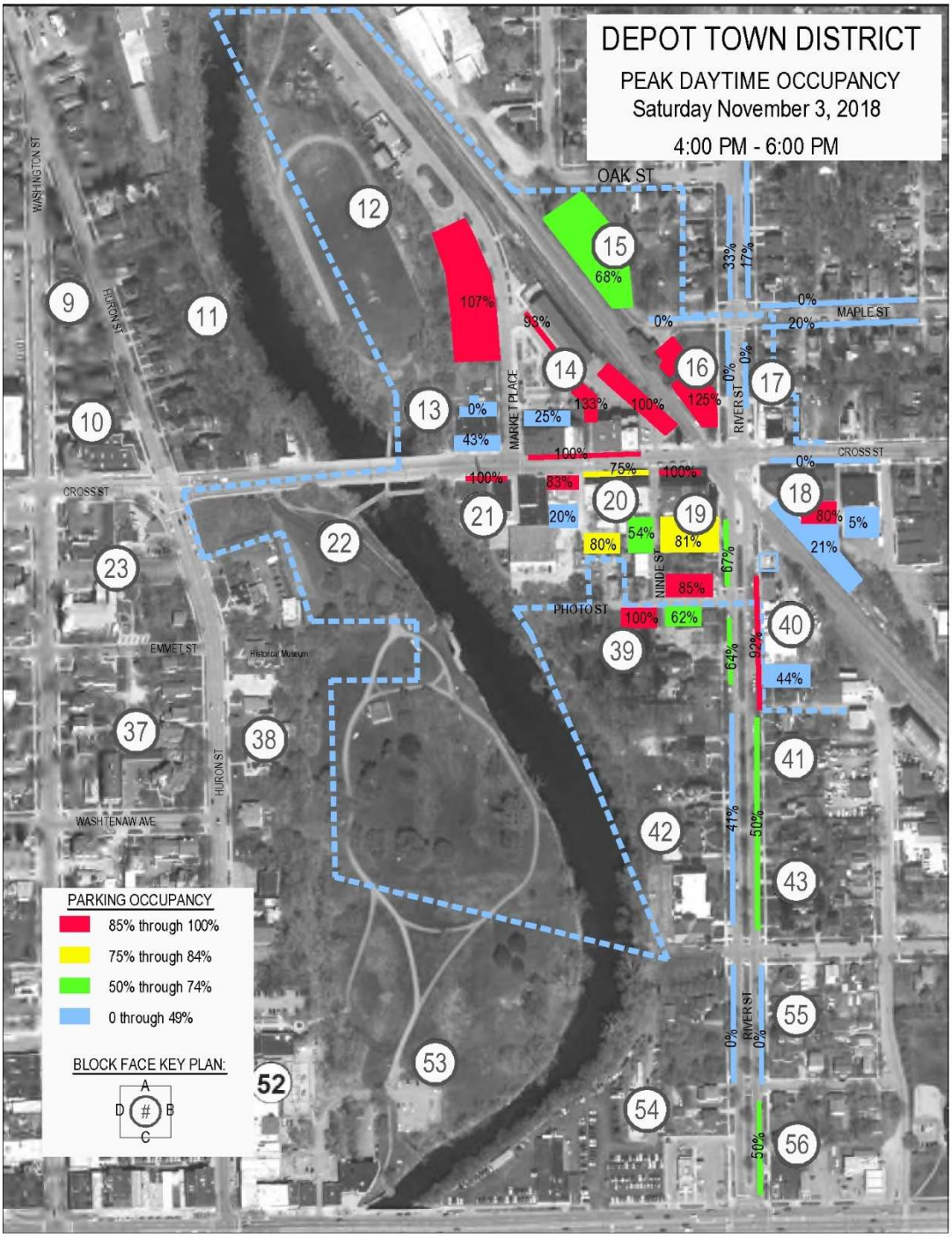
Graph 9



Graph 10



Map DTD.4


DEPOT TOWN DISTRICT
PEAK DAYTIME OCCUPANCY
Saturday November 3, 2018
4:00 PM - 6:00 PM
OAK ST
WASHINGTON ST
HURON ST
MARKET PLACE
RIVER ST
MAPLE ST
CROSS ST
NINDE ST
PHOTO ST
EMMET ST
Historical Museum
WASHTENAW AVE
PARKING OCCUPANCY
85% through 100%
75% through 84%
50% through 74%
0 through 49%
BLOCK FACE KEY PLAN:
A
D
#
B
C

TURNOVER

Having spaces which turnover appropriately helps in the perception of sufficiently available parking. When cars stay for extended periods in short-term spaces, it limits the availability of these spaces to other patrons. This may be most critically noticed in very short-term parking (15 – 30 minutes) which are spaces generally intended to be the most convenient to those destinations requiring a very quick in-out service such as to pick up or drop off items. Analysis of the Depot Town turnover results shows that there was significant abuse (40%) of the twelve 30-minute spaces along N. River Street on Block 40 on the Thursday count date.

Table T

Depot Town Turnover Thursday, October 18, 2018									
Block #	Description	Spaces	1X	2X	3X	4X	5X	Turnover	Total Cars
14	14C - 2hr Free	7	14	2		1		2.43	17
19	19A - 2hr Free	3	6					2.00	6
19	19B - 2hr Free	6	11	2		1		2.33	14
20	20A - 2hr Free	6	11	1				2.00	12
21	21A - 2hr Free	4	4	1				1.25	5
40	40D - 30min Free	12	9	2		2	2	1.25	15
	Totals	**38**	**55**	**8**	**0**	**4**	**2**	**1.82**	**69**

Table U

Depot Town Turnover Saturday, November 3, 2018							
Block #	Description	Spaces	1X	2X	3X	Turnover	Total Cars
14	14C - Unmarked	7	14	3		2.43	17
19	19A - 2hr Free	3	4	1	1	2.00	6
20	20A - 2hr Free	6	6	1	1	1.33	8
21	21A - 2hr Free	4	10	1		2.75	11
40	40D - 2hr Free	12	29			2.42	29
	Totals	**32**	**63**	**6**	**2**	**2.22**	**71**

PARKING DEMAND CALCULATION – DEPOT TOWN

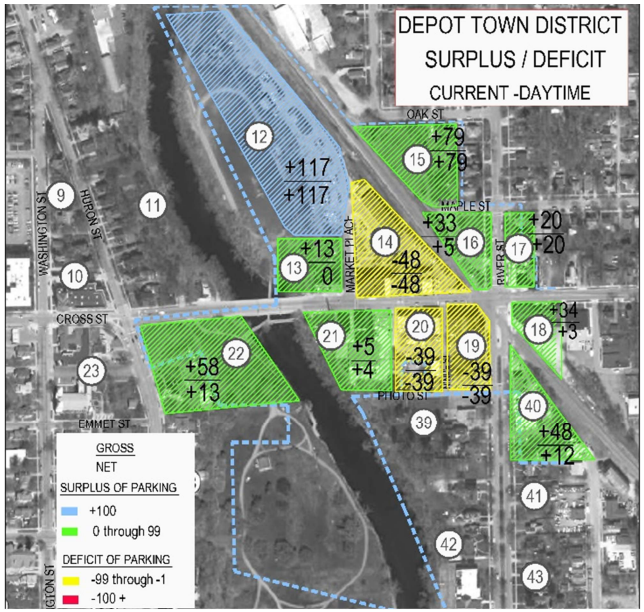
Table V on the following page demonstrates the parking demand matrix for the Depot Town DDA District reflecting weekday daytime conditions. The **Adjusted Peak Hour Occupancy** within Depot Town is 328± spaces which is reasonably close to the **Calculated Peak Hour Demand** of 343± spaces derived by applying the various PGR's for each land use. Although these calculations show three blocks with gross parking deficits, overall the Depot Town area has an existing gross surplus of 282± spaces **during the daytime hours on a weekday.**

The parking demand determination for the Depot Town DDA district continues with the unique conditions as demonstrated by the occupancy analysis which showed both an initial daytime peak during the early to mid-afternoon followed by a slight decline before increasing to an overall and significantly higher evening peak coinciding with the 7:00 pm to 9:00 pm observations on the Thursday observation date.

Table V - Depot Town Daytime Parking Demand Matrix – Existing Conditions

Depot Town DDA District Daytime Parking Demand Matrix																	Existing Conditions	
Block	Office	Medical Office	Retail	Service	Mixed Use	Restaurant/ Bar	Residential	Museum	Community	Warehouse	Vacant	TOTAL	Public		Private	Total	Gross	Net
						(per unit, 850sf)												
Current Parking Generation Ratios	1.75	2.75	1.25	1.50	1.75	4.10	1.00	1.60	0.25	0.45	2.25		On-Street	Off-Street	Off-Street	On & Off-Street	Surplus / (Deficit)	Surplus / (Deficit)
12	-	-	-	-	-	-	-	-	-	1	-	1	0	118	0	118	**117**	**117**
13	-	-	6	-	-	-	-	-	-	-	-	6	0	0	19	19	**13**	**0**
14	-	-	12	10	-	66	26	-	2	-	14	117	7	34	28	69	**(48)**	**(48)**
15	-	-	-	-	-	-	-	-	-	-	-	-	17	62	0	79	**79**	**79**
16	-	-	-	-	-	-	-	-	-	-	9	-	5	0	28	33	**33**	**5**
17	-	-	-	-	-	-	5	-	-	-	-	5	25	0	0	25	**20**	**20**
18	-	-	-	-	-	-	-	20	-	-	-	20	3	0	51	54	**34**	**3**
19	7	-	1	3	-	85	10	-	-	-	57	106	9	0	58	67	**(39)**	**(39)**
20	-	-	-	-	1	55	12	-	-	-	-	69	4	0	26	30	**(39)**	**(39)**
21	4	-	6	2	-	-	-	-	-	8	-	19	4	0	20	24	**5**	**4**
22	-	-	-	-	-	-	-	-	-	-	-	-	0	14	45	59	**59**	**14**
40	-	-	-	-	-	-	-	-	-	-	-	-	12	0	36	48	**48**	**12**
Totals	**11**	**-**	**25**	**15**	**1**	**206**	**53**	**20**	**2**	**9**	**80**	**343**	**86**	**228**	**311**	**625**	**282**	**128**

Map DTD.5



Depot Town Evening Parking Demand

Depot Town is unique with both a daytime and evening demand. The occupancy results showed a much more significant peak coinciding with the 7:00 to 9:00 pm period. Using these values, the existing evening condition showed the parking demand would peak at 613± parking spaces needed. This would mean that the Depot Town DDA district would have just a 12± space surplus on the "gross basis" which assumes that every parking space is essentially open to anyone. On the more appropriate "net basis" the **deficit** in the Depot Town District for the existing condition would be a -162± spaces.

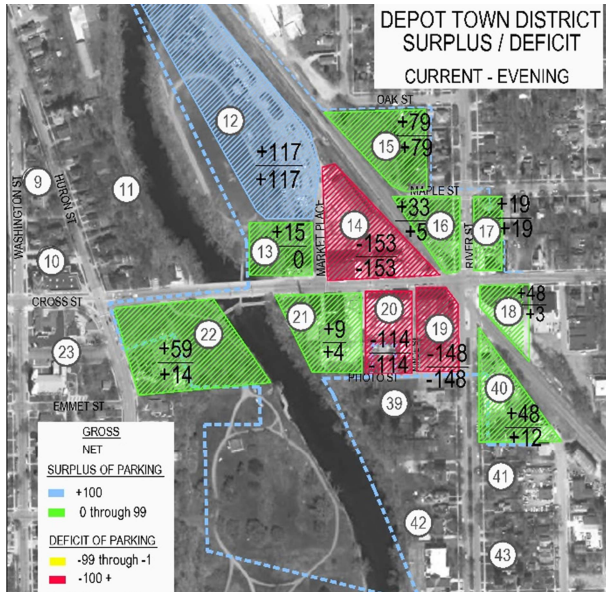
Thompson Block – October 2019

The near-term opening of the Thompson Block redevelopment by October 2019 with its residential and restaurant demand could increase this **deficit** to -256± spaces during the evenings hours assuming everything else remains the same.

Table W - Depot Town Existing Parking Demand Matrix (Evening)

Depot Town DDA District Evening Parking Demand Matrix																	Existing Conditions	
Block	Office	Medical Office	Retail	Service	Mixed Use	Restaurant / Bar	Residential	Museum	Community	Warehouse	Vacant	TOTAL	Public		Private	Total	Gross	Net
						(per unit, 850sf)												
Current Parking Generation Ratios	1.00	0.00	0.85	0.75	1.50	9.50	1.25	0.50	2.30	0.45	2.25		On-Street	Off-Street	Off-Street	On & Off-Street	Surplus / (Deficit)	Surplus / (Deficit)
12	-	-	-	-	-	-	-	-	-	1	-	1	0	118	0	118	117	117
13	-	-	4	-	-	-	-	-	-	-	-	4	0	0	19	19	15	0
14	-	-	8	5	-	154	33	-	21	-	14	222	7	34	28	69	(153)	(153)
15	-	-	-	-	-	-	-	-	-	-	-	-	17	62	0	79	79	79
16	-	-	-	-	-	-	-	-	-	-	9	-	5	0	28	33	33	5
17	-	-	-	-	-	-	6	-	-	-	-	6	25	0	0	25	19	19
18	-	-	-	-	-	-	-	6	-	-	-	6	3	0	51	54	48	3
19	4	-	1	2	-	196	12	-	-	-	57	215	9	0	58	67	(148)	(148)
20	-	-	-	-	1	128	15	-	-	-	-	144	4	0	26	30	(114)	(114)
21	2	-	4	1	-	-	-	-	-	8	-	15	4	0	20	24	9	4
22	-	-	-	-	-	-	-	-	-	-	-	-	0	14	45	59	59	14
40	-	-	-	-	-	-	-	-	-	-	-	-	12	0	36	48	48	12
Totals	6	-	17	7	1	478	67	6	21	9	80	613	86	228	311	625	12	(162)

Map DTD.6



DEPOT TOWN PARKING – FUTURE CONDITIONS

In addition to evaluating the parking for the existing conditions, Rich is also projecting the parking as it might exists in future years. The future parking needs calculated for Depot Town reflect not only the re-occupancy of the existing 35,000 sf of vacant space over the forecast period but also the re-development of the Thompson Block. Current information for this building assumes 20 high quality residential units plus just under 10,000 sf of restaurant space on the ground floor. Therefore, the future projections assume the existing conditions are maintained **plus** 40 percent of existing vacant space re-occupied in five years and the Thompson Block demand.

Five Years – Daytime Demand

The five-year assumption is that 40 percent of the 35,000 vacant square feet will become re-occupied and there will be the additional parking demand from the redevelopment of the Thompson block with residential units and a new restaurant. **Table X** below shows the future daytime demand as just 83 spaces without including any demand from the restaurant or residential space in Depot Town. The added demand from the Thompson redevelopment on block 17 (highlighted) shows an expected demand of 40 from the nearly 10,000 sf of restaurant space and 25 from residential needs on the block. Overall restaurant demand adds 246 to the Depot Town parking needs while residential demand adds an additional 73 spaces. Combined the future demand for the Depot Town blocks would be 403 spaces before factoring the re-occupancy of the approximately 14,000 sf of vacant space (35,000 x 40%). This adds an additional 32 spaces to the daytime demand for a total of 434 spaces.

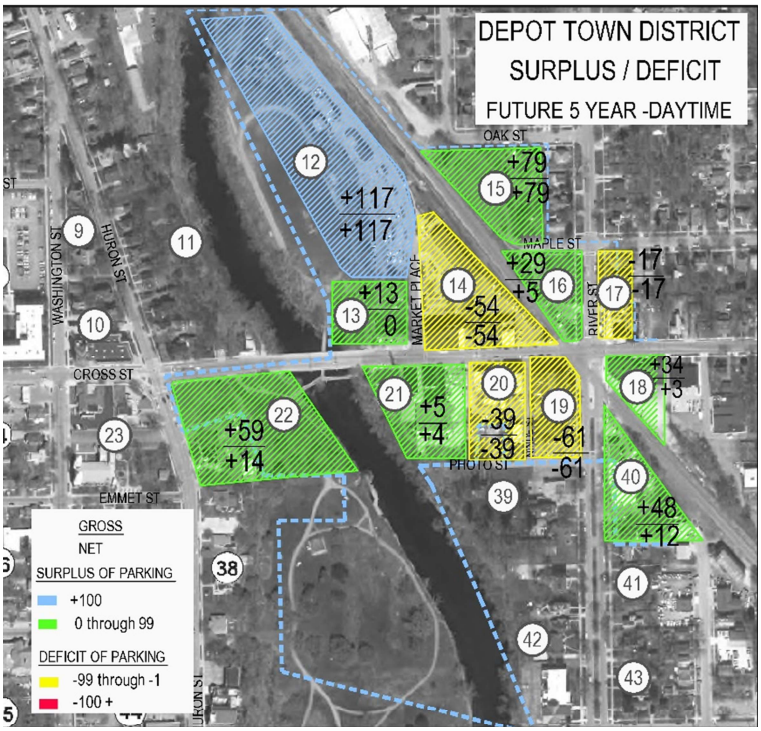
Table X – Depot Town 5-Year Parking Demand Matrix (Daytime, 40% vacant re-occupancy)

Depot Town DDA District
Future Daytime Parking Demand Matrix

Block	TOTAL	Restaurant/Bar	Residential		Vacant		Public		Private	Total	Future w/ 40% Gross	Future w/ 40% Net
		(per unit, 850sf)				40%						
Current Parking Generation Ratios	Existing Demand w/o Restaurant & Residential	4.10	1.00	Existing Demand with Restaurant & Residential	2.25	TOTAL DEMAND W/ VACANT OCCUPIED	On-Street	Off-Street	Off-Street	On & Off-Street	Surplus / (Deficit)	Surplus / (Deficit)
12	1	-	-	1	-	1	0	118	0	118	117	117
13	6	-	-	6	-	6	0	0	19	19	13	0
14	24	66	26	117	6	123	7	34	28	69	(54)	(54)
15	-	-	-	-	-	0	17	62	0	79	79	79
16	-	-	-	-	4	4	5	0	28	33	29	5
17	-	40	25	65	-	65	25	0	23	48	(17)	(17)
18	20	-	-	20	-	20	3	0	51	54	34	3
19	11	85	10	106	23	128	9	0	58	67	(61)	(61)
20	1	55	12	69	-	69	4	0	26	30	(39)	(39)
21	19	-	-	19	-	19	4	0	20	24	5	4
22	-	-	-	-	-	0	0	14	45	59	59	14
40	-	-	-	-	-	0	12	0	36	48	48	12
Totals	83	246	73	403	32	434	86	228	334	648	214	63

This data shows that Depot Town would have a “gross surplus” of 214 spaces during the daytime hours but just 63± spaces after deducting the surplus private parking.

Map DTD.7



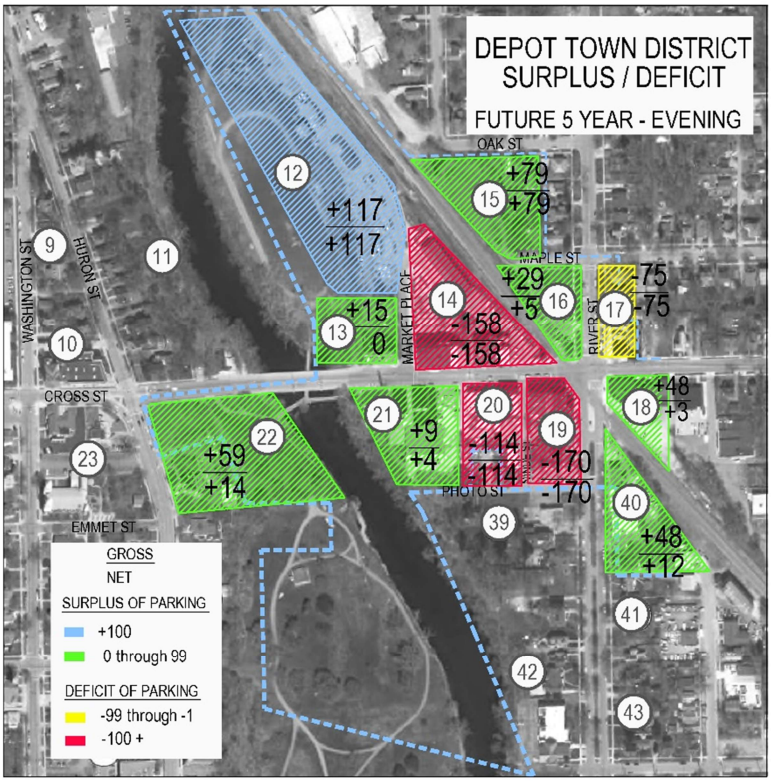
Five Years – Evening Demand

As the existing conditions analysis demonstrated, the demand during the evening hours on a Thursday was higher than the Saturday results based on the occupancy counts. Following this benchmark and applying the same parking generation rates, **Table Y** on the following page shows that the evening demand after applying the new demand from the Thompson project redevelopment and factoring for 40 percent of the vacant square footage being re-occupied would total 762± spaces. Compared to the 648 parking spaces expected to be available within the district would mean a gross deficit of -114± spaces and a “net deficit” of -283± spaces. Several blocks have both gross and net deficits in excess of -100± spaces.

Table Y – Depot Town Future Parking Demand Matrix (Evening 40% vacant re-occupancy)

Depot Town DDA District Future Evening Parking Demand Matrix											Future w/ 40%	
Block	TOTAL	Restaurant / Bar	Residential		Vacant		Public		Private	Total	Gross	Net
		(per unit, 850sf)				40%						
Current Parking Generation Ratios	Existing Demand w/o Restaurant & Residential	9.50	1.25	Existing Demand with Restaurant & Residential	2.25	TOTAL DEMAND W/ VACANT OCCUPIED	On-Street	Off-Street	Off-Street	On & Off-Street	Surplus / (Deficit)	Surplus / (Deficit)
12	1	-	-	1	-	1	0	118	0	118	**117**	**117**
13	4	-	-	4	-	4	0	0	19	19	**15**	**0**
14	35	154	33	222	6	227	7	34	28	69	**(158)**	**(158)**
15	-	-	-	-	-	0	17	62	0	79	**79**	**79**
16	-	-	-	-	4	4	5	0	28	33	**29**	**5**
17	-	92	31	123	-	123	25	0	23	48	**(75)**	**(75)**
18	6	-	-	6	-	6	3	0	51	54	**48**	**3**
19	6	196	12	215	23	237	9	0	58	67	**(170)**	**(170)**
20	1	128	15	144	-	144	4	0	26	30	**(114)**	**(114)**
21	15	-	-	15	-	15	4	0	20	24	**9**	**4**
22	-	-	-	-	-	0	0	14	45	59	**59**	**14**
40	-	-	-	-	-	0	12	0	36	48	**48**	**12**
Totals	**68**	**570**	**92**	**730**	**32**	**762**	**86**	**228**	**334**	**648**	(114)	(283)

Map DTD.8



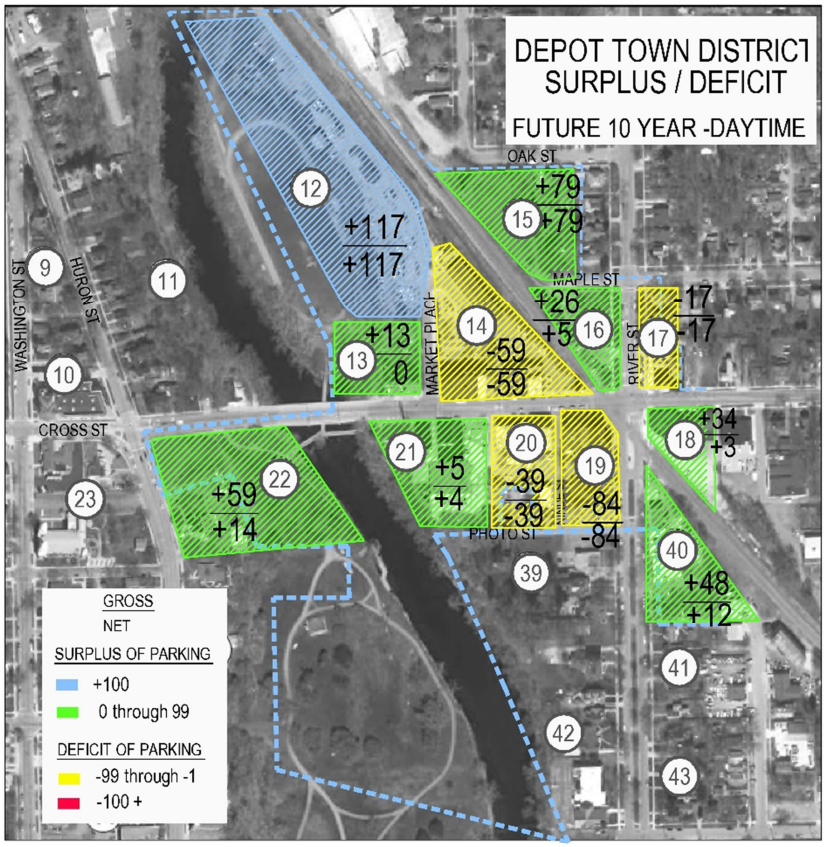
Ten Years – Daytime Demand

Rich has also projected future conditions assuming 10 years in the future. These projections assume that the existing occupied square footage in Depot Town will remain in a similar configuration as exist currently with the exception of the added demand from the Thompson redevelopment. These projections assume that 80 percent of the 35,000 square feet of vacant space (28,000 sf) will be re-occupied and that the Thompson development site is fully functional with the residential units and restaurant space as programmed. **Table Z** shows with these changes that the "gross surplus is still 182± spaces but that on the more appropriate "net basis" the Depot Town surplus has been reduced to just 35 spaces during the daytime hours.

Table Z – Depot Town 10-Year Parking Demand Matrix (Daytime, 80% vacant re-occupancy)

Depot Town DDA District Future Daytime Parking Demand Matrix											Future w/ 80%	
Block	TOTAL	Restaurant/Bar	Residential		Vacant		Public		Private	Total	Gross	Net
		(per unit, 850sf)				80%						
Current Parking Generation Ratios	Existing Demand w/o Restaurant & Residential	4.10	1.00	Existing Demand with Restaurant & Residential	2.25	TOTAL DEMAND W/ VACANT OCCUPIED	On-Street	Off-Street	Off-Street	On & Off-Street	Surplus / (Deficit)	Surplus / (Deficit)
12	1	-	-	1	-	1	0	118	0	118	**117**	**117**
13	6	-	-	6	-	6	0	0	19	19	**13**	**0**
14	24	66	26	117	11	128	7	34	28	69	**(59)**	**(59)**
15	-	-	-	-	-	0	17	62	0	79	**79**	**79**
16	-	-	-	-	7	7	5	0	28	33	**26**	**5**
17	-	40	25	65	-	65	25	0	23	48	**(17)**	**(17)**
18	20	-	-	20	-	20	3	0	51	54	**34**	**3**
19	11	85	10	106	45	151	9	0	58	67	**(84)**	**(84)**
20	1	55	12	69	-	69	4	0	26	30	**(39)**	**(39)**
21	19	-	-	19	-	19	4	0	20	24	**5**	**4**
22	-	-	-	-	-	0	0	14	45	59	**59**	**14**
40	-	-	-	-	-	0	12	0	36	48	**48**	**12**
Totals	**83**	**246**	**73**	**403**	**64**	**466**	**86**	**228**	**334**	**648**	**182**	**35**

Map DTD.9



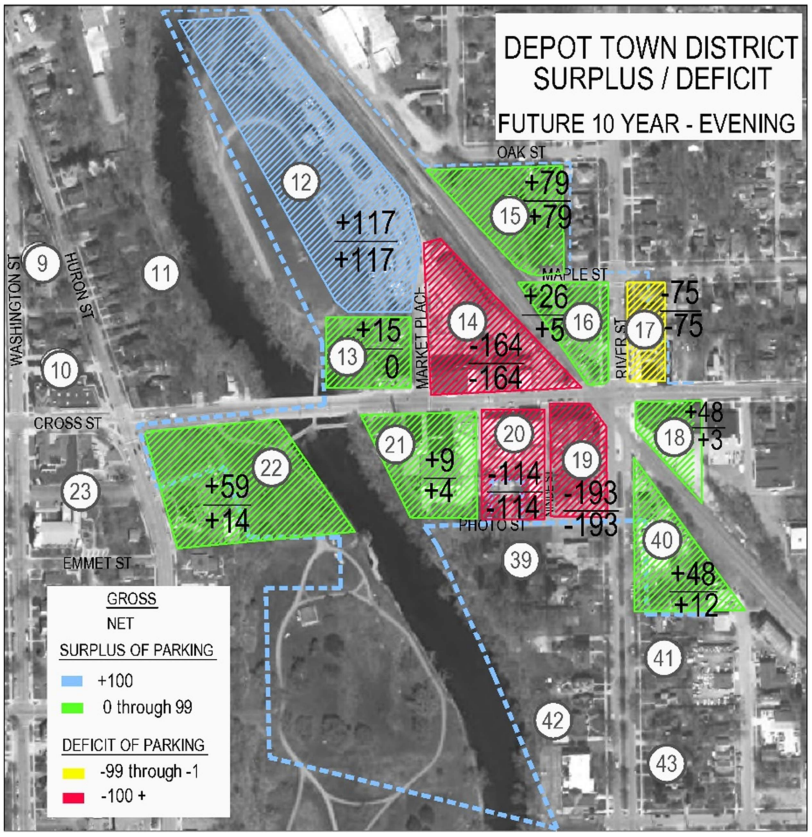
Ten Years – Evening Demand

Just as the existing and 5-year forecast showed a significant difference between the daytime and evening parking needs with the Depot Town District, the 10-year projections show that the calculated parking demand is expected to be 794± spaces which is a -146± space shortage compared to the total available parking supply (gross deficit). This means using every existing public and private parking space is insufficient to meet the Depot Town District parking needs under these conditions. Again, assuming that private businesses will not want to make any excess spaces available to outside businesses or patrons, the deficit on the “net basis” is projected to be -312± spaces at the 10-year forecast.

Table AA - Depot Town 10-Year Parking Demand Matrix (Evening, 80% vacant re-occupancy)

Depot Town DDA District Future Evening Parking Demand Matrix											Future w/ 80%	
Block	TOTAL	Restaurant / Bar	Residential		Vacant		Public		Private	Total	Gross	Net
		(per unit, 850sf)				80%						
Current Parking Generation Ratios	Existing Demand w/o Restaurant & Residential	9.50	1.25	Existing Demand with Restaurant & Residential	2.25	TOTAL DEMAND W/ VACANT OCCUPIED	On-Street	Off-Street	Off-Street	On & Off-Street	Surplus / (Deficit)	Surplus / (Deficit)
12	1	-	-	1	-	1	0	118	0	118	**117**	**117**
13	4	-	-	4	-	4	0	0	19	19	**15**	**0**
14	35	154	33	222	11	233	7	34	28	69	**(164)**	**(164)**
15	-	-	-	-	-	0	17	62	0	79	**79**	**79**
16	-	-	-	-	7	7	5	0	28	33	**26**	**5**
17	-	92	31	123	-	123	25	0	23	48	**(75)**	**(75)**
18	6	-	-	6	-	6	3	0	51	54	**48**	**3**
19	6	196	12	215	45	260	9	0	58	67	**(193)**	**(193)**
20	1	128	15	144	-	144	4	0	26	30	**(114)**	**(114)**
21	15	-	-	15	-	15	4	0	20	24	**9**	**4**
22	-	-	-	-	-	0	0	14	45	59	**59**	**14**
40	-	-	-	-	-	0	12	0	36	48	**48**	**12**
Totals	**68**	**570**	**92**	**730**	**64**	**794**	**86**	**228**	**334**	**648**	(146)	(312)

Map DTD.10



Public Participation

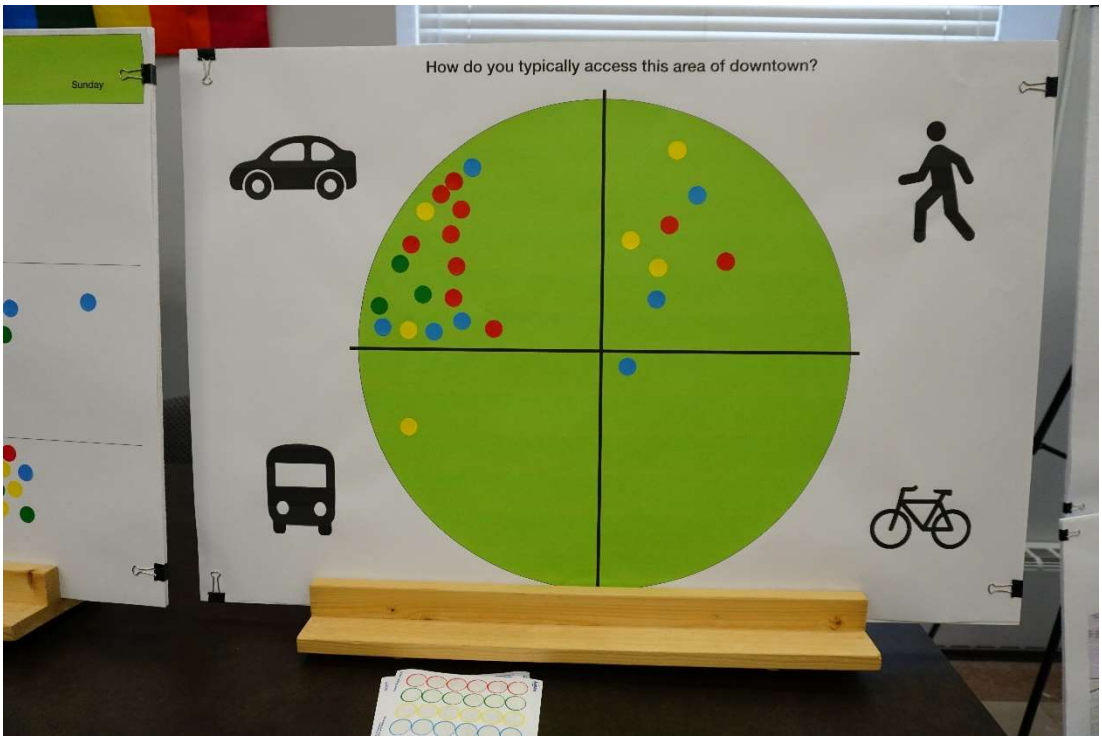
PUBLIC PARTICIPATION

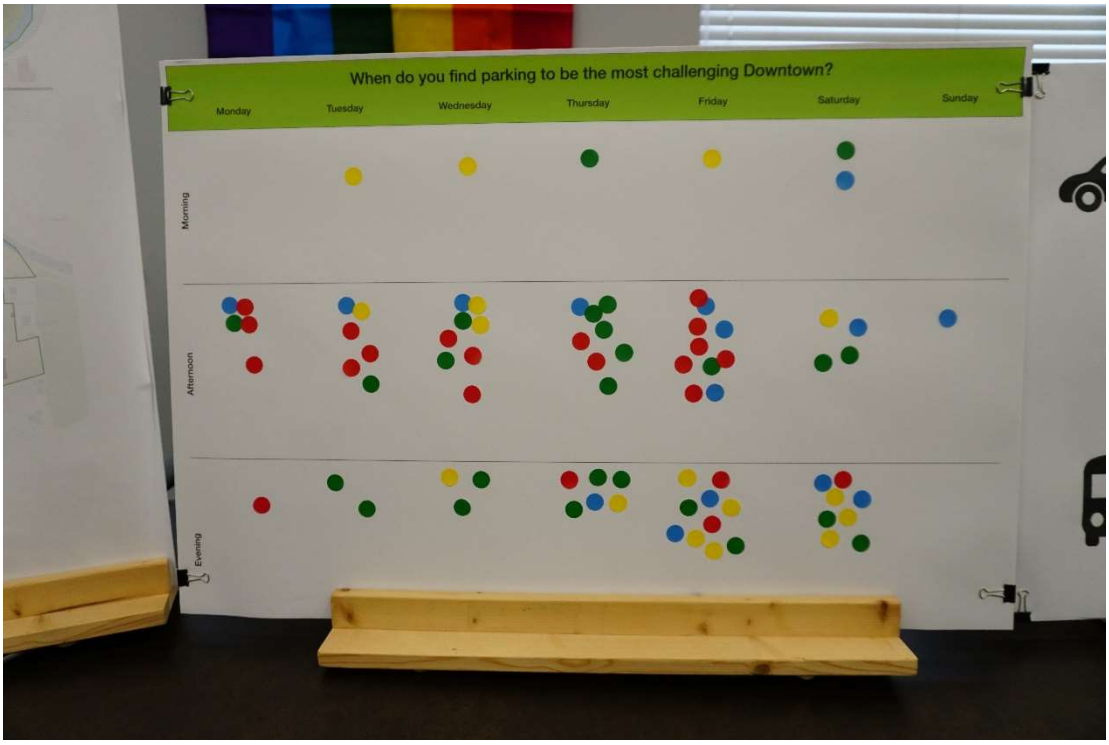
A critical component in the development of the Downtown Ypsilanti parking assessment within the three DDA districts was the input collected from various downtown individuals and groups. This input was facilitated via a two-hour open house conducted at City Hall on Wednesday, December 5, 2018. This forum allowed participants to simply indicate modes of travel, parking issues or concerns for each district as well as timing for when they find the parking most challenging. Team staff were available to address any questions but there was not a formal presentation.

A second aspect of the public outreach were a series of focus groups directed to each specific district. As such these meetings which ran approximately one-hour each were designed to have a more in-depth and meaningful dialogue regarding particular parking issues and concerns unique to each district.

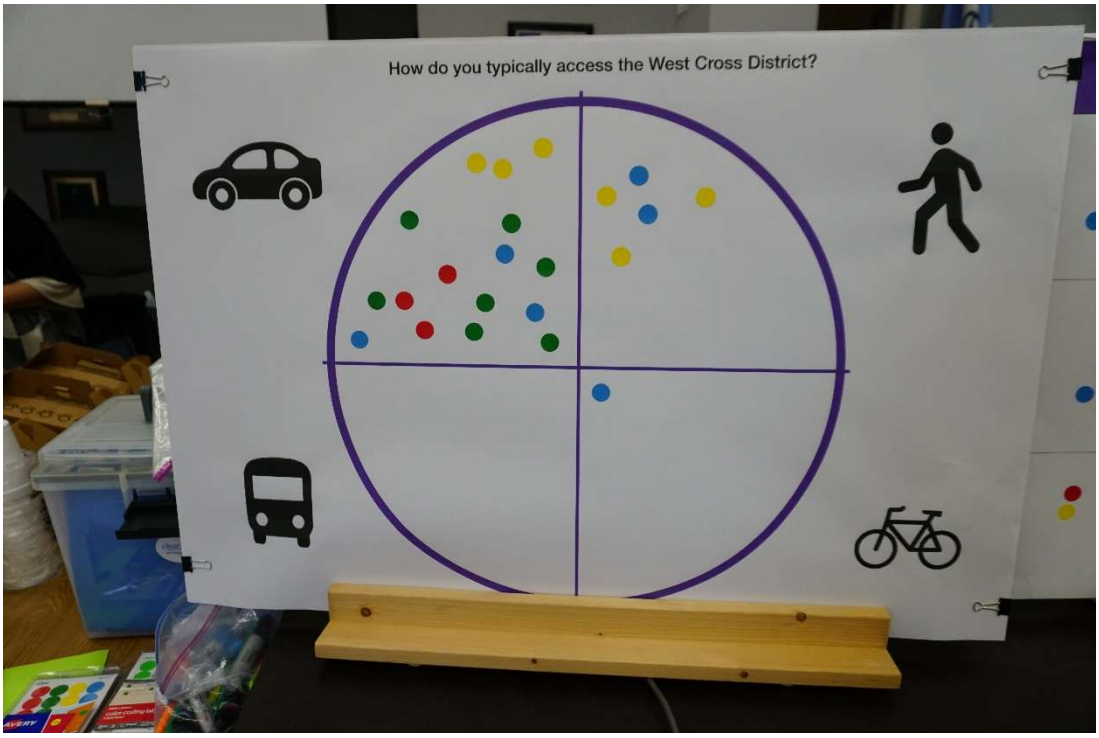
December 5 Open House

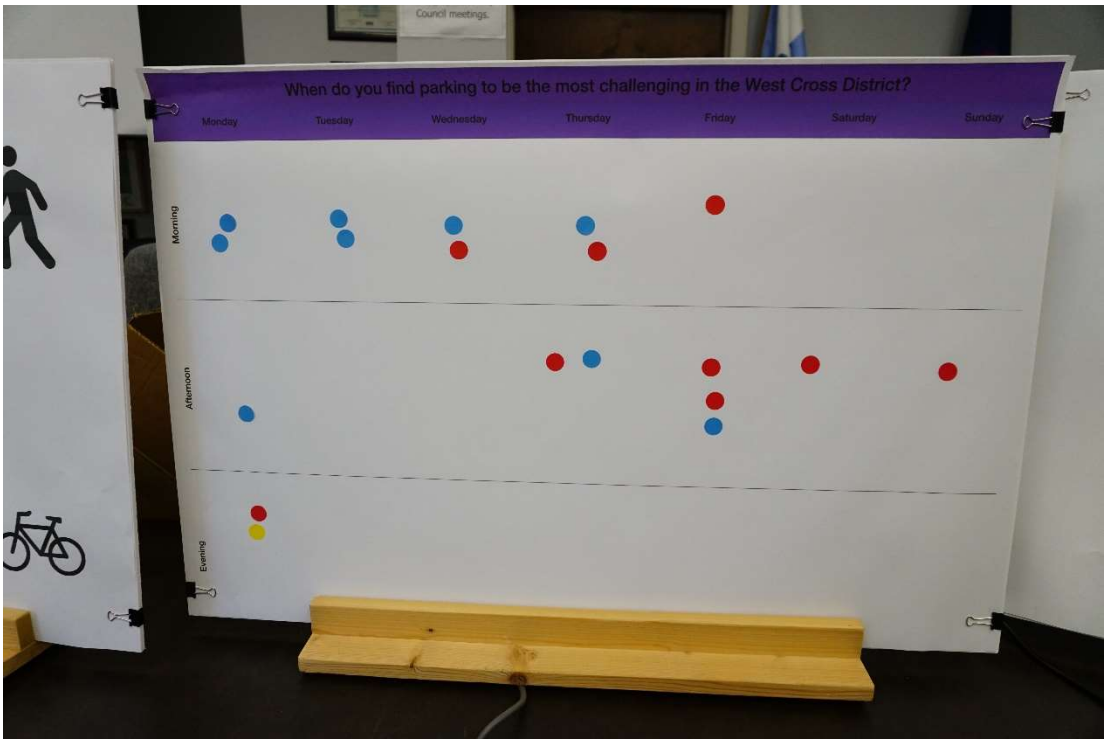
Downtown DDA District



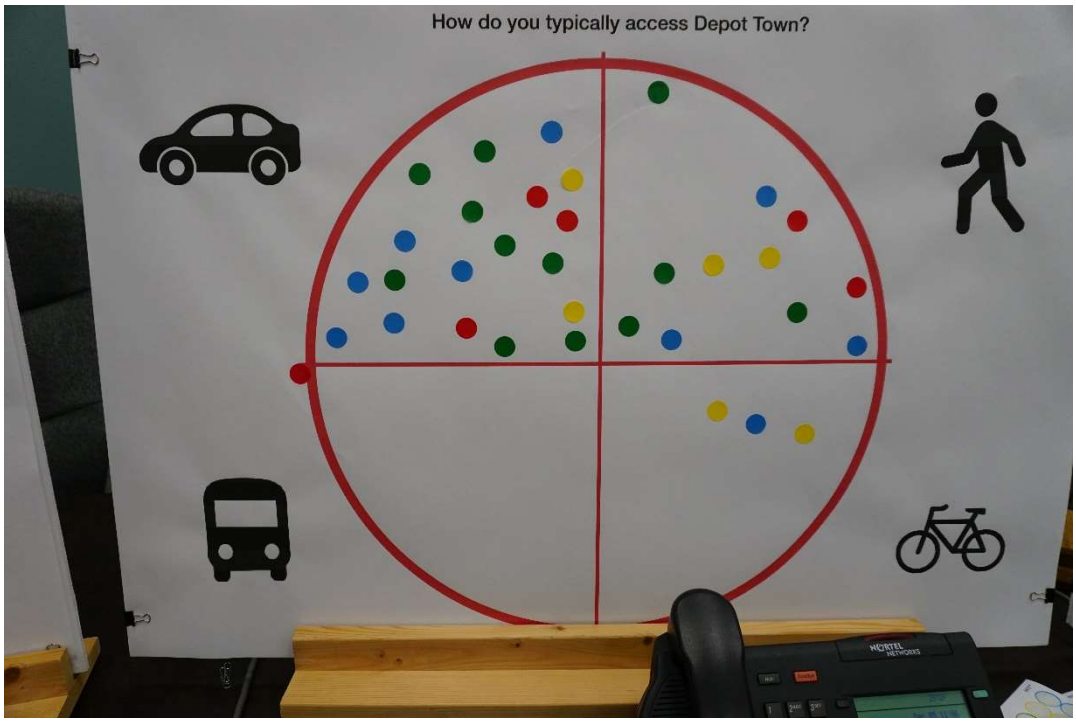


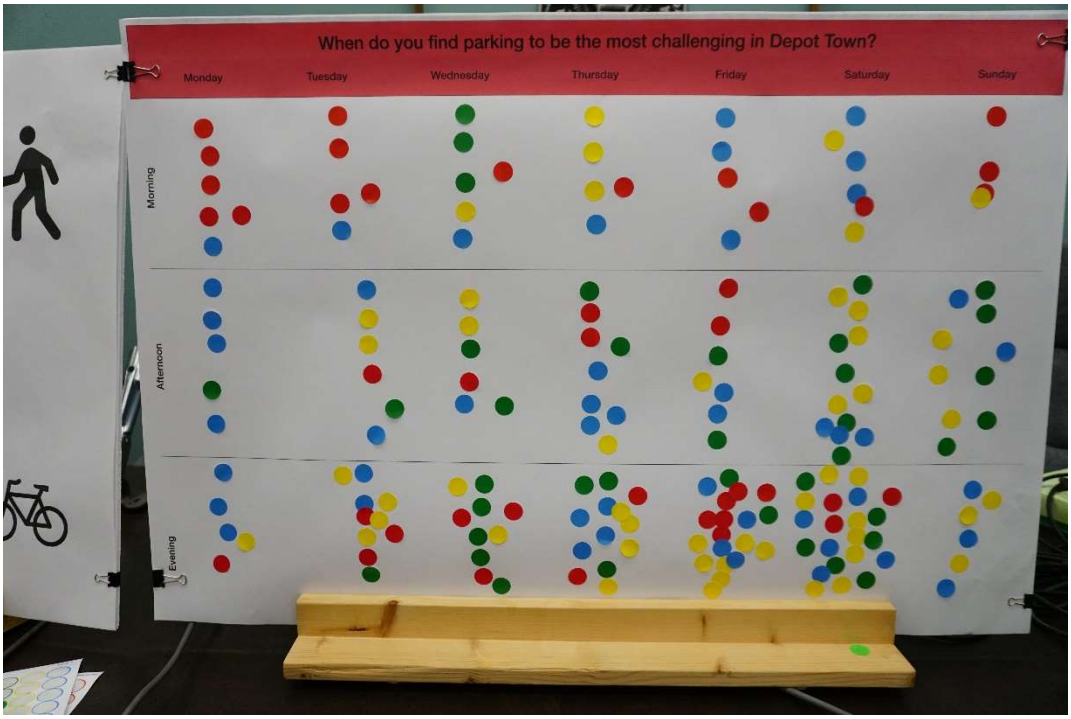
West Cross DDA District





Depot Town DDA District





FOCUS GROUP MEETINGS

As a part of the Ypsilanti Parking Strategy, three facilitated focus group discussions were held after the public open house to dive deeper into discussions over parking. Focus group meetings were held in each of the three study areas on December 12, 2018 between 7:30 – 10:30 a.m. Participation was highest in Depot Town, where approximately 20 people attended. Three people attended each of the Downtown and West Cross meetings. The parking enforcement officer joined in on the West Cross meeting. Each area has its own opportunities and challenges; summaries of those discussions are provided below:

Downtown District

General Concerns

- One-hour time limit for parking is not enough time for visitors to park and eat a meal.
- Some businesses are managing their own private parking areas.
- Public parking is often hard for visitors to find; wayfinding signs could be larger.
- More barrier-free parking spaces are needed.
- Snow plowing in the winter makes parking harder.
- There are concerns over how to fund parking improvements.

Specific Places and Issues. Certain areas were highlighted as particularly difficult:

- Michigan Avenue lacks striping for parking spaces.
- The lot behind the Ypsilanti Transit Center on Pearl Street is not used as well as it could be because it doesn't feel safe.
- Some sidewalks are in need of repair on Hamilton, Washington/Michigan Avenue and near the library.

Paid System. Participants were generally supportive of a paid parking system Downtown.

Multi-Modal Transportation. Bicycle security has been an issue for some participants; additional bicycle parking is needed in the district in more secure locations. Additional transit-issues were raised, including the lengthy bus trip between Ann Arbor and Ypsilanti. Improve pavement conditions and calm traffic for the safety of pedestrians and cyclists.

Opportunities. Discussions about how to address parking issues included the following suggestions by participants:

- Stripe parking spaces.
- Change parking in the S. Huron Street lot from one-hour to two-hour limits.
- Provide additional on-street barrier-free spaces.
- Add more secure bicycle parking racks.

West Cross Street

General Concerns

- Parking meters are helpful in preventing all-day parking, leaving spaces available for businesses.
- Speeding traffic make walking and parking difficult.
- Employees are parking in two-hour parking spaces and seen moving cars back/forth to "re-calibrate" parking duration.

Specific Places and Issues. Certain areas were highlighted as particularly difficult:

- The Ballard Street lot is dark at night. The gravel surface is difficult for older patrons.

Multi-Modal Transportation. More bicycle parking is needed in the district in more secure locations. Improve pavement conditions and calm traffic for the safety of pedestrians and cyclists.

Opportunities. Discussions about how to address parking issues included the following suggestions by participants:

- Improve the Ballard Street lot for long-term parking.
- Add more secure bicycle parking racks.
- It seems like more students are parking more within the campus at Eastern Michigan University; explore sharing parking in areas closer to West Cross Street, including the lot on Normal.
- Explore angle parking on Perrin Street by Jimmy John's.

Depot Town

General Concerns

- It is inconvenient to make short trips (1-2 hours or less) into Depot Town due to parking issues.
- Time limits for parking areas is inconsistent and confusing.
- Signs for parking areas are also inconsistent and do not adequately inform visitors where to park.
- Employees need longer-term parking.
- Some attendees expressed concern over retail shops, particularly with the increasing number of restaurants.
- Some businesses are managing their own private parking areas.
- It can be hard for visitors to distinguish private parking from public parking.
- Public parking is often hard for visitors to find; wayfinding signs could be larger.

Specific Places and Issues. Certain areas were highlighted as particularly difficult:

- The Freight House seems to be an issue for many participants. Valet service should be considered. Michigan Ladder and the Maple Street Lot were mentioned as potential places for the Freight house to valet park.

- On-street parking is challenging on River Street, Grove, Park and High Streets – particularly during large events. High and Locust Streets near Grove are also becoming full.
- The lot on Market Place has confusing signs.
- Frog Island parking sometimes doesn't feel safe; additional lighting is needed. Better striping of spaces would improve how cars are parked.
- There may be an increased need for residential permit parking due to the new Thompson Building.

Enforcement. Enforcement was a concern for participants, who felt that enforcement could be more consistent and focus on short-term management.

Paid System. Some participants were opposed to any type of paid parking system; however other participants supported paid parking as a way to manage where and how long people park. Parking is not as much of an issue at certain hours of the day (late at night and Sundays) and it may be unnecessary to charge for parking at those times.

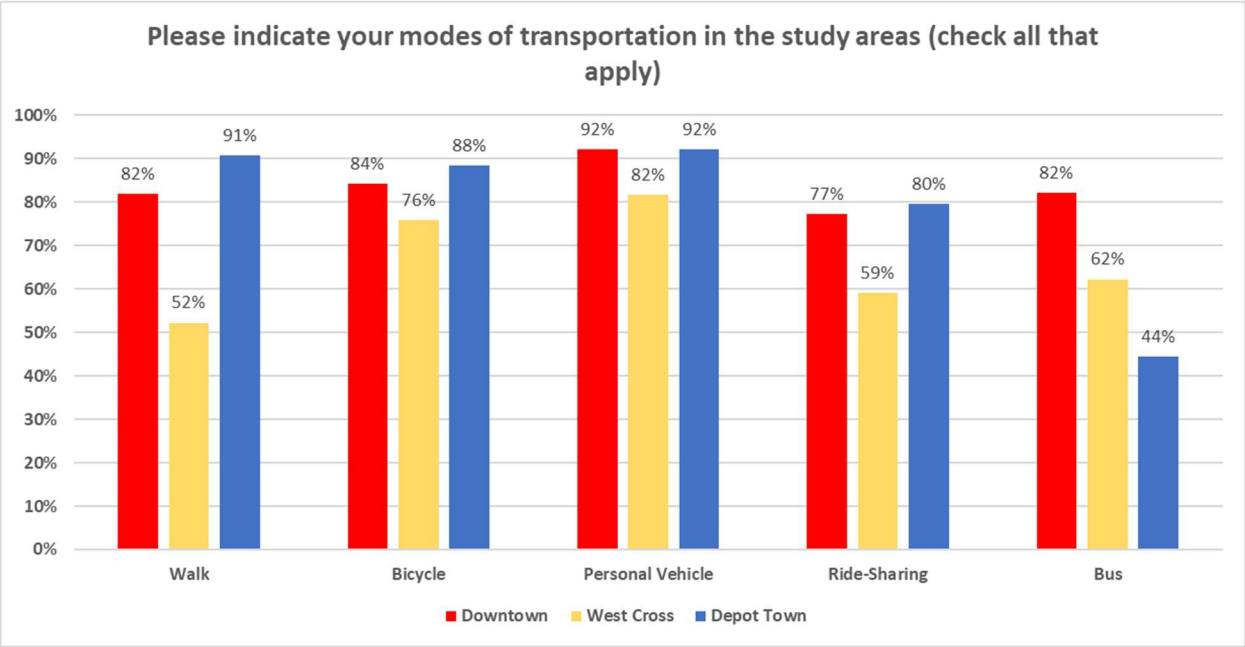
Multi-Modal Transportation. Additional bike racks are needed throughout Depot Town; bike racks at Cultivate would be used. Traffic calming throughout the district would make walking and cycling safer and more would likely choose these alternative transportation options.

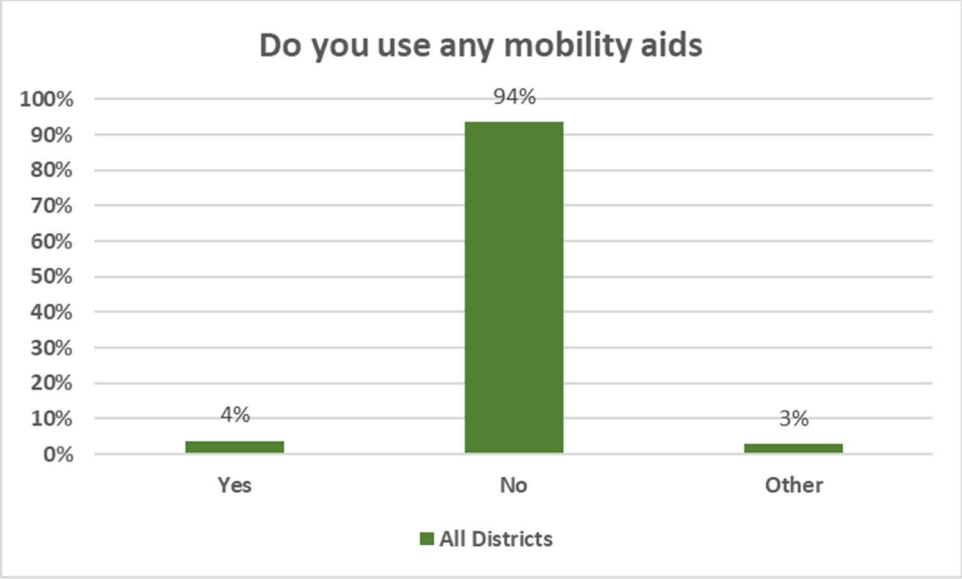
Opportunities. Discussions about how to address parking issues included the following suggestions by participants:

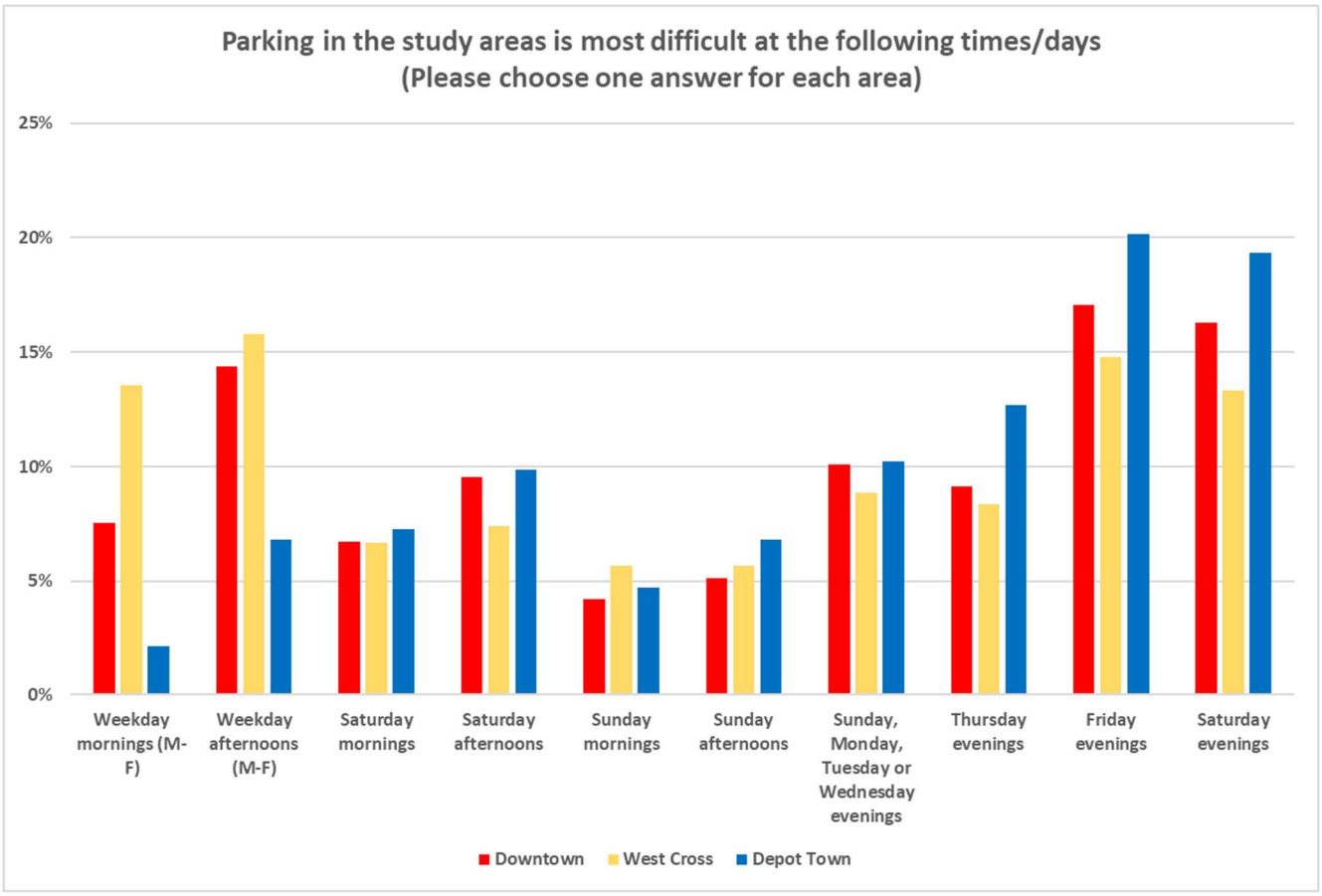
- Stripe parking on River Street.
- Improve parking lot at Frog Island with striping and lights.
- Require valet parking for weekend events at the Freight House.
- Explore acquisition of the wooded lot adjacent to Michigan Ladder for additional parking lot.
- Work with churches to provide shared parking.

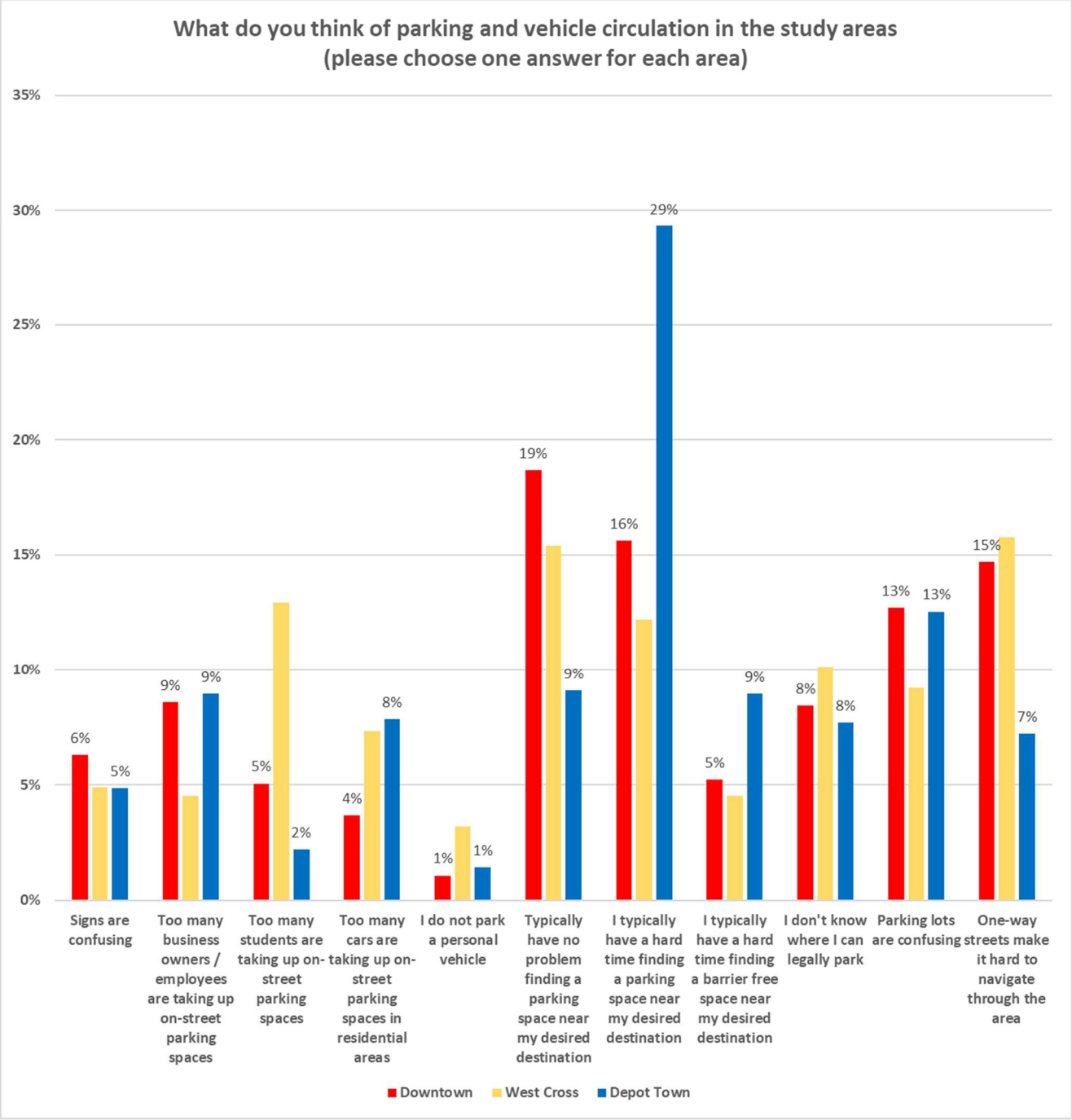
ON-LINE SURVEY

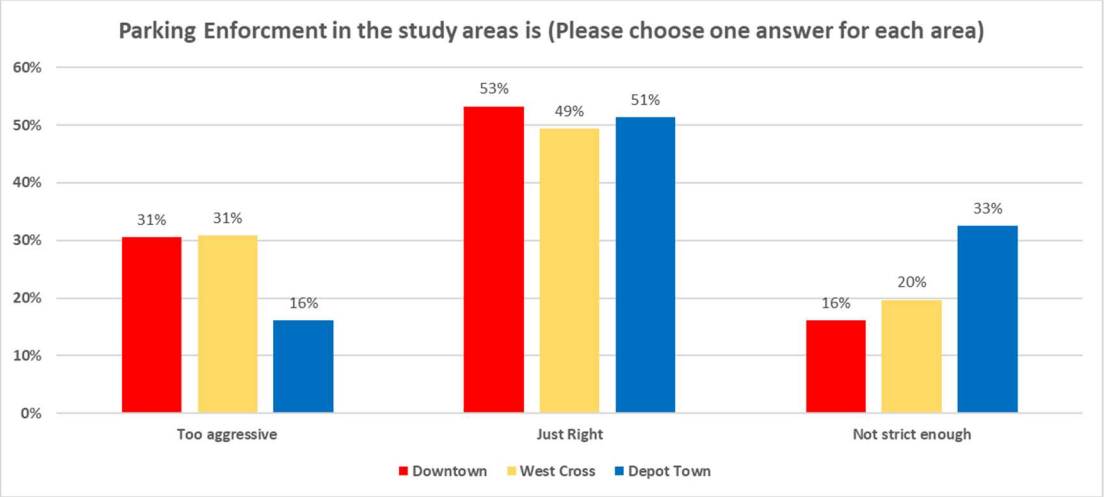
In addition to the focus groups, the team also prepared and made available an on-line survey in order to collect some statistics regarding modes of travel to each district and opinions by patrons regarding the parking situation including mobility, safety, user convenience etc. These surveys were directed at all groups including business owners, employees, students and visitors. These results are summarized by the charts on the following pages.

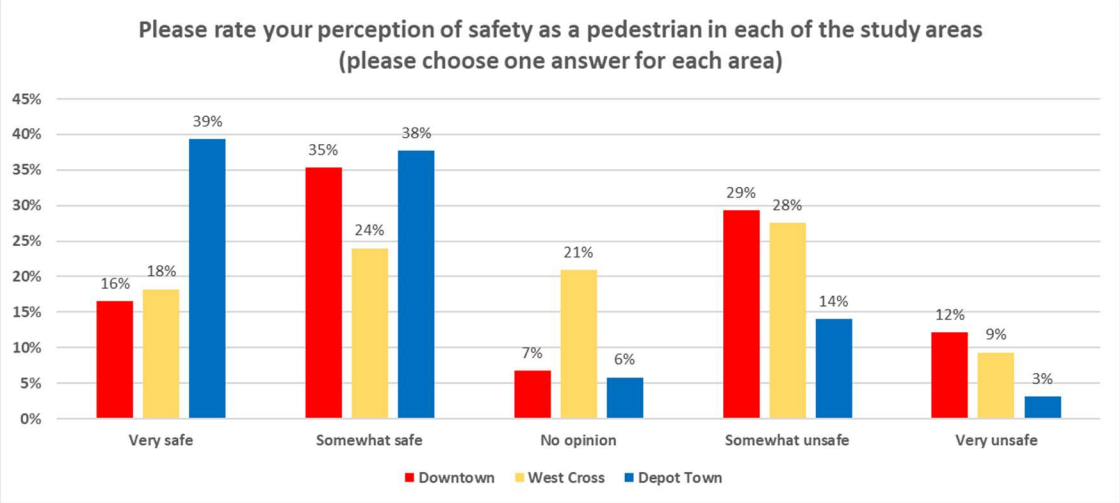

Please indicate your modes of transportation in the study areas (check all that apply)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
82%
52%
91%
84%
76%
88%
92%
82%
92%
77%
59%
80%
82%
62%
44%
Walk
Bicycle
Personal Vehicle
Ride-Sharing
Bus
Downtown
West Cross
Depot Town

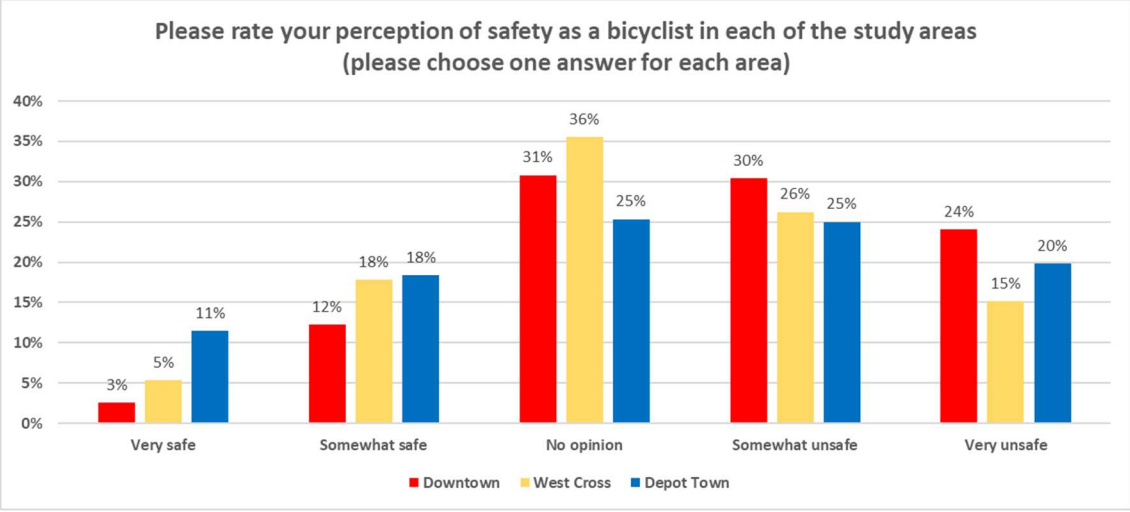

Do you use any mobility aids
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
4%
94%
3%
Yes
No
Other
All Districts

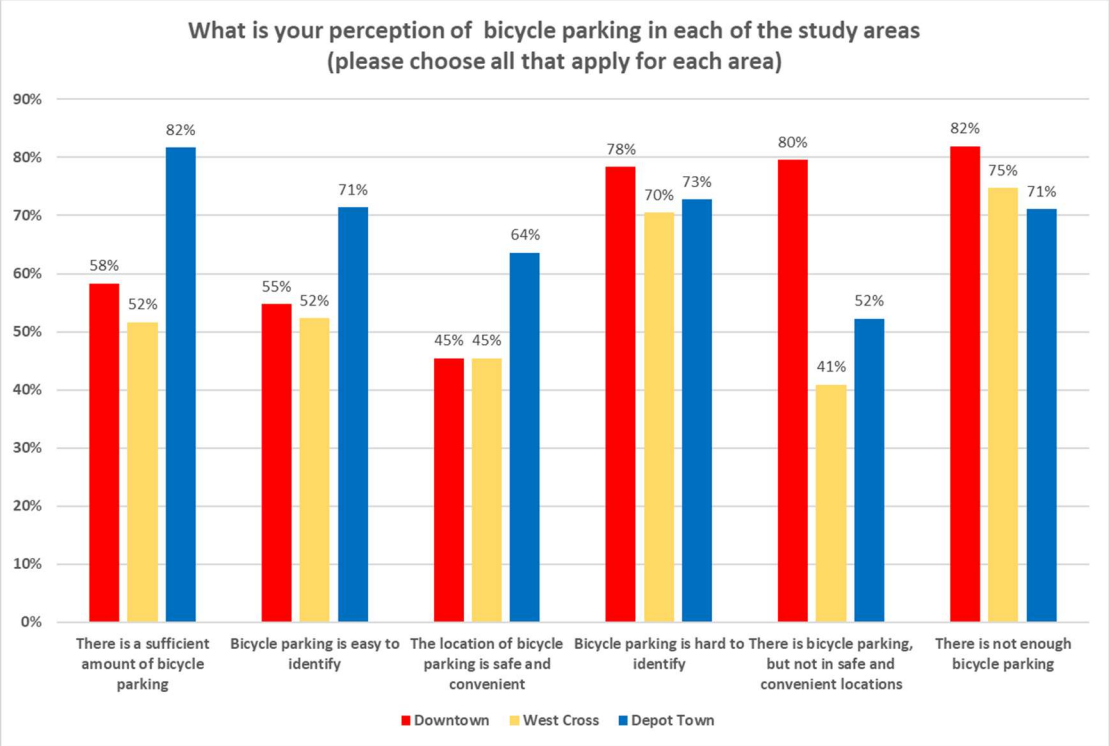

Parking in the study areas is most difficult at the following times/days
(Please choose one answer for each area)
25%
20%
15%
10%
5%
0%
Weekday mornings (M-F)
Weekday afternoons (M-F)
Saturday mornings
Saturday afternoons
Sunday mornings
Sunday afternoons
Sunday, Monday, Tuesday or Wednesday evenings
Thursday evenings
Friday evenings
Saturday evenings
Downtown
West Cross
Depot Town

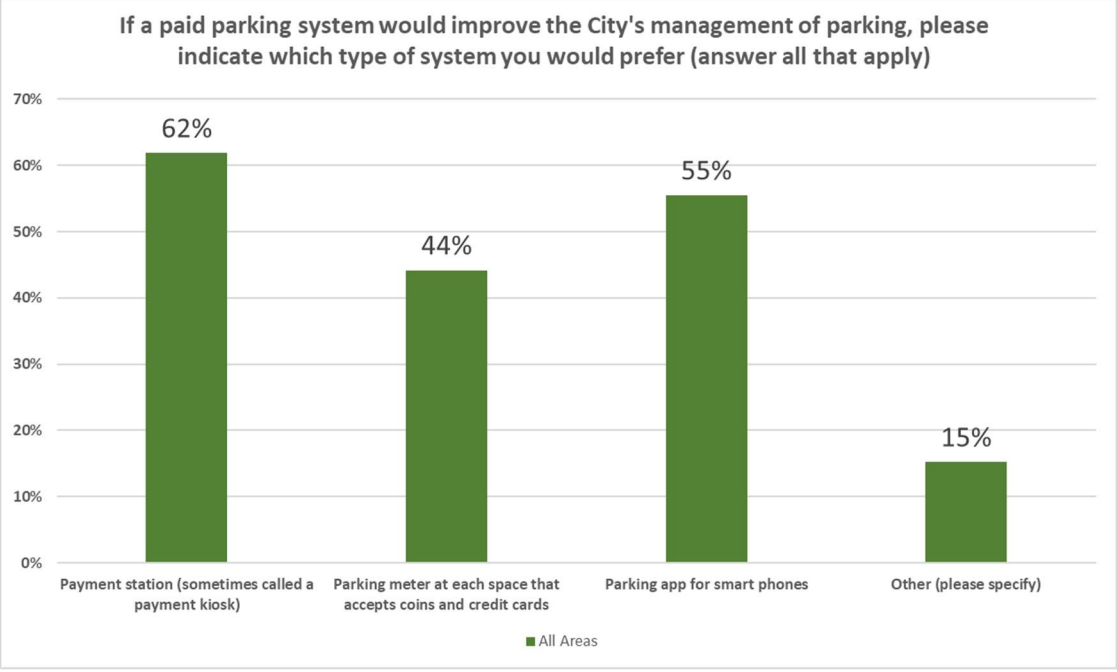

What do you think of parking and vehicle circulation in the study areas
(please choose one answer for each area)
35%
30%
25%
20%
15%
10%
5%
0%
6%
5%
9%
9%
5%
2%
4%
8%
1%
1%
19%
9%
16%
29%
5%
9%
8%
8%
13%
13%
15%
7%
Signs are confusing
Too many business owners / employees are taking up on-street parking spaces
Too many students are taking up on-street parking spaces
Too many cars are taking up on-street parking spaces in residential areas
I do not park a personal vehicle
Typically have no problem finding a parking space near my desired destination
I typically have a hard time finding a parking space near my desired destination
I typically have a hard time finding a barrier free space near my desired destination
I don't know where I can legally park
Parking lots are confusing
One-way streets make it hard to navigate through the area
Downtown
West Cross
Depot Town

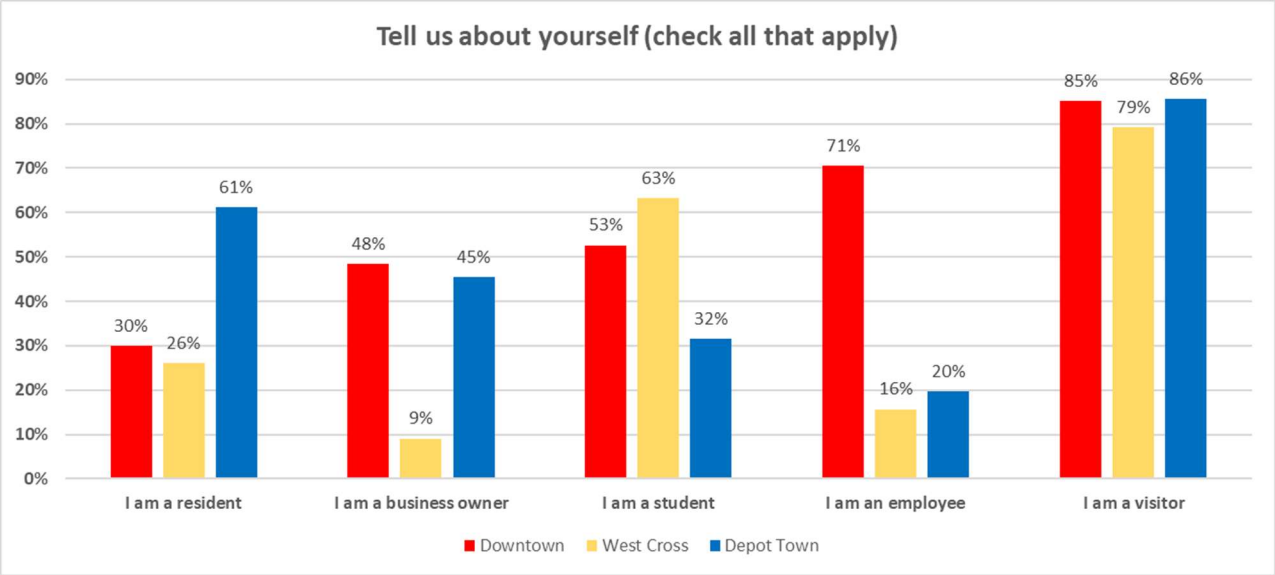

Parking Enforcment in the study areas is (Please choose one answer for each area)
60%
50%
40%
30%
20%
10%
0%
31%
31%
16%
53%
49%
51%
16%
20%
33%
Too aggressive
Just Right
Not strict enough
Downtown
West Cross
Depot Town


Please rate your perception of safety as a pedestrian in each of the study areas
(please choose one answer for each area)
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
16%
18%
39%
35%
24%
38%
7%
21%
6%
29%
28%
14%
12%
9%
3%
Very safe
Somewhat safe
No opinion
Somewhat unsafe
Very unsafe
Downtown
West Cross
Depot Town


Please rate your perception of safety as a bicyclist in each of the study areas
(please choose one answer for each area)
40%
35%
30%
25%
20%
15%
10%
5%
0%
3%
5%
11%
12%
18%
18%
31%
36%
25%
30%
26%
25%
24%
15%
20%
Very safe
Somewhat safe
No opinion
Somewhat unsafe
Very unsafe
Downtown
West Cross
Depot Town


What is your perception of bicycle parking in each of the study areas (please choose all that apply for each area)
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
58%
52%
82%
55%
52%
71%
45%
45%
64%
78%
70%
73%
80%
41%
52%
82%
75%
71%
There is a sufficient amount of bicycle parking
Bicycle parking is easy to identify
The location of bicycle parking is safe and convenient
Bicycle parking is hard to identify
There is bicycle parking, but not in safe and convenient locations
There is not enough bicycle parking
Downtown
West Cross
Depot Town


If a paid parking system would improve the City's management of parking, please indicate which type of system you would prefer (answer all that apply)
70%
60%
50%
40%
30%
20%
10%
0%
62%
44%
55%
15%
Payment station (sometimes called a payment kiosk)
Parking meter at each space that accepts coins and credit cards
Parking app for smart phones
Other (please specify)
All Areas


Tell us about yourself (check all that apply)
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
30%
26%
61%
48%
9%
45%
53%
63%
32%
71%
16%
20%
85%
79%
86%
I am a resident
I am a business owner
I am a student
I am an employee
I am a visitor
Downtown
West Cross
Depot Town

Recommendations

RECOMMENDATIONS

INTRODUCTION

The recommendations presented here are intended to enhance the existing supply of parking through operational and management changes. While aimed primarily at increasing the efficiency of the parking system, the recommendations are comprehensive and provide a holistic approach to improving parking in the downtown today as well as provide a plan for accommodating future growth of the downtown study area.

The recommendations in this section are a set of tools that Ypsilanti can use to manage the parking system. A parking system is not just about parking vehicles. It also involves the walkability of a downtown and elements such as signage, enforcement and lighting as well as marketing parking to business owners, employees and customers/visitors. The utilization of individual lots can depend on any or all of these factors as well as the overall condition of the lot. Fundamentally, these issues can impact a parking system and therefore downtown economics in general.

All recommendations within this section, whether used individually or as a package of coordinated improvements, will aid Ypsilanti in creating a parking system. With a unified approach, Ypsilanti will best be prepared to address parking related issues and handle new development both now and in the future.

Some of these recommendations can be implemented easily and quickly with little or no cost to the City while others may require significant budgeting and time to complete. The Recommendations Section of the report focuses on policy and actions to the current parking system and changes with the proposed new development where the New Parking Section addresses new parking options and timing.

The majority of the recommendations are appropriate for all three DDA Districts although a few may be appropriate or directed to specific districts. A recommendations matrix follows listing all recommendations in an implementation plan.

The time frames shown for each of the recommendations list the month indexed from June of 2019 (Month 0). This time frame demonstrates the expectation for the City to begin discussing or implementing the recommendation. Therefore, a recommendation with a time frame of 0 – 18 months would start June 1, 2019 (Month 0) and be expected to be completed by December 1, 2020 (month 18 from June 2019). Similarly, a recommendation with a time frame of 6 to 18 months would be expected to begin about December 1, 2019 (month 6) and be completed in December 2020 (month 18).

RECOMMENDATIONS MATRIX

Issue Addressed			Recommendation	Time Frame	Responsibility
	Management/Operations			Months	
1.0	Parking Management	1.1	Appoint point person (Parking Manager) to oversee parking operations.	0 - 18	City
		1.2	Evaluate possibility to have DDA with responsibility for managing parking system.	0 - 18	City
		1.3	Have a parking advisory committee that develops guidelines for how the parking system should be operated.	0 - 18	City / DDA
2.0	Upgrades / New Parking Control Equipment	2.1	Install meters in Depot Town to help manage the parking better.	16 - 28	City
		2.2	Launch a phone parking application starting in Depot Town, then West Cross and Downtown.	12 - 30	DDA
		2.3	Begin the budget process to upgrade to multi-space pay stations in lots & eventually on-street spaces.	6 - 18	City
3.0	New Private Parking	3.1	City does not require new parking except for residential plus provides fee-in-lieu option. Keep doing this.	0 - 18	City
4.0	Shared Use	4.1	Allow and sign lots for public use in evening where possible.	2 - 14	City / DDA
		4.2	DDA works with private businesses as broker allowing staff from adjacent businesses to use surplus parking.	2 - 14	DDA
5.0	Bike Parking	5.1	Develop & Adopt bicycle parking standards.	0 - 6	DDA
		5.2	Expand bicycle parking throughout each of three districts.	0 - 6	DDA
		5.3	Add bicycle parking corrals in on-street spaces during warmer months.	0 - 6	DDA
		5.4	Bicycle Connections within and between districts and rest of City.	16 - 41	City / DDA
6.0	RideSharing / New Technologies	6.1	Designate specific spots for ridesharing pickup & drop-off during certain peak hours.	2 - 6	City / DDA
		6.2	Monitor development of Autonomous Vehiclees for impact on parking needs.	6 -	Parking Manager
		6.3	Bike Share / Car Share / Scooters.	6 - 18	City / DDA
7.0	Residential Parking	7.1	Create a residential parking flyer clearly defining overnight parking and locations approved for overnight parking.	12 - 36	City
		7.2	Incorporate a "grace period" during the annual renewal period for residential parking where courtesy tickets are issued rather than fines.	0 - 6	City
8.0	Parking Duration and Allocation (On-Street)	8.1	Ensure that on-street parking for customer use is designated as two-hours.	6 - 18	City / DDA
		8.2	Allow longer term parking in on-street spaces where turnover is not needed.	6 - 18	City
	Parking Duration and Allocation (Off-Street)	8.3	Off street parking intended for customer use should be the most convenient spaces and designated as three-hour parking.	6 - 18	City / DDA
		8.4	Consider reduced price in N. Washington Lot to encourage use. May need to improve lighting.	6 - 15	City / DDA

Issue Addressed			Recommendation	Time Frame	Responsibility
	User Experience				
9.0	Parking Signs	9.1	Add identification signs at the entrance to all public lots.	9 - 15	DDA
		9.2	Rich & Associates recommends the addition of a family of parking signs (three sign types, there are vehicular wayfinding signs) in the downtown.	12 - 36	DDA
		9.3	All of the parking signs should use the same text size and color scheme. The text should remain consistent for parking signs both on-street and off-street. The lot identification signs should be placed at the entrance of all lots and the text should be large enough to be read while driving.	15 - 36	DDA
		9.4	Permit parking and free visitor parking should be clearly identified. There are lots where it is difficult to find the visitor parking because it is mixed in the permit parking. Clearly identify areas in the lot with the visitor parking being the most convenient.	15 - 36	DDA
10.0	Employee Parking	10.1	Improve walkability from lots to destinations in order to encourage employees to park where required (improved lighting).	24 - 48	City
		10.2	Establish employee permit areas in all three districts.	6 - 18	City / DDA
		10.2.1	Would allow employee to park at long-term meters in lots without paying if display proper permit.	6 - 18	City / DDA
		10.3	Manage employee permit sales to encourage permit parking.	6 - 18	City / DDA
		10.4	Address deficiencies in Ballard Street Lot and sell employee permits.	24 - 36	City
		10.5	Investigate possibilities to partner with TheRide for reduced fare bus passes for employees similar to the arrangement employed by the Ann Arbor Downtown Development Authority.	0 - 18	DDA
11.0	Pedestrian Enhancements and Activity	11.1	Follow landscaping criteria outlined in the land use ordinance for all parking lots in the downtown (public and private) in order to enhance pedestrian safety by increasing the separation from motor vehicle traffic.	6 - 18	City
		11.2	Conduct a lighting study along sidewalks and in all public lots As funding and officers are available, add police officers to a downtown route walking and on bicycles to help address pedestrian safety concerns in the downtown.	6 - 18	City
		11.3	Walking Distance (see map in Section 6).	12 - 24	City / DDA
		11.4	Work with private building owners to make pedestrian walkways more friendly and safe.	0 - 18	City / DDA
12.0	Marketing	12.1	Develop flyer that can be distributed to businesses and carried by Parking Enforcement Officer.	28 - 36	City / DDA
		12.2	Develop link on City and DDA websites that are specifically for parking.	28 - 36	City / DDA
		12.3	Parking Enforcement offices trained to act as ambassadors. Give directions, provide information on CBD events, vehicle/ bike-share stations etc.	6 - 18	City / DDA
		12.4	Purchase sandwich boards to be used as temporary wayfinding signs during special events.	12 - 18	DDA

Issue Addressed			Recommendation	Time Frame	Responsibility
	Maintenance				
13.0	Budgeting	13.1	Specifically track all parking related revenues and expenses in either DDA or City Budget.	6 - 12	City / DDA
		13.1.1	Develop sinking fund for long-term expenses and upgrades.	6 - 12	City / DDA
		13.1.2	Consider developing parking as an Enterprise Fund to handle all parking related expenses.	12 - 24	City / DDA
		13.2	Develop a maintenance schedule for the lots to keep up with maintainenance needs and help budget yearly costs.	12 - 36	City
14.0	Painting / Striping	14.1	Maintain striping for on-street spaces as budgets and resources are available.	0 - 12	City
		14.2	Paint curbs following the colors provided consistently throughout the entire study area.	0 - 12	City
15.0	Communication	15.1	Maintain policy of communicating maintenace issues of street and lots to businesses through text alert system.	0 - 12	City
16.0	Equipment	16.1	Correct inconsistency between meters (heights, time limits, payment methods).	13 - 37	City / DDA
17.0	Stormwater Management	17.1	Investigate approriate design changes in landscaped islands or outfall areas surrounding lots for stormwater management.	33 - 69	City
	ADA Parking				
18.0	ADA Parking	18.1	Address deficient barrier free space complement in the lots.	0 - 6	City
		18.2	Monitor need for providing additional handicap parking in lots that may be required above minimum ADA standards.	0 - 6	City
	Parking Enforcement				
19.0	Staffing	19.1	Continue enforcement managed through two parking enforcement staff.	0 - 6	City
		19.2	PEO (Parking Enforcement Officer) should be dedicated to parking duties as an ambassador of the downtown, only being reassigned during emergencies and special circumstances that may arise.	0 - 6	City
		19.3	Train PEO's to act as ambassadors. Trained to provide direction to various destinations, information about events and transportation options (ride share stops, vehicle / bike share stations, etc.)	8 - 20	City / DDA
		19.4	PEO should enforce the parking lots and on-street parking to create an equitable system that works for everyone.	8 - 20	City
	Fines / Citations	19.5	Parking Fines - Adopt the recommended fine schedule along with issuing courtesy tickets.	4 -16	City
	Additional Parking				
20.0	Additional Parking	20.1	Evaluate possibliity for developing additional parking particularly in Depot Town.	22 - 38	City

MANAGEMENT / OPERATIONS RECOMMENDATIONS

1. Parking Management

1.1 - Parking Manager

Discussion: Currently, there is no one person with overall responsibility for managing the Ypsilanti parking system. Managing the parking system appears to be from a combination of City departments (public works, police department, accounting) and the DDA with the lines somewhat blurred as who is responsible for what. This lack of a "point person" also makes it difficult for residents and business owners with concerns regarding the parking to determine who to turn to for help. Appointing a parking manager would allow someone to manage staff dedicated to day-to-day parking operation. This would include lot maintenance, parking revenue and control equipment, enforcement and clerical staff.

Action: Appoint one person as a parking manager to oversee all parking operations in each of the three DDA districts

Time Frame: 0 – 18 Months

Responsibility: City

1.2 - *City Council / DDA Cooperative Arrangement for Parking Operations*

Discussion: The success of the CBD and individual DDA districts is obviously in the best interest of the City. A vibrant business district with shops and restaurants attracts both continuing visits and dollars as well as new investment. Ensuring that the parking system is in fact supporting the CBD may require a cooperative arrangement between the City and DDA with the DDA playing a larger role in day-to-day parking management. As such, the parking manager (recommendation 1 above) would report to the DDA board. The DDA would periodically report to City Council on parking operations.

Action: Begin the process to form a cooperative arrangement between the City and DDA whereby the DDA can play a larger role in day-to-day parking management.

Time Frame: 0 – 18 months

Responsibility: City

1.3 - Parking Advisory Committee

Discussion: The policies to be followed and implemented for operation of the parking system would be developed in a Parking Advisory Committee. This committee would have representatives from the City, DDA and citizens to develop the policies for paid parking

locations, permit areas, rates, enforcement policies, capital equipment and parking facility upgrades or essentially anything related to the CBD parking system. Recommendations from the parking advisory committee would go to The DDA Board and then forwarded to City Council with a recommendation for approval, denial or further investigation.

Action: Following agreement to both appoint an overall parking manager and form a cooperative arrangement for managing the parking system, begin the process to form the Parking Advisory Committee with representatives of the City, DDA and residents.

Time Frame: 0 – 18 months

Responsibility: City / DDA

2 – Upgrades / New Parking Control Equipment

2.1 – Install Meters in Depot Town to help manage parking and fund the parking system

Discussion: Presently, all public parking both on-street and off-street in Depot Town is free. This contrasts with both the Downtown and West Cross districts where the majority of the parking requires payment. In order to have both a consistent and equitable parking system, it is prudent that the parking patrons in Depot Town also support the cost of providing and maintaining parking.

Action: Although the ideal situation would be to install multi-space pay stations to cover on-street parking in Depot Town as well as the lots, the cost of these units may be prohibitive ($6,000 - $9,500 per unit plus extended warranties that run between $300 and $700 per unit). Therefore, it may be more prudent to install individual meters along on-street spaces in Depot Town until such time that funding increases to allow investment in multi-space pay stations. This may require using individual meters for on-street spaces and putting in pay stations to cover the Frog Island Lot and Maple Street lots and the lot near the Freight House.

Time Frame: 16- 28 months due to cost of equipment may require budgeting.

Responsibility: City

2.2 – Launch a phone parking application

Discussion: Among the frustrations often voiced by patrons particularly in a business environment with restaurants is the fear of receiving a parking citation due to extended stays while visiting restaurants. While someone may have intended to only stay for 90 minutes, delays in being seated or simply enjoying the evening out can create anxiety that they will be ticketed. Technology that allows patrons to pay for parking by entering their license plate number into pay stations or smart phone apps can be configured with text alerts to notify when the time is about to expire. These apps allow patrons to extend their time without the need to return to a pay station. Pay stations and phone apps also allow someone to pay for parking

using credit cards reducing the need to carry cash or coins. A system like this should be implemented where meters or pay stations already exists so that patrons have the option of paying at the meter or pay station, particularly those that do not have smart phones.

Action: Partner with one of the many phone parking providers (ParkMobile, Pay-by-Phone etc.) to allow pay-by-phone parking.

Time Frame: 12 – 30 Months

Responsibility: DDA

2.3 – Begin the budget process to expand and upgrade the paid parking system

Discussion: Patrons will see real value for their parking dollars when a parking system is developed that can not only sustain itself, but provide the necessary level of service. This will require an initial investment and equipment in Depot Town to be part of the paid parking system. Eventually additional procedures (pay-by-phone) should be added to make the payment system as easy as possible throughout the CBD and various DDA districts. This means upgrading older style meters that currently only accept coins to new meters that can accept credit cards.

Analysis of parking rates used in other similar sized communities throughout Michigan showed some offering all free parking whereas others had a paid system. In the systems with paid parking, rates range from $.50 – $1.50 per hour for on-street parking. For example, the City of Birmingham has rates that range from $1.00 to $1.50 per hour for on-street parking with the more convenient spaces carrying the higher charge.

Action: Begin including in budgets the costs of adding parking control equipment. This may require adjusting rates in the future.

Time Frame: 6 – 18 Months

Responsibility: City

3 – New Private Parking

3.1 - Discourage the Development of Any New Private Parking Lots in the Downtown

Discussion: A parking system works best when the parking can be shared and the municipality is in control of 50% or more of the available parking in the downtown. At higher percentages of public parking, even more flexibility is available. This is an important benchmark because it allows shared use parking. Maximizing the percentage of the parking supply that is shared use allows the parking needs of the City to be met with fewer spaces, thereby requiring less investment. Ypsilanti is only meeting this benchmark in Depot Town.

Downtown 35%

West Cross 41%

Depot Town 50%

When parking spaces are reserved for specific businesses or uses and are not available for multiple businesses in the downtown, they often go unused during parts of the day. While the current parking demand analysis showed that there is an overall sufficient parking supply in Downtown and West Cross, with an evening issue in Depot Town, the availability of shared use public parking is vital for downtown businesses to succeed. When there is a lack of available public parking because the parking is reserved for specific uses, this makes it difficult for a customer/visitor of the downtown to visit more than one location. This also makes it difficult to provide a sufficient amount of employee parking off-street for those businesses without their own lots.

Density combined with a mixture of land use types encourages activity in an urban setting. Privately developed surface parking lots can be discouraged through zoning ordinances. Some communities outright ban parking development by private developers, while others implement parking maximums that limit the amount of on-site parking that can be built with development.

When a community chooses to discourage private parking within a specific business district, the Municipality takes on the task of providing enough parking to support economic activity for all developments (other than residential) within the district. Most successful downtowns do not require parking in Central Business Districts. The reasoning behind this move is that a dense downtown can be created without an excess of parking or driveways. The parking that is built is intended for all businesses and encourages walking, thus encouraging customers to visit multiple locations. Additionally, this allows the City to keep development where they want, parking in locations that benefit the whole district and a more pedestrian friendly downtown.

Under this scenario, most of the parking need is provided by the City.

Action: Already the City of Ypsilanti does not require developments to provide parking with the exception of residential and even this can be waived via the payment of the in-lieu fee. This process encourages development of publicly available parking that can be shared among various uses with different peak periods. The City should maintain this policy.

Time Frame: 0 – 18 Months

Responsibility: City

4 – Shared Use

4.1 - Work with Private Parking Lot Owners in all districts to Create Additional Public parking for use during "off" hours (nights/weekends).

Discussion: Public and private partnerships are another key factor in providing additional shared use parking. It is recommended that the City work with lot owners that have underutilized lots to bring these spaces into the public parking system, through a lease or an agreement to plow, sweep and enforce. Where possible it will benefit the City to seek out additional public/private partnerships with parking to increase the amount of publicly available parking.

Action: The City should work with owners of private lots to allow for public shared use of the private parking areas where possible.

Time Frame: 2 – 14 Months

Responsibility: City / DDA

4.2 – DDA works with private businesses to share surplus parking with staff from adjoining businesses.

Discussion: The use of private parking during off hours as noted in recommendation 4.1 can help provide additional publicly available parking at night and on weekends. If the businesses with private parking, would open their surplus spaces to the employees of other businesses rather than the public, this would open prime on-street parking to visitors/patrons. These arrangements can be facilitated by the DDA / City so that businesses with the extra parking know how many added employees that they are allowing into their lots and under what conditions. This may involve developing a permit that the employees would obtain from their employer which directs and gives them permission to use the private lot. The results from the Thursday occupancy counts showed parking occupancy in the private lots was less than 60 percent during the daytime hours in all three districts and still just 80 percent at peak time in Depot Town at night. These values suggest an opportunity to more efficiently use some of these spaces for employee parking and free up additional public parking for customers and visitors.

Action: - DDA or City work with private businesses that may have extra parking to determine the number of spaces that they may be willing to make available to staff from adjoining businesses to free up public parking spaces.

Time Frame: 2 – 14 Months

Responsibility: DDA

5 – Bike Parking

5.1 Develop and adopt bicycle parking standards

Discussion: Bicycle parking, to be effective, should be regular, secure, visible and well lit.

Action: As part of updating vehicular parking standards, consideration should be given to developing and adopting bicycle parking standards and guidelines (engineering, not planning) for the city. Simple, yet effective, bike rack designs and placement will aid in increasing usage.

The Association of Pedestrian and Bicycle Professionals (APBP, www.apbp.org) *Bicycle Parking Guidelines, 2nd Edition (2010)* provides professional guidance on providing bicycle racks and covered parking enclosures for employees and visitors.

Time Frame: 0 – 6 Months

Responsibility: DDA

5.2 – Expand bicycle parking throughout each of the three districts

Discussion: Bike parking currently exists within the three districts, but not necessarily in a uniform manner, and at times, not in the quantities needed. Additional uniform and well-placed bicycle parking throughout the three districts could offset the need for some additional vehicular parking.

Regular bicycle parking, evenly placed through the districts, is suggested to provide a base volume of parking. Once arriving at the three districts, expanded bicycle parking facilities within the districts has the ability to reduce the demand for new vehicular parking to be created. The majority of the parking lots do not have provisions for bicycle parking. The North Washington Street Lot in the downtown district being the sole exception. Additional secure and covered parking would encourage use for employees and longer-term visitors to the districts.

Action: Add additional bike racks and consider installing bike lockers throughout all three districts. This is likely to help reduce the number of parking spaces needed.

Time Frame: 0 – 6 Months

Responsibility: DDA

5.3 – Bike Corral Parking

Discussion: Bike corral parking could be used as a seasonal method to provide additional parking, especially for events, restaurants, and entertainment areas. During warmer months, a single on-street or lot parking space can be converted into a bike corral, providing space for up to ten bicycles.

Action: In key areas consider allocating individual on-street or parking lot spaces as bicycle corral parking.

Time Frame: 0 – 6 Months

Responsibility: DDA

5.4 - Bicycle Connections

Discussion: Providing the necessary connections within and between districts of the proper design can encourage expanded use of bicycles as a mode of transportation around the CBD. A network of bicycle facilities (e.g., on street bike lanes, etc.) need to be completed within and between the three districts and connected to the rest of the city. Currently only Cross Street has bicycle lanes. Depot Town has bike lanes approaching it, but not continuing through it, and not connecting to Cross Street. The downtown district does not have any bike lanes. An increase in bike lanes, (buffered or protected are preferred) will allow for an increase in bicycle usage by riders other than "Type A" (very confident and experienced).

Action: Begin the process to develop the necessary bicycle facilities (lanes) buffered and protected from traffic whenever possible to encourage this use.

Time Frame: 16 – 41 Months

Responsibility: City / DDA

6 – Ridesharing / New Technologies

6.1 – Ridesharing spaces

Discussion: The significant increase in the use of ride share services (e.g., taxi, Lyft, Uber) has at times resulted in increases in travel lanes being blocked during drop offs and pickups and circulating vehicles. Designated drop off / pickup areas should be considered in areas of high-volume restaurant and entertainment venues, especially during peak hours. Two or three on-street parking spaces can be marked as "ride share" spaces during peak evening times, yet still be available for parking during regular business hours or used as loading zones. Parking signage can be developed to note the specific hours of operation. Additionally, consideration should be given to address vehicles left in city parking lots by patrons who may be using ride share due to excessive drinking. Business owners could be provided with a contact number to notify parking enforcement about vehicles being left overnight where not normally allowed.

https://www.hometownlife.com/story/money/business/2018/10/12/uber-and-lyft-services-create-traffic-parking-issues-downtowns/1581058002/

Action: Develop designated drop off / pickup areas in high volume restaurant entertainment areas. Mark spaces as ride share during these hours.

Time Frame: 2 – 6 Months

Responsibility: City / DDA

6.2 - New Technologies

Discussion: At this point it is difficult to know when and exactly how self-driving vehicles will be introduced in cities. Most articles of late point to autonomous vehicles being used as taxis and shuttle services in the first release of autonomous vehicles. The release date is unknown and is reported anywhere from 3 to 30 years away depending on technology and the laws regulating the technology.

Parking will be needed even with autonomous vehicles. Not everyone will live close enough to the downtown area that their vehicle can drive home after dropping them off. These cars will still have to be stored somewhere. There will most likely be a shift to store vehicles on the outskirts of downtowns. Though, because vehicles will not have a driver, parking structures will be able to be restriped making the spaces smaller to allow for more vehicles to park in the structure. This will, in turn, make it possible for surface lots to then be developed creating additional density and thus creating additional tax revenue in the downtown.

We do know that the market will not be saturated overnight due to the high costs of the vehicles and the fact that there is still not an overall buy in to autonomous vehicles at this point. It is clear that they will someday soon be a part of the downtown fabric but we do not yet understand exactly what the impact will be.

It is important to keep up with the parking demand in the downtown. The City can conduct annual turnover and occupancy studies to monitor where the parking demand is changing and address the issues. It will also be important to keep up with the industry and follow the potential impacts on parking systems due to the changes in autonomous vehicles.

Action: Keep educated with the progress of autonomous vehicles.

Time Frame: Annually

Responsibility: Parking Manager

6.3 – Bike share / Car Share / Scooters

Discussion: Other technologies or possibilities include provision of bike sharing services, car sharing services (zipcar) or scooters. While any of these possibilities may require dedicated spaces for their use, they may also encourage someone to realize that they do not need access to a personal vehicle since these services along with walking and public transit may provide for their transportation needs.

Action: Investigate possibilities of developing and providing these shared transportation alternatives

Time Frame: 6 – 18 Months

Responsibility: City / DDA

7 - Residential Parking

7.1 – Residential Flyer

Discussion: Downtown residents are an important part of downtown revitalization. It would be beneficial if the City worked with downtown landlords to create a flyer for locations of permitted overnight parking. The flyer should include a map identifying locations where it is permissible to park overnight without worry of receiving a parking ticket, the ordinance relating to overnight parking, cost and where to purchase permits and the fine for parking in the parking spaces that are not identified as residential permit parking. This flyer would be distributed to all existing downtown residents and provided to new downtown residents when signing leases if their building does not have dedicated overnight parking. Comparison of residential parking rates in some other Michigan communities showed the lowest rate was $15.00 for a residential parking waiver in Hazel Park, Michigan. Overnight rates in Marquette are $35.00 per month.

Action: Create a residential parking flyer clearly defining overnight parking and locations of approved overnight parking.

Time Frame: 12 – 36 Months

Responsibility: City

7.2 – Residential Permit Grace Period

Discussion: Among one of the concerns voiced during the focus group meetings was the need for the City to allow a grace period during the annual renewal period of residential permits. Movement between districts or areas can result in someone not having the proper permit for the new area. During a defined period, improperly permitted cars would not be given a citation with a fine attached but only issued a courtesy ticket.

Action: Implement defined grace period during annual residential permit renewal.

Time Frame: 0 – 6 Months

Responsibility: City

8 - Parking Duration & Allocation

8.1 - On-Street 2-Hours

Discussion: A two-hour limit is often the predominant duration for on-street parking as it suits the needs of the majority of customers and visitors. Based on parking Best Practices, it is generally agreed that on-street parking should be reserved for customers and visitors.

Action: Ensure that on-street parking intended for customer use is designated as two-hours to encourage turnover and prevent abuse by employees.

Time Frame: 6 – 18 Months

Responsibility: City / DDA

8.2 – On-Street (beyond two hours)

Discussion: Longer term on-street parking is acceptable in areas where turnover is not the desired effect. This parking can be used for additional employee or extended stay customer/visitor parking.

Unrestricted on-street parking may be provided where turnover is not required and therefore may be used by employee needing the longer-term parking. However, it is important that the employees are not pushed into residential areas as this will only create a new parking issue causing the residents to not have available parking.

Action: On-street spaces not directly adjacent businesses may be allocated as longer-term parking (beyond two-hours) provided that turnover is not needed. These spaces can be used as convenient parking for customers / visitors who may need to stay beyond two-hours or for use as additional employee parking.

Time Frame: 6 – 18 Months

Responsibility: City

8.3 - Off-Street Parking

Discussion: While on-street parking will often be the preferred choice for many customers and visitors due to its perceived convenience close to many intended destinations, it will not be the only parking consideration. The majority of the off-street parking should be long term for customers and visitors who plan on spending longer periods of time in the City. Public off-street parking is where most employees of businesses that do not have their own parking should park. It is important that long term parking be differentiated from the short-term parking with signs that are easy to understand. Currently there are no time restrictions in the public lots. There needs to be a clear definition of where employees should park and where customers wanting long term parking can park. Any parking intended for customer/visitor use is often set with a maximum time limit of three hours to discourage employees from parking in these spaces. Three-hour parking requires most employees to move their vehicle two times in a workday discouraging this action

Action: Properly sign and provide customer parking in off-street lots with the most convenient spaces limited to three hours to discourage abuse by employees.

Time Frame: 6 – 18 Months

Responsibility: City / DDA

8.4 – North Washington Street Lot

Discussion: The North Washington Lot appears to be underutilized. Encouraging employees to use this lot may move them from other locations which in turn could mean more spaces available for customers and visitors. This could be accomplished through a combination of financial incentives (lower cost parking) and improved security. As such, this may require improvements in the lighting of this lot and a visible police presence.

Action: Implement a lower monthly permit rate for employee parking in the North Washington Lot. As soon as possible, upgrade the lighting.

Time Frame: 6 – 15 months

Responsibility: City / DDA

USER EXPERIENCE RECOMMENDATIONS

9 - Parking Signs

Discussion: Parking areas can be difficult to find if they are located behind buildings, particularly if someone is not familiar with the downtown. In Rich's opinion there should be more directional/location signs in the various areas, especially to lead parkers to public parking lots. The parking lots need identification signs that let a visitor of the downtown know that the parking is public and what the rates are. It is helpful to name the lots so that a customer can remember where they parked. Naming the lots can also help with giving directions to businesses in the downtown. The names should reflect the lot locations by using street names.

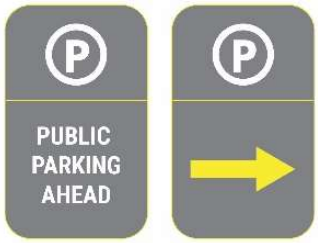
Pedestrian wayfinding is critical once a person parks and transitions to walking. Being able to follow wayfinding maps or signs aid pedestrians in locating key destinations and then the way back to where they parked. These types of signs are particularly important elements in tourist/customer/visitor-oriented downtowns. Ypsilanti should consider adding one or two kiosks, particularly in the downtown district with business listings and parking locations.

Rich & Associates has developed a parking signage best practices package that is detailed in this recommendation. The information is provided to show how the signs work together and provide a comprehensive wayfinding system.

Best Practice Sign types include

The following four types of parking signs are strongly recommended as best practices for improving driver wayfinding. Communities often miss the important role that signs play in making visitors comfortable with their surroundings and the effect that signs can have on vehicle travel and parking use efficiency.

Directional/Location:



Directional-parking signage is distinct in color, size and logo and directs drivers to off-street parking areas. Parking location signage complements the directional parking signage. The signs can have arrows pointing to the off-street lots. The signs are mounted on poles at standard heights, on the streets directing parkers to off-street lots. Ypsilanti has some of this type of sign, though the lettering is small.

Identification:

Identification signage is placed at the entry of each parking lot. The name of the parking area is identified and the type of parking available as well as hours of enforcement and the hours of lot operation are listed on the signage. The identification signage is distinctive in color and size, and it is located on a pole at a lower height. The text should be large enough to read while driving.

Vehicular Wayfinding:

Vehicular wayfinding signs are placed at points in the downtown leading drivers to places of interest and parking locations. The sign also points out the various landmarks or attractions that can be found. These types of signs are placed at key locations easily found by a driver and are intended to help a driver orient themselves to the downtown area. Arrows should always point forward, to the left and right. Avoid using downward pointing arrows causing drivers turn around. Ypsilanti already has a very good system of these types of signs.

Pedestrian Wayfinding:

Pedestrian wayfinding signs or kiosks are placed at the points of pedestrian entry/exit to parking lots. Typically, a map illustrating the downtown area that points out the various shops or attractions. These types of signs are placed at locations easily found by a pedestrian and are intended to help that person orient themselves to the downtown area, to locate their destination and then be able to return to where they parked. There is one pedestrian wayfinding sign near the Freight House.

The duration parking signs on-street should be consistent in color and text. They should also be placed at a height that will not be obstructed by a SUV parking in front of the sign and approximately 100 ft. apart. It is also important that there are enough signs on a block that it is clear that the parking is time restricted. All signs should be posted perpendicular to the roadway.

Current Parking Signs

It is important that a customer can clearly determine if parking is public or private, know the parking duration and if there is a fee for parking. Signs should all be consistent in text and color.

Action, Time Frame and Cost:

9.1 **Action:** Add location signs at the entrance to all public lots. This will aid in marketing and wayfinding.

Time Frame: 9 – 15 Months

Responsibility: DDA

9.2 **Action:** Rich & Associates recommends the addition of a family of parking wayfinding (3 sign types, there are vehicular wayfinding signs) in the downtown.

Time Frame: 12 – 36 Months

Cost: $75,000-$150,000 for a package of signs (not including wayfinding).

Responsibility: DDA

9.3 **Action:** All of the parking signs should use the same text size and color scheme. The text should remain consistent for parking signs both on-street and off-street. The lot introduction signs should be placed at the entrance of all lots and the text should be large enough to read while driving. The text on the current signs is small, specifically describing the hours of operation. The name of the lot should be clearly visible at the top of the sign and the hours of operation should be prominent.

Time Frame: 15 – 36 Months

Responsibility: DDA

9.4 **Action:** Permit parking and free visitor parking should be clearly identified. There are lots where it is difficult to find the visitor parking because it is mixed in the permit parking. Clearly identify areas in the lot with the visitor parking being the most convenient.

Time Frame: 15 – 36 Months

Responsibility: DDA

10 – Employee Parking

Discussion: Ensuring that employees have appropriate locations for their parking needs is critical in any successful downtown. If employees do not have adequate parking, they will seek to park in customer spaces and simply attempt to move their car to maintain the time limits. When this parking requires payment, they will become increasingly frustrated with the high cost that transient parking typically requires compared to more reasonable monthly rates when translated on an hourly basis. In order to provide for a lower cost often means that these spaces come with less convenience. This may also mean seeking to provide alternatives for employees having to drive when coming to work.

10.1 Action: Improve the walkability from designated employee parking to central destinations. This will often mean improved lighting, additional police presence (particularly at night) and ensuring that the designated employee parking areas are perceived as safe for both person and vehicle.

Time Frame: 24 – 48 Months

Responsibility: City

10.2 Action: Establish employee permit areas in all three districts where employees can park at a lower cost than the hourly transient rates.

Time Frame: 6 – 18 Months

Responsibility: City / DDA

10.3 Action: Manage and encourage employees to purchase parking permits.

Time Frame: 6 – 18 Months

Responsibility: City / DDA

10.4 Action: Address deficiencies in Ballard Street Lot and sell permits to encourage use by employees

Time Frame: 24 – 36 Months

Responsibility: City

10.5 Action: Investigate to have the DDA partner with TheRide (transit authority) for participating employers to offer low cost fares. This may encourage some employees to take advantage of this service and help in the reduction of parking needed. Similar to the program employed by the Ann Arbor Downtown Development Authority

Time Frame: 0 – 18 Months

Responsibility: DDA

11 – Pedestrian Enhancements and Activity

11.1 – Landscaping

Discussion: Pedestrian movement is an important aspect of parking. It is extremely difficult to get people to park beyond the front door of their destination if there is any concern regarding safety or if the experience is not pleasant. Lighting and landscaping can greatly change a person's perception of safety in lots and along sidewalks. Murals, art, window decorations and flowers can create a pleasant walking experience during the day and night. Follow the ordinance for landscaping criteria for all parking lots in the downtown.

Action: Follow landscaping criteria outlined in the land use ordinance for all parking lots in the downtown (public and private) in order to enhance pedestrian safety by increasing the separation from motor vehicle traffic.

Time Frame: 6 – 18 Months

Responsibility: City

11.2 – Lighting / Pedestrian Safety

Several people commented in the focus group and in stakeholder meetings about not feeling safe in the downtown area. A lighting study is recommended along the sidewalks and in the public parking lots to assure that there is enough lighting. It is also recommended to have a visible police presence in the downtown on a regular basis both in the daytime and at night, walking and on bicycles. Whether the feeling of not being safe is a perception or it is reality, people have stated that they will not walk in downtown Ypsilanti due to their not feeling safe and this needs to be addressed.

All pedestrian walkways should be barrier free and easy to navigate. Minimize pedestrian and vehicular interaction by creating a clear differential between the street and sidewalk. This can be done by using texture, colors, trees, or planters between the sidewalks and streets. It is also important to provide handicap accessibility at all intersections. There were several complaints in the survey responses regarding the one-way streets and the speed that vehicles travel. It is difficult to have a vibrant downtown when people are unwilling to walk and bicycle, due to a fear of being hit by a vehicle.

Having two-way streets with on-street parking typically reduces the speed of vehicles in a downtown setting. One-way streets can be difficult for someone unfamiliar with the area to navigate. They can make it difficult to find parking for a particular destination. This is an MDOT issue that is being addressed within the next 10 years to convert many one-way streets to two-way, Trees, banners, art and window displays are other ways to help reduce the speed in downtowns. Bump outs or bulb outs help provide an area of safety when pedestrians are crossing the street. Creating a more pedestrian friendly downtown encourages people to park once while visiting the downtown helping cut down on congestion.

Action: Conduct a lighting study along sidewalks and in public lots. Also, as funding and officers are available add police officers to a route in all districts (particularly downtown, at least initially) to increase perceptions of increased safety.

Time Frame: 6 - 18 Months

Responsibility: City

11.3 – Walking Distance

Discussion: Customer and visitor parking should remain close and convenient, while it is generally expected that employees walk farther in downtown settings. Educating business owners, managers and employees on appropriate parking behaviors is important. There should be a clear understanding with business owners and employees that leaving on-street parking along with the close and convenient off-street spaces for customers is vital to the success of businesses in the downtown. The intent is to provide an equitable parking system that works for all businesses in the downtown. As discussed earlier, education and marketing are a key component to a successful parking system.

The following chart details people's tolerance for walking depending on the environment. We understand that every community is different and that this will vary depending on the vibrancy, density and age of the downtown.

Chart to illustrate people's tolerance for walking

	Minutes	Feet
In a highly attractive, completely weather protected & artificially acclimatized environment	20	5,000
In a highly attractive environment in which sidewalks are protected from sunshine and rain	10	2,500
In an attractive but not weather-protected area during periods of inclement weather	5	1,250
In an unattractive environment (parking lot, garage, traffic-congested streets)	2	600

Gruen, Victor, The Heart of Our Cities. The Urban Crisis: Diagnosis and Cure. Simon and Schuster 1964, New York, p. 250:

"An average walk is at a speed of 2.5 miles per hour. This converts to 13,200 feet per hour or 220 feet per minute. On this basis, a 5-minute walk would be 1,100 feet and a 10-minute walk would be at 2,200 feet." Pushkarev and Zupan. Public Transportation and Land Use Policy. Indiana University Press from a study by Regional Plan Association of New York (RPA).

It is difficult for a retail business to survive in an area when there is not convenient on-street parking available. If a customer wanting to visit a retail store to complete a specific errand cannot find convenient parking they will go elsewhere. If a customer is planning on visiting more than one retail location, they may be willing to park a bit further away and if a customer is planning on spending the day in a downtown, they are may to park off-street and even further away as long as the parking location and path to their destination is perceived as safe.

Action: Even so, it will be important that the distance even for the longer stays is not excessive for customers and visitors. In any case, it is important to locate the employees to parking that is either less convenient for customer use or where turnover is not needed and / or into off-street parking.

Time Frame: 12 – 24 Months

Responsibility: City / DDA

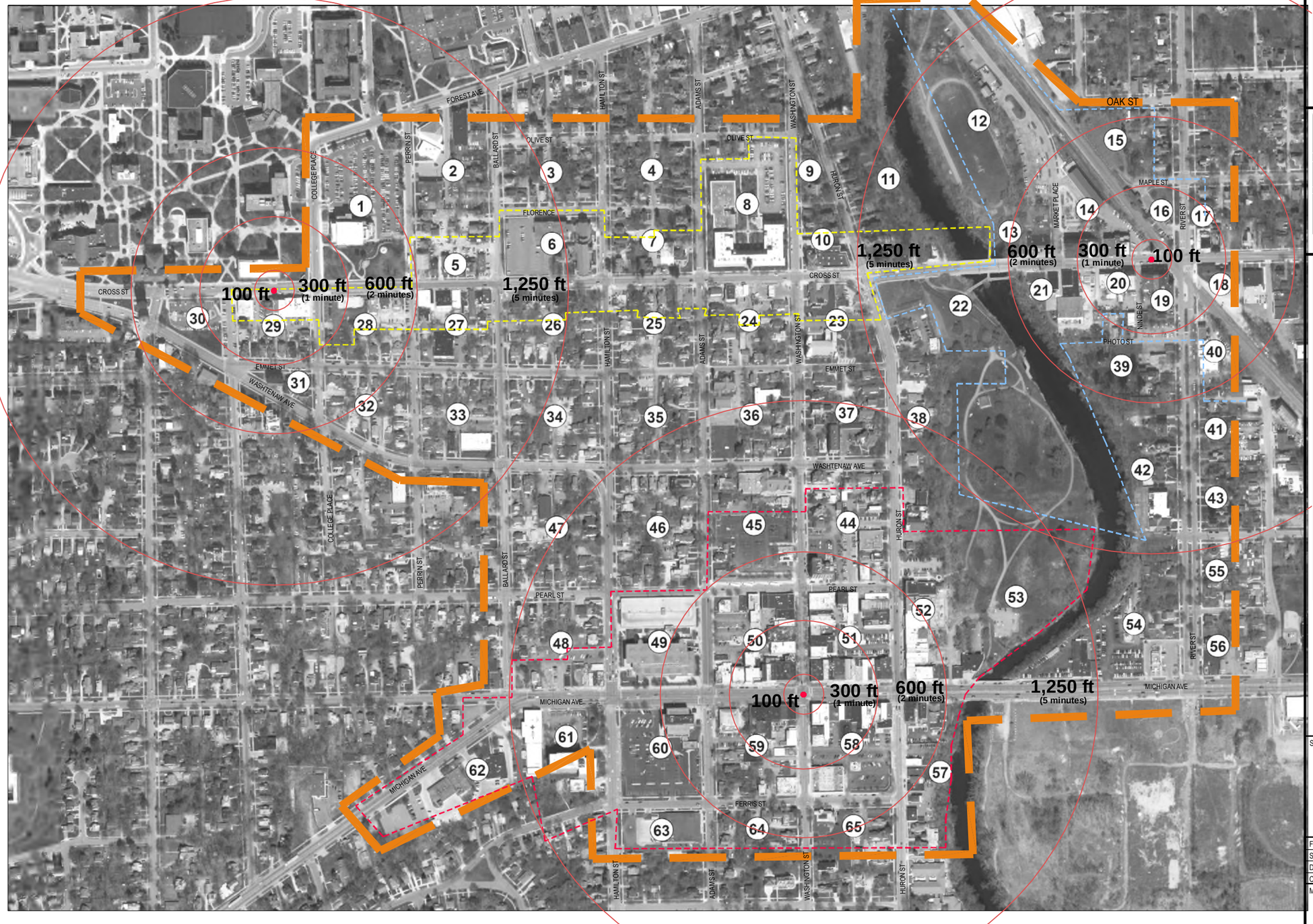
11.4 –Alley access

Discussion: Both the N. Huron Lot and the N. Adams lot had alley ways that lead from parking lots to the front of businesses where vehicles were parking making it unsafe for pedestrians to walk. Making alleys appear safe can make for improved access between parking areas and the businesses. If the pedestrian alleys are public, then vehicles should not be allowed to park in them with significant fines for doing so.

Action: Work with private building owners to get lighting and art in the alleys to make them more pedestrian friendly.

Time Frame: 0 – 18 Months

Responsibility: City / DDA



PARKING STUDY

FOR

YPSILANTI, MICHIGAN

RICH & ASSOCIATES
PARKING CONSULTANTS
Southfield, MI
Lutz, FL
ARCHITECTS · ENGINEERS · PLANNERS

LEGEND:

(#) BLOCK NUMBER

STUDY AREA

WALKING DISTANCES IN MILES

---- West Cross DDA District

---- Depot Town DDA District

---- Downtown DDA District

BLOCK FACE KEY PLAN:

A
D (#) B
C

Sheet Title:

WALKING DISTANCES

File No	1918
Scale	NTS
Date	12-2018
Checked By	

MAP Number:

MAP 3

12 – Marketing

12.1 – Marketing Flyer

Discussion: Marketing is a key aspect of a successful parking system. Marketing should be done every time there is a change to the parking system and should be directed towards downtown employees, business owners, residents and customers and visitors of the downtown. It is important to help encourage downtown employees to park in the long-term parking areas, leaving the most valuable on-street parking for customers and visitors. Additionally, an individual's perception of Ypsilanti is greatly enhanced if they know ahead of time where they can park and what, if any, restrictions on parking duration apply.

Action: Develop a flyer that can be distributed to businesses and carried by the Parking Enforcement Officer.

Time Frame: 28 – 36 Months

Cost: $300-$500 for flyers with $800 annually for ongoing maintenance.

Responsibility: City / DDA

12.2 – Website Link for Parking

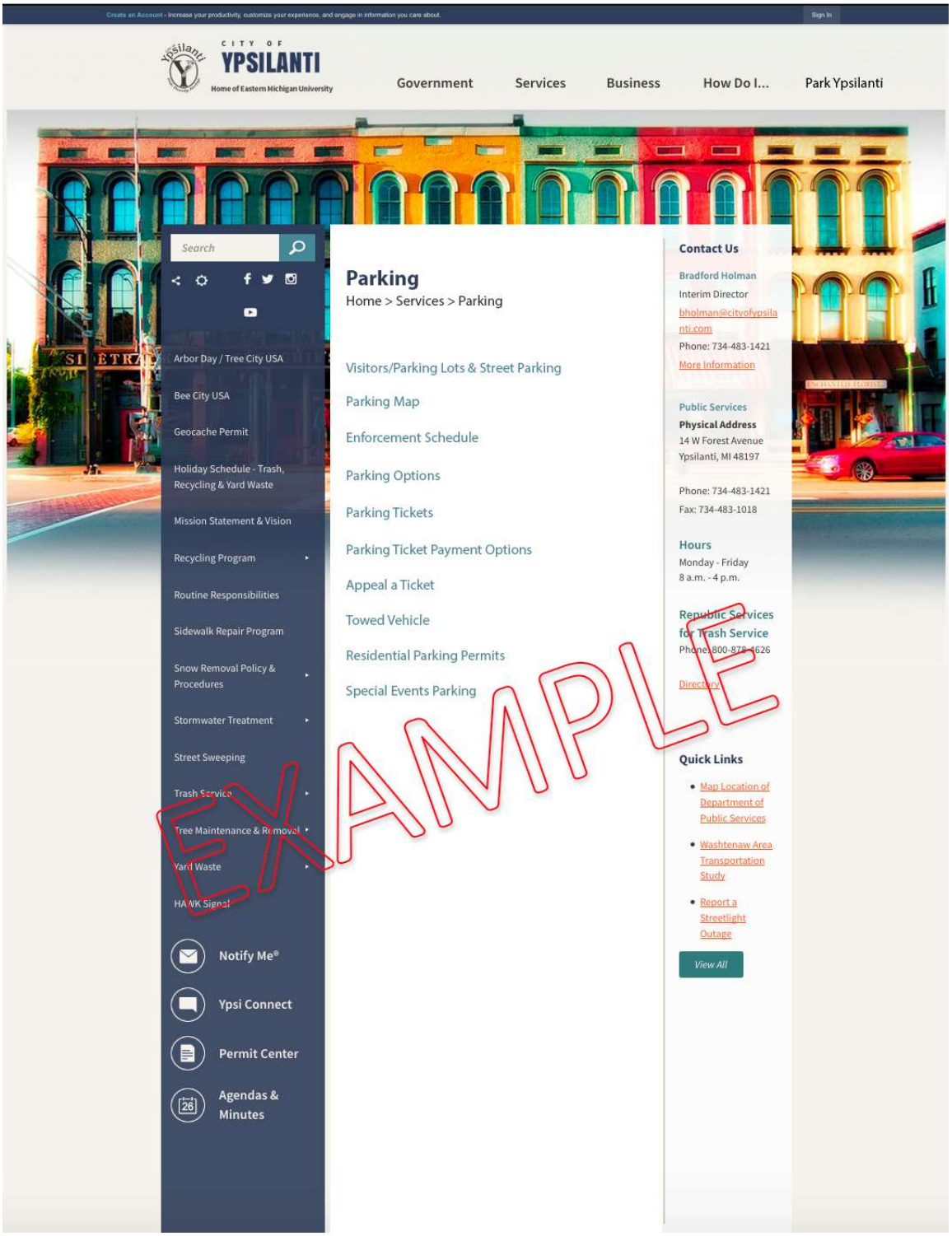
Discussion: Marketing materials can include direct mailings, brochures, maps, kiosks, on-line web pages and articles in magazines and newspapers. Information contained in the marketing materials should include parking location data, up-coming changes, regulations, fine payment options and any other information relating to the parking system.

Action: Beginning on **page 115**, Rich is demonstrating the information that should be included on the City's website regarding parking. There should be a button or link from the City home page and should include maps for all three districts, showing parking areas and key attractions in each district, the businesses and the parking system. The site is even more beneficial if it includes all the durations of parking both on-street and off-street, including pricing for permits, meters, parking violations and options to use other modes of transportation to get downtown. This information will be vital to a successful transition with any changes to the parking system in the downtown.

Time Frame: 28 – 36 Months

Cost: Estimated at $300-$500 initially and then wrap into cost of annual marketing.

Responsibility: City / DDA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YPSILANTI
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Services
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Park Ypsilanti
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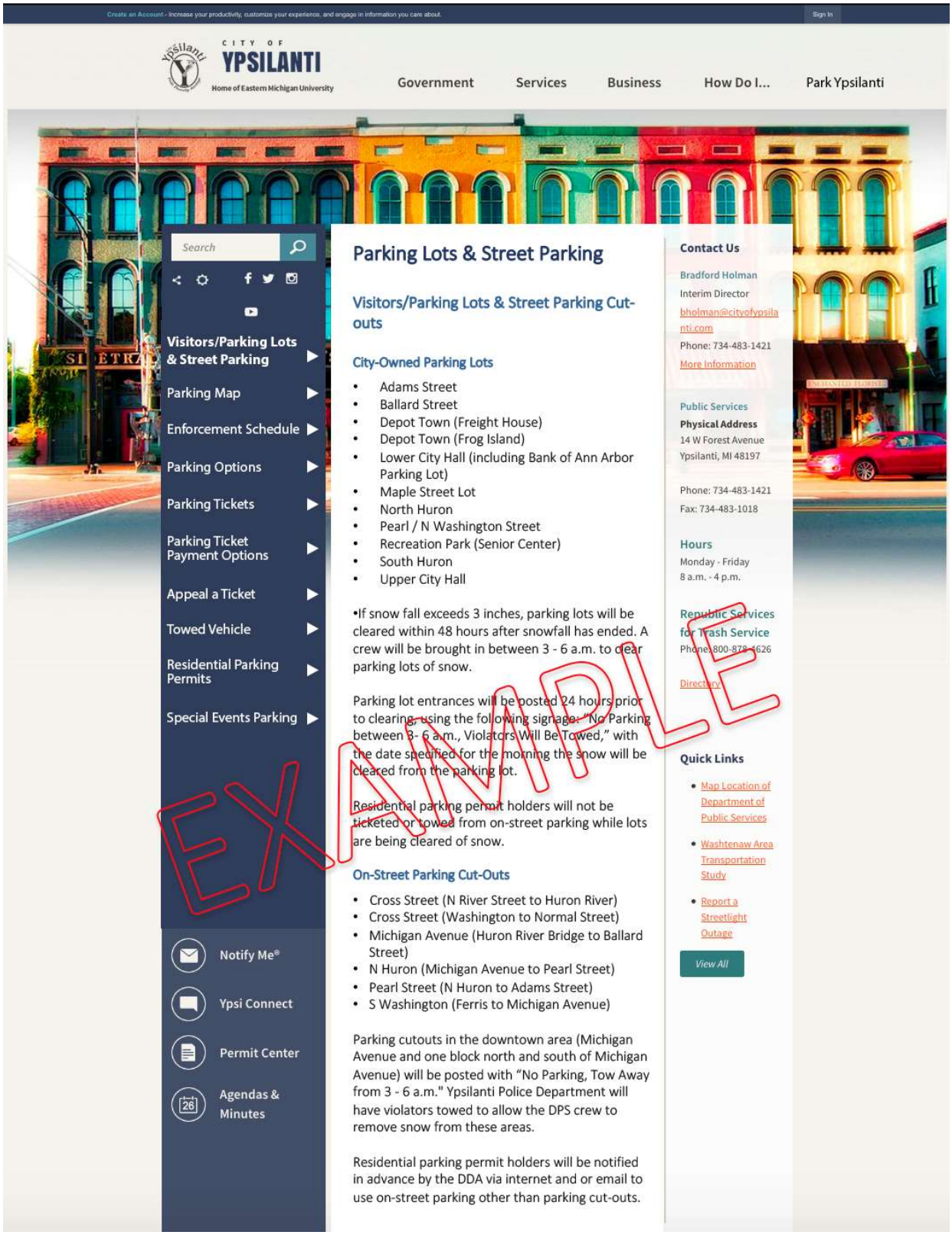
Arbor Day / Tree City USA
Bee City USA
Geocache Permit
Holiday Schedule - Trash, Recycling & Yard Waste
Mission Statement & Vision
Recycling Program
Routine Responsibilities
Sidewalk Repair Program
Snow Removal Policy & Procedures
Stormwater Treatment
Street Sweeping
Trash Service
Tree Maintenance & Removal
Yard Waste
HAWK Signal
Notify Me®
Ypsi Connect
Permit Center
Agendas & Minutes
Parking
Home > Services > Parking
Visitors/Parking Lots & Street Parking
Parking Map
Enforcement Schedule
Parking Options
Parking Tickets
Parking Ticket Payment Options
Appeal a Ticket
Towed Vehicle
Residential Parking Permits
Special Events Parking
Contact Us
Bradford Holman
Interim Director
bholman@cityofypsilanti.com
Phone: 734-483-1421
More Information
Public Services
Physical Address
14 W Forest Avenue
Ypsilanti, MI 48197
Phone: 734-483-1421
Fax: 734-483-1018
Hours
Monday - Friday
8 a.m. - 4 p.m.
Republic Services for Trash Service
Phone: 800-878-1626
Directory
Quick Links
Map Location of Department of Public Services
Washtenaw Area Transportation Study
Report a Streetlight Outage
View All
EXAMPLE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Notify Me®
Ypsi Connect
Permit Center
Agendas & Minutes
Parking Lots & Street Parking
Visitors/Parking Lots & Street Parking Cut-outs
City-Owned Parking Lots
Adams Street
Ballard Street
Depot Town (Freight House)
Depot Town (Frog Island)
Lower City Hall (including Bank of Ann Arbor Parking Lot)
Maple Street Lot
North Huron
Pearl / N Washington Street
Recreation Park (Senior Center)
South Huron
Upper City Hall
•If snow fall exceeds 3 inches, parking lots will be cleared within 48 hours after snowfall has ended. A crew will be brought in between 3 - 6 a.m. to clear parking lots of snow.
Parking lot entrances will be posted 24 hours prior to clearing, using the following signage: "No Parking between 3- 6 a.m., Violators Will Be Towed," with the date specified for the morning the snow will be cleared from the parking lot.
Residential parking permit holders will not be ticketed or towed from on-street parking while lots are being cleared of snow.
On-Street Parking Cut-Outs
Cross Street (N River Street to Huron River)
Cross Street (Washington to Normal Street)
Michigan Avenue (Huron River Bridge to Ballard Street)
N Huron (Michigan Avenue to Pearl Street)
Pearl Street (N Huron to Adams Street)
S Washington (Ferris to Michigan Avenue)
Parking cutouts in the downtown area (Michigan Avenue and one block north and south of Michigan Avenue) will be posted with "No Parking, Tow Away from 3 - 6 a.m." Ypsilanti Police Department will have violators towed to allow the DPS crew to remove snow from these areas.
Residential parking permit holders will be notified in advance by the DDA via internet and or email to use on-street parking other than parking cut-outs.
Contact Us
Bradford Holman
Interim Director
bholman@cityofypsilanti.com
Phone: 734-483-1421
More Information
Public Services
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Ypsi Connect
Permit Center
Agendas & Minutes
Depot Town District
Public Parking Lots
On-Street Free
On-Street 2-Hr
On-Street 30-Min
West Cross District
Public Parking Lots
On-Street 1 Hr
On-Street Free
On-Street 2-Hr Meter
Residential Permit
Downtown District
Public Parking Lots
Public Reserved/Permit
On-Street 1 Hr
On-Street Free
On-Street 2-Hr Meter
On-Street 2-Hr Free
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View All
EXAMPLE

12.3 – Parking Enforcement Officers as Ambassadors

Discussion: To many individuals, parking enforcement officers (PEO's) are perceived with disdain. Perceptions are that parking is or should be free and issuing citations is simply another revenue grab by the municipality. In reality, parking enforcement is a necessary element in any well-run parking system to help to ensure that the most convenient parking is available for customers and visitors. Parking fees also help to maintain the parking system that otherwise may be ignored in an era of tight municipal budgets for more pressing issues. Rich feels that parking enforcement should really be intended to discourage habitual abuse of the parking rules by use of "courtesy tickets" that will both educate and control access to convenient parking. Parking enforcement can be seen as ambassadors when short-term violations are not immediately penalized. Parking enforcement officers can also be marketed as additional eyes and ears in the community noting issues in lots and on-street that if left unattended could become more serious issues. PEO's can provide direction to key destinations, information on ride-sharing, car-sharing or bike-sharing locations as well as information regarding each district. Develop a flyer that explains parking rules for public distribution and that can be carried by the Parking Enforcement Officers. The flyer should also be available on the City website, at DDA offices and in businesses. This is intended to be marketed toward customers and visitors of the City as well as residents and employees. There should be clear distinctions of where employees should park and where customers wanting to spend more than two hours downtown can park.

Action: Train PEO's to be ambassadors of the CBD.

Time Frame: 6 – 18 Months

Responsibility: City / DDA

12.4 – Special Event Parking

Discussion: Special events will often bring much larger groups into the CBD beyond the capability of the parking and roadways to accommodate the traffic. Having a plan in place to direct patrons to peripheral lots can help with both issues.

Action: Rich & Associates recommends that a plan be developed for parking during special events. This plan should include remote lot location(s) (public school, church, City or Municipally owned lot) and if necessary, an agreement with the lot owner. Additionally, some form of shuttle service may need to be arranged with the local transit service, or schools.

Purchase sandwich boards and develop a flyer to be used during special events. The flyers can be handed out to businesses and used in marketing the event (further discussed in the Marketing recommendation). The sandwich boards are used as temporary wayfinding signs during special events leading parkers to the temporary overflow lots.

Time Frame: 12 – 18 months

Responsibility: DDA

MAINTENANCE RECOMMENDATIONS

13 - BUDGETING

13.1 – Track all parking related revenues and expenses

Discussion: Properly maintaining parking is a combination of both day-to-day operations and aesthetics, such as; cleaning of lots of trash and debris, maintenance of control equipment (meters, signs), ensuring that lighting is appropriate and working, as well as performing landscaping and tree trimming.

A cursory review of the City's financial statements does not appear to delineate revenue or expenses from parking operations. In our opinion, one key consideration in managing the parking system and its maintenance is ensuring that revenues not only cover day-to-day expenses but should also fund long-term improvements. Without information on existing expenses, Rich has estimated the per-space parking expenses for the City of Ypsilanti based on data completed as part of another project.

In 2017 Rich was asked to assess the financial health of the parking system and make recommendations for the City of Joliet Illinois. As part of this assessment, the firm reviewed financial information on the parking system operating costs and revenues from surrounding communities in the Chicago area. The closest municipality in size and number of managed spaces to the City of Ypsilanti (20,000 population and 1,353 spaces) was the Village of New Lenox with a population of 24,400 and 1,381 spaces managed (primarily commuter). Here the average expense per space was $128.00. Applying this value to Ypsilanti would mean annual operating expenses for the parking system of about $173,000. The Village of Schaumburg although more than three times as large as Ypsilanti manages just 1,200 parking spaces with an average expense of $121.00. Eliminating the communities that have more than 3,000 managed spaces resulted in six communities with an average of 1,700 managed spaces at an average annual expense of $285.00 per space. Therefore, if we assume an average annual expense per space for Ypsilanti of about $200.00 ($270,000) for routine maintenance as noted above, we can begin to develop a parking budget for day-to-day maintenance and factor in the amounts necessary to budget both for long-term improvements and capital replacement.

Action: Specifically track all parking related revenues and expenses.

Time Frame: 6 – 12 Months

Responsibility: City / DDA

13.1.1 – Develop a Sinking Fund for long-term capital expenses

Discussion: Apart from the day-to-day cost of operating the parking ($200 per space noted above), the parking budget should also include an amount to be set aside into a sinking fund for capital upgrades to the parking system. We recommend putting aside $40.00 per parking space

per year. This would equate to about $54,000 set aside each year. Additionally, Rich would recommend an additional $114[1] per space per year be set aside assuming a four percent annual return to provide necessary funds to rebuild parking lots. Asphalt lots will deteriorate over time and approximately every 15 years may need significant reconstruction. Setting the $114 per space aside in the annual budgeting will help to ensure that the money will be available for this eventual expense.

Action: Create a sinking fund for maintenance and upgrades to the parking system.

Time Frame: 6 – 12 Months

Responsibility: City / DDA

13.1.2 – Parking as an Enterprise Fund

Discussion: When parking is designated as an enterprise fund, it is expected that the revenues from the parking system will be able to cover all the operating and capital needs of the system. This means not only collection of revenues, but also solid control on expenses. Having such a system reduces the strain on the municipal budgets as parking is not then covered out of general fund accounts. As the parking system can be improved and continues to evolve, the City should be able to define parking as an enterprise fund although it is understood that this may take some time before this can occur.

Action: Consider improvements that will help ensure the financial stability of the parking system such that in time parking can be an enterprise fund.

Time Frame: 12 – 24 Months

Responsibility: City / DDA

13.2 – Maintenance Schedule for Lots

Discussion: The maintenance means developing a maintenance schedule for the lots to keep up with daily, weekly and annual maintenance needs. It also means understanding these annual operating costs and budgeting for more expensive maintenance costs such as restriping, light replacement, parking control equipment replacement, etc. A rotating schedule should be developed with daily, weekly, monthly and annual tasks to assure proper maintenance is completed.

Regular cleaning of the lots and trash removal is an important part of making a lot feel safe. It is difficult to get people to use the lots if they do not feel safe and if they are unclean. There

[1] The lots surrounding Rich's offices were recently reconstructed. Information provided by the management company related that this reconstruction costs approximately $1,700 per space.

should be daily trash removal in the lots. The dumpster enclosures should be kept up and monitored.

Lighting needs to be updated in the Ballard street lot, Riverside Arts Center Lot, N Washington Public lot, City Hall upper lot.

Action: Develop a rotating schedule of maintenance tasks for daily, weekly and annual maintenance needs. This helps keep the costs lower rather than wait until issues become extreme.

Time Frame: 12 – 36 Months

Responsibility: City

14 – Painting / Striping

14.1 – On-street Space striping

Discussion: It is important that the City keep up with maintenance of striping of the on-street parking spaces. The striping of all on-street spaces makes enforcement more efficient. It also makes it easier for parkers by providing a clear distinction of the spaces, allowing a parker to clearly see the defined parking space and not take several spaces and helps prevent vehicles from being blocked in on-street. The City can use information contained in the Parking Conditions Audit to determine which lots should be prioritized by the level of maintenance needed.

Action: Conduct, at least annually, a review of on-street stall striping (perhaps every fall) so that remedial work can be conducted in the Spring.

Time Frame: 0 - 12 Months

Responsibility: City

14.2 - Curb Painting

Discussion: Curb painting should be consistent throughout the downtown and in all districts. If parking is allowed, the curb should not be painted yellow (picture shows curb across from the Freight House in Depot Town, two-hour parking and a yellow curb). Use the standard curb colors below to paint curbs where needed. Consistency in curb painting is important and will help enforcement staff do their job.

Standard curb colors:

Yellow – Active Loading Zone

Red – No Parking

Blue – Handicap

Action: Paint curbs following the colors provided consistently throughout the entire study area.

Time Frame: 0 -12 Months

Responsibility: City

15 – Communication

15.1 – Business Text Alert System

Discussion: Maintaining parking lots in an efficient cost-effective manner may require that some spaces or facilities are taken out of service for short periods to perform necessary work. Informing patrons prior to this work being undertaken can give them opportunity to seek alternative parking locations or to make other arrangements. Such a system can also inform on changes to the parking system, street closures, plowing routes and times, special event information as well as emergency situations.

Action: Work with the DDA Districts to enhance as necessary to include maintenance information the business text alert system that allows the City to share important information.

Time Frame: 0 – 12 Months (Already in Place – Maintain)

Responsibility: City

16 – Parking Revenue and Control Equipment

16.1 – Parking Meters

Discussion: Patrons are most comfortable in a parking system where there is consistency in the equipment used. They should not have to learn new equipment depending on the location parked within the City. It also means being able to read and understand any parking restrictions as noted on meters. As such, meter maintenance is important and should include the aesthetics and the mechanical aspect of the meter. The meters should all be installed at the same height. Currently the meter heights vary and some of the meters are mounted much too high making it very difficult for many patrons to use. Information contained in ADA standards (X02.6.2) which are reasonable state that the centerline of all controls on a parking meter shall be no more than 42 inches above the pedestrian access route. This height would make it easy for virtually all patrons to both operate the meters and see information beneath the dome. Stickers placed on the meters can be different colors to differentiate between 2 hour and 10-

hour meters. All meters should have information on the meter providing the hours of operation and cost per hour. ***There is a 10-hour meter in the Ballard Street lot that is two-hour parking.***

It is important to clean and or replace the lenses when they are scratched or when the seals are broken creating issues with fogged meters. The meters should be repainted the same color (unless distinguishing between different durations). If at all possible, use one company for the coin slots and mechanical features. There are several meters that have a credit card slot though credit cards are not accepted adding to the confusion of patrons.

There are issues with the coin storage in the meters as well. Some meters do not have an up to date collection canister, the coins are loose inside the meter housing. This creates potential issues in accounting and puts those collecting the money in an unsafe position. All meters should have a canister that is locked for the coin to drop into and collection staff should have a locked cart that receives the canister to empty the coin without anyone ever having to touch the coins.

Consider adding a phone application to pay for parking to provide multiple payment options on at the meters.

Remove the nonfunctioning pay station in the N. Adams lot. This only leads to confusion and frustration when a parker tries to pay at this machine.

Action: Meters (Correction of height inconsistency, maintenance, consistency, time limits information conveyed, methods of operation (coin, credit card, pay-by-phone).

Time Frame: 13 – 37 Months

Responsibility: City / DDA

17 – Stormwater Management

17.1 – Design changes within lots to handle stormwater

Discussion: Beyond porous pavements, significant storm water management can take place in the landscaped islands within the parking lots or outfall areas from the lots where bioswales can replace raised hardscaped or landscaped areas and filter the runoff and reduce the volumes of storm water prior to out-letting to a traditional storm sewer system.

The National Association of City Transportation Officials (NACTO, www.nacto.org) produces the *Urban Street Stormwater Guide* that can assist the city in planning for storm water management in the rights-of-way and in the municipal parking lots.

Action: As lots are rebuilt investigate appropriate changes in landscaped islands and peripheral borders for managing stormwater runoff.

Time Frame: 33 – 69 Months

Responsibility: City

18 - ADA Parking Recommendations

18.1 – Barrier Free Requirement ADA Standards

As part of the parking analysis, Rich & Associates reviewed the number of barrier free (handicap) parking stalls in Ypsilanti. **Table BB** is a copy of the Americans with Disabilities Act (ADA) parking guidelines. It should be noted that it is permissible in the ADA recommendations that the spaces required in one lot can be provided in another lot if the relocated accessible spaces would be along a more accessible pathway. However, the aggregate total of spaces must be provided.

Table BB
ADA Parking Guidelines

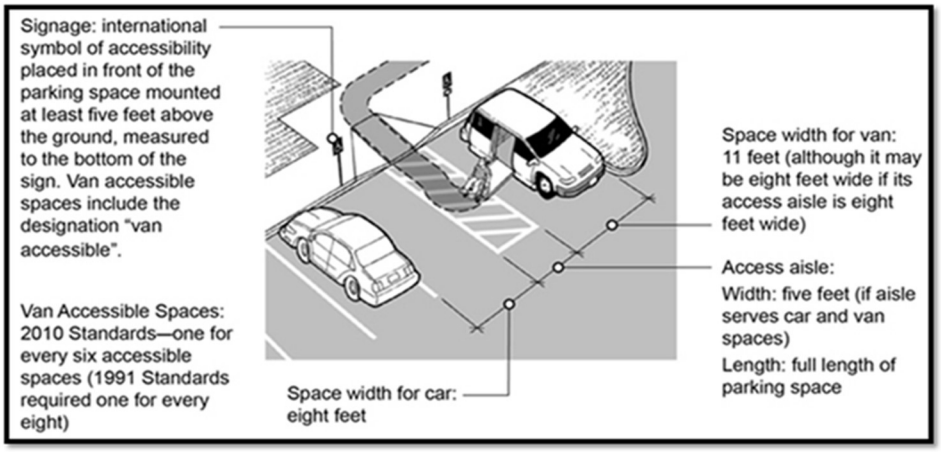
Total Parking in Lot	Required Minimum Number of Accessible Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2% of total
1001 and over	20, plus 1 for each 100 over 1000

One in every eight accessible spaces, but not less than one, shall be served by an access aisle 96 in (2440 mm) wide minimum and shall be designated "van accessible"

Follow the *Zoning Ordinance Chapter 122, Sec. 122-683. Off-street Parking layout and construction for all other uses. (g) Striping. For parking lots containing five or more spaces, all spaces shall be outlined with three-inch wide strips of white or yellow paint, except that barrier-free spaces shall be blue, with a symbol of compliance in blue, and signed in accordance with the State Barrier-Free Code.* **Exhibit 1** is an example of a barrier free parking space layout from the ADA National Network.

- https://www.ada.gov/2010ADAstandards_index.htm,
- https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/guide-to-the-ada-standards/chapter-5-parking#spaces

Exhibit 1 https://adata.org/factsheet/parking



The following tables show the number of barrier free parking spaces in the public lots. The tables are separated by DDA District and show the surplus of barrier free spaces or the number of barrier free spaces that need to be added to the lots.

Table CC

DOWNTOWN BARRIER FREE SPACES IN PUBLIC LOTS					
Column1	Column2	Column3	Column4	Column5	Column6
Block #	Lot	Total Capacity	# of Barrier Free Spaces Required	# of Barrier Free Spaces Provided	Surplus/ Shortfall
45	North Washington Lot	85	4	6	2
50	North Adams Lot	64	3	2	-1
51	North Huron Lot	52	3	3	0
53	Riverside Park S Lot	31	2	1	-1
58	South Huron Lot	84	4	4	0

Table DD

WEST CROSS BARRIER FREE SPACES IN PUBLIC LOTS					
Column1	Column2	Column3	Column4	Column5	Column6
Block #	Lot	Total Capacity	# of Barrier Free Spaces Required	# of Barrier Free Spaces Provided	Surplus/ Shortfall
1	Pease Auditorium Lot	107	5	3	-2
26	Ballard Lot	31	2	3	1

Table EE

DEPOT TOWN BARRIER FREE SPACES IN PUBLIC LOTS					
Column1	Column2	Column3	Column4	Column5	Column6
Block #	Lot	Total Capacity	# of Barrier Free Spaces Required	# of Barrier Free Spaces Provided	Surplus/ Shortfall
12	Frog Island North	22	1	0	-1
12	Frog Island South	96	4	6	2
14	Freight House Lot	26	2	3	1
15	Maple St Lot	62	3	0	-3
22	Riverside Park N Lot	12	1	1	0

Rich & Associates encourages the development of on-street barrier free stalls to ensure the downtown is accessible to everyone. The ADA has a draft guideline for on-street parking minimums that uses the same requirements for off-street parking (not in residential areas). This draft was developed in 2011 and has not been updated or finalized.

Generally, it is best to have one on-street barrier free space per block face in the dense downtown areas. Locating these spaces as either the first or last space of the block tends to work best due to the space being located next to a ramped sidewalk. It is recommended that Ypsilanti follow the ADA proposed guidelines for the core downtown area.

ADA Proposed Guidelines for On-street Parking:
https://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/background/access-advisory-committee-final-report/x02-6-vehicular-ways-and-facilities

Action: Address deficient barrier free space complement in the lots.

Time Frame: 0 – 6 Months

Responsibility: City

18.2 – Barrier Free Parking Per Need

Discussion: The previous discussion and recommendation analyzed the number of handicap accessible spaces as function of the capacity of each lot. This follows guidelines as noted in the American's with Disabilities Act which mandates the number of spaces to be provided based primarily on the size of the individual parking area. The only exception to this is medical facilities. For outpatient facilities the required number is 10% of the size of the lot and if the facility caters to patients with mobility related conditions, the proportion is 20%.

As such, the number of spaces per the capacity may not be adequate for the area being serviced. Even though the surrounding businesses or entities may not be medical based under the definition of the ADA, it may be appropriate to provide more accessible spaces, either in lots or on the streets, if these are more accessible along a more accessible path.

Action: Monitor the need and provide as necessary additional barrier free spaces even if above ADA minimums.

Time Frame: 0 – 6 Months

Responsibility: City

19. Parking Enforcement

19.1 – 19.4 Staffing

Discussion: Parking enforcement is an important and necessary component of a properly functioning parking system. By differentiating the time limits of parking between off-street and on-street parking, the intent is to ensure that customers and visitors always have not only

adequate but also the most convenient parking possible. However, achieving this goal means that it is necessary to enforce the parking time limits in order for the allocation to work.

Enforcement of time restrictions and other regulations should follow the posted enforcement hours of operation in the entire downtown. Within reason, the enforcement staff cannot choose who gets a ticket. Everyone in violation is treated equally. Parking regulations are necessary and implemented to increase the efficiency of the parking system by allocating certain parking areas to specific users. When the regulations are not followed, the system efficiency is degraded.

Parking Enforcement Officer (PEO) staffing levels will need to be adequate to ensure that parking is routinely monitored per the applicable regulations. Specifically, one PEO can monitor a route consisting of between 600 and 800 parking spaces. This ratio assumes the use of handheld ticket writers and includes the PEO covering a mixture of long- and short-term parking. If an individual is in a vehicle, a specified route of 600 to 800 parking stalls can be monitored up to four times during a standard shift (as permitted with scheduling). There should be multiple routes with varied times so that patterns are not developed allowing patrons to know when and where to park to avoid a citation.

If parking enforcement is done consistently there is no need to have full time PEO or to cover every space for every hour of the enforcement time. It is important to maintain a level of staffing to cover the entire parking supply though this can be done randomly. As budgeting allows, follow the recommendations below for parking enforcement. The officer should work varying schedules between 9:00am – 5:00pm Monday through Friday. However, Depot Town and perhaps West Cross should consider extending the two-hour limit for on-street parking enforcement to at least 6:00 or 7:00 pm. This helps prevent abuse by restaurant staff who arrive for their evening shifts after 3:00 pm who will often take the most convenient on-street spaces because of the expiration of the two-hour limit at 5:00 pm. Extending the two-hour limit later into the evening can help prevent this abuse.

When using the handheld device and following a route, every parking space, whether occupied or not, is then entered into the device (typed in or a picture taken of plate) giving a time stamp of when the PEO checked the space. This helps ensure that a vehicle is not given a ticket before the posted duration.

Handheld units can also store data concerning warrants, previous offenders, shuffling of vehicles and unpaid tickets. If a vehicle needs to be booted or towed due to multiple unpaid tickets, the information will display on the handheld unit. Software needs to be purchased to run a handheld system and process and file tickets. A cloud based back up or a “home base” where the handhelds can be downloaded and updated daily will also be required. There are several options of specific ticket writing units. Much of the software written for enforcement can be used with tablets or smart phones. The units can also take pictures of the vehicle in violation.

PEO should be dedicated to parking duties, only being reassigned during emergencies or special circumstances that may arise. Clearly identifiable signs should indicate that the hours that

parking is enforced. Enforcement of the parking lots as well as on-street parking is necessary to make the system work.

19.1 **Action**: Continue enforcement managed through two parking enforcement staff.

Time Frame: 0 – 6 Months (Already in Place)

Responsibility: City

19.2 **Action:** PEO should be dedicated to parking duties as an ambassador of the downtown, only being reassigned during emergencies or special circumstances that may arise.

Time Frame: 0 – 6 Months

Responsibility: City

19.3 **Action:** Train PEO's to act as Ambassadors.

Time Frame: 8 – 20 Months

Responsibility: City / DDA

19.4 **Action:** PEO should enforce the parking lots and on-street parking to create an equitable system that works for everyone.

Time Frame: 8 – 20 Months

Responsibility: City

19. 5 - Parking Fines / Citations

Discussion: It is recommended that the City move to a graduated fine system (i.e., the first ticket would be a courtesy ticket, and the second ticket would be $17.00 with each ticket after increasing in price). The current parking ticket for overtime parking is $17.00. By offering a courtesy ticket first, the parker has clearly been warned of the parking time durations and with free long-term parking available there are the appropriate parking options.

The recommended graduated parking fine schedule for overtime parking tickets:

1st– Courtesy ticket
2nd –$17.00
3rd –$25.00
4th –$35.00

Offer courtesy tickets during the first few weeks of enforcement when the system is changed. After the first few weeks, adopt the recommended fine schedule and only offer a courtesy ticket when a parker has not received a ticket in six months (or whatever time frame is chosen). From a public relations standpoint, it would be preferable to issue a Courtesy ticket alerting the parker of their violation and then explaining the rules for parking in the downtown including a map of labeled parking areas.

All fines should go to a parking fund and should be used to cover parking operating expenses with any net revenue going back into the downtown area (parking fund) for things such as parking enforcement, sidewalk cleaning, signs, lighting, banners, etc. Parking revenue is then helping to pay for the upkeep of the downtown.

Action: Adopt the recommended fine schedule along with courtesy tickets.

Time Frame: 4 – 16 Months

Responsibility: City

20. Additional Parking

20.1 Investigate possibilities for additional parking

The parking demand models demonstrate that within both Downtown and West Cross there is sufficient total parking available. Initiatives that seek to partner with private businesses to share parking either making the parking available to the general public at least during the evening hours or where some spaces owned by one business can be used by the staff of adjoining businesses in order to make more space available in the public lot should be encouraged.

In Depot Town, the demand assessment has demonstrated that during the evening hours, parking is extremely tight even considering use of all public and private parking and will become more congested in the near future from the anticipated impact of the Thompson Block development. In reality, spaces controlled by many private businesses may not be available to offset blocks or businesses with deficient parking meaning the conditions will be exacerbated. Given these conditions, Depot Town clearly is in need of additional parking.

The possibility of a rail station in Depot Town presents an opportunity to develop parking that will service not only the train station but support the anticipated parking deficiency expected to occur in the near future.

Action: Investigate opportunities to combine rail parking with Depot Town parking needs in combined facility.

Time Frame: 22 – 38 Months

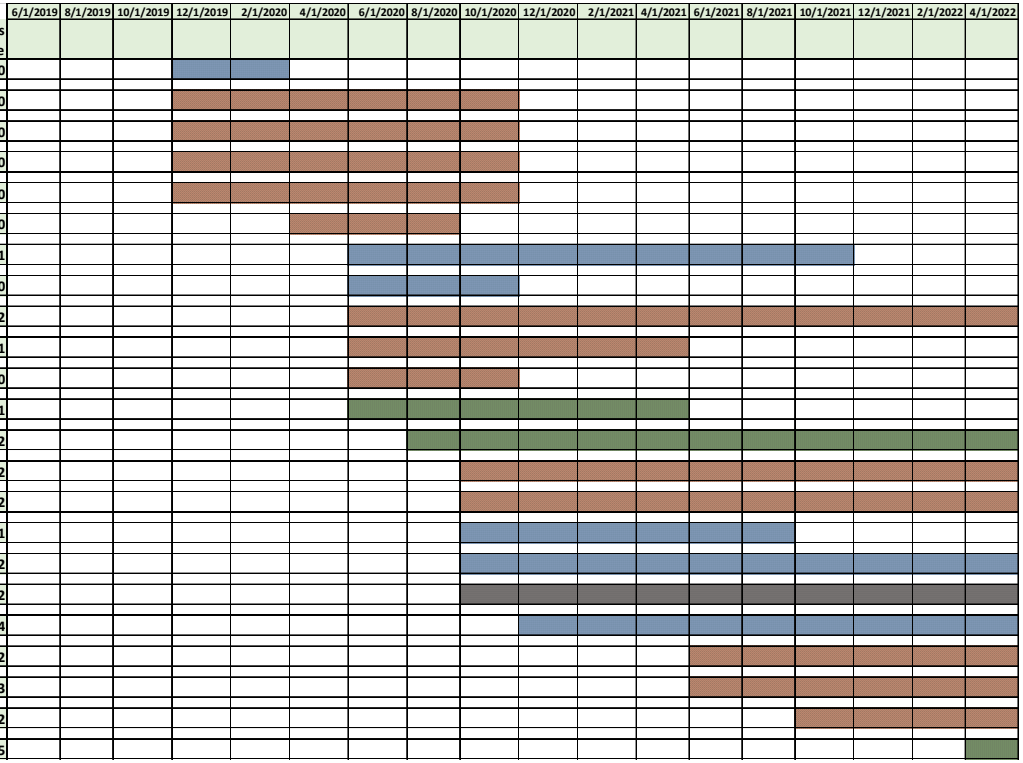
Responsibility: City

Summary

On the following pages is a chart showing the sequencing and anticipated duration by type of each of the various recommendations.

Recommendation Type	Category	Rec #	Description	Begin Process	Process Complete	6/1/2019	8/1/2019	10/1/2019	12/1/2019	2/1/2020	4/1/2020	6/1/2020	8/1/2020	10/1/2020	12/1/2020	2/1/2021	4/1/2021	6/1/2021	8/1/2021	10/1/2021	12/1/2021	2/1/2022	4/1/2022
Management & Operations	Bike Parking	5.3	Add Bicycle Parking Corrals	6/1/2019	12/1/2019																		
Management & Operations	Management	1.1	Appoint Point Person to Manage Parking	6/1/2019	12/1/2020																		
Management & Operations	Management	1.2	Seek Opportunity for City/DDA Cooperation re Parking	6/1/2019	12/1/2020																		
Management & Operations	Management	1.3	Form Parking Advisory Committee	6/1/2019	12/1/2020																		
Management & Operations	Private Parking	3.1	Limit New Private Parking	6/1/2019	12/1/2019																		
Management & Operations	Bike Parking	5.1	Develop and Adopt Bicycle Parking Standards	6/1/2019	12/1/2019																		
Management & Operations	Bike Parking	5.2	Expand Bicycle Parking	6/1/2019	12/1/2019																		
Management & Operations	Residential Parking	7.2	Residential Parking Grace Period (Renewal Period)	6/1/2019	8/1/2019																		
User Experience	Employee Parking	10.5	Investigate Partner with Transit for Reduced Cost Emp Pmts	6/1/2019	11/1/2019																		
User Experience	Pedestrian Enhancements	11.4	Work with Private Owners for Improvements to Ped Walkways	6/1/2019	12/1/2020																		
Maintenance	Painting	14.1	Stripe On-street Spaces	6/1/2019	6/1/2020																		
Maintenance	Painting	14.2	Paint Curbs Consistently for Restrictions	6/1/2019	6/1/2020																		
Maintenance	Communication	15.1	Maintain Policy of Text Message Alerts	6/1/2019	6/1/2020																		
ADA	ADA Parking	18.1	Address Deficincies in ADA Compliance Within Lots	6/1/2019	12/1/2019																		
ADA	ADA Parking	18.2	Monitor Need for Accessible Spaces Above ADA Minimums	6/1/2019	12/1/2025																		
Parking Enforcement	Staffing	19.1	Continue Enforcement with Two Staff	6/1/2019	12/1/2025																		
Parking Enforcement	Staffing	19.2	Parking Enforcment Primary Duties	6/1/2019	12/1/2025																		
Management & Operations	Shared-Use	4.1	Use of Vacant Private Spaces for Public Parking Off-hours	8/1/2019	8/1/2020																		
Management & Operations	Shared-Use	4.2	Use of Private Lots Additonal Employee Parking	8/1/2019	8/1/2020																		
Management & Operations	Rideshare/Technology	6.1	Designate Ridesharing Pickup/Drop-off Locations	8/1/2019	12/1/2019																		
Maintenance	Budgeting	13.1	Track All Parking Revenues / Expenses	8/1/2019	12/1/2019																		
User Experience	Marketing / Staffing	12.3	PEO's Trained as Ambassadors	10/1/2019	10/1/2020																		
Parking Enforcement	Fines / Citations	19.4	Adopt Recommended Fine Schedule w/ Courtesy Tickets	10/1/2019	10/1/2020																		
Management & Operations	Upgrades	2.3	Begin the Budget Process to Upgrade to Pay Stations	12/1/2019	12/1/2020																		
Management & Operations	Rideshare/Technology	6.3	Evaluate Bike-share/Ride-share/Scooters	12/1/2019	6/1/2020																		
Management & Operations	Duration / Allocation	8.1	Customer On-street Parking 2-Hours	12/1/2019	6/1/2020																		
Management & Operations	Duration / Allocation	8.2	Long-term on Less Convenient On-street Spaces	12/1/2019	6/1/2020																		
Management & Operations	Duration / Allocation	8.3	Customer Parking Off-street 3-Hours	12/1/2019	6/1/2020																		

Recommendation Type	Category	Rec #	Description	Begin Process	Process Complete
Management & Operations	Duration / Allocation	8.4	Reduce Price Washington Street Lot to Encourage Use	12/1/2019	3/1/2020
User Experience	Employee Parking	10.2	Establish Employee Permit Areas In All 3 Districts	12/1/2019	12/1/2020
User Experience	Employee Parking	10.3	Manage Employee Permit Sales to Encourage Permit Parking	12/1/2019	12/1/2020
User Experience	Pedestrian Enhancements	11.1	Follow Landscape Critera In All Public Lots	12/1/2019	12/1/2020
User Experience	Pedestrian Enhancements	11.2	Conduct Lighting Study	12/1/2019	12/1/2020
User Experience	Signage	9.1	Add Identification Signs at the Entrance to All Public Lots	3/1/2020	9/1/2020
Management & Operations	Upgrades	2.2	Launch Phone Parking Application	6/1/2020	12/1/2021
Management & Operations	Residential Parking	7.1	Residential Parking Flyer Developed	6/1/2020	12/1/2020
User Experience	Signage	9.2	Begin Developing Family of Sign Types	6/1/2020	6/1/2022
User Experience	Pedestrian Enhancements	11.3	Evaluate Placement of Parking to Walking Distance	6/1/2020	6/1/2021
User Experience	Marketing	12.4	Purchase Sandwich Boards - Temp Wayfinding Signs	6/1/2020	12/1/2020
Maintenance	Budgeting	13.2	Develop Maintenance Schedule for Lots	6/1/2020	6/1/2021
Maintenance	Equipment	16.1	Correct Inconsistency Between Meters (Heights/Payment)	7/1/2020	7/1/2022
User Experience	Signage	9.3	Consistency in Signs	9/1/2020	6/1/2022
User Experience	Signage	9.4	Clearly Identify Permit and Visitor Parking	9/1/2020	6/1/2022
Management & Operations	Upgrades	2.1	Install Meters in Depot Town	10/1/2020	10/1/2021
Management & Operations	Bike Parking	5.4	Improve Bicycle Connections Between/Within Districts	10/1/2020	11/1/2022
Additional Parking	New Parking	20.1	Investigate Opportunities to Add Parking	10/1/2020	10/1/2022
Management & Operations	Rideshare/Technology	6.2	Monitor Development Autonomous Vehicles	12/1/2020	12/1/2034
User Experience	Employee Parking	10.4	Address Ballard St Lot Deficiencies - Sell Permits	6/1/2021	6/1/2022
User Experience	Employee Parking	10.1	Improve Walkability from Lots to Destinations	6/1/2021	6/1/2023
User Experience	Marketing	12.2	City Website Link for Parking	10/1/2021	6/1/2022
Maintenance	Stormwater Management	17.1	Investigate Design Changes in Lots Stormwater Management	3/1/2022	3/1/2025



Appendix

Appendix A-1 Downtown DDA District Square Footage Allocation

Block	Office	Government	Medical Office	Retail	Service	Mixed Use	Restaurant /Bar	Library/ Museum	Residential	Community	Vacant	TOTAL
								(per unit, 850sf)				
44	198,756	-	29,184	2,854	-	2,460	-	-	13,897	-	-	247,151
45	-	-	-	-	454	-	-	-	-	5,782	1,302	7,538
48	1,632	-	-	5,733	-	-	1,636	-	-	-	3,242	12,243
49	-	-	-	-	-	-	-	-	-	-	-	110,295
50	36,864	-	-	12,869	3,237	5,174	27,760	-	49,057	-	38,935	173,896
51	41,731	-	22,148	23,758	9,303	2,760	2,245	-	27,201	1,856	48,225	179,227
52	-	-	-	10,455	18,838	1,188	15,056	-	18,500	44,344	8,046	116,427
53	-	-	1,976	16,690	-	-	-	-	-	-	-	18,666
57	109,355	-	-	-	-	-	1,260	-	17,332	-	-	127,947
58	58,012	-	-	27,270	6,059	15,510	-	-	3,640	-	6,658	117,149
59	3,552	-	-	8,270	-	-	21,064	6,410	17,396	7,637	11,576	75,905
60	205,160	-	51,290	-	-	-	-	-	-	-	-	256,450
61	-	75,756	-	-	-	-	-	-	144,033	-	-	219,789
62	-	22,392	-	-	-	-	-	-	-	-	-	22,392
63	-	18,802	-	-	-	-	-	-	-	-	-	18,802
64	5,670	-	800	-	-	-	-	-	-	-	-	6,470
65	5,775	-	3,384	-	-	-	-	-	1,008	8,815	-	18,982
Totals	**666,507**	**116,950**	**108,782**	**107,899**	**37,891**	**27,092**	**69,021**	**6,410**	**292,064**	**68,434**	**117,984**	**1,729,329**

Appendix A-2 - Downtown DDA District Off-Street Parking Supply Detail

		Public				Private		
Block	**Name**	**Standard Spaces**	**Reserved**	**HCP**	**Total**	**Standard Space**	**HCP**	**Total**
44	Haab Health Bld Lot				**0**	67	3	**70**
44	Private Perminant Lot				**0**	46	1	**47**
44	Residential				**0**	20		**20**
44	Corner Lot				**0**	10		**10**
44	Residential				**0**	5		**5**
44	Robert Freatman Law				**0**	5		**5**
44	Bredell and Bredell Law				**0**	11		**11**
	Block Total	**0**	**0**	**0**	**0**	**164**	**4**	**168**
45	North Washington St Lot	79		6	**85**			**0**
45	Public/Permit Lot		84		**84**			**0**
	Block Total	**79**	**84**	**6**	**169**	**0**	**0**	**0**
46		No off-street parking on this block						
	Block Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
47		No off-street parking on this block						
	Block Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
48	Private Parking				**0**	48		**48**
	Block Total	**0**	**0**	**0**	**0**	**48**	**0**	**48**
49	EMU College of Business Structure				**0**	400		**400**
	Block Total	**0**	**0**	**0**	**0**	**400**	**0**	**400**
50	N. Adams Lot	62		5	**67**			**0**
50	Trojan Laundry Lot				**0**	4		**4**
50	Sizzles Lot				**0**	7	5	**12**
50	Ally Parking				**0**	10		**10**
50	DejaVu Parking				**0**	13		**13**
50	Handicapped Parking				**0**	2		**2**
	Block Total	**62**	**0**	**5**	**67**	**36**	**5**	**41**
51	North Huron St Lot	49		3	**52**			**0**
51	Ace Back Lot				**0**	6		**6**
51	Beezy's Back Lot				**0**	5		**5**
51	Roller Derby Parking				**0**	6		**6**
51	Ally				**0**	2		**2**
	Block Total	**49**	**0**	**3**	**52**	**19**	**0**	**19**
52	Riverside Arts Center Lot		32	2	**34**			**0**
52	Ally Combined				**0**	20		**20**
52	St. Lukes's South				**0**	10		**10**
	Block Total	**0**	**32**	**2**	**34**	**30**	**0**	**30**
53	Riverside Park South Lot	30	1		**31**			**0**
53	Ann Arbor Pharmacy Lot				**0**	10	1	**11**
53	Materials Unlimited Lot				**0**	14		**14**
	Block Total	**30**	**1**	**0**	**31**	**24**	**1**	**25**
54		No off-street parking on this block						
	Block Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
55		No off-street parking on this block						
	Block Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
56		No off-street parking on this block						
	Block Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Appendix A-2 - Downtown DDA District Off-Street Parking Supply Detail (Con't)

		Public				Private		
Block	**Name**	**Standard Spaces**	**Reserved**	**HCP**	**Total**	**Standard Space**	**HCP**	**Total**
57	City Hall Lot		23	1	**24**			**0**
57	City Lower Lot		12	1	**13**			**0**
57	Ann Arbor Bank Lot				**0**	11	1	**12**
57	SOS Lot				**0**	10		**10**
57	All Lots Combined				**0**	24		**24**
57	Ma Lou's				**0**	2		**2**
57	Parish House Lot				**0**	10		**10**
	Block Total	**0**	**35**	**2**	**37**	**57**	**1**	**58**
58	South Huron St Lot	56	24	4	**84**			**0**
58	Tax Service Lot				**0**	10		**10**
58	Puffer Reds				**0**	8		**8**
58	Freeman				**0**	8		**8**
58	Salt City Antiques				**0**	3		**3**
58	Citizens Bank Lot				**0**	12		**12**
	Block Total	**56**	**24**	**4**	**84**	**41**	**0**	**41**
59	Library Parking				**0**	23	2	**25**
59	Ally Parking				**0**	32		**32**
59	MarketPlace Hall Lot				**0**	10		**10**
	Block Total	**0**	**0**	**0**	**0**	**65**	**2**	**67**
60	301 West Michgan Lot				**0**	197	7	**204**
60	drive through atm				**0**	6		**6**
	Block Total	**0**	**0**	**0**	**0**	**203**	**7**	**210**
61	Towne Centre Lot				**0**	59	9	**68**
	Block Total	**0**	**0**	**0**	**0**	**59**	**9**	**68**
62	District Court Overflow Lot				**0**	66		**66**
62	Police and Fire				**0**	50		**50**
62	Court House Lot					32	2	**34**
	Block Total	**0**	**0**	**0**	**0**	**148**	**0**	**150**
63	Post Office				**0**	15	2	**17**
	Block Total	**0**	**0**	**0**	**0**	**15**	**2**	**17**
64		No off-street parking on this block						
	Block Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
65		No off-street parking on this block						
	Block Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	All Blocks	**276**	**176**	**22**	**474**	**1,309**	**31**	**1,342**

Appendix A-3 - Downtown DDA District On-Street Parking Supply Detail

Block	Face	Description	Public On-Street (Unlimited)	15 Minute - Free	30 Minute	60 Minute	90 Minute - Free	2 Hour Meter	2 Hour - Free	Residential Permit	Barrior Free	Total
44	A									13		13
44	C							6				6
44	D							9				9
		Block 44 Total	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**13**	**0**	**28**
45	A									6	3	9
45	B							9				9
		Block 45 Total	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**6**	**3**	**18**
48	C							4				4
48	D									5		5
		Block 48 Total	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**5**	**0**	**9**
49	B							6				6
49	C							12				12
		Block 49 Total	**0**	**0**	**0**	**0**	**0**	**18**	**0**	**0**	**0**	**18**
50	A							7				7
50	C								11			11
50	D							3				3
		Block 50 Total	**0**	**0**	**0**	**0**	**0**	**10**	**11**	**0**	**0**	**21**
51	A							8				8
51	B							5				5
51	C								11			11
		Block 51 Total	**0**	**0**	**0**	**0**	**0**	**13**	**11**	**0**	**0**	**24**
52	D							12				12
		Block 52 Total	**0**	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**0**	**12**
53								**8**			**1**	**9**
		Block 53 Total	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**1**	**9**
57			No On-Street Parking									0
		Block 57 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
58	A								11			11
58	C		11									11
58	D							6				6
		Block 58 Total	**11**	**0**	**0**	**0**	**0**	**6**	**11**	**0**	**0**	**28**
59	A								5			5
59	B							6				6
59	C		4									4
59	D							6				6
		Block 59 Total	**4**	**0**	**0**	**0**	**0**	**12**	**5**	**0**	**0**	**21**
60	A							6				6
60	B							7				7
		Block 60 Total	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**13**
61			No On-Street Parking									0
		Block 61 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
62			No On-Street Parking									0
		Block 62 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
63	A				7							7
		Block 63 Total	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
64	A		11									11
64	B		6									6
64	D		7									7
64	D			7								7
		Block 64 Total	**24**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**31**
65	A		11								1	12
65	D		4									4
65	D						7					7
		Block 65 Total	**15**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**1**	**23**
		All Blocks	**54**	**7**	**7**	**0**	**7**	**120**	**38**	**24**	**5**	**262**

Appendix B-1 West Cross DDA District Square Footage Allocation

Block	Office	Medical Office	Retail	Service	Mixed Use	Restaurant /Bar	Residential	Community	Museum	Warehouse	Vacant	TOTAL
						(per unit, 850sf)						
5	-	-	2,026	-	8,713	-	15,025	-	-	-	-	25,764
6	-	-	-	-	-	-	-	-	4,336	-	-	4,336
7	504	-	-	-	5,099	-	10,487	-	-	-	-	16,090
8	-	-	-	-	-	-	151,479	-	-	-	-	151,479
10	4,787	-	-	-	-	-	12,097	22,297	-	-	-	39,181
11	-	-	2,280	-	-	-	-	-	-	-	-	2,280
23	-	-	-	-	-	-	-	-	18,087	2,113	-	20,200
24	-	-	441	-	7,163	-	2,200	-	-	-	-	9,804
25	1,237	-	-	-	-	2,875	11,938	-	-	-	-	16,050
26	3,342	-	-	-	-	1,195	9,015	-	-	-	-	13,552
27	-	-	2,740	-	2,906	10,849	13,221	-	-	-	8,108	37,824
28	-	3,241	-	-	-	-	10,517	-	-	-	-	13,758
29	-	-	-	-	11,210	9,180	7,313	-	-	-	2,756	30,459
Totals	**9,870**	**3,241**	**7,487**	**-**	**35,091**	**24,099**	**243,292**	**22,297**	**22,423**	**2,113**	**10,864**	**380,777**

Appendix B-2 – West Cross DDA District Off-Street Parking Supply Detail

		Public				Private		
Block	**Name**	**Standard Spaces**	**Reserved**	**HCP**	**Total**	**Standard Space**	**HCP**	**Total**
5	Tom's Party Store Lot				0	12		**12**
	Block Total	**0**	**0**	**0**	**0**	**12**	**0**	**12**
6	John The Baptist Church				0	91	6	**97**
	Block Total	**0**	**0**	**0**	**0**	**91**	**6**	**97**
7		No off-street parking on this block						
	Block Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8	Private Parking				0	101	8	**109**
	Block Total	**0**	**0**	**0**	**0**	**101**	**8**	**109**
9/10		No off-street parking on this block						
	Block Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11		No off-street parking on this block						
	Block Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
23	Church Lot				0	51	1	**52**
23	Funeral Home				0	12		**12**
	Block Total	**0**	**0**	**0**	**0**	**63**	**1**	**64**
24		No off-street parking on this block						
	Block Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
25	Got Burger Lot				**0**	6		**6**
25	Cross Street Coffee Lot				**0**	6		**6**
	Block Total	**0**	**0**	**0**	**0**	**12**	**0**	**12**
26	Ballard St Public Lot	13	15	3	**31**			**0**
26	Golden Wall Lot				**0**	6		**6**
	Block Total	**13**	**15**	**3**	**31**	**6**	**0**	**6**
27	Eagle's Market Lot				**0**	4		**4**
27	La Fiesta Mexicana Lot				**0**	12		**12**
	Block Total	**0**	**0**	**0**	**0**	**16**	**0**	**16**
28	West Cross Lot				**0**	37	2	**39**
	Block Total	**0**	**0**	**0**	**0**	**37**	**2**	**39**
29	Tower Lot				**0**	8		**8**
29	Private Parking				**0**	25		**25**
	Block Total	**0**	**0**	**0**	**0**	**33**	**0**	**33**
	All Blocks	**13**	**15**	**3**	**31**	**371**	**17**	**388**

Appendix B-3 – West Cross DDA District On-Street Parking Supply Detail

Block	Face	Description	Public On-Street (Unlimited)	15 Minute - Free	30 Minute	60 Minute	90 Minute - Free	2 Hour Meter	2 Hour - Free	Residential Permit -	Barrior Free	Total
5	D							6				6
		Block 5 Total	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**6**
6	A									13		13
6	B									5		5
		Block 6 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**0**	**18**
7	B									5	2	7
7	D									8		8
		Block 7 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**2**	**15**
8	B		20									20
		Block 8 Total	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**20**
9/10	D		19									19
		Block 9/10 Total	**19**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**19**
11	D		11									11
		Block 11 Total	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**
23			No On-Street Parking									0
		Block 23 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
24	A							8				8
24	B									4		4
		Block 24 Total	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**4**	**0**	**12**
25	A							7				7
25	B									6		6
		Block 25 Total	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**6**	**0**	**13**
26	A							11				11
26	B									8		8
26	C									10		10
26	D									9		9
		Block 26 Total	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**27**	**0**	**38**
27	A							10				10
27	C									8		8
27	D							9				9
		Block 27 Total	**0**	**0**	**0**	**0**	**0**	**19**	**0**	**8**	**0**	**27**
28	A							6			1	7
28	B					17						17
28	C									10		10
		Block 28 Total	**0**	**0**	**0**	**17**	**0**	**6**	**0**	**10**	**1**	**34**
29	A							8				8
29	B							6				6
29	D							16				16
		Block 29 Total	**0**	**0**	**0**	**0**	**0**	**30**	**0**	**0**	**0**	**30**
		All Blocks	**50**	**0**	**0**	**17**	**0**	**87**	**0**	**86**	**3**	**243**

Appendix C-1 Depot Town DDA District Square Footage Allocation

Block	Office	Medical Office	Retail	Service	Mixed Use	Restaurant /Bar	Residential	Museum	Community	Warehouse	Vacant	TOTAL
						(per unit, 850sf)						
12	-	-	-	-	-	-	-	-	-	1,972	-	1,972
13	-	-	4,942	-	-	-	-	-	-	-	-	4,942
14	-	-	9,519	6,729	-	16,206	22,380	-	9,346	-	6,138	70,318
15												-
16	-	-	-	-	-	-	-	-	-	-	4,119	4,119
17	-	-	-	-	-	-	4,206	-	-	-	-	4,206
18	-	-	-	-	-	-	-	12,332	-	-	-	12,332
19	4,008	-	1,000	2,000	-	20,628	8,334	-	-	-	25,224	61,194
20	-	-	-	-	819	13,465	10,331	-	-	-	-	24,615
21	2,475	-	4,719	1,066	-	-	-	-	-	17,021	-	25,281
22												-
40												-
Totals	**6,483**	**-**	**20,180**	**9,795**	**819**	**50,299**	**45,251**	**12,332**	**9,346**	**18,993**	**35,481**	**208,979**

Appendix C-2 – Depot Town DDA District Off-Street Parking Supply Detail

		Public				Private		
Block	**Name**	**Standard Spaces**	**Reserved**	**HCP**	**Total**	**Standard Space**	**HCP**	**Total**
12	Frog Island South Lot	90		6	**96**			**0**
12	Frog Island North Lot	22			**22**			**0**
	Block Total	**112**	**0**	**6**	**118**	**0**	**0**	**0**
13	Gated Brewery Lot				**0**	12		**12**
13	Brewery Lot				**0**	7		**7**
	Block Total	**0**	**0**	**0**	**0**	**19**	**0**	**19**
14	2hr Curb Free	7			**7**			**0**
14	Freight House Lot	16		3	**19**			**0**
14	Private Lot				**0**	12		**12**
14	Private Lot				**0**	9		**9**
14	Private Parking				**0**	7		**7**
14	Public	6		2	**8**			**0**
	Block Total	**29**	**0**	**5**	**34**	**28**	**0**	**28**
15	Maple Street Park Lot	62			**62**			**0**
	Block Total	**62**	**0**	**0**	**62**	**0**	**0**	**0**
16	Depot Gravel Lot				**0**	28		**28**
	Block Total	**0**	**0**	**0**	**0**	**28**	**0**	**28**
17		No off-street parking on this block						
	Block Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
18	100 Ypsi Auto Museum				**0**	2	3	**5**
18	Hudsons Gravel Lot				**0**		24	**24**
18	Standard Printing Lot				**0**	22		**22**
	Block Total	**0**	**0**	**0**	**0**	**24**	**27**	**51**
19	Sidetracks Main Lot				**0**	25	1	**26**
19	Private Lot				**0**	6		**6**
19	Sidetracks South Lot				**0**		26	**26**
	Block Total	**0**	**0**	**0**	**0**	**31**	**27**	**58**
20	MAIZ Mexican Cantina				**0**	8	2	**10**
20	Ollie Foot + Spirits				**0**	13		**13**
20	Private Parking				**0**	3		**3**
	Block Total	**0**	**0**	**0**	**0**	**24**	**2**	**26**
21	Coin & Gold				**0**	6		**6**
21	City Body				**0**	10		**10**
21	Private Lot				**0**	4		**4**
	Block Total	**0**	**0**	**0**	**0**	**20**	**0**	**20**
22	Riverside Park North Lot	13		1	**14**			**0**
22	Law Offices and Healthcare Lot				**0**	45		**45**
	Block Total	**13**	**0**	**1**	**14**	**45**	**0**	**45**
40	Hyperion Lot				**0**	17	1	**18**
40	Gravel Lot				**0**	14		**14**
40	Co-op Lot				**0**	4		**4**
	Block Total	**0**	**0**	**0**	**0**	**35**	**1**	**36**
	All Blocks	**216**	**0**	**12**	**228**	**254**	**57**	**311**

Appendix C-3 – Depot Town DDA District On-Street Parking Supply Detail

Block	Face	Description	Public On-Street (Unlimited)	15 Minute - Free	30 Minute	60 Minute	90 Minute - Free	2 Hour Meter	2 Hour - Free	Residential Permit -	Barrior Free	Total
12			No On-Street Parking									0
			0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
13			No On-Street Parking									0
			0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
14	C								6		1	7
		Block 14 Total	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**1**	**7**
15	B		6									6
15	BB		6									6
15	C		3								2	5
		Block 15 Total	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**17**
16	B								5			5
		Block 16 Total	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**5**
17	AA		10									10
17	A		10									10
17	D								5			5
		Block 17 Total	**20**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**25**
18	A		3									3
		Block 18 Total	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
19	A								2		1	3
19	B								6			6
		Block 19 Total	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**1**	**9**
20	A								3		1	4
		Block 20 Total	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**4**
21	A								4			4
		Block 21 Total	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**4**
22			No On-Street Parking									0
		Block 22 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
40	D				12							12
		Block 40 Total	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**12**
		All Blocks	**38**	**0**	**12**	**0**	**0**	**0**	**31**	**0**	**5**	**86**