



# Downtown Parking Study Ferndale, Michigan

Final Report

November, 2006



# Downtown Parking Study City of Ferndale Michigan

## Final Report

November, 2006

*Submitted by:*

### **Rich and Associates, Inc.**

*Parking Consultants – Architects – Engineers – Planners*

**21800 W. Ten Mile Road, Suite 209**

**Southfield, Michigan 48075**

**Ph: 248.353.5080**

**Fx: 248.353.3830**

**[www.richassoc.com](http://www.richassoc.com)**





## Table of Contents

---

### Section 1: Parking Study Overview

Executive Summary.....	1-1
Background.....	1-2
Study Area .....	1-2
Map 1: Study Area .....	1-3
Map 2: Study Area .....	1-4
Scope of Services .....	1-5
Figure 1: Interrelationship of Parking Study Methodologies.....	1-5

### Section 2: Study Area

Methodologies.....	2-1
Study Assessment .....	2-1
Parking Inventory .....	2-2
Table 2A: Primary Study Area Parking Supply Summary .....	2-2
Table 2B: Secondary Study Area Parking Supply Summary .....	2-3
Map 3: Parking Supply .....	2-4
Map 4: Parking Supply .....	2-5
Turnover and Occupancy Study .....	2-6
Table 2C: Turnover Analysis Summary .....	2-6
Table 2D: On-Street Turnover and Occupancy 6/22/06 .....	2-7
Map 5: Peak Occupancy .....	2-8
Table 2E: Night Occupancy Count 6/22/06 .....	2-9
Map 6: Peak Occupancy .....	2-10

Occupancy Conclusions.....	2-11
Table 2F: Occupancy Count 7/7/06 .....	2-11
Map 7: Peak Occupancy .....	2-12
Operations and Enforcement .....	2-13
Table 2G: Parking Ticket Statistics .....	2-13
Table 2H: Number of Parking Violations .....	2-13
Map #8: Parking Violations Locations.....	2-14
Parking Permits .....	2-15
Meter Rates .....	2-15
Benchmarking Parking .....	2-15
Table 2I: Benchmark Parking Rates .....	2-16
Parking Demand Calculation .....	2-17
Table 2J: Parking Generation Factor Comparison .....	2-17
Parking Demand .....	2-18
Table 2K: Parking Demand Summary .....	2-18
Table 2L: Parking Demand Summary By Zone .....	2-18
Map #9: Surplus – Deficit, Summer – Day.....	2-19
Map #10: Surplus – Deficit, Summer – Night .....	2-20
Map #11: Surplus – Deficit, Winter – Day Primary Study Area.....	2-21
Map #12: Surplus – Deficit, Winter – Day Secondary Study Area .....	2-22
Map #13: Surplus – Deficit, Winter– Night Primary Study Area .....	2-23
Map #14: Surplus – Deficit, Summer – Night Secondary Study Area .....	2-24



Map #15: Surplus – Deficit by Areas Summer Day .....	2-25
Map #16: Surplus – Deficit by Areas Summer Night .....	2-26
Map #17: Surplus – Deficit by Areas Winter Day .....	2-27
Map #18: Surplus – Deficit by Areas Winter Night .....	2-28

### **Section 3: Survey Results**

Business Owner / Manager Surveys.....	3-1
Employee Surveys .....	3-4
Stakeholder Interviews .....	3-8

### **Section 4: Operational Recommendations**

Recommendation Summary .....	4-1
Parking Management .....	4-2
Parking Enforcement .....	4-3
Fines .....	4-4
Parking Permits .....	4-6
Parking Allocation .....	4-7
Parking Lot Improvements.....	4-8
Lot Renovations .....	4-9
Bicycle Parking/Enhancements.....	4-11
Pedestrian Activity .....	4-12
Signs .....	4-12
Marketing.....	4-14

### **Section 5: New Parking Recommendations**

Table 5A: Parking Shortfall Summary .....	5-1
Zone One .....	5-1
Table 5B: Potential New Parking Location Comparison.....	5-1
Zone Two.....	5-2
Zone Three.....	5-2
Table 5C: Potential New Parking Location Comparison .....	5-2
Drawing 1: Potential Options for Additional Parking .....	5-3
Map 19: Potential Options for Additional Parking .....	5-4
Additional New Parking .....	5-5
Drawing 2: Potential Options for Additional Parking .....	5-56
Project and Finance Cost Worksheet.....	5-6
Table 5D: Project and Finance Cost Worksheet .....	5-6
Pro forma Worksheet.....	5-7
Parking Rate Increase & Discussion .....	5-7
Table 5F: Suggested Parking Rates for Ferndale.....	5-7
Table 5G: Revenue & Expense Pro Forma .....	5-8

### **Section 6: Appendix**



# Section 1:

## Parking Study Overview





## *Executive Summary*

The Ferndale parking study presents a comprehensive examination of parking needs in downtown Ferndale. The study analyzes parking from the perspective of how many parking stalls were needed to serve each individual business in Ferndale. This amount of parking was derived using surveys, models from other communities that have had similar studies undertaken and from resources such as the Institute of Transportation Engineers and the Urban Land Institute.

Background research, fieldwork and a review of previous documents and planning reports were also undertaken. The following documents were provided to Rich and Associates, Inc., by the Ferndale DDA for use as resource material and to develop an understanding of the community's development goals and objectives:

- Economic Restructuring Goals FYE 2007
- Visioning Session Meeting, June 24, 2006
- Visioning Session Summary Report, May 6, 2002
- Downtown Development Goals
- 2005 Downtown Ferndale Trade Report and Demographics Study + Strategic Plan
- Ferndale DDA Community Charrette, June 28, 2006

Fieldwork for the study included a multi-day turnover and occupancy study by Rich and Associates staff. The turnover and occupancy study involved an examination of parking area occupancies and vehicle movements on a typical business day and a busy evening. This was undertaken to gain an understanding of the way Ferndale's parking was operating and the way individuals were using it.

An analysis of the overall parking operation and management was also undertaken to look for areas where potential improvements could be made. In general, Rich and Associates recommended that parking enforcement be enhanced to become more of a parking ambassador position. Other suggested improvements included the transition to multi-space meters for on-street parking locations, re-arranging of some of the long-term and short-term parking.

Overall there is a shortage of parking in downtown Ferndale. Rich and Associates identified that there are two parking zones (Zone One, west of Woodward and Zone Two, east of Woodward). Zone One has a current shortfall of approximately 176 parking stalls and Zone Two has a current shortfall of approximately 102 parking stalls, both of which occur during a peak evening time period in the summer season.

Future demand will create an increase in the shortfall. Some potential projects discussed include the possible development of a new parking structure in conjunction with the relocation of Rosie O' Grady's and the possibility of the development of a new municipal complex with a parking structure. Additional developments considered include Affirmations, the Lofts on the Nine and the Woodward Lofts.

Given the varied nature of these possible developments along with the anticipated effects of the operational recommendations put forth in this document, Rich and Associates recommends that the City conduct a study update in five years to help re-quantify parking shortfall. This will provide an opportunity for the operational enhancements to take effect. Also, it will allow for the further consideration of potential development scenarios in Ferndale.

Currently, the parking shortfall is large enough to consider some potential solutions for adding new parking in to the downtown area. Rich and Associates have identified a number of options for new parking, including the possibility of new structured parking. These options include the possibility of expanded on-street parking along Nine Mile Road, west of Livernois.

Other options include the acquisition of private parking areas that will become public parking; while not providing more actual parking they will allow for greater shared use opportunities. Finally several locations for new additional parking are also identified that could become part of joint projects between the public and private sector. This follows the City's desire to create a richly diverse downtown that is both of an optimal density and intensity.







## ***Parking Study Overview***

### **Background**

This study, prepared for the City of Ferndale and the Ferndale Downtown Development Authority (DDA), serves to examine the Downtown’s existing parking system from both a qualitative and quantitative standpoint. The City of Ferndale and the Ferndale DDA contracted Rich and Associates to prepare a parking planning study which would inventory and review the existing parking and make recommendations regarding the development of potential future parking. A number of issues were examined including operations, management, enforcement, current parking demand, development scenarios, and future parking needs.

For this study, Rich and Associates initiated the process with a field study, meetings and interviews. Data collected as background material was analyzed using proven methods that involve statistical analysis and survey feedback from user groups. The study drew on standards developed by the Institute of Transportation Engineers (ITE) and the Urban Land Institute (ULI), which were modified according to the survey results from Ferndale in order to suit the unique circumstances present in the Downtown. Consideration for this study were levels of development/ redevelopment, the number of restaurants and specialty retail stores and the planned development of residential units in the downtown.

### **Study Area**

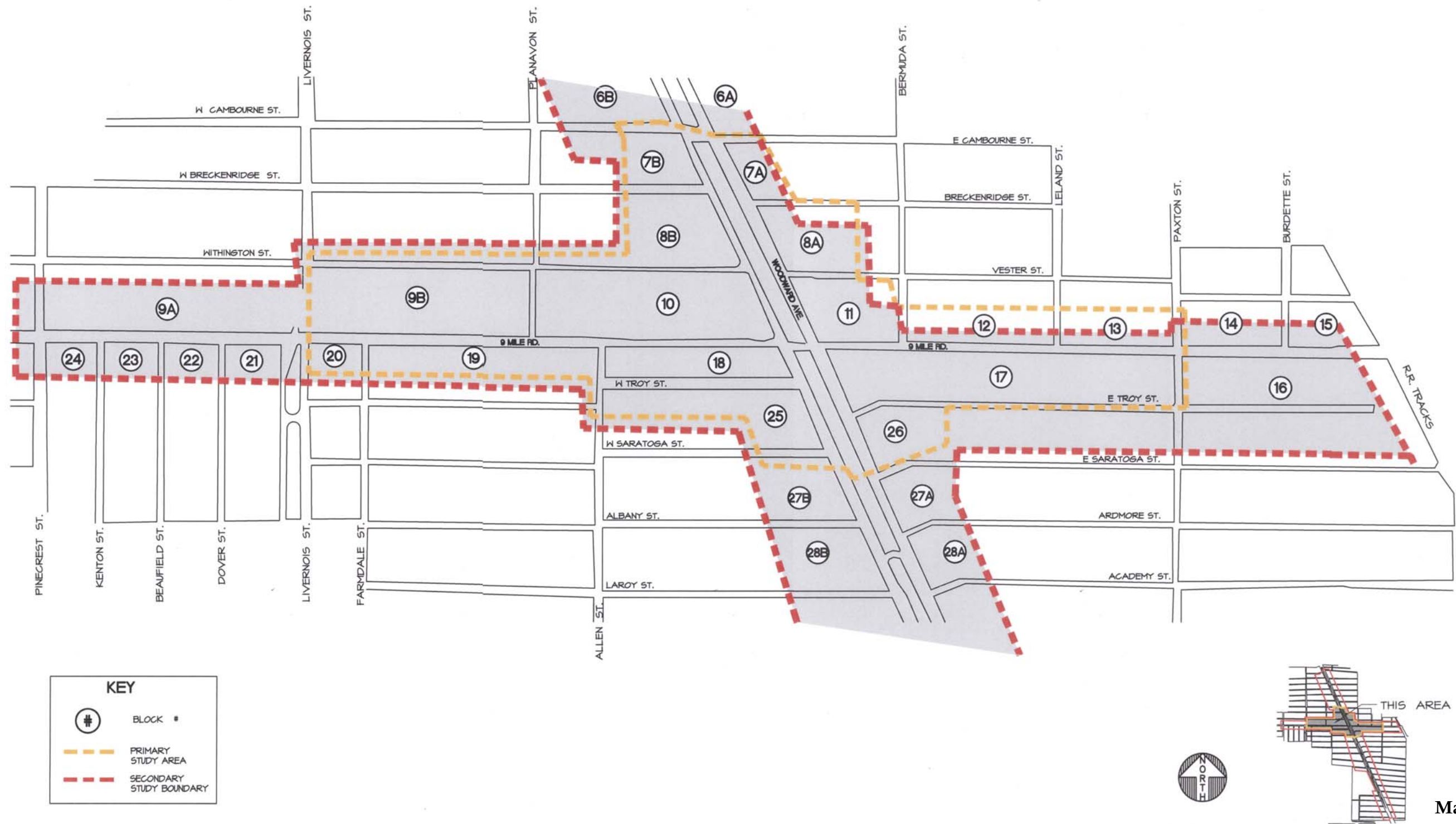
The study area, as determined by the City of Ferndale and the Ferndale DDA, is illustrated in **Map #1**, “City of Ferndale - Study Area Map” located on page 1-3 and 1-4. There are two study areas. The first consists of the core business area of Ferndale (page 1-3) and the second study area extends beyond the core business area north and south on Woodward and East and West along 9 Mile Road (page 1-4). Rich and Associates evaluated the parking conditions, parking supply and parking activity in the roughly 41-block study area. The boundaries encompassed the Woodward and Nine Business Corridors. Areas outside of the study boundaries were examined for parking supply opportunities and potential impacts only.

The Ferndale study area consisted of a mix of land uses including retail, restaurants and bars, new loft development, light industry, office buildings, government buildings, a theater, clubs and Oakland County Courts. Ferndale is experiencing a great deal of interest in loft and condo construction. There are several future development scenarios that include mixed use developments with condos above. These possible developments, as well as the condo developments that are already in the works, will begin to change the Downtown and most likely drive up the land values within the City. .





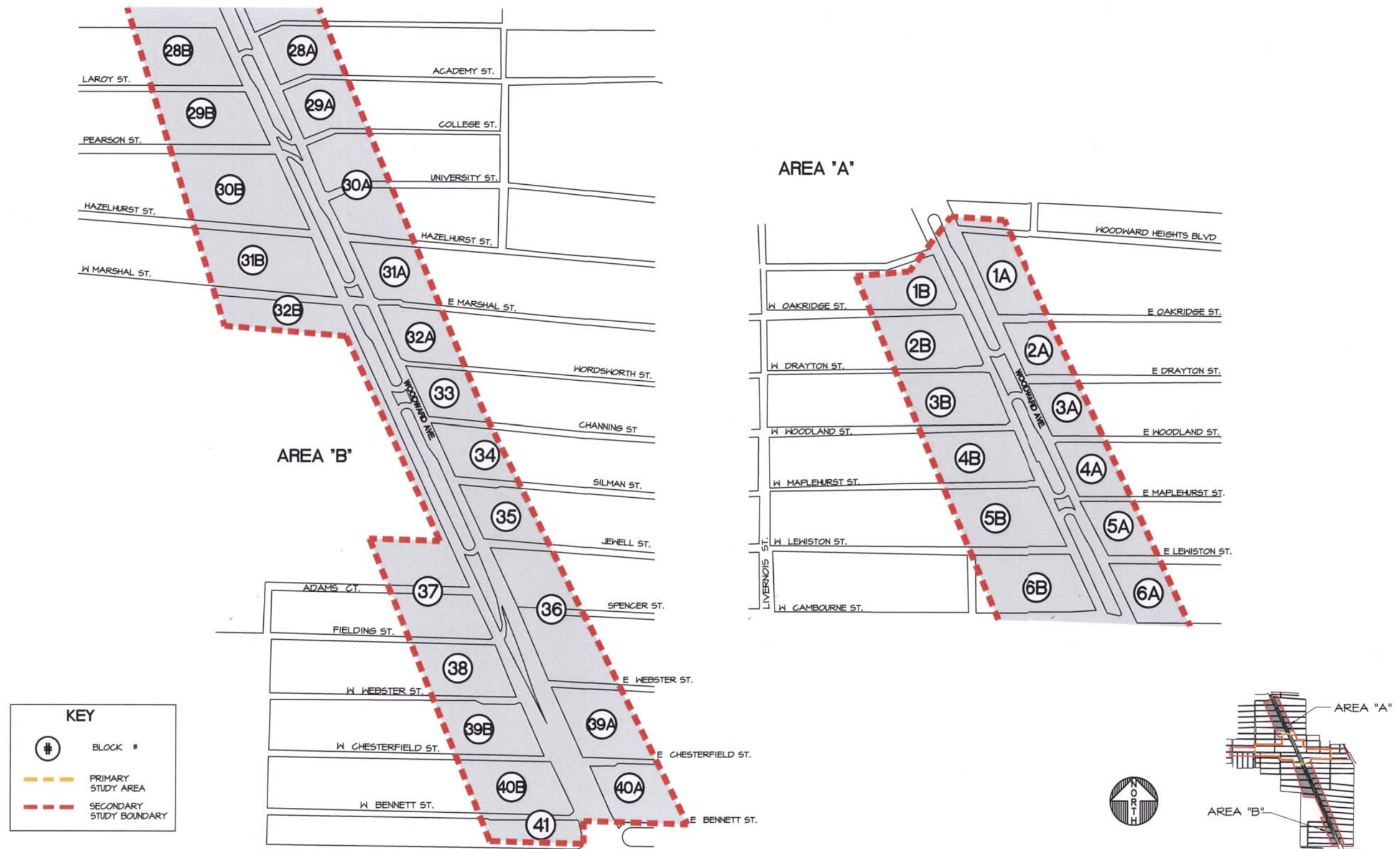
## STUDY AREA







## STUDY AREA



Map 2

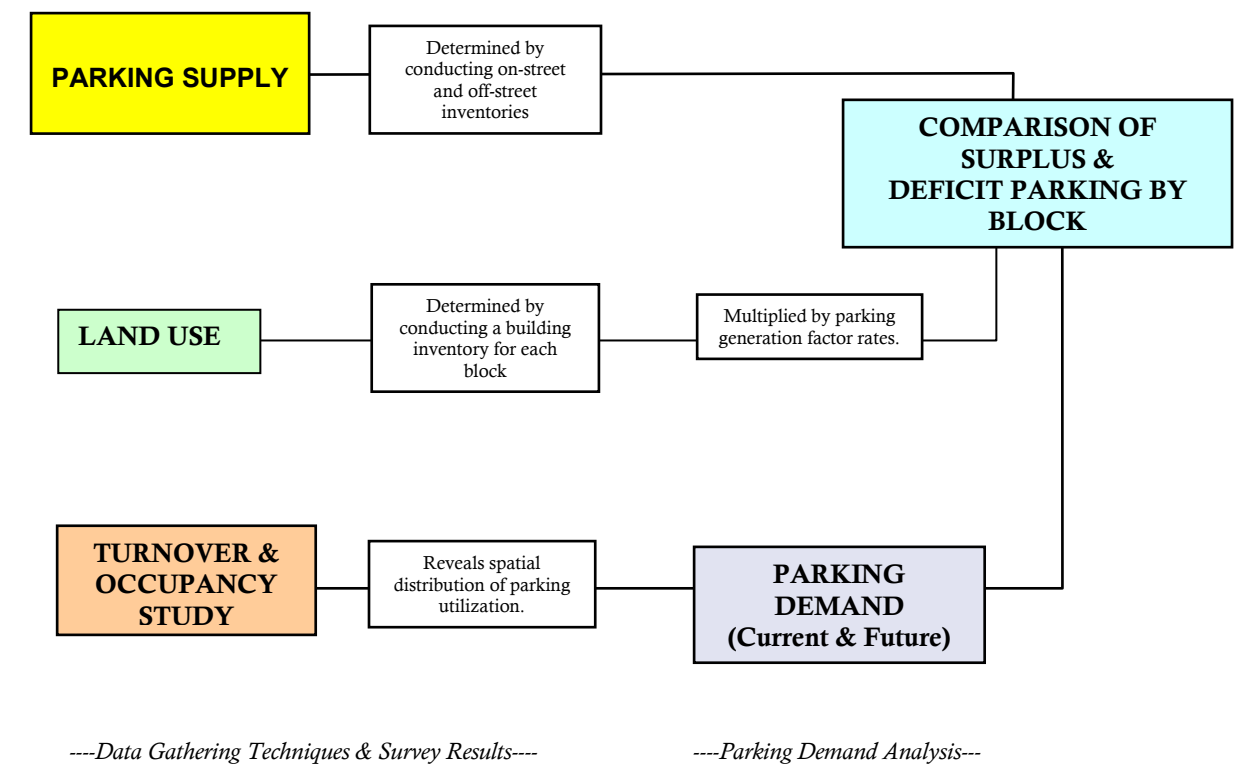


## Scope of Services

The scope of services performed by Rich and Associates for the City of Ferndale are listed below. Services included the fieldwork that was conducted in order to develop recommendations to improve parking. The fieldwork included the following:

- A complete inventory of all public and private parking spaces.
- Turnover and occupancy studies to evaluate the utilization of the on-street and off-street parking within the core of the study area.
- A block-by-block inventory of land use type for the Downtown study area was completed. [A portion of the information, in terms of building area, was based on maps, aerial photos and data provided by the City of Ferndale].
- Feedback from stakeholder meetings and survey information compiled from business owners and employees.
- Existing enforcement policies and procedures were reviewed along with the staffing and routing of enforcement personnel.
- Identification of possible area of parking expansion/improvement.

Figure 1: Interrelationship of Parking Study Methodologies



# Section 2:

## Analysis

This section of the report is an assessment of how the existing parking is operating and how much new parking may be required based on current and anticipated future development.







# Parking Analysis

## Methodologies

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

- An inventory of the study areas on and off-street parking supplies.
- Turnover and occupancy studies for public and private on and off-street parking areas.
- Block-by-block analysis of the square footage and use of every building in the core study area [the Ferndale DDA provided the base building inventory].

The Parking Demand and Zone Analysis sections of the report contain two levels of parking analyses to determine the number of parking stalls needed. First is a mathematical or hypothetical model of parking demand based on the building gross floor area. The mathematical model multiplies a parking demand generation ratio by the floor area to derive the number of stalls demanded. The second is a turnover and occupancy analysis of field data (or field observations) used to calibrate the mathematical model and help to establish actual parking needed.

**Figure 1** from **Section One** “Interrelationship of Parking Study Methodologies” graphically illustrates how the various parking methodologies are employed to evaluate Ferndale’s parking system. **Section Two** offers an assessment of the results of the on-street and off-street parking space inventories and the on-street and off-street turnover and occupancy studies. The results of the studies, surveys and inventories are used in conjunction to establish and calibrate the Ferndale parking analysis.

## Study Assessment

This section of the report is an assessment of how the existing parking is operating and how much new parking may be required based on current and anticipated future developments. The analysis used turnover and occupancy data, parking and building inventories, downtown business owners surveys, previous study work and Rich and Associates experience with parking to refine and determine the report’s analysis.

Rich and Associates reviewed proposed and potential developments with City Staff, various downtown developers and stakeholders. Several developments were discussed that would potentially impact future parking demand, Woodward lofts with 96 condo units and 2 retail units, 9 Mile Lofts with 36 condo units and 5 retail units, and Affirmations new center 16,500 sq/ft. An assessment of potential development and redevelopment were factored in the demand analysis. Future parking demand was in part accounted for by the assumption of vacant space re-occupancy at a rate of 40% in five years and 80% in ten years.

The study process consisted of a two-part analysis. The first part of the analysis included the net parking demand based on a building inventory and parking generation factors per 1,000 square feet of gross floor space. This demand was netted from the available supply and the resulting surplus or deficit revealed on a block-by-block basis. The second part of the analysis involved comparing the parking surplus and deficit patterns to the turnover and occupancy data. This comparison offered a benchmark, by which the surplus and deficit data was calibrated.

A point to consider regarding the parking supply and demand is that motorists in general perceive off-street stalls with occupancies greater than 85% to be at capacity, depending on the overall capacity. The greater the capacity, the less this perception is valid. When this occurs, motorists will begin to re-circulate to seek more parking, adding to downtown traffic congestion and the driver’s perception that there is no parking available in the downtown.





Parking Inventory

Within the boundaries of both study areas there were approximately 4,349 parking stalls. The parking inventory was broken out into charts for the primary study area (**Table 2A**) and the secondary study area (**Table 2B**), followed by two parking inventory maps (**Map #3 and #4**). The combined parking inventory can be viewed in the Appendix (**Appendix A**). In cases where parking stalls were not marked, the number of parking stalls were estimated. For the purpose of the study any parking marked reserved or privately owned was designated as private parking. Whereas any parking that is available for use by all was designated as public parking.

**Table 2A** summarizes the existing parking in the primary study area in downtown Ferndale. There was a total of 2,508 parking stalls in the primary study area, and of these 248 (10%) was on-street, 976(38%) of off-street was public stalls, and 1,284 (52%) was private off-street stalls.

**Table 2B** summarizes the existing parking in the secondary study area of Ferndale. There was a total of 1,844 parking stalls in the study area and of these stalls 261 (14%) are on-street, and 1,583 (86%) were private off-street. There were no public off street spaces in the secondary study area.

When combining the parking inventory from the two study areas, the City of Ferndale manages 34% of the parking. When the parking is separated into the primary and secondary study areas, Ferndale manages 49% of the parking in the primary study area and 14% of the parking in the secondary study area. Based on Rich and Associates’ experience we have found, that to successfully manage municipal parking it is desirable for the municipality to have control of at least 50% of the parking supply. This allows the municipality to effectively manage the parking in terms of allocation, changing demand, market pricing, and allows the parking to be enforced with greater efficiency.

In Ferndale’s case, the 50% or greater goal was almost met in the Primary Study Area. While the Secondary Study Area had a lower percentage of public parking, the development style is also different, negating the need to achieve 50% public parking. The secondary area buildings were autonomously parked by private parking associated with each individual building. Also the study area is very linear, which limits the number of buildings or businesses that individual parking areas can serve. In time, development pressure may lead to greater density and intensity of land use in the secondary area, adding the argument for more public off-street parking.

Table 2A  
Primary Study Area Parking Supply Summary

Block >	#7A	#7B	#8A	#8B	#9B	#10	#11	#12	#13	#17	#18	#19	#20	#25	#26	Summary
On-Street																
Not Signed	1											3				4
Unmarked																0
Fifteen Minute Free																0
30 Minute Free																0
One Hour Free																0
Two Hour Free																0
Two Hour Metered	4	4	15	15	27	60	17	10		20	27	27			17	243
Barrier Free (Handicap)											1					1
															Totals=	248
Off-Street																
Public																
3 Hour Metered			19	23		197	29			112		29		113		522
Barrier Free (Handicap)			3	4		11	2			10		3		7	2	42
Ten Hour Metered			32	100		67	15			41		8		103	46	412
															Totals=	976
Private																
Private/Reserved	55	24	95		325		42	67	85	243	37	84	39	47	29	1172
Private Motorcycle							1									1
Barrier Free (Handicap)		2	3		16		3	4	4	10		4	2	3	1	52
30 Minute City Business										11						11
Reserved/City										17						17
15 Minute Library										2						2
Police										29						29
															Totals=	1284
Summary	60	30	167	142	368	335	109	81	89	495	65	158	41	273	95	2508

Source: Rich and Associates' field work, May/June



Table 2B  
Secondary Study Area Parking Supply Summary

Block >	#1A	#1B	#2A	#2B	#3A	#3B	#4A	#4B	#5A	#5B	#6A	#6B	#9A	#14	#15	#16	#21	#22	#23	#24	#27A	#27B	#28A	#28B	#29A	#29B	#30A	#30B	#31A	#31B	#32A	#32B	#33	#34	#35	#36	#37	#38	#39A	#39B	#40A	#40B	#41	Summary		
On-Street																																														
Unmarked		2	6	3		3		4	6	2	7								1							8	5		2	10				11	15	8	13	6	6	12		4	3		137	
Fifteen Minute Free																	3																											3		
30 Minute Free	10																																											10		
One Hour Free					5	3												2	2						3				10															25		
Two Hour Free			5	4	7		8	6		6		5										3	8	5	7	6	5																	75		
Two Hour Metered																					6		5																					11		
Barrier Free (Handicap)																																												0		
																																												Totals=	261	
Off-Street																																														
Public																																														
3 Hour Metered																																													0	
Barrier Free (Handicap)																																													0	
Ten Hour Metered																																													0	
																																													Totals=	0
Private																																														
Private/Reserved	50	17	26	38	22	21	50	23	13	19	33	23	159	91	27	156	14	32	21	25	25	75	35	138	38	24	67		40	65	45	4											53	1531		
Private Motorcycle																																													0	
Barrier Free (Handicap)	1		4				1						9	5	1	5	1	1		2	1	2	1	7	2	2	2				2	1				2								52		
30 Minute City Business																																													0	
Reserved/City																																													0	
15 Minute Library																																													0	
Police																																													0	
																																													Totals=	1583
Summary	61	19	41	45	34	27	59	33	19	27	40	28	168	96	28	161	18	35	24	27	32	77	44	153	48	41	80	5	52	75	47	5	11	15	8	77	6	6	12	0	4	3	53	1844		

On-Street Parking Totals	261
Public Off-Street Parking Totals	0
Public Parking Totals	261
Private Parking Totals	1583
Total Parking in Study Area	1844

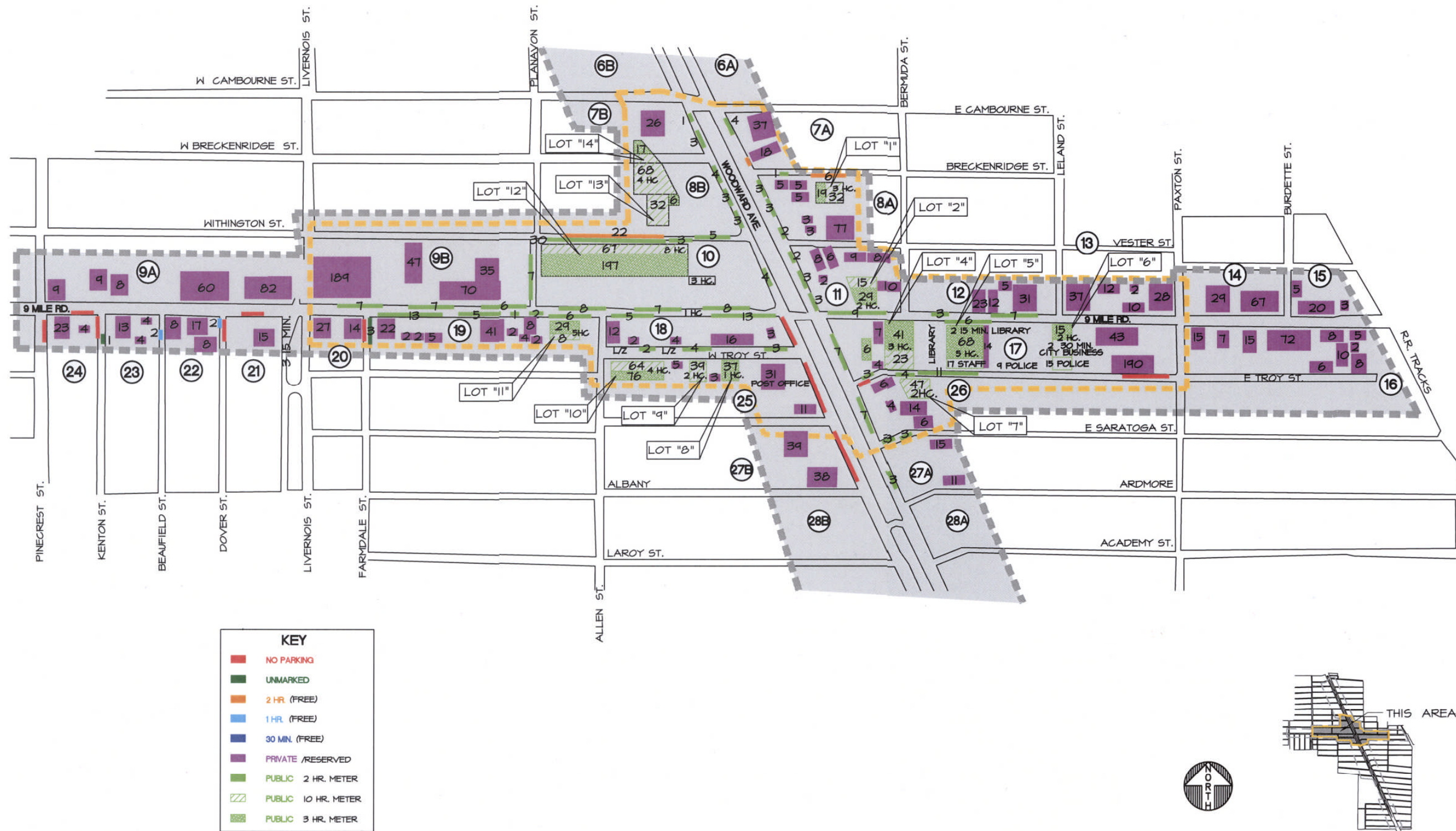
Soruce:Rich and Associates Fieldwork, May/June 2006







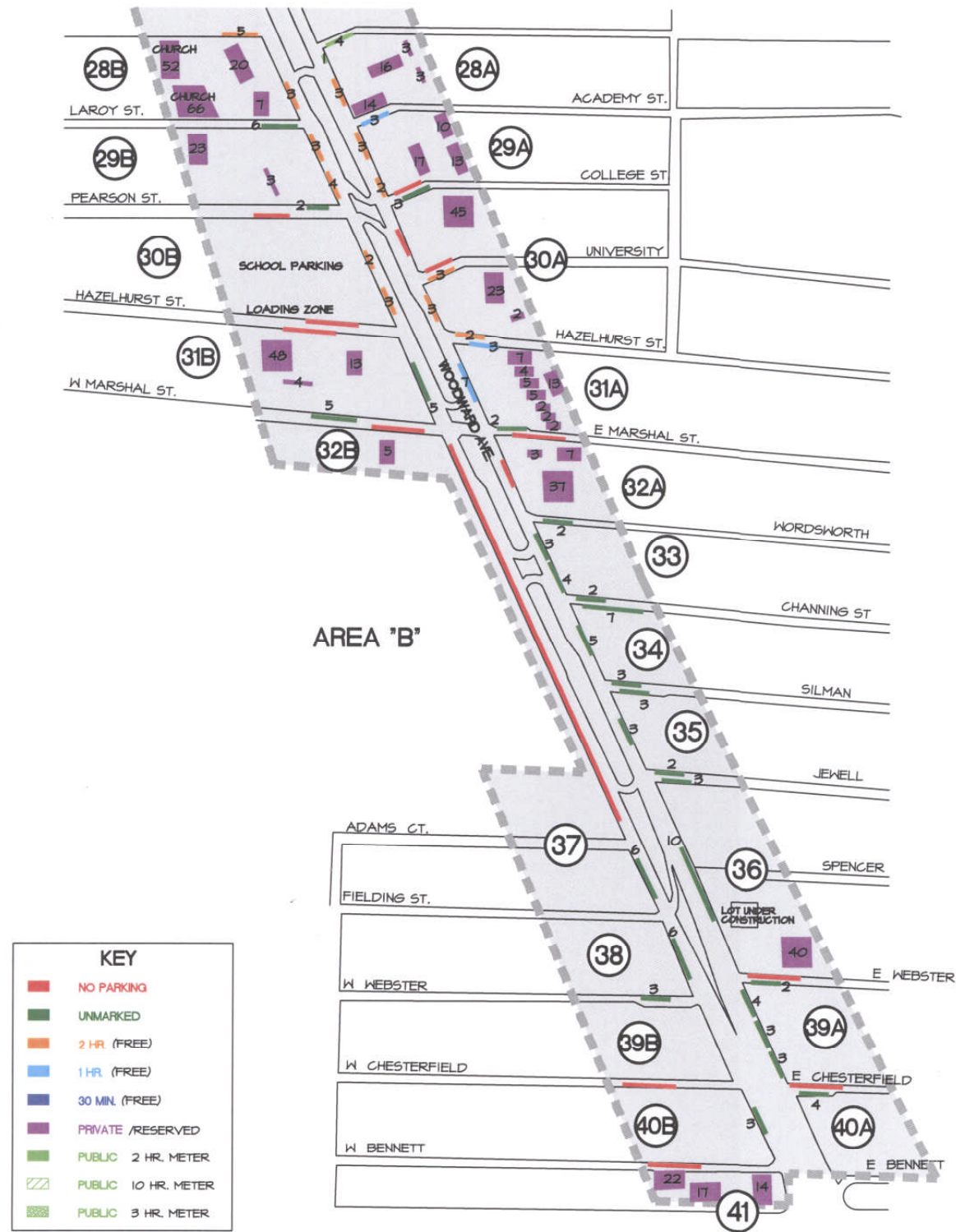
## PARKING SUPPLY



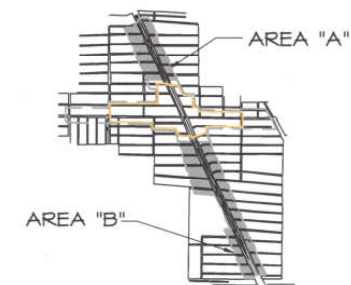




## PARKING SUPPLY



### AREA 'A'



Map 4







Turnover and Occupancy Study

A turnover and occupancy study was undertaken in the downtown study area over the course of a typical business day to compare and contrast how parking varied during a typical day. First, a turnover study was undertaken to determine how long the parking stalls were being used and then occupancy counts were taken to observe the utilization of the parking. Turnover is an indicator of how often a parking stall is being used by different vehicles throughout the course of the day. Turnover is relevant to time periods when parking is being enforced and is most important to short-term customer and visitor parking.

Occupancy is an important aspect of parking because it helps us to understand the dynamic of how parking demand fluctuates thought the day. Likewise, the occupancy can be used to illustrate how parking demand is impacted by events in the downtown area. Overall, the occupancy data was used by Rich and Associates to calibrate the parking demand model.

Definitions

The following are definitions used for the turnover and occupancy analysis:

- **Turnover** - Turnover is the number of vehicles that occupied a parking space in a particular period. For example, if a parking lot has 100 spaces and during the course of the day 250 different vehicles occupied the lot, then the turnover is two and a half times (2.5).
- **Occupancy** - the length of time a parking space is occupied by a vehicle.
- **Circuit** - A circuit refers to the two-hour time period between observances of any one particular parking space. For the turnover and occupancy study, a defined route was developed for each survey vehicle. One circuit of the route took approximately 2 hours to complete and each space was observed once during that circuit.
- **Block Face** - A number was assigned to each block within the study area. Each block is then referenced by its block number and by a letter (A, B, C or D). The letter refers to the cardinal face of the block; with (A) being the north face, (B) the east face, (C) the south face and (D) the west face. Therefore, a block designated as 1A would refer to the north face of block 1.

Turnover and Occupancy Analysis

- The turnover and occupancy analysis took place on Thursday, June 22, 2006 beginning at 9:00 A.M. and ending at 11:00 P.M. The analysis covered public and private parking in and around Ferndale’s downtown core.
- This typical business day was selected to look at turnover and to see how employee parking utilization was impacting the parking operations.
- Turnover was recorded from 9:00 A.M. until 5:00 P.M. License plate numbers were recorded every three hours of all vehicles in public parking stalls, both on-street and off-street, to observe the turnover rate occurring in the downtown. During this time period many of the private lots in the primary study area were counted for occupancy levels.
- From 5:00 P.M. until 11:00 P.M. public and private parking was counted for an occupancy analysis only, no license plates were recorded.

Daytime Turnover Results

**Table 2C** demonstrates the summary of the turnover findings, the table identifies the average duration for on-street and off-street short term parking. Overall the on-street parking stalls had a fairly good turnover with 78% of the vehicles observed stayed less than two hours. The off-street short term stalls however had a much lower turnover with 36% of the vehicles observed staying between three and six hours and 22% remaining at one meter for six to nine hours. Rich and Associates’ experience in other communities is that as many as 20% of vehicles remain in short-term parking stalls longer than the posted duration.

Table 2C  
Turnover Analysis Summary

Parking Turnover Summary (by type)	On-street 2 hr metered	Off-street 3 hr metered
Number of parking stalls in sample	240	538
Vehicles that remained less than 3 hrs	250 (78%)	145 (42%)
Vehicles that remained between 3 and 6 hours	48 (15%)	126 (36%)
Vehicles that remained between 6 and 9 hours	24 (7%)	76 (22%)
Total number of vehicles analyzed	322	347
Average on-street turnover	1.34	0.64

Rich and Associates' field observations June 22, 2006

Turnover for the on-street parking only averaged 1.34 vehicles per day (2-hour metered parking) and 0.64 vehicles per day for the off-street (3-hour metered parking). While these figures are less than ideal, improved parking enforcement will result in higher turnover figures.



Daytime Occupancy Results:

- The on-street parking in downtown Ferndale had an average peak occupancy of 56% with 147 of the 262 stalls observed occupied (**Table 2D, Map #5**). The on-street occupancy remained consistent throughout the afternoon from 12:00 P.M. until 5:00 P.M.
- The public off-street parking peaked between 12:00 P.M. and 2:00 P.M., averaging 46% occupancy with 447 of the 968 stalls observed occupied. The ‘lunch hour’ peak is typical in urban areas with a high concentration of restaurants.
- The private off-street parking that was observed peaked at 38% occupancy between 2:00 P.M. to 5:00 P.M with 221 of the 600 stalls occupied. Rich and Associates believe that the private off-street peaked in the mid-afternoon due to downtown retail activity and from evening restaurant employees arriving for work.
- The overall average peak occupancy occurred between 12:00 P.M. and 2:00 P.M. and is 45% occupied. A number of the core on-street block faces show 100% occupied, though only one off-street (public and private) lot had an occupancy of 100% (city lot 6). The majority of the lots were showing occupancies of 70% and less.
- Overall occupancies appear low when considering that there is a projected shortage for most of the downtown blocks in Ferndale.

Table 2D  
On-Street Turnover and Occupancy 6/22/06

On-Street									
Block	Block Face / Location	Description	# of stalls	9:00 A.M. - 12:00 P.M.	% occupied	12:00 P.M. - 2:00 P.M.	% occupied	2:00 P.M. - 5:00 P.M.	% occupied
7A	D	On-Street	5	1	20%	1	20%	0	0%
7B	B	On-Street	4	1	25%	0	0%	1	25%
8A	A	On-Street	7	0	1%	1	1%	1	14%
8A	D	On-Street	8	8	100%	8	100%	7	88%
8B	B	On-Street	10	5	50%	9	90%	8	80%
8B	C	On-Street	5	5	100%	4	80%	4	80%
8B	C	On-Street	22	6	27%	8	36%	2	9%
9B	C	On-Street	20	5	25%	2	10%	0	0%
10	A (not metered)	On-Street	30	16	53%	22	73%	23	77%
10	A	On-Street	3	1	33%	2	67%	3	100%
10	B	On-Street	4	1	25%	4	100%	2	50%
10	C	On-Street	23	13	57%	22	96%	20	87%
11	C	On-Street	9	0	0%	1	11%	9	100%
11	D	On-Street	8	8	100%	8	100%	7	88%
12	C	On-Street	10	2	20%	3	30%	3	30%
17	A	On-Street	7	3	43%	0	0%	0	0%
17	C	On-Street	11	0	0%	0	0%	0	0%
17	C	On-Street	3	0	0%	3	100%	3	100%
17	D	On-Street	7	7	100%	7	100%	6	86%
18	A	On-Street	19	14	74%	16	84%	16	84%
18	C	On-Street	9	8	89%	6	67%	7	78%
19	A	On-Street	27	9	33%	13	48%	16	59%
26	A	On-Street	4	0	0%	2	50%	2	50%
26	D	On-Street	7	3	43%	5	71%	7	100%
Total Occupancy			262	116	44%	147	56%	147	56%

Public Off-Street									
Block	Location	Description	# of stalls	9:00 A.M. - 12:00 P.M.	% occupied	12:00 P.M. - 2:00 P.M.	% occupied	2:00 P.M. - 5:00 P.M.	% occupied
8A	City Lot 1	Off-Street	46	7	1%	4	1%	7	15%
8B	City Lot 13	Off-Street	80	6	7%	16	18%	16	18%
8B	City Lot 14	Off-Street	43	17	40%	16	37%	27	63%
10	City Lot 12	Off-Street	282	68	24%	134	48%	140	50%
11	City Lot 2	Off-Street	46	35	76%	32	70%	45	98%
17	City Lot 4 (+6)	Off-Street	73	60	82%	58	73%	46	63%
17	City Lot 5	Off-Street	62	41	66%	47	76%	22	35%
17	City Lot 6	Off-Street	15	8	53%	16	107%	6	40%
19	City Lot 11	Off-Street	40	11	28%	20	50%	18	45%
25	City Lot 8	Off-Street	37	15	41%	23	62%	18	49%
25	City Lot 9	Off-Street	41	20	49%	34	83%	19	46%
25	City Lot 10	Off-Street	144	26	18%	43	30%	55	38%
26	City Lot 7	Off-Street	50	9	18%	9	18%	10	20%
Total Occupancy			968	323	33%	447	46%	429	44%

Private Off-Street									
Block	Location	Description	# of stalls	9:00 A.M. - 12:00 P.M.	% occupied	12:00 P.M. - 2:00 P.M.	% occupied	2:00 P.M. - 5:00 P.M.	% occupied
7A	Anna's Uniform	Off-Street	18	8	44%	7	39%	5	28%
7A	Pizza Hut	Off-Street	37	17	46%	15	41%	12	32%
7B	Chase Bank	Off-Street	28	19	73%	13	50%	14	54%
8A	Private pay	Off-Street	74	5	7%	2	3%	2	3%
8A	Extreme Truck	Off-Street	3	3	60%	2	40%	4	80%
8A	Fly Trap lot	Off-Street	10	10	1%	11	1%	8	80%
9B	Ferndale Foods	Off-Street	70	26	37%	48	69%	50	71%
9B	Save-A-Lot	Off-Street	189	29	15%	32	17%	26	14%
11	ELKS	Off-Street	8	7	88%	5	63%	10	125%
18	Lot by DDA	Off-Street	16	11	69%	14	88%	13	81%
18	Optical lot	Off-Street	12	4	33%	3	25%	9	75%
19	Blue Nile	Off-Street	22	3	14%	3	14%	0	0%
19	Western Market	Off-Street	41	19	46%	22	54%	27	66%
20	Foot Clinic	Off-Street	27	10	37%	17	63%	21	78%
20	Salon	Off-Street	14	2	14%	5	36%	3	21%
25	Post Office	Off-Street	31	17	55%	22	71%	22	71%
Total Occupancy			608	190	32%	221	37%	226	38%

Combined Totals		1830	629	34%	815	45%	802	44%
-----------------	--	------	-----	-----	-----	-----	-----	-----

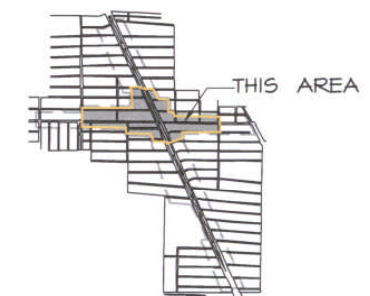






## PEAK OCCUPANCY

THURSDAY JUNE 22, 2006 2:00pm TO 5:00 pm.



# Section 3:

## Survey Results







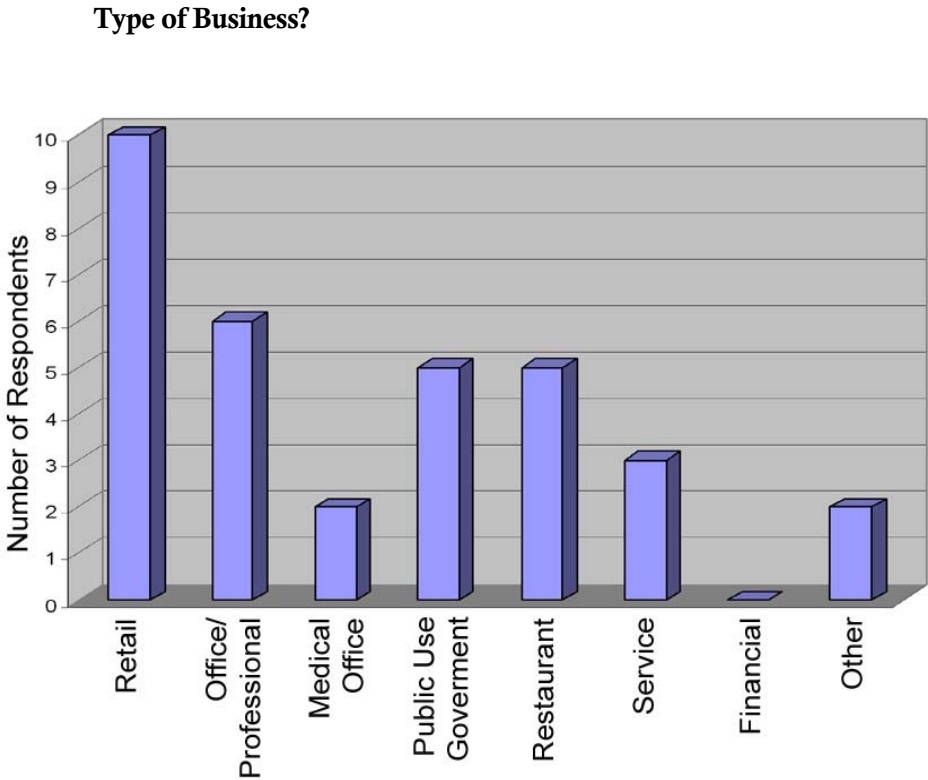
# Survey Results

## Business Owner / Manager Surveys

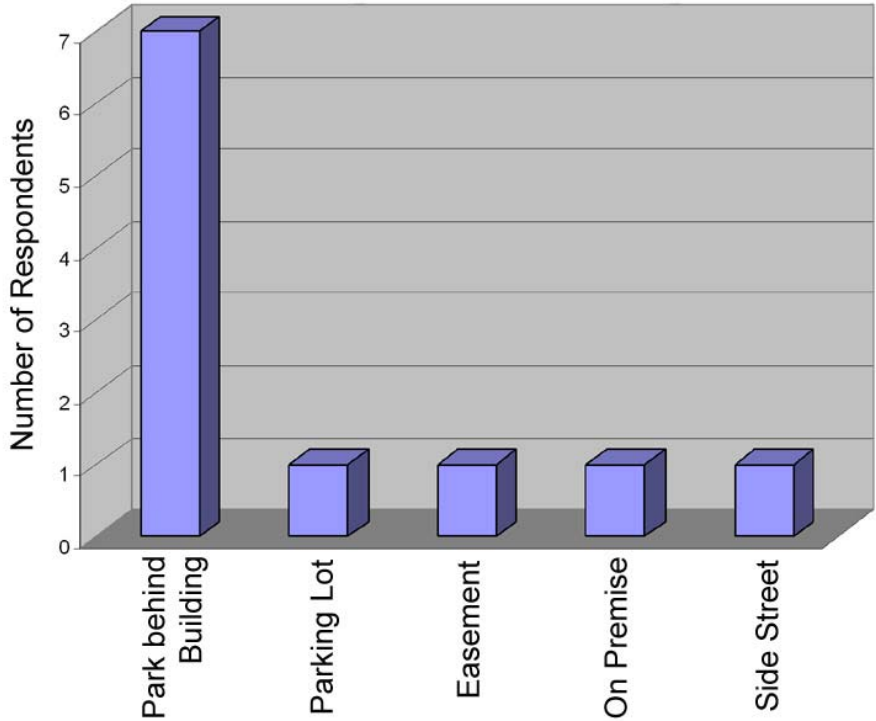
Business surveys were sent to the business owners and managers. Of the 212 surveys distributed, 32 were returned for a response rate of similar studies typically net a response rate of between five and twenty five percent. The data returned to the Rich and Associates allowed for a thorough analysis of the parking demands of a variety of businesses.

Data obtained from the owner/manager surveys was one of the factors used in determining short and long-term parking supply and demand. Managers were asked the number of full and part-time employees employed at their business, the average number of customers or visitors that come into their business and the percentage of those customers or visitors who are downtown for other purposes (i.e., employed in the downtown).

## Business Owner / Manager Survey Findings

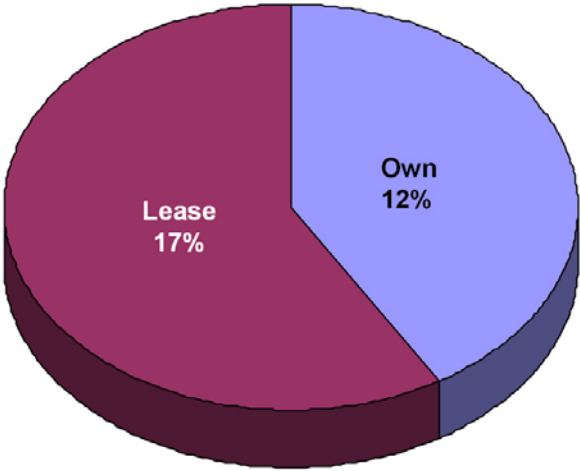


## Where do your employees park?

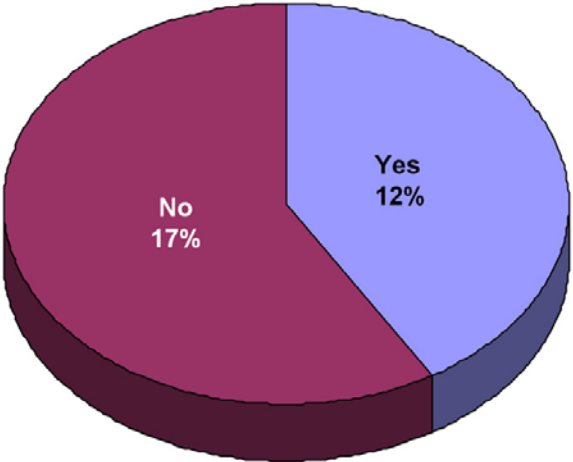




Own or Lease?

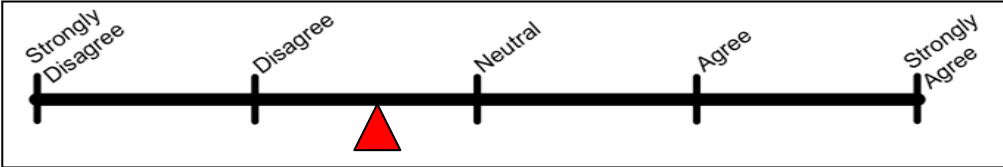


Do you subsidize employee parking?



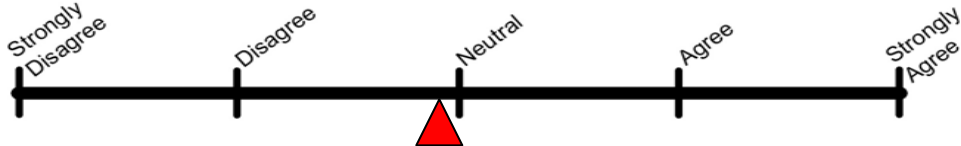
Owner/Manager Survey Summary (Opinion Questions)

Scale Key: respondents were asked to indicate opinions using a scale of 1 to 5; 1 being strongly-disagree (left side), 3 being neutral (middle) and 5 being strongly-agree (right side). The red dot indicates the average response from the returned surveys.

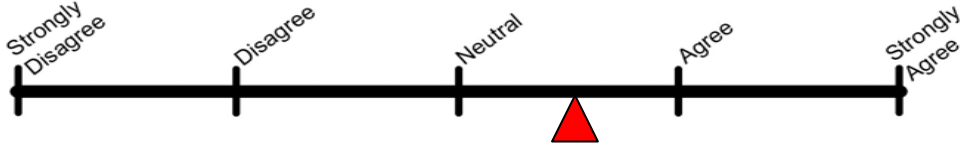


Below is a summary of the opinion questions:

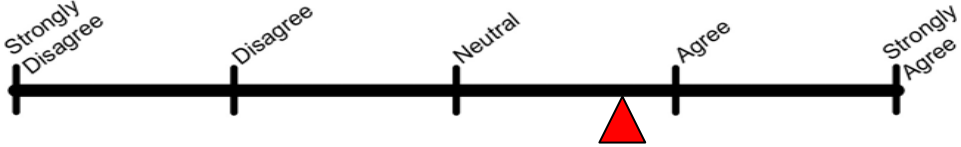
A) It should be left to the private sector to provide parking downtown.



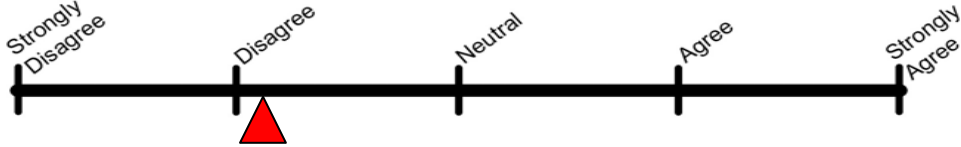
B) The cost for providing new parking should be shared by the City, the private sector and the users.



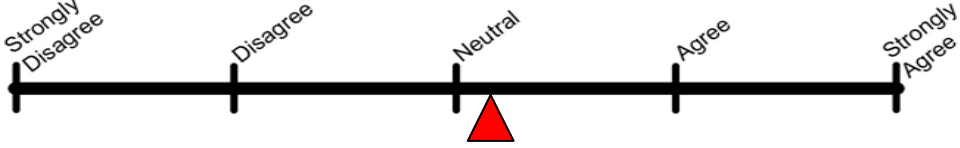
C) Only the city should pay for parking improvements.



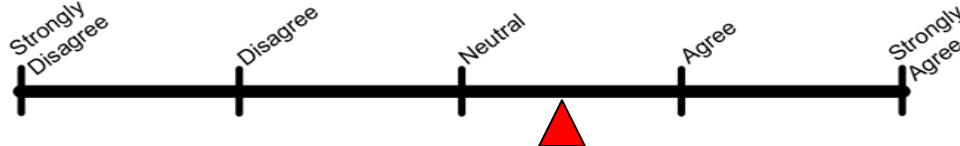
D) I would encourage my employees to park further away to provide more parking for customers and visitors.



E) I would encourage my employees to park further away at a parking deck.






























F) I would encourage my employees to park further away and use a shuttle.

































































G) Off-street parking for customers/visitors useage should be no more than (current \$5).

# of respondents		
\$0.00	     	5
\$0.50		1
\$1.00		0
\$2.00	     	5
\$3.00	   	4
\$3-\$5		1
\$4.00	 	2
\$4-\$5		1
\$5.00	     	5
\$10.00		1






















I) The daily cost of parking for downtown employees should be?

# of respondents		
\$0.00	   	4
\$0.50	  	3
\$1.00	         	9
\$1-\$2		1
\$2.00	 	2
\$2.50		1
\$3.00	   	4
\$4.00	 	2
\$4-\$5		1
\$5.00		1

H) The monthly parking for downtown employees should be?

# of respondents		
\$0.00	   	4
\$2.00		1
\$10.00	  	3
\$15.00		1
\$15-\$20		1
\$20.00	      	6
\$25.00	   	4
\$30.00	   	4
\$30-\$40		1
\$65.00	 	2
\$100.00		1

J) The fine for overtime parking should be?

# of respondents		
\$2.00		1
\$3.00	       	7
\$5.00	  	3
\$5-\$10		1
\$6.00	 	2
\$10.00	   	4
\$15.00		1
As is		1

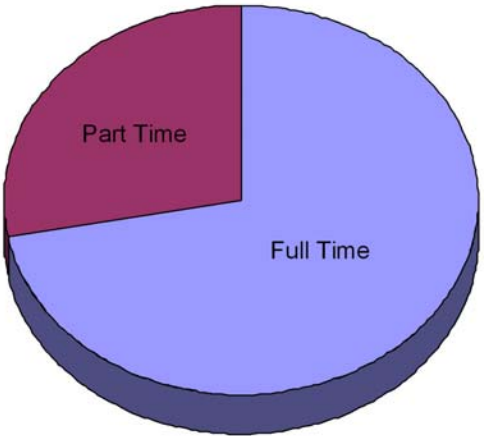


Employee Surveys

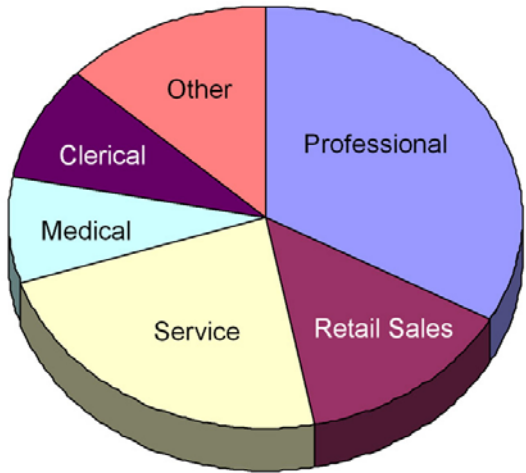
Along with the manger surveys, employee survey forms were also distributed. Initially three employee forms were included with each manger survey. However, managers were encouraged to photocopy the surveys if they needed more to ensure that all employees at that business had an opportunity to participate. A total of 88 employee surveys were retuned to Rich and Associates for a response rate of 14%. These surveys were used as part of the parking analysis for Ferndale study.

3.2.1 Employment Status

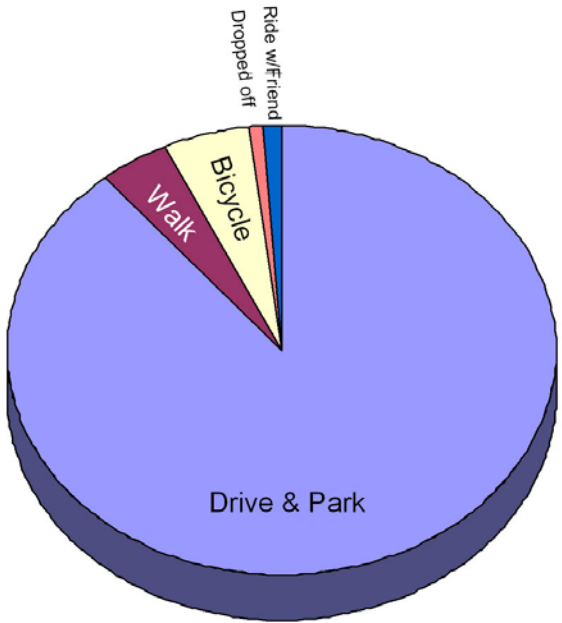
- 1. How do you generally come to work downtown?
  - a) Full Time (more than 30 hrs.).....72%
  - b) Part-time (less than 30 hrs.) .....28%



- 2. Employment Classification
  - a) Professional.....33%
  - b) Retail Sales.....14%
  - c) Service (including restaurant) .....23%
  - d) Medical.....8%
  - e) Clerical.....9%
  - f) Other .....13%



- 3. How do you generally come to work downtown?
  - a) Drive and Park.....89%
  - b) Dropped off..... 1%
  - c) Ride with friend or relative ..... 1%
  - d) Walk..... 4%
  - e) Buss ..... 0%
  - f) Bicycle ..... 5%
  - g) Other ..... 0%

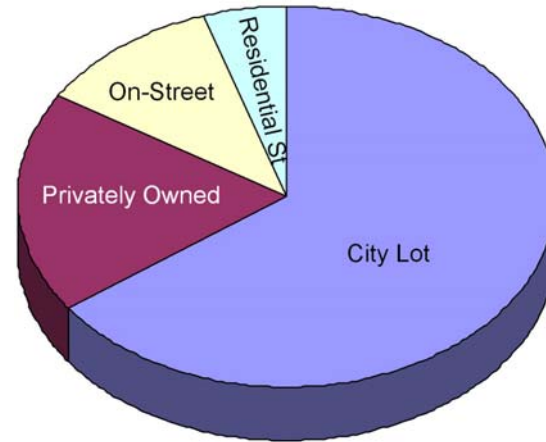






4. If you drive when you come downtown where do you usually park?

- a)..... City Lot
- b).....Privately owned Lot
- c).....On-Street
- d) ..... Residential Street



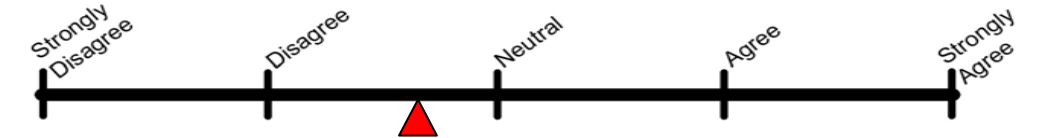
5. Who pays for your parking?

- a)..... Employer pays
- b).....I pay
- c).....Combination
- d).....It's free
- e).....I do not pay

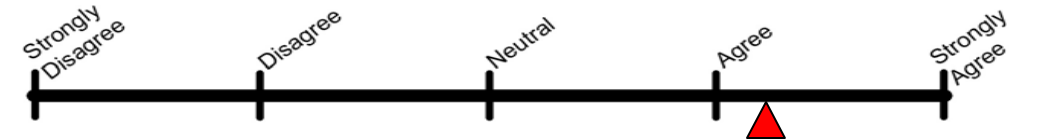


Below are the employee responses to the opinion questions on the survey:

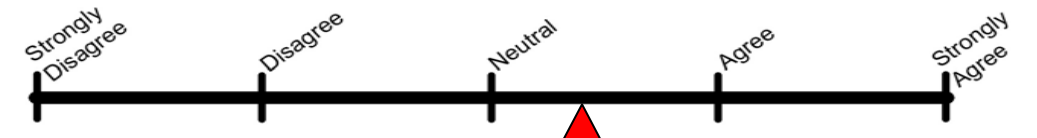
A) There are an adequate number of parking spaces available for downtown employees.



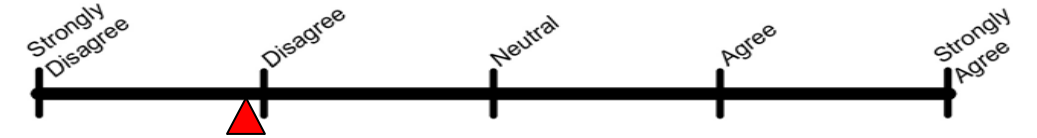
B) The parking for downtown employees is reasonably close to my place of work.



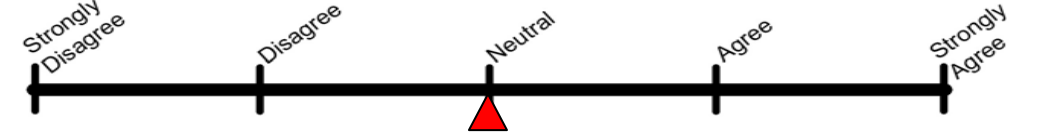
C) If the City constructed a well-designed and secure parking structure I would use it.



D) I would pay more to park closer to work rather than to park further away.

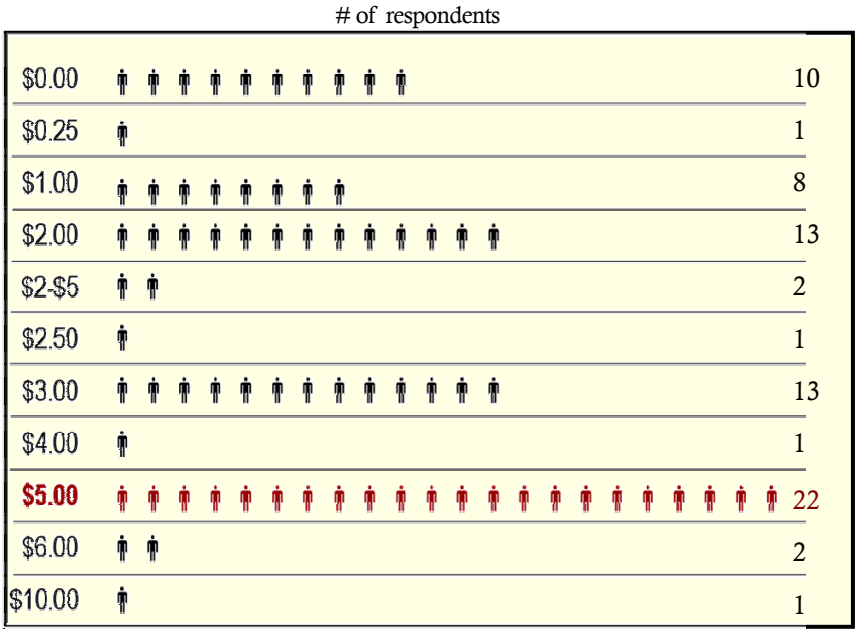


E) I would use a parking deck to park.

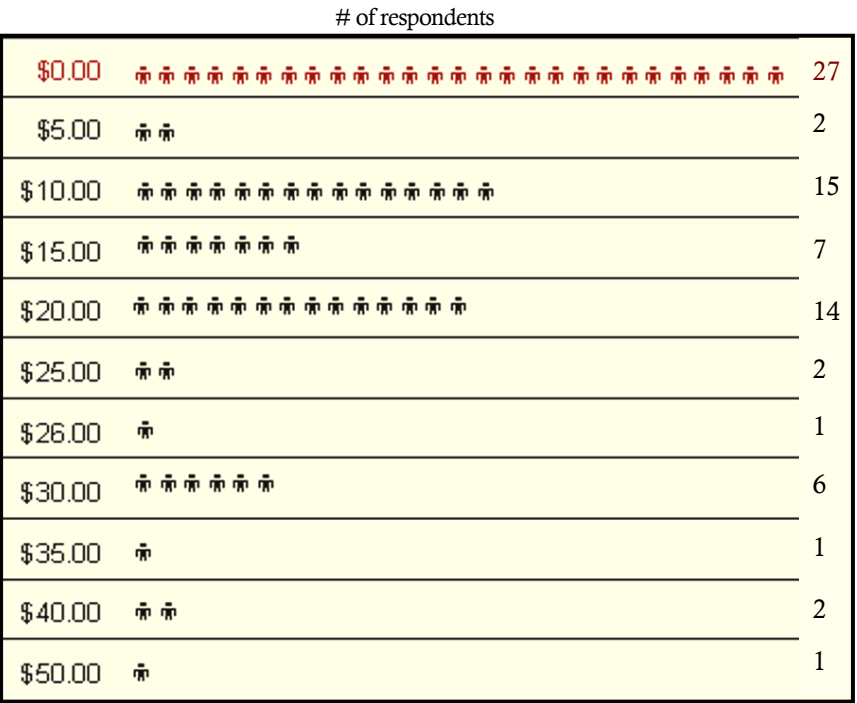




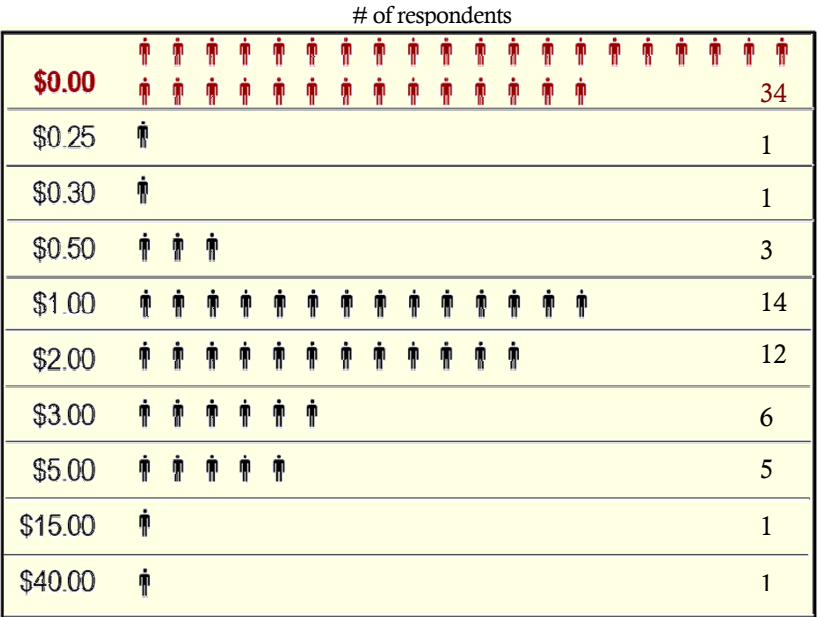
F) The daily cost of off-street parking for customers and visitors usage should be no more than?



G) The monthly cost of parking for downtown employees should be?



H) The daily cost of parking for downtown employees should be?





J) How many of the downtown shops or services do you typically visit during the week?

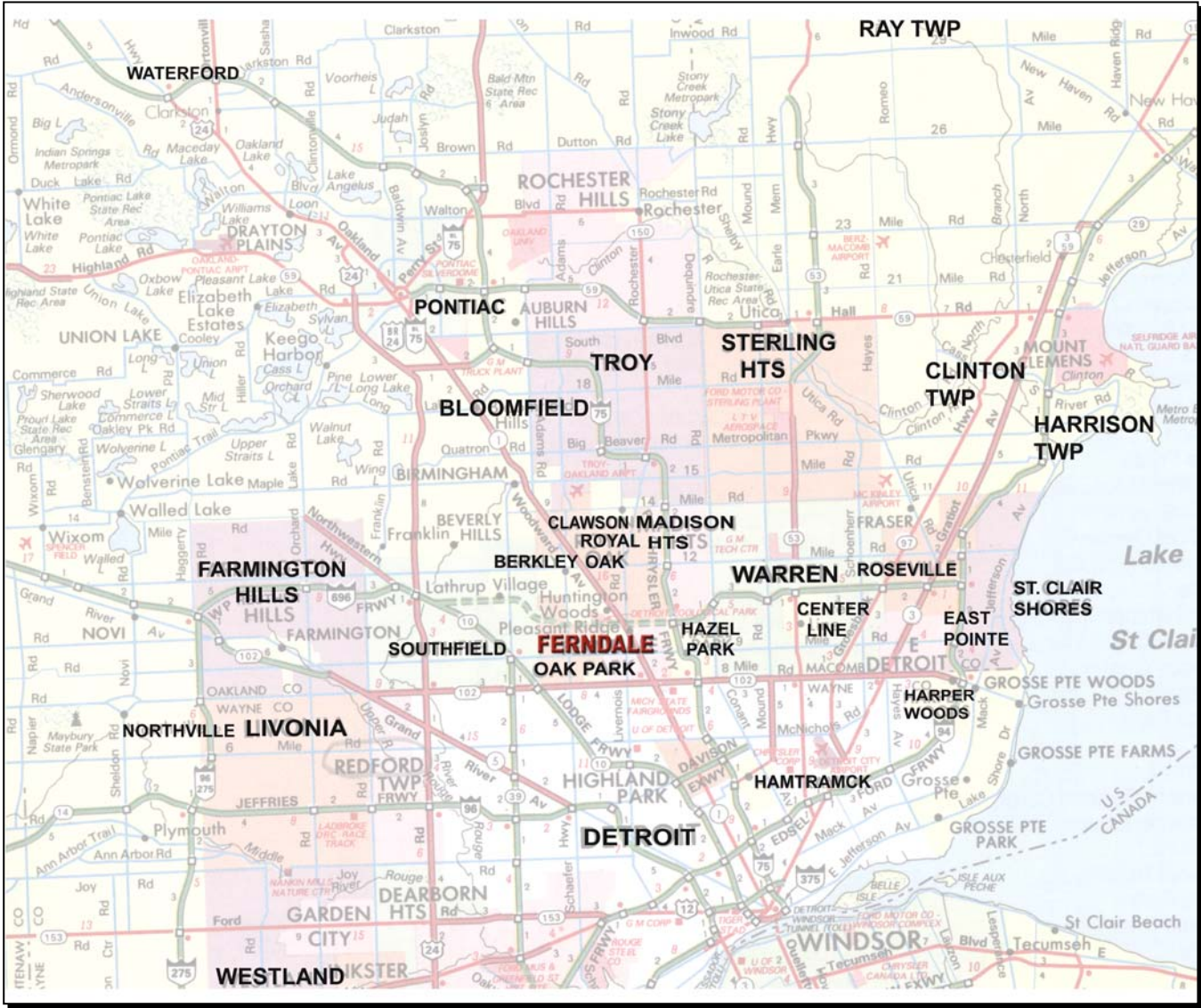
<u># of Downtown Stores</u>	<u># of Respondents</u>
7.5 shops.....	1
1.5 shops.....	2
8 shops.....	3
2.5 shops.....	3
10 shops.....	4
7 shops.....	4
4.5 shops.....	4
3.5 shops.....	5
1 shop.....	6
4 shops.....	8
3 shops.....	9
5 shops.....	10
2 shops.....	10



K) Name of the city/town/township where you reside?

<u>City/Town/Township</u>	<u># of Respondents</u>
Ferndale .....	25
Royal Oak .....	10
Hazel Park.....	6
Oak Park .....	4
Clinton Township .....	4
Detroit.....	4
Warren .....	3
Southfield .....	3
Troy .....	2
Roseville .....	2
Eastpointe .....	2
Berkley .....	1
Bloomfield .....	1
Center Line.....	1
Clawson .....	1
Farmington Hills.....	1
Hamtramck.....	1
Harper Woods .....	1
Harrison Township .....	1
Livonia .....	1
Madison Heights .....	1
Northville Township .....	1
Pontiac .....	1
Ray Township .....	1
St. Clair Shores .....	1
Sterling Heights .....	1
Swartz Creek .....	1
Waterford .....	1
Westland .....	1





# Section 4:

## Operational Recommendations

The recommendations presented in **Section 4** are intended to enhance the existing supply of parking through operational, management, configuration, parking pricing and allocation changes aimed at increasing the efficiency of the parking system.

Overall Section 4 is intended to solicit discussion and input. The recommendations presented here are in Rich and Associates opinion necessary to insure the usability of parking in the downtown, as well as provide proper management and planning for the future. Further discussions with City staff and stakeholders should fine tune these recommendations.







## *Recommendation Summary*

<u>Implementation Time Frame</u>	<u>Category</u>	<u>Recommendation</u>	<u>Budget</u>	<u>Responsibility</u>
Immediate	Parking Management	Consider centralizing the parking management function under the DDA	Minimal, shifting management responsibility will predominately involve existing staff.	City Commission/DDA
Immediate	Fines	Increase overtime parking fine to \$8.00 from \$6.00	Negligible	City/Police/Courts/DDA
Immediate	Fines	Enforce Permit Parking Locations	None	City/Police/Courts/DDA
Immediate	Signs	Remove standalone no parking signs in the Wighington lot and use yellow striping instead.	Minimal	DDA/City
Immediate/Ongoing	Marketing	Marketing of the parking system	Budget \$7,000-\$10,000 per year	DDA/City
Spring 2007/Remove unused posts Immediate	Parking Lot Improvements	Troy Street Lot renovations	Budget \$1,500 per stall	DDA/City
Spring 2007	Parking Enforcement	Hire additional Parking Enforcement Officer(s)	Budget \$28,000-\$55,000 per year/officer	DDA/Police
Spring 2007	Parking Enforcement	Enforce parking from 9:00 A.M. - 9:00 P.M. as posted.	Budget under hiring additional PEO's	DDA/Police
Spring 2007	Parking Enforcement	Create a specific route for enforcement officers to follow	Negligible (requires time to set up route)	DDA/Police
Spring 2007	Parking Permits	Purchase software to monitor sales of permits	Approximately \$7,000 and can be added to the handheld software	DDA/City
Spring 2007	Parking Permits	Permits should become non-transferable	None	DDA/City
Spring 2007	Parking Permits	Consider using a permit that is more difficult to duplicate	Slight increase in cost	DDA/City
Spring 2007	Parking Lot Improvements	Withington Lot renovations	\$10,000-\$25,000 depending on design and landscaping	DDA/City
Summer 2007	Parking Enforcement	Issue multiple tickets	Negligible	DDA/Police
Summer 2007	Fines	Graduated Fine	Negligible	City/Police/Courts/DDA
Summer 2007	Fines	Multiple Tickets	Negligible	City/Police/Courts/DDA
Summer 2007	Fines	Courtesy Tickets	Loss of revenue +/- \$26,000 and \$5,000 to upgrade handhelds	City/Police/Courts/DDA
2007-2008	Parking Allocation	Consider the changes in parking allocation per the recommendation on page 4-6		
2007-2008	Parking Lot Improvements	Multi-space-space meters in lots	Budget \$25,000 for each multi-space meter (can handle up to 999 stalls)	DDA/City
2007-2008	Bicycle Parking/Enhancements	Connect existing bike route from Hilton Rd. to the Downtown	Budget \$25,000 to connect the bicycle trail to the downtown, acquire new bike racks/lockers and to initiate annual events aimed to bicycle advocacy	DDA/City/State of Michigan
2007-2008	Bicycle Parking/Enhancements	Install new bicycle racks in the downtown and institute a marketing program to promote new locations to park bicycles		DDA/City/County/State of Michigan
2007-2008	Pedestrian Activity	Consider a study on pedestrian movement	\$7,000-\$30,000 depending on study	DDA/City
2007-2008	Signs	Consider a wayfinding and signage study	\$25,000-\$150,000 for development, acquisition and installation of a comprehensive new sign program	DDA/City





# Operational Recommendations

## Parking Management

Parking management is a common component of the most successful parking programs. Fundamentally, parking needs to be viewed like a business, since the product behaves similarly to an economic commodity. Parking by nature has an elastic demand. It is an essential part of downtown economics, as all businesses rely on parking for their customers and employees. Parking is also an infrastructure component that is the final stage of transportation by personal automobile.

Using these analogies we can then think of parking as being a fundamental component of a downtown that serves business and facilitates movement. Parking demand however, is also acutely associated with the overall operation in terms of parking fines, pricing, enforcement style, way-finding signs and marketing. When we begin to examine all of the ancillary components of a quality parking-program, the complex nature of parking is revealed. A high degree of oversight and cooperation is then mandatory to operating and maintaining an optimal parking system.

One of the best ways to oversee a parking system is by having a single source of management. City's often have a tendency to departmentalize various aspects of parking. Enforcement is usually found with the police department and meter maintenance with public works as an example. Although this approach does work, it is often plagued by delays and indecision on complimentary acquisitions or system changes.

Having a single parking management source expedites decision making and allows for better integration of the various aspects of parking. Additionally, a managed parking system is also able to adapt to changes in an urban area that are brought by new business moving in or out of a Central Business District or by development. Some communities are also able to create a whole new philosophy for the parking system by changing the traditional parking enforcement role into one where the enforcement officer acts as an Ambassador on behalf of the community.

Rich and Associates recommends that consideration be given to centralizing the parking management function in Ferndale under the Downtown Development Authority (DDA). This would include the following parking aspects:

1. Parking Management: - Overseeing all aspects of parking and being the primary interface for the public, advising and seeking direction from City Council on various parking related issues and working with other interrelated City Departments.
2. Parking Revenue: - All parking fines and collections would flow through the DDA office. The DDA's downtown location also facilitates better public interface with fine payment and parking permit purchases. DDA would implement a computerized permit tracking system.
3. Parking Enforcement: - The use of parking enforcement people as 'Downtown Ambassadors' is a growing trend that can really benefit the image of place. Under DDA guidance parking enforcement could be transitioned in to an 'ambassador' type of role.

4. Planning: - DDA would assume responsibility for the parking planning function and establish funding to acquire property for future parking, as well as funding necessary repairs and replacement out of parking revenue.

Centralize parking management function under the Downtown Development Authority (DDA). Currently various parking functions are handled by different City Departments. Centralized parking management would allow for easier implementation of the downtown parking ambassador program, streamlining the process of developing an overall pricing strategy and allow for direct management of parking facilities.



- DDA would receive all parking revenues to use for parking operations and other downtown improvements.
- DDA will control parking rates, negotiations for leases, parking allocation and maintenance.
- Other communities in Michigan where the DDA runs the parking for the city include, but are not limited to: Ann Arbor, Bay City, Rochester, Plymouth and Traverse City.

## Summary

Cost	Minimal, shifting management responsibility will predominately involve existing staff.
Benefit:	Better coordination between parking related decision makers and public.
Action Time:	Immediate.
Responsibility:	City Commission/DDA
Issue Addressed:	Our staff noted that some aspects of the parking system seemed disjointed from the aspect of the public. Enforcement is handled by the Police Department, permits are handled by the Assessors Office. Streamlining management to one department would allow the overall vision of the downtown to be implemented. Additionally, Rich and Associates recommends that one person needs to be the liaison between the City and public with regard to parking.
Additional Comments:	Applications to develop parking facilities or lots on private property and zoning related requirements for parking would still be handled through the respective City departments (Building, Planning and Engineering).



## **Parking Enforcement**

Parking enforcement is one area of a quality parking system where most communities need improvement. Traditionally, parking enforcement is done somewhat sporadically and on a random basis. Individuals who receive tickets in these communities have a tendency to feel that they have been treated unfairly or that they have been ‘targeted’, because it is possible to park illegally on a routine basis and only periodically ‘get caught’.

In order to optimize the efficiency of the parking system and to reduce the incidences of improper parking, parking enforcement needs to be carried out on a regular basis. As enforcement is brought up to its full potential, individuals understand that they will get a ticket if they park improperly and behavior patterns change. The point of enforcement isn’t just to punish an individual that parks illegally; it is to encourage everyone to follow the rules and regulations. A well functioning parking system is one where short-term parking and long-term parking are used exactly as they are intended and enforcement is the single most important element in achieving this goal.

Rich and Associates has the following recommendations regarding parking enforcement:

Issues Addressed: As the DDA takes over management and active enforcement of the parking, consideration should be given to having two enforcement people. One of the biggest mistakes made with enforcement is inconsistency. When enforcement is undertaken intermittently, the enforcement seems unfair and perhaps capricious to individuals that receive a ticket. Consistent enforcement on the other hand leaves no question that anyone illegally parked will get a ticket.

Enforcement needs to begin at 9:00 A.M. and end at 9:00 P.M. There are parkers who are taking advantage of the parking system because enforcement does not begin until 11:00 A.M. Rich and Associates observed parkers not putting money in the meters until 11:00 A.M.



- Parking regulations are implemented to increase the efficiency of the parking system by allocating certain parking areas to given users. When the regulations are not followed, the system efficiency is degraded and the effective supply of parking is diminished. When this occurs, business customers and visitors are the first groups of parkers to suffer from the lack of available parking.

- Parking enforcement officer (PEO) staffing levels need to be adequate to ensure that all of the parking is routinely monitored for the entire duration of the applicable regulations according to the day of the week. Assuming an individual is full time, one person can then monitor a specified route of 600 to 800 parking stalls up to four times during a standard shift. This ratio assumes a mixture of long and short-term parking and the use of handheld ticket writing technology. Currently there is one PEO who works from 11:00 A.M. to 5:00 P.M. Ferndale has 1,185 metered stalls which means that three individuals are necessary so that enforcement is maintained when one officer is ill or on vacation. There are 72 hours of enforcement that need to be covered each week and only 30 hours are being covered at this point.
  - Parking Enforcement Officers should be able to cover 600-800 parking stalls per day.
  - This would require two (2) part-time officers, preferably three, thus allowing for vacation and sick days.
  - Handheld ticket writers allow the distribution of tiered fines for repeat offenders. This would help reduce repeat offenders and encourage employees to park in designated lots.
    - Example: the first ticket issued to a vehicle is \$6.00, the second ticket is \$10.00 and so on.
- Routing should be undertaken systematically every two hours to correspond with the on-street duration and to ensure that off-street parking is functioning optimally. A specific route or path needs to be established and followed by the officers, so that each individual stall is examined along the route systematically. The use of hand-held ticket writing technology aids this effort by tracking the route as the officer inputs vehicle license plate numbers. The presence of the enforcement officer being seen walking a beat every two hours is as much of a deterrent to illegal parking activity as the actual ticket written. Therefore, proper routing is an essential component of an optimally functioning parking system. Equipment manufactures/supplies aid communities in establishing enforcement routes as a part of the services provided when the equipment is purchased. Training alone will run ±\$645 per person ( T2 Systems: [www.t2systems.com](http://www.t2systems.com)).



Parking Enforcement - Continued

Graduated Fine

*Summary*

**Cost:** \$28,000-55,000 per year/officer, depending on full or part-time PEO's.

**Benefit:** Consistent enforcement targeted towards discouraging improper parking while minimizing the negative impact on downtown customers and visitors. This encourages patrons to use parking as designated by the parking regulations, increasing the efficiency of the system and effectively providing more parking opportunities in the downtown area. Fine income will increase to help fund new initiatives. Rich observed 491 violations during the turnover and occupancy study. On that day 50 tickets were issued, resulting in 441 missed violations. A conservative estimate of capturing even ½ of the missed violations would result in an additional \$1,323 of parking revenue for one day.

**Action Time:** Summer 2007.

**Responsibility:** DDA/Police

**Issue Addressed:** Parking enforcement needs to be consistent in order for the parking system to work optimally. Additionally, routing of enforcement staff is necessary in order to monitor activities such as shuffling or meter feeding. Discourages improper parking activity such as repeat or multiple offences, shuffling by employees improperly parking on-street, lending to an increased turnover of the most important parking in the downtown area.

**Additional Comments:** Restaurant and bar employees in the evening will often take advantage of on-street parking if enforcement is not consistent. Additional enforcement from 5:00 P.M. - 9:00 P.M. (as posted) will deter employees from parking on-street.

A graduated fine system will help alleviate this by penalizing people for the number of tickets they receive.

Consider introducing a graduated fine system to aid in parking fine collection and to discourage multiple infractions by individuals. The use of handheld computer technology compliments this effort, as the software can track license plate information and the infraction particulars. The software can then identify multiple infractions within a given time period and issue a ticket accordingly. An example of a graduated fine schedule may be increased each subsequent ticket issued in a six-month period by \$1.00.

*Summary*

**Cost:** Negligible. Use of existing handhelds facilitates graduated fine system. Handhelds may require software changes or an upgrade to implement a graded fine system (to be determined).

**Benefit:** Facilitates fine revenue collection and aids in discouraging repeat infractions, increasing the efficiency of the overall parking system. There is the potential for added revenue from the additional charge on multiple tickets.

**Action Time:** Spring 2007.

**Responsibility:** City / Police Department / Courts / DDA

**Additional Comments:** Parking regulations are implemented to increase the efficiency of the parking system by allocating certain parking areas to given users. When the regulations are not followed the system efficiency is degraded.

Fines

The way parking fines are structured can have a tremendous impact on the overall parking system. For example, fines that have a discount for early payment have a much higher collection rate then a standard parking fine that can end up in the court system. At that point the fine no longer covers the cost of pursuing payment. Similar concepts include the use of a graded fine structure that increases the penalty to repeat or habitual parking offenders. This style of ticketing can promote the collection of outstanding fines and helps to curtail poor parking practices by individuals while maintaining a lower, customer friendly parking fine.

Rich and Associates has the following recommendations regarding parking fines.

**Overall Issues Address:** The current fine rate for overtime parking is \$6.00. Additionally, Rich and Associates observed motorists knowingly violating the parking regulations. The following recommendations are designed to address these issues.







Multiple Tickets

Issue Addressed: The City currently does issue multiple tickets on one vehicle. This practice helps promote turnover and should be continued.

This policy is consistent with the policies of many Michigan communities surveyed by Rich and Associates. Similar to graduated fines, multiple tickets for the same infraction also aids in discouraging individuals from knowingly violating parking regulations as an alternative to paying for parking. The use of handheld computer technology compliments this effort as the software tracks license plate information and the infraction particulars. The ticket writer can then identify were multiple infractions occur and issue tickets accordingly.

Summary

Cost: None. (will increase net fine revenue)  
Action Time: Spring 2007.  
Responsibility: City/Police Department/Courts

Courtesy Ticket

An effective enforcement program could affect new or infrequent customers or visitor who may not be aware of the City’s parking regulations.

Rich and Associates suggests that from a public relations standpoint, Ferndale may want to consider courtesy tickets for the first offense. This would require that the handhelds store data for an extended period of time. If the vehicle at the expired meter has not received a ticket during the last 12 months, then a courtesy ticket could be issued that would alert the parker to the fact that they were in violation and then restate the offense but also give the parker a map of long term metered areas.

This could also be used for a short period of time when the recommendations are put into effect until people understand the new parking rules. This could be used as a marketing tool around Holidays for customers and visitors to help promote the downtown.

Summary

Cost: Loss of revenue from first ticket issued to an individual varies by community (an estimate of +/- \$26,000 is based on studies for other communities in Michigan). May require software upgrades to handheld ticket writers (estimated \$5,000). Cost is covered under parking permits.  
Benefit: Public relations is championed in Ferndale and customers of downtown businesses are less impacted by more stringent parking enforcement or by other policy and management changes that enhance parking regulations.  
Action Time: Spring 2007  
Responsibility: City/Police Department/Courts / DDA  
Additional Comment: Public relations and improved business relationships between local business and the City can be achieved by the creation of a customer friendly atmosphere while still increasing the effectiveness of parking enforcement.

Overtime Parking Fine

The cost of a parking ticket in Ferndale is currently \$6.00. The difference between the fine cost and the parking costs combined with the potential of not receiving a ticket means that employees may use more customer/visitor spaces.

Consider increasing the overtime parking fine to \$8.00 per infraction from \$6.00 per infraction if paid within three days. As discussed in the preceding recommendation on graduated fines, motorists were observed knowingly violating parking regulations for the convenience of parking close to their destination. The last parking fine increase occurred in 2004 when the fine went from \$3.00 to \$6.00.

Summary

Cost: None.  
Action Time: Spring 2007.  
Responsibility: City/Police Department/Courts





Rich and Associates noted several vehicles with permits parked on-street and in short-term stalls. Some of these vehicles were parked in the same stall all day with meters expired. Rich and Associates did not see tickets on these vehicles.

Summary	Cost:	None.
	Benefit:	Opens up customer parking.
	Action Time:	Immediate.
	Additional Comments:	Send out newsletter to all businesses regarding increased enforcement with permit parking rules and regulations to give a warning that enforcement will now be consistent.

Parking permits are an important component or aspect to provide long-term parking to employees in a downtown area. The convenience of being able to park in a designated area, without having to ‘feed-a-meter’ is important from a convenience and time saving perspective. Likewise, the community receives payment for parking up-front from the customer.

Rich and Associates has the following recommendations regarding parking permits: Current method of handling permits is labor intensive and limits ability of City to change the permit-parking operation to adapt to changing needs in the City. Additionally, the allocation of long-term versus short-term parking can be adjusted to suit the City's needs by monitoring permit sales through the use of the permit tracking software.

Additionally, the application should list the rules and what penalties are possible if they park where they are not supposed to or do not pay on a timely basis. All permits should come with parking maps that show where parking is allowed. Consider acquiring permits with barcode technology or permits similar to hybrid permits (Ferndale issues) that would be more difficult to duplicate.

Summary	Cost:	Budget \$7,500, and can be added to the handheld parking software.
	Benefit:	Tracks permit sales and allows for the City to be able to limit permits for certain areas.
	Action Time:	Spring 2007
	Responsibility:	City
	Additional Comments:	All of the parking system should be automated and interconnected using available computer technology and software. The permit tracking software is a first step towards achieving this goal.



### Parking Allocation:

Parking allocation involves both regulations and parking pricing to encourage long-term parking in certain areas and short-term parking in others. The reason for allocation is to ensure that the closest and most convenient parking stalls are reserved for customers and visitors and that there is adequate parking for employees. Ferndale has a unique situation where the parking demand varies between day and evening activity. Rich and Associates recommends the following changes in allocation to the parking:

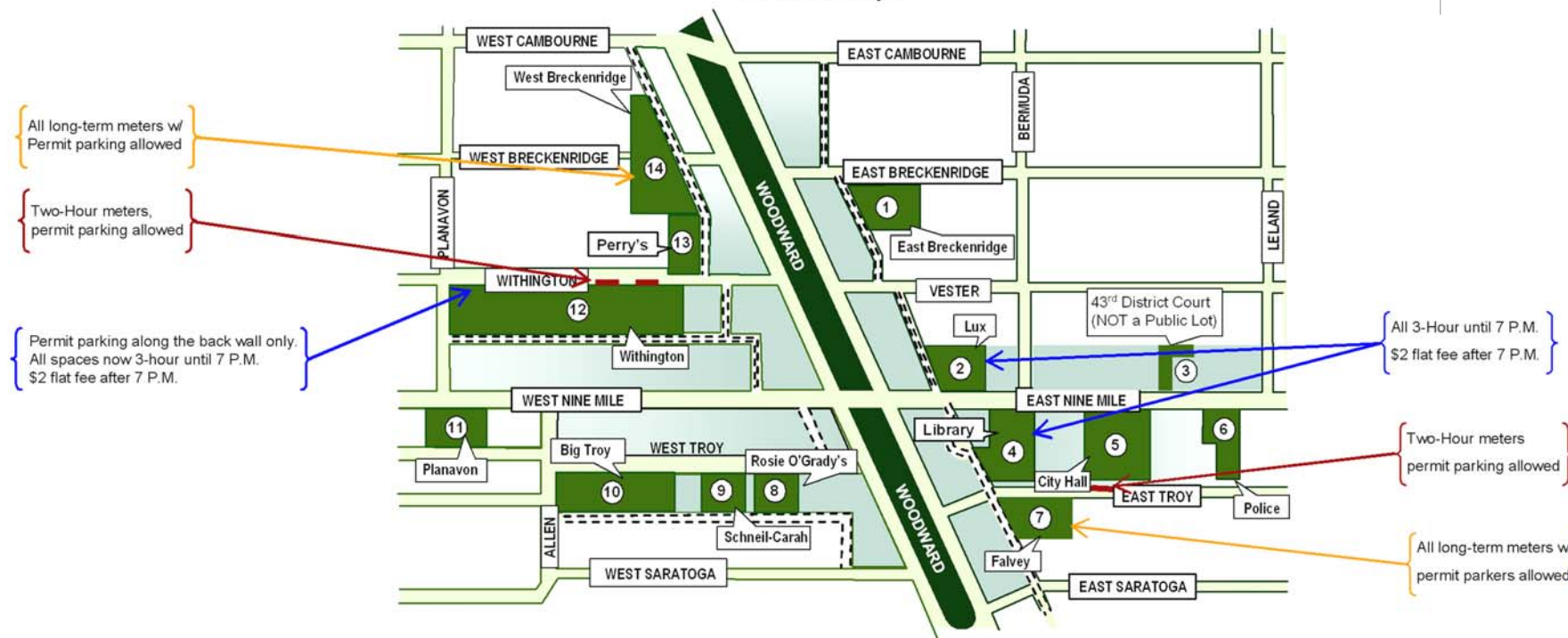
- Withington Lot: - Permit parking is allowed along the back wall only. All spaces are now three hour during the day, \$0.25 per half hour, and after 7:00 pm the lot becomes a \$2 flat fee payment. (New multi-space or pay and display meters will be necessary).
- Library Lot: - Hourly parking only; 3 hour until 7:00 pm, transitioning to \$2 flat fee at 7:00 pm.
- Lux Lot: - Hourly parking only; 3 hour until 7:00 pm, transitioning to \$2 flat fee at 7:00 pm.
- New On-Street Parking Along Withington: - Allow permit parking at these 30, two-hour stalls.
- New On-Street Parking Along East Troy: - Allow permit parking at these 30, two-hour stalls.
- West Breckenridge Lot: - All long-term meters, with permit parking allowed.
- Expanded Falvey Lot: - All long-term meters, with permit parking allowed.

The flat fee after 7:00 pm should be implemented in all off-street parking areas where new multi-space meters are being implemented. The flat fee helps by generating additional revenue from evening activity in Ferndale, equally sharing the burden for paying for parking infrastructure and improvements with all users. On-street parking will need to continue to operate as is with payment until 9:00 pm per the hours of enforcement.

The overall goal of these changes to allocation and fee structure is to encourage employees to park in more remote parking areas. This is particularly important in the late afternoon as employees of the various bars, restaurants and nightclubs arrive for work.

## Downtown Ferndale Public Parking Lots

Parking Meter Rates: \$0.25 per half-hour for on-street parking  
\$0.25 per half-hour for parking lots  
\$2.00 after 7 p.m. (all multi-space meters)  
Hours of Enforcement: 9 a.m. – 9 p.m. Monday – Saturday  
Free on Sundays



\* map from City of Ferndale website

Summary

Cost: Covered under the Sign recommendation.

Benefit: Better parking allocation leads to greater efficiency of the parking system.

Action Time: Spring 2007

Responsibility: City/DDA

Issue Addressed: Underutilization in some parking areas. Better utilization will aid in freeing up parking in lots with high demand.







## Parking Lot Improvements

The function of the parking system depends more on pricing and operations than cosmetic feel or looks of the various parking areas. However, the general perception that a visitor has of a community can be greatly influenced by the landscaping and general up-keep of the parking areas. Parking is one of the first and last experiences that a customer or visitor has when visiting Ferndale.

Rich and Associates recommends that the City's parking areas be improved both cosmetically and functionally. Cosmetically through repairs to the asphalt surfaces and various features of the parking areas and functionally through the use of new control equipment. This recommendation extends to several simple suggestions that will also enhance the safety of the parking area by eliminating potential areas where criminal activity could take place. Good visual site lines through parking areas are very important for effective police monitoring.

Rich and Associates is recommending the use of different parking control equipment in the surface parking lots. On-street parking is well serviced by economical individual space meters. Some communities choose to minimize the visual impact of these meter types by using double head poles and 'antiquing' them by painting both the pole and meter head black. Traditionally, Rich and Associates recommends painting the pole or meter heads varying colors according to the maximum meter duration. However, in Ferndale's case, all of the on-street parking should be a common duration. Therefore, a monochromatic color scheme (antique black) will work well.

Finally, 'multi-space or pay-and-display' types of meters better service surface lot parking areas. The most customer friendly method for controlling parking in a surface lot is through the use of an attended booth operation. However, these types of operations are cost prohibitive and generally not considered practical for small parking areas. Multi-space meters or pay and display meters are economical in a parking lot, easy to enforce and can be adapted to a variety of payment options, validation types or even for use with a combined permit and hourly paid parking area.

Issue Addressed: Meters also control off-street parking areas. A better option for the City would be to consider phasing out the individual space meters in favor of the multi-space meters.

Multi-space meters should be linked via a telephone line in order to connect to a central computer at the DDA offices. Real-time operation audits, accounting and error messages can then be addressed by parking management. The multi-space meter, permit parking overlap and transition to a flat parking rate at a certain hour in the early evening are concept that could be extended to other downtown parking lots.

Multi-Space Meters should be able to accept debit card, cash or credit card. Long-term plans in the downtown could allow for the transition to parking permit cards that can be paid at the multi-space meters by the parkers. This would allow for greater automation of the parking management function.

Linked meters are also able to communicate with one another and parkers are able to pay for their parking at any meter. The individual simply has to remember their stall identification number and enter it into the meter along with the desired duration. The meter will then indicate the parking charge and payment options available.

There are many options available to the City including some multi-space meters that are solar powered. Others require a battery or electrical connection. Multi-space meters are individually capable of handling up

to 999 parking stalls. Therefore, ease of access by pedestrians and an adequate number of stations to prevent delays due to payment line-ups are the main concerns with selecting the number of meters and the locations.

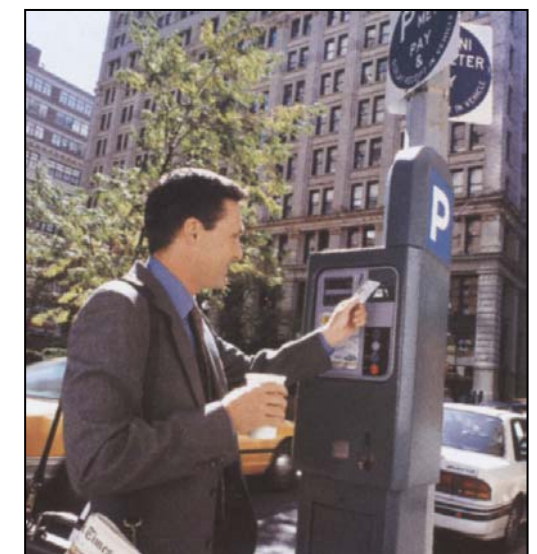
As previously discussed, the meters can range in price and Rich recommends budgeting \$25,000 per meter for purchase and installation. The DDA should ensure that their new equipment is upgradeable and can be linked to a central computer and to hand-held ticket writers for future changes and upgrades to the parking system.

The City of Ann Arbor uses multi-space meters in their Farmers Market lots and recently replaced and upgraded parking equipment. The City of Detroit has installed several pay and display meters. They plan to have 175 by the end of September. In speaking with Mrs. DeBerry (of Detroit MAP) there has been very good feedback from parkers. Detroit began their program with parking ambassadors to help parkers with the new meters, they also included signage to locate and explain how to use the parking equipment. So far the program has been a great success. Other benefits include safer collection, less maintenance, easier for enforcement and less clutter in lots.

The multi-space meters work with handhelds by downloading parking space reports to the officers handheld that in turn allow for the quick identification of parking infractions in the parking lots. Handhelds are capable of tracking the license plate numbers of individuals that have valid parking permits. By tracking permit holders, the officer can avoid giving a ticket to a permit holder who has lost their permit or can issue a ticket to someone who has an invalid permit for their vehicle (i.e. stolen or improperly acquired).



*Multi-Space Meter Pay Station*



*Example of Pay & Display*



Summary

Cost:	Budget \$10,000 for meter revisions and painting of on-street parking and \$25,000 for each multi-space off-street meter. Multi-space meters can handle up to 999 parking stalls. Therefore walking distance is the dominant factor in the number of meters needed.
Benefit:	Parking efficiency is maximized through simplicity. Long-term parking takes place in lots where permits and hourly parking can be utilized. Short-term parking is located on the streets near the business where it is needed the most for customers and visitors.
Action Time:	Spring 2007 – ongoing for off-street lots.
Responsibility:	City/DDA
Additional Comments:	The off-street lots can be phased in stages to offset equipment costs. Multi-space meters that are linked by telephone lines to a central computer and can communicate with the handheld ticket writers will improve accounting and operations for the City’s parking system.

Lot Renovations

Troy Street Lot

Renovate the Troy Street lot by repaving and painting where necessary. Also, consider upgrading landscaping and lighting.

- Remove old unused parking meter posts that have exposed sharp metal ends creating a liability for the city.
- Update lighting and landscaping.
- This lot should be the first lot to have multi-space meters (2 needed). Many meters in this lot need repainting. Even if this lot is sold for development the multi-space meters can be moved and used in another lot.

Summary

Cost:	Budget \$1,500 per parking stall.
Benefit:	Improved safety and cleanliness adds to the visitors’ experience in Ferndale. Easier to maintain lot equipment with less meter heads, the lot is also easier to enforce.
Action Time:	Summer 2007.
Responsibility:	DDA/City
Additional Comments:	Public parking areas represent a considerable portion of the public space available in the downtown area and present an opportunity for the DDA/City to make improvements that benefit the visual appeal of the whole City.







*Withington Lot*

- This Withington lot now has three entrances, the entrance and exit off of nine mile should be closed and a pedestrian area should be created to further encourage the use of this parking lot. This entrance is dangerous because of the blind corner and lack of sidewalk connection around the lot. This will also help with congestion created near the intersection of Nine Mile and Woodward. There are not many people using this entrance now and deliveries will not be hindered, they will enter off Withington or off Planavon and use the alley.

Summary

Cost:	Budget \$10,000- \$50,000 depending on landscaping.
Benefit:	Improved safety and cleanliness adds to the visitors' experience in Ferndale. This improvement will help create a more pedestrian friendly downtown as well as cut down on congestion.
Action Time:	Summer 2007.
Responsibility:	DDA/City
Additional Comments:	Public parking areas represent a considerable portion of the public space available in the downtown area and present an opportunity for the DDA/City to make improvements that benefit the visual appeal of the whole City.

*Examples of entrance to Withington off Nine Mile  
(potential pedestrian traffic only):*



*Withington Lot*



*Entrance to Withington Lot off of Nine Mile*





### Bicycle Parking/Enhancements

Issue addressed: Making Ferndale a more bicycle friendly downtown and providing adequate and useable bicycle parking.

- Connect the existing bike routes from Hilton Road and Pinecrest to the downtown and create a marketing program to promote bicycle use as an alternative to driving.
- Install new bicycle racks in the downtown and institute a marketing program to promote new locations to park bicycles (see Map 19, page 5-4). There are currently bicycle racks in the downtown though they are very difficult to find. There is a large rack at the library, one at the Police station and three in the downtown area. Western Market has a private rack for customer use only.



Library bike rack

- Racks should allow bike frame to make contact at two points.



Two examples of recommended bike racks



- Should allow for more than one bike per rack.
- Needs to allow for popular “U” shape lock.
- Racks should be placed where they will not impede upon pedestrian traffic, though need to be readily identifiable.
- Should be clearly signed with a bicycle parking sign.



- Create a special event to promote bicycles in effort to help create alternative modes of transportation, which in turn cuts down on the number of parking spaces needed.
  - There is National “Ride Your Bike To Work Day/Month” (some communities depending on location change the dates) in May. There are several communities throughout the U.S. that participate. Information can be found through the League of American Bicyclists [www.bikeleague.org](http://www.bikeleague.org).
  - Bicycle Friendly Community Campaign ([www.bicyclefriendlycommunity.org](http://www.bicyclefriendlycommunity.org)) awards communities who are bicycle friendly and promote walk-able, safe communities.

“Communities that are bicycle-friendly are seen as places with a high quality of life. This often translates into increased property values, business growth and increased tourism. Bicycle-friendly communities are places where people feel safe and comfortable riding their bikes for fun, fitness, and transportation. With more people bicycling, communities experience reduced traffic demands, improved air quality and greater physical fitness”  
[www.bicyclefriendlycommunity.org](http://www.bicyclefriendlycommunity.org)

### Summary

Cost:	Budget \$25,000 to connect the bicycle trail to the downtown, acquire new bike racks/lockers and to initiate annual events aimed at bicycle advocacy.
Benefit:	As mentioned, bicycle friendly communities draw people and activity into the downtown areas, promoting economic and social activity. A vision for Ferndale shared by the community.
Action Time:	Spring 2007.
Responsibility:	DDA/City/County/State of Michigan
Issue Addressed:	Alternatives help reduce parking dependency during peak need times (summer events) and help to promote the community as a great place to live and work.
Additional Comments:	Investigate State and Federal funding sources for bicycle initiatives. Multi-modal efforts are endorsed through several grant programs including Next-TEA (US Federal – Revised, Transportation Equities Act).



## **Pedestrian Activity**

Pedestrian movement is a field of study on its own. However, it is an important consideration in Ferndale as East-West pedestrian activity across Woodward Avenue is generally considered to be prohibitive to maximizing shared parking between the East and West sides.

Rich and Associates recommends that consideration be given to consulting further with a specialty firm that can assist the City and the Michigan Department of Transportation in maximizing the pedestrian activity across Woodward at Nine Mile Road. Rich and Associates recommends that the City consider retaining John LaPlante of TY Lin International. John is considered one of the leading US experts in downtown pedestrian activity.

## **Signs**

The City is lacking overall in a comprehensive and coordinated sign program. There are parking wayfinding signs in Ferndale though they are not all the same shape, color or text. The signs do not lead all the way to the parking areas. There are several lots especially on the east side of Woodward that do not have Location/Identification signs, telling where a parker he/she is in downtown and what types of parking are permitted.

There are four fundamental signs for wayfinding. Beginning with introduction signs that designate a symbol and color to look for when seeking a parking area. The next level of signs assists people to find the downtown area. Location and directional signs direct people once downtown to specific areas or districts. Districting or branding areas within the downtown is an excellent method of achieving unique concentrations of business types.

Identification and location signs are used at the entrance to specific parking areas to indicate the name of the parking (all parking areas should have a unique designation, such as a name and color to help visitors and customers to orient themselves and remember where they parked). Identification and location signs are commonly combined to create one sign thus reducing the number of signs. Parking area identification should also include a concise description of who can park there, how much it will cost and for how long they can park.

Way finding is the final sign type. Way finding can be thought of on two levels, one for vehicles and the other for pedestrians. The signs described above are directed at vehicle way finding. Pedestrian way finding is also important, even in small urban areas, to provide individuals with a sense of orientation and comfort in the downtown area.

- Rich and Associates recommends four types of parking signage that increases drivers' way finding experience. These include: direction, location, identification, pedestrian wayfinding.



*Directional Signage*



*Location & Identification*



*Pedestrian Wayfinding*





Ferndale has good Location and Identification signs as well as Direction signs, though there are disconnects in areas. The pictures of identification signs below show Ferndale is using three different types of signs to identify parking areas. A consistent color scheme and text should be used in all parking wayfinding signs.



*Parking signs need to be consistent in shape color and text.*

What Ferndale is missing is Way Finding. These signs direct a customer/visitor to their destination. The maps could simply be a map of downtown destinations, including shops, restaurants, theaters and civic buildings. The importance of these signs is to make a parker comfortable in the surroundings and quickly get their bearings on their location.

Summary

New Sign	
Program Cost:	Budget \$25,000 to \$150,000 for the development, acquisition and installation of a comprehensive new sign program.
Benefit:	Customer/visitor experience of Ferndale will be greatly enhanced by a comprehensive new sign program, as will the overall perception of Ferndale as a quality destination place.
Action Time:	Spring 2007 (on-going).
Responsibility:	DDA/City
Issue Addressed:	Existing signs.
Additional Comments:	Consider contracting with a sign design specialty firm to aid Ferndale in developing a unique and quality sign program. Consider the associated costs as an investment with long-term results that will champion Ferndale's image.

In the Withington Lot there are new cut outs in the wall allowing pedestrian traffic in and out.

Rich and Associates recommends the removal of the “No Parking Signs” on posts and replacing those signs with yellow striping. This will help de-clutter the lot by removing unnecessary signage.

Summary

Cost:	Minimal.
Action Time:	Immediate
Responsibility:	City



*current*



*recommendation*







**Marketing**

Marketing is one of the most important aspects of a successful parking system. Marketing should be used every time there is a change to the parking system and should be directed towards downtown employees and customers/visitors. It is very important to help encourage downtown employees to park in the long-term parking areas to preserve the on-street and short term parking for customers and visitors. Additionally, an individual’s perception of Ferndale is greatly enhanced if they know ahead of time where they can park and what it may cost.

For customer/visitors the issues are “getting the word out” on where parking is available, especially giving people options to on-street parking. This should include locations of public parking lots, parking rates and times of operation. Additionally, letting customers/visitors know the parking regulations and fines is also important.

Marketing materials that can be considered are; direct mailings, brochures, maps, on-line web pages or articles in magazines. Information contained in the marketing material should include location, up-coming changes, pricing, regulations, fine payment options and any other information relating to the parking system.

Issue Addressed: Employee parking on-street and in the short term customer stalls, as well as the general misconception by downtown employers that these areas reserved for customers should be used by employees. Additional marketing of customer/visitor parking such as locations, rates, hours of operation are important.



Summary

- Cost: Budget \$7,000-\$10,000 per year for on-going marketing efforts.
- Benefit: Customer/visitor experience of Ferndale will be greatly enhanced. Also helps to encourage employees to park in long-term lots, providing a greater effective supply of parking for customers and visitors
- Action Time: Spring 2007 – ongoing monthly.
- Responsibility: City/DDA
- Additional Comments: Consider combining parking information with other promotional and downtown publications to help lower costs and reach a larger audience.

# Section 5:

## New Parking





# New Parking

As demonstrated in Section 2, Ferndale does have a shortfall of available parking. Due to the pedestrian barrier presented by Woodward Avenue and the linear nature of development along Nine Mile, two distinct zones or parking service areas emerge where additional parking may need to be considered. **Zone One** is west of Woodward from Saratoga to Camborne, along Nine Mile to Livernois. **Zone Two** is east of Woodward from Saratoga to Camborne, along Nine Mile to Paxton.

Table 5A  
Current Parking Shortfall Summary

	Summer		Winter	
	Day	Night	Day	Night
Zone One	-3	-176	+4	-164
Zone Two	-73	-134	-22	-37
Sum	-76	-310	-18	-201

## Zone One:

This zone contains a great deal of retail and restaurant uses. Current projections show this area to only have a slight shortfall of parking. However, the new Affirmations Community Center will have a significant impact on parking demand in the area. Once this facility is open in early 2007, parking demand for Zone One is projected to increase to a net parking shortfall of -227 stalls during the day and -306 stalls in the evening. There are four potential locations for additional parking in Zone One.

**Site A:** - Is the existing City parking area located behind Boogie Fever. As the lot is currently configured, it could not support structured parking, without property acquisition. Other sites have a greater viability as structured parking locations and are therefore preferable.

**Site B:** - Is the City’s Withington parking lot. This lot is large enough to consider for a parking structure adequate to meet the parking needs of Zone One. Also, the site has efficient existing traffic and pedestrian access. In order for this site to be developed as structured parking, it will be necessary to resolve issues associated with deliveries to buildings and with potential encroachment on the alley and utility corridor. This site allows a structure to be constructed on the east side of the property providing room for expansion to the west. This would also provide parking closest to the demand.

**Site C:** - Is the Troy Lot located on Troy and Allen Street. This City parking lot is also large enough to consider for a parking structure, as long as the alley can be fully utilized. However, the traffic flow at the Troy and Allen intersection would require evaluation and potential improvement in order to accommodate additional parking at this site.

**Site D:** - Is the Rosie O’Grady Lot located on Troy Street. This City parking lot has been identified as a potential new parking structure location in conjunction with the construction of a new Rosie O’ Grady Restaurant. The site is large enough to accommodate a parking structure. However the site dimensions are limited. Further examination of the site as new parking requires finalization of site planning for the new restaurant.

Table 5B  
Potential New Parking Location Comparison

Zone One				
	Feasibility	Potential Stalls	Cost To Build	Comments
Site A	No, would require property acquisition to provide adequate site dimensions.	Current configuration.	N/A	
Site B	Yes.	300 or more depending on length. A 300 stall structure would yield a net add of 168 stalls (300 less 132 existing = 168 new parking stalls) Height restricted to 45 feet, with a 15-foot setback above the 3 <sup>rd</sup> floor.	Budget \$14,500 per stall for construction costs.	This parking area is centrally located to most demand and is the best Zone One location for additional parking.
Site C	Yes, site has been identified in the past for potential joint public / private project.	Up to 400 stalls. Mixed use or commercial ground floor would reduce capacity (up to 16,000 s.f possible). Maximum of 70 feet, with 15-foot setback above the 3 <sup>rd</sup> floor.	Budget \$14,500 per stall for construction costs plus commercial space.	Site is relatively central to demand generators and is a logical place to build new parking. Traffic issues will need to be addressed.
Site D	Yes, site has been identified for a potential public / private joint venture. Site size however restricts possible structure capacity.	Depends on new configuration and relocation of Rosie O’ Grady’s	Budget \$16,500 per stall to accommodate restricted site dimensions, plus any commercial space.	New parking at this location will most likely only yield a small amount of new parking for public use.







**Zone Two:**

This area contains various restaurants, varying office types, retail uses, as well as mixed use. Current projections show this area to only have a slight shortfall of parking. However, there are a number of restaurant establishments that use outdoor patio and seating areas. These outdoor patios change the parking demand considerably between the summer and winter. There are three potential locations for additional parking in Zone Two.

Site E: - Is the existing East Troy City parking area. This lot is small and impractical to consider as a potential location for new structured parking without the acquisition of additional property. Other Zone Two sites have greater viability.

Site F: - Is the site containing the Library and City Hall as well as the two parking lots for each building. Two parking areas are identified here as this entire site has been identified as a potential redevelopment location for a new Library and City Hall building project. The new development would also include a parking structure that would service the local business and government complex.

Site G: - Is a combination of both a private parking area and a public parking area. Individually these two lots are not large enough to be considered for a parking structure site. However, when combined they can form a property large enough to accommodate the minimal site dimensions for a new parking structure.

**Zone Three:**

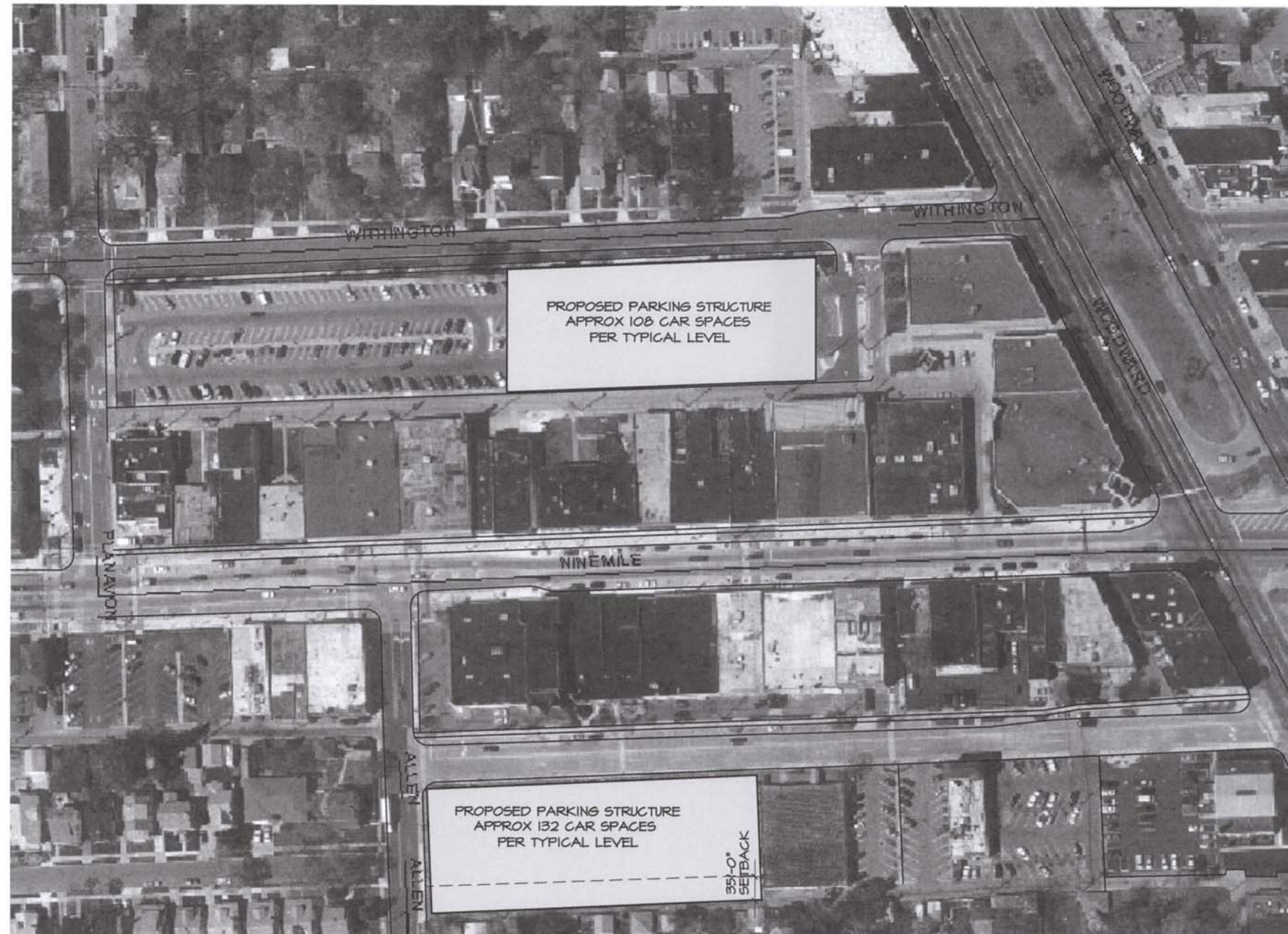
Although not a parking zone, we refer to all of the remainder of the downtown area (along Woodward and Nine Mile) as Zone Three. This area is relatively balanced and Rich and Associates is only recommending the operational improvements cover in **Section 4** and the addition of on-street parking along Nine Mile Road between Livernois and Pinecrest Street.

**Table 5C  
Potential New Parking Location Comparison**

Zone Two				
	Feasibility	Potential Stalls	Cost To Build	Comments
Site E	<b>No</b> , would require the aggressive acquisition of additional property. Best as a surface lot configuration.	N/A	N/A	This parking area should be consolidated as public parking, relayed out per Rich and Associates recommendation.
Site F	<b>Yes.</b>	Depends on new building and parking configuration	Budget \$14,500 per stall.	Best option for Zone Two. Parking needs to be as close as possible to Woodward to maximize benefit.
Site G	<b>Yes</b> , public / private venture potential.	Depends on layout, up to 500.	Budget \$14,500 per stall.	Preferable as a possible future project to support new future development projects.



## POTENTIAL OPTIONS FOR ADDITIONAL PARKING

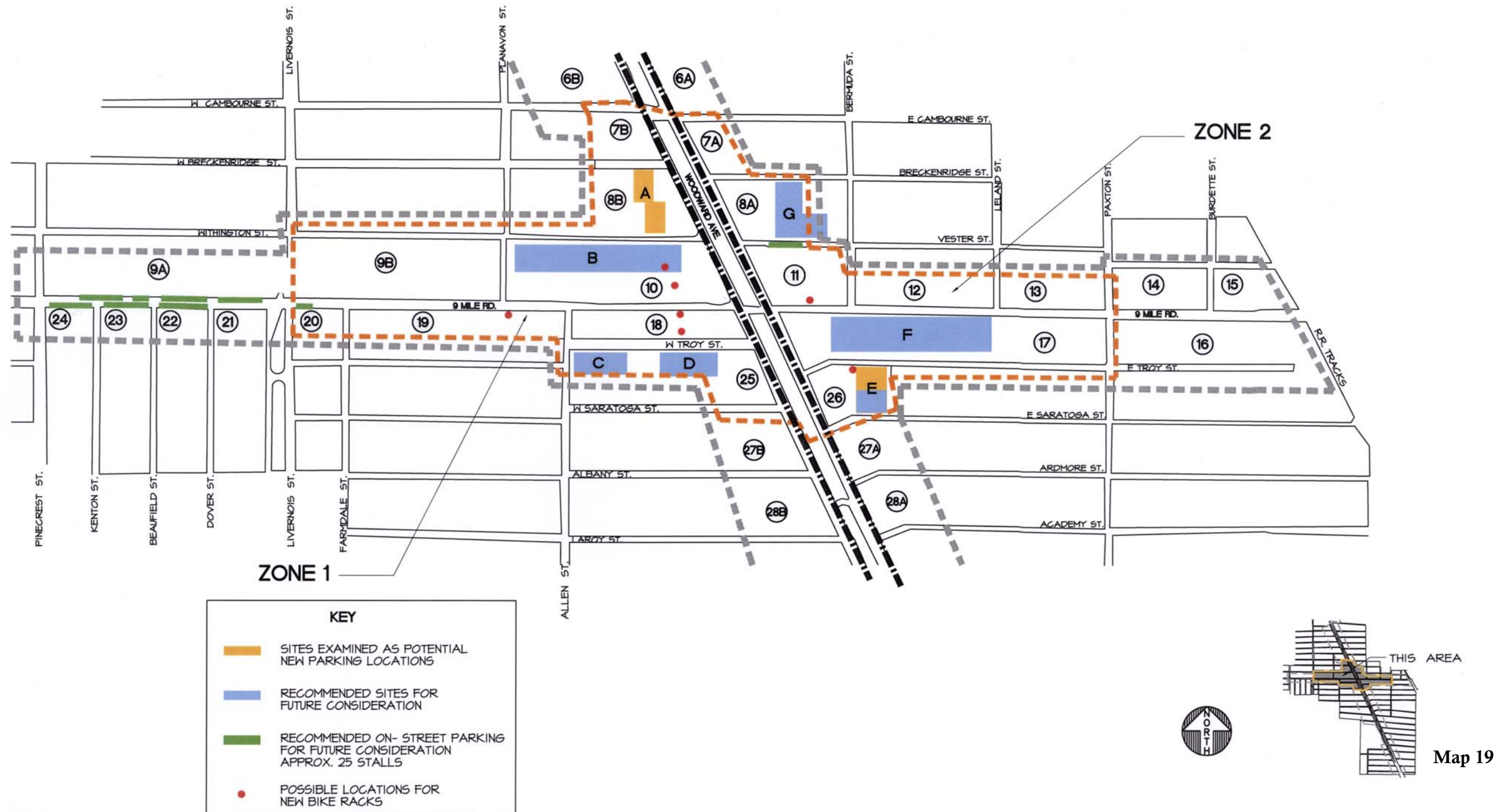


Drawing 1





## POTENTIAL OPTIONS FOR ADDITIONAL PARKING







### **Additional New Parking:**

Rich and Associates is recommending that the City consider adding both off-street parking and on-street parking to address the parking shortfalls in Zone One and Zone Two.

First, consider expanding the on street parking along Nine Mile west of Livernois. This on-street parking will help local businesses by providing high value on-street parking. Road geometrics will need to be reviewed to determine the optimal locations for on-street stalls. These stalls should be the same as the rest of the on-street parking by being two-hour metered stalls.

Second, consider acquiring private parking adjacent to public lots that can add to the public supply. The public lot located south of Troy and east of Woodward (Lot #7) could be expanded south to encompass the adjacent private parking area. This would add to the public parking supply and create greater opportunity for shared use of parking.

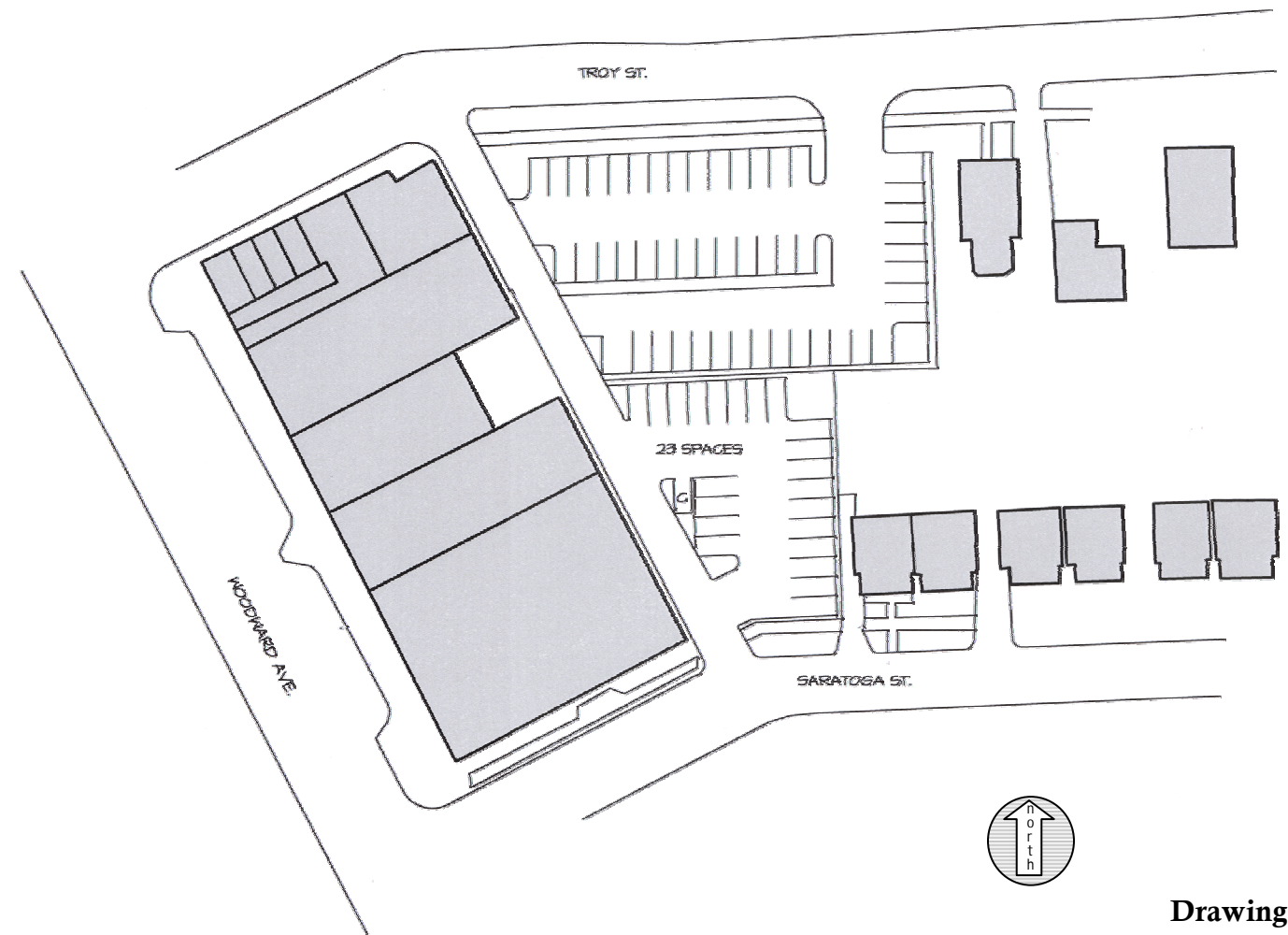
Third, consider adding a parking structure to both Zone One and Zone Two. Currently the best location for new parking in Zone Two is the Library lot. However, the potential plans to build a new municipal complex need to be addressed and formalized in conjunction with any new parking scheme for Zone Two.

Zone One has several opportunities for new parking. The Rosie O' Grady's parking area has been previously discussed as a potential new parking structure location. Plans for this site are still being reviewed and discussed. Ultimately, it is unlikely that this site would contain enough parking to alleviate local parking shortages. Therefore, other alternatives need to be considered regardless of plans for this site.

Two other options include a structure on the Withington Lot or the Troy Street Lot. Either site is well located and large enough to suite local parking demand. The Troy site has also been identified for potential new parking in conjunction with a commercial and/or residential project. Ground floor commercial space is generally highly desirable in downtown settings. Additionally, this site's height allowance of 70 feet would allow for the possibility of residential uses on top of a parking structure. Such a project would be best suited to a joint public/private venture.

The Withington site is also desirable as a potential new parking area. The site is narrow, but could accommodate a structure. Commercial space on the ground floor is less desirable here do to the neighboring residential area and this site is best suited to stand alone parking. Height restrictions and staggered setback regulations applicable to this site also inhibit design and size possibilities. New structured parking at this location should be developed solely publicly and operated as public parking.

### **POTENTIAL OPTIONS FOR ADDITIONAL PARKING**



**Drawing 2**



Project and Finance Cost Worksheet:

For the purposes of demonstrating a potential parking structure project, Rich and Associates prepared a project and finance cost worksheet that illustrates a potential 300 parking stall structure. The cost estimate is hypothetical, but is intended to demonstrate the various costs associated with designing and building a parking structure. The sheet continues by outlining how financing would work for a general obligation bond.

A GO or general obligation bound is a debt instrument that can be issued by a City, the repayment of which is backed by the communities tax revenues. GO bonds are typically the lowest interest option for a public project; additionally projects for the public are usually tax exempt.

Definitions:

- Construction Costs: Based on average costs per space and ranged from \$14,500 to \$16,000 per space (using updated 2005 costs). This cost assumed an architectural façade that was not a plain concrete surface, but at a minimum included some brick. The costs also included a security system but no parking and revenue control equipment.
- Professional Fees: These are the design fees and assume a conventional design/bid scenario.
- Testing: This covers testing during construction.
- Geo-Tech and Survey: Fees for a survey and topographical of the site and soil borings and report on foundations.
- Legal and Accounting: The legal and accounting costs for the City/DDA during the course of construction.
- Contingency: Rich has used a 10% contingency for the design and construction to cover design issues and issues during construction.
- Project Costs: Project costs represent the construction hard and soft costs.
- Finance Term: The term of the bond is 25 years. A shorter amortization schedule is also possible.
- Interest Rate: Based on an un-rated bond issue with no insurance and rates as of the fourth quarter of 2005. The rate assumed a general obligation type bond issue.
- Term of Construction: The construction period is estimated at 1 year, though depending on the site and configuration this may be shorter.
- Interest During Construction: All bond proceeds are received up front and draws are made on these funds to pay for construction. This represents capitalized interest for the term of construction.
- Interest Income: The bond proceeds are put into an interest bearing account and generates interest income that is used to offset costs.
- Legal and Accounting Fees: These are the legal fees and accounting fees of the issuer.
- Debt Service Reserve: No debt service was assumed.
- Financing Fees: These are the points paid to the bond underwriter.
- Cost of Issuance: These are expenses such as printing of official statements.
- Total Financing Fees: Total soft costs for financing.
- Total Amount of Bonds: Total amount of debt issued.
- Debt Service: The annual principal and interest payment assuming a level payment each year.

The 300-stall example has a total project cost of slightly more than \$5 million dollars. If issued as a GO over 25 years at an interest rate of 5.5%, the annual debt service is \$421,000. The project cost is based on \$14,500 per parking stall. However, more complex designs required for small sites or parking structures that have commercial space typically cost more per stall. Construction cost ranges for recent Michigan parking structures range from \$10,000 per stall to \$25,000 per stall.

Table 5D  
CITY OF FERNDALE  
PROJECT AND FINANCE COSTS  
300 SPACE PARKING STRUCTURE TROY STREET (SITE C)

1	Construction Cost	300 x \$14,500	\$4,350,000
2	Professional Fees (Architectural/Engineering & Reimbursed)		\$239,000
3	Testing		\$40,000
4	Geo-Tech and Survey		\$20,000
5	Legal and Accounting		\$15,000
6	Site Preparation		\$50,000
7	Contingency		\$450,000
8	Project Cost to be Financed		\$5,164,000
9	Financing Term	25 Years	
10	Interest Rate	5.5 %	
11	Term of Construction	12 Months	
Financing Costs			
12	Interest During Construction		\$311,000
13	Interest Income	40% @ 1.0%	(\$23,000)
14	Legal & Accounting Fees	@ 1.00%	\$57,000
15	Debt Service Reserve		NA
16	Financing Fees (Points)	2.00%	\$113,000
17	Cost of Issuance	@	\$28,000
18	Total Financing Costs		\$486,000
19	+ Project Cost to Be Financed		\$5,164,000
20	Total Amount of Bonds		\$5,650,000
21	Debt Service		\$421,000



**Pro-Forma Worksheet:**

Rich and Associates also prepared a revenue and expense pro-forma (**Table 5G**) that demonstrates, hypothetically, how parking system revenues would help to pay for new parking. The worksheet uses the existing parking system revenue, which is projected forward for 15 years.

The parking occupancy and use is assumed to be constant and the rates are increased in 2007 and again in 2011 to illustrate the suggested parking rate increases. These rate increases are necessary for two reasons. First, additional revenue will be needed to pay for a new parking structure. The existing revenues and rate structure cannot support the annual debt service payment of almost \$500,000. A relatively modest rate increase combined with the enforcement efforts previously covered in this report should allow the parking system to generate an adequate revenue stream to cover the annual debt service for a new parking facility.

Secondly, the current parking rates charged in Ferndale are below the market rates charged in neighboring communities. This is particularly true with regard to evening activity, where users enjoy free parking for the most part. In effect, Ferndale’s public parking system shifts the burden for paying for parking onto downtown employees, daytime customers and tax payers. Individuals who enjoy Ferndale’s evening amenities’ should also be sharing the cost of the parking system. Rich and Associates is suggesting that on-street meters need to be paid until 9:00 pm and that the City implement a flat fee structure for evening parking in the City’s parking lots. The flat fee introduction will hinge on the installation of new parking control equipment that is capable of varying rates by time of day.

The expenses indicated reflect the existing expenses including enforcement, repairs, equipment and other maintenance related costs. Expenses for pro-forma’s are based on actual cash flows and do not include depreciation. The potential revenue for a new structure is also indicated. Revenue is calculated using the same parameters as the existing parking system, including the existing parking rates increased in five year intervals by 10%.

**Parking Rate Increases & Discussion:**

As covered in the above pro-forma section, Rich and Associates is recommending that the City of Ferndale consider increasing the parking rates. In **Table 5F** the suggested rate increases are outlined for 2007 and 2011. Typically, rate increases for parking are timed to occur between three and five years apart and are matched to inflation and/or the local market for parking.

Incremental rate increases can present difficulties with adjusting older individual space meters as these devices require a mechanical upgrade to adjust for time variations or payment amounts. Additionally, rate increases need to be made in light of convenient payment options for customers. Therefore, typical rate increases for meters are in \$0.25 increments. The easiest way to achieve this is to reduce the amount of time that one quarter (\$0.25) purchases at a meter head (ex. \$0.25 for one hour reduced to \$0.25 for one-half hour).

Electronic individual space meters and other types or multi-space meters that have an internal computer are easy to adjust for time variations and fee increases. These devise are simply re-programmed as needed for changing parking rates. The on-board computer also allows for the functionality of having a different rate structure occur by time of day.

For example, Rich and Associates is recommending that the City of Ferndale introduce an evening flat fee for parking starting at 7:00 pm. This flat fee would then allow individuals attending evening entertainment venues in the City to park for a one time fee that would allow them to remain parked until the next day.

Rich and Associates recommends that the City adopt the flat fee structure and allow patrons to park until at least 9:00 am the next morning in off-street parking lots. Although, this may make cleaning and snow removal more difficult, it is also important to not make an individual who may have consumed alcohol feel obliged to drive.

The use of multi-space or pay by space meters with an onboard computer can easily be programmed to accommodate the transition from hourly parking during the day to a flat fee rate structure for the evening. This way a patron who arrives after 7:00 pm can simply and very conveniently pay the flat fee for parking as soon as they park and not have to give parking a second thought.

Daytime parking would remain the same operating method with a combination of hourly parking and the use of permits, per the rates suggested below. Rich and Associates recommends that the City of Ferndale consider transitioning to hang-tag or window sticker style permits. These permits can be acquired with anti-forgery aspects such as hollow grams, bar codes and serial number identification.

An important aspect of the use of hand-held ticket writers is the ability to uses bar code readers to identify parking permit validity and vehicle assignment. Specifically, the handhelds can be outfitted with bar code readers that can quickly read the permits bar code and identify for the officer whether the permit is valid and the license number of the vehicle that the permit is assigned to. Revised permit administration and the use of handheld ticket writers is cover in the **Section 4** of this report.

**Table 5F – Suggested Parking Rates For Ferndale**

	Current	2007	2011
Hourly Parking Rate	\$0.25	\$0.50	\$0.75
Monthly Parking Rate	\$30	\$30	\$36
Evening Flat Fee	n/a	\$2.00	\$4.00







Table 5G – Revenue and Expense Pro-Forma

	FY 2006 (1)	FY 2007*	FY 2008	FY 2009	FY 2010	FY 2011*	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
<b>Suggested Parking Rates</b>	(current)																				
Transient Hourly Parking (on & off street)	\$0.25	\$0.50	\$0.50	\$0.50	\$0.50	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75
Monthly Permit Rate (off street)	\$30	\$30	\$30	\$30	\$30	\$36	\$36	\$36	\$36	\$36	\$36	\$36	\$36	\$36	\$36	\$36	\$36	\$36	\$36	\$36	\$36
Evening Flate Rate (off-street)	n/a	\$2.00	\$2.00	\$2.00	\$2.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00
<b>Current Revenue (1):</b>																					
1 On-Street	\$81,405	\$113,906	\$151,875	\$151,875	\$151,875	\$189,844	\$227,813	\$227,813	\$227,813	\$227,813	\$227,813	\$227,813	\$227,813	\$227,813	\$227,813	\$227,813	\$227,813	\$227,813	\$227,813	\$227,813	\$227,813
2 Off-Street	\$312,320	\$497,150	\$597,800	\$597,800	\$597,800	\$869,250	\$994,300	\$994,300	\$994,300	\$994,300	\$994,300	\$994,300	\$994,300	\$994,300	\$994,300	\$994,300	\$994,300	\$994,300	\$994,300	\$994,300	\$994,300
3 Permits	\$38,275	\$38,275	\$38,275	\$38,275	\$38,275	\$45,930	\$45,930	\$45,930	\$45,930	\$45,930	\$45,930	\$45,930	\$45,930	\$45,930	\$45,930	\$45,930	\$45,930	\$45,930	\$45,930	\$45,930	\$45,930
4 Misc. Rental/Valet Income	\$382	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5 Misc. Interest Income	\$10,400	\$9,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6 <b>Total Revenue</b>	\$442,782	\$658,331	\$787,950	\$787,950	\$787,950	\$1,105,024	\$1,268,042	\$1,268,042	\$1,268,042	\$1,268,042	\$1,268,042	\$1,268,042	\$1,268,042	\$1,268,042	\$1,268,042	\$1,268,042	\$1,268,042	\$1,268,042	\$1,268,042	\$1,268,042	\$1,268,042
7 <b>Proposed Expenses</b>	\$420,320	\$749,899	\$370,145	\$383,101	\$396,509	\$410,387	\$424,750	\$439,617	\$455,003	\$470,928	\$487,411	\$504,470	\$522,127	\$540,401	\$559,315	\$578,891	\$599,152	\$620,123	\$641,827	\$664,291	\$687,541
8 <b>Net (Revised System)</b>	\$22,462	(\$91,568)	\$417,804	\$404,849	\$391,441	\$694,637	\$843,292	\$828,426	\$813,039	\$797,114	\$780,631	\$763,572	\$745,916	\$727,641	\$708,727	\$689,151	\$668,890	\$647,920	\$626,215	\$603,751	\$580,501
<b>Revenue (New Structure)</b>																					
9 Transient (hourly)	\$0	\$95,000	\$95,000	\$95,000	\$95,000	\$142,500	\$162,500	\$162,500	\$162,500	\$162,500	\$162,500	\$162,500	\$162,500	\$162,500	\$162,500	\$162,500	\$162,500	\$162,500	\$162,500	\$162,500	\$162,500
10 Monthly	\$0	\$28,800	\$28,800	\$28,800	\$28,800	\$31,680	\$34,560	\$34,560	\$34,560	\$34,560	\$34,560	\$34,560	\$34,560	\$34,560	\$34,560	\$34,560	\$34,560	\$34,560	\$34,560	\$34,560	\$34,560
11 <b>Total Revenue</b>	\$0	\$123,800	\$123,800	\$123,800	\$123,800	\$174,180	\$197,060	\$197,060	\$197,060	\$197,060	\$197,060	\$197,060	\$197,060	\$197,060	\$197,060	\$197,060	\$197,060	\$197,060	\$197,060	\$197,060	\$197,060
12 <b>Expenses</b>	\$0	\$60,000	\$62,100	\$64,274	\$66,523	\$68,851	\$71,261	\$73,755	\$76,337	\$79,009	\$81,774	\$84,636	\$87,598	\$90,664	\$93,837	\$97,122	\$100,521	\$104,039	\$107,681	\$111,449	\$115,350
13 <b>Total Net Revenue</b>	\$0	\$63,800	\$61,700	\$59,527	\$57,277	\$105,329	\$125,799	\$123,305	\$120,723	\$118,051	\$115,286	\$112,424	\$109,462	\$106,396	\$103,223	\$99,938	\$96,539	\$93,021	\$89,379	\$85,611	\$81,710
14 Total Net Revenue	\$22,462	(\$27,768)	\$479,504	\$464,376	\$448,718	\$799,965	\$969,091	\$951,730	\$933,762	\$915,165	\$895,918	\$875,996	\$855,377	\$834,037	\$811,950	\$789,089	\$765,429	\$740,940	\$715,595	\$689,362	\$662,211
15 Debt Service	\$0	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000	\$421,000
16 Repair and Replacement	\$0	\$20,200	\$21,210	\$22,271	\$23,384	\$24,553	\$25,781	\$27,070	\$28,423	\$29,845	\$31,337	\$32,904	\$34,549	\$36,276	\$38,090	\$39,995	\$41,994	\$44,094	\$46,299	\$48,614	\$51,044
17 <b>Surplus/Deficit</b>	\$22,462	(\$448,768)	\$58,504	\$43,376	\$27,718	\$378,965	\$548,091	\$530,730	\$512,762	\$494,165	\$474,918	\$454,996	\$434,377	\$413,037	\$390,950	\$368,089	\$344,429	\$319,940	\$294,595	\$268,362	\$241,211

(1) - Revenue Numbers From Existing System Are Estimated  
Expenses include actual cash flow, depreciation is not included.  
\* Years with suggested rate increases. Future rate increases typically are undertaken every three to five years to match inflation.

# Section 6:

## Appendix







## Appendix A

On-Street Parking Totals	506
Public Off-Street Parking Totals	<u>976</u>
<b>Public Parking Totals</b>	<b>1482</b>
Private Parking Totals	2867
<b>Total Parking in Study Area</b>	<b>4349</b>

6-1  
*Final Report-November, 2006*





City of Ferndale  
Downtown Parking Study

Ferndale Parking Analysis Spreadsheet Winter

Appendix B

A	B	C	D	F	G	H	I	J	K	L	M	N	O	P	P	Q	R	S	T	U	V	W	X	Y	Z	AA
Block	Office	Medical Office	Retail	Service	Mixed Use	Restaurant /Bar	Night Club	Residential	Commercial	Hotel	Community & Civic Org.	Church	Gov.	Bowling Alley	Movie Theater	Vacant	Demand (current) Day	Demand (current) Night	Future Adjust. *	5 yr. Peak Demand	10 yr. Peak Demand	Parking Supply	Surplus/ Deficit (current)	Surplus/ Deficit (current)	Surplus/ Deficit (5 years)	Surplus/ Deficit (10 years)
Daytime	3.33	3.76	2.74	3.76	2.81	8.13	0.76	1.00	2.81	0.98	0.60	0.60	3.50	(per lane) 0.15	(per seat) 0.15	2.81										
Nighttime	0.09	2.19	1.28	1.81	1.63	13.79	17.20	1.50	1.63	0.98	2.60	0.60	0.09	3.47	0.38	1.63			*					Day	Night	
Block #1A	8,987	0	5,472	8,086	0	0	0	0	0	0	0	0	0	0	0	0	75	22	0	75	75	61	-14	-37	-14	-14
Block #1B	5,833	1,864	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	5	0	26	26	19	-7	-12	-7	-7
Block #2A	0	7,750	0	0	0	2,565	0	0	4,329	0	0	0	0	0	0	0	62	59	0	62	62	41	-21	-81	-21	-21
Block #2B	0	0	9,860	0	0	0	0	4,930	0	0	0	0	0	0	0	0	32	20	0	32	32	45	13	-7	13	13
Block #3A	1,939	0	4,036	1,595	0	0	1,595	0	5,057	0	0	0	0	0	0	3,537	39	44	10	43	47	34	-5	-49	-9	-13
Block #3B	0	0	0	0	0	2,804	0	0	15,225	0	0	0	0	0	0	0	66	63	0	66	66	27	-39	-102	-39	-39
Block #4A	0	2,811	0	1,095	0	4,208	0	0	2,206	0	986	0	0	0	0	0	56	70	0	56	56	59	3	-11	3	3
Block #4B	4,107	0	6,096	1,485	0	0	0	1,146	0	0	0	0	0	0	0	0	37	13	0	37	37	33	-4	20	-4	-4
Block #5A	0	2,536	0	3,194	0	0	0	0	8,668	0	0	0	0	0	0	5,641	46	25	16	52	59	19	-27	-6	-33	-40
Block #5B	0	0	0	0	26,907	0	0	0	0	0	3,248	0	0	0	0	0	78	46	0	78	78	27	-51	-19	-51	-51
Block #6A	0	2,077	0	0	4,436	3,321	0	0	0	0	0	0	0	0	0	0	47	58	0	47	47	40	-7	-18	-7	-7
Block #6B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	28	28	28	28	28
Block #7A	0	0	6,050	0	0	2,675	0	6,049	0	0	0	0	0	0	0	1,036	44	54	3	46	47	60	16	6	14	13
Block #7B	2,985	0	1,200	0	0	0	0	0	0	0	0	0	0	0	0	0	13	2	0	13	13	30	17	28	17	17
Block #8A	2,025	0	0	0	0	9,461	0	0	7,284	0	2,500	0	0	0	300	0	106	144	0	106	106	167	61	23	61	61
Block #8B	0	0	7,400	8,000	0	2,000	12,000	0	0	0	0	0	0	0	0	0	76	258	0	76	76	142	66	-116	66	66
Block #9A	600	0	21,930	1,525	0	2,900	0	0	9,200	0	0	0	0	0	0	0	117	86	0	117	117	168	51	82	51	51
Block #9B	0	0	48,241	0	0	0	0	0	0	0	302	0	0	0	0	0	132	62	0	132	132	368	236	306	236	236
Block #10	9,825	1,800	65,760	4,771	0	38,665	0	0	0	0	0	0	0	0	0	16,500	552	631	46	570	589	335	-217	-296	-225	-254
Block #11	14,400	0	0	2,410	0	16,212	0	0	14,014	0	15,000	0	0	0	0	7,100	237	261	20	245	253	109	-128	-152	-136	-144
Block #12	0	0	1,752	0	10,596	0	0	0	0	0	0	0	18,100	0	0	0	98	21	0	98	98	81	-17	60	-17	-17
Block #13	6,300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	1	0	21	21	89	68	88	68	68
Block #14	0	0	19,477	0	0	0	0	0	4,560	0	0	0	0	0	0	0	66	32	0	66	66	96	30	64	30	30
Block #15	0	0	0	0	0	0	0	0	8,717	0	0	0	0	0	0	0	24	14	0	24	24	28	4	14	4	4
Block #16	31,246	0	4,080	0	0	0	0	49,000	0	0	0	0	0	16	0	0	167	137	0	167	167	161	-6	24	-6	-6
Block #17 (1)	50,550	0	1,008	0	37,600	9,338	0	0	0	0	22,473	0	27,000	0	0	0	461	212	0	461	461	495	34	50	34	34
Block #18	9,475	0	18,190	7,186	17,000	15,100	0	0	0	0	11,035	0	0	0	0	10,700	286	280	30	298	310	65	-221	-215	-233	-245
Block #19	0	0	18,740	14,216	0	10,851	0	0	0	0	0	0	0	0	0	0	193	199	0	193	193	158	-35	-41	-35	-35
Block #20	0	8,100	0	2,904	0	0	0	0	0	0	0	0	0	0	0	0	41	23	0	41	41	41	0	18	0	0
Block #21	0	0	5,155	0	0	0	0	0	0	0	0	0	0	0	0	1,129	14	7	3	15	17	18	4	11	3	1
Block #22	0	0	1,350	4,385	1,350	0	0	0	0	0	0	0	0	0	0	0	24	12	0	24	24	35	11	23	11	11
Block #23	1,200	0	1,310	0	0	604	0	0	2,800	0	0	0	0	0	0	0	20	15	0	20	20	24	4	9	4	4
Block #24	0	0	0	0	0	2,791	0	0	0	0	0	0	0	0	0	0	23	38	0	23	23	27	4	-11	4	4
Block #25	4,050	0	0	0	0	7,665	0	0	9,431	0	0	0	3,500	0	0	1,250	115	122	4	116	117	273	158	151	157	156
Block #26	0	0	10,285	0	4,000	13,400	0	0	0	0	0	0	0	0	0	0	148	204	0	148	148	92	-56	-112	-56	-56
Block #27A	0	0	4,600	0	0	0	0	0	1,676	0	0	0	0	0	0	3,200	17	9	9	21	25	32	15	23	11	7
Block #27B	0	0	0	0	0	5,627	0	0	0	0	0	0	0	0	0	0	46	78	0	46	46	77	31	-1	31	31
Block #28A	0	0	2,862	1,491	0	0	0	4,353	14,718	0	0	0	0	0	0	0	59	37	0	59	59	44	-15	7	-15	-15
Block #28B	0	0	0	0	0	2,382	0	0	0	0	0	12,016	0	0	0	0	27	40	0	27	27	153	126	113	126	126
Block #29A	0	0	13,784	0	0	0	0	0	0	0	0	0	0	0	0	21,006	38	18	59	61	85	48	10	30	-13	-37
Block #29B	959	0	0	0	0	0	0	0	0	0	0	18,828	0	0	0	0	14	11	0	14	14	41	27	30	27	27
Block #30A	0	0	0	0	0	5,946	0	0	0	0	0	0	0	0	0	5,537	48	82	16	55	61	80	32	-2	25	19
Block #30B	0	0	0	0	0	0	0	0	0	0	75,052	14,848	0	0	0	0	54	54	0	54	54	5	-49	-49	-49	-49
Block #31A	10,061	0	3,749	1,927	0	0	0	2,735	0	0	0	0	0	0	0	2,179	54	13	6	56	59	52	-2	39	-4	-7
Block #31B	4,136	0	0	0	0	0	7,663	0	0	0	0	0	0	0	0	0	20	132	0	20	20	75	55	-57	55	55
Block #32A	1283	0	0	0	0	3200	0	0	0	0	0	0	0	0	0	0	30	44	0	30	30	47	17	3	17	17
Block #32B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	5	5	5	5
Block #33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11	11	11	11	11
Block #34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	15	15	15	15
Block #35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	8	8	8	8
Block #36	0	0	0	0	0	4,911	0	0	0	0	0	0	0	0	0	0	40	68	0	40	40	77	37	9	37	37
Block #37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6	6	6	6
Block #38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6	6	6	6
Block #39A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12	12	12	12	12
Block #39B	0	0	0	1,200	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0	5	5	0	-5	-2	-5	-5
Block #40A	0	0	0	0	0	0	0	0	4,795	0	0	0	0	0	0	0	13	8	0	13	13	4	-9	-4	-9	-9
Block #40B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3
Block #41	0	0	0	0	0	0	0	0	0	62	0	0	0	0	0	0	61	61	0	61	61	53	-8	-8	-8	-8
Summary	169,961	26,938	282,387	65,470	101,889	166,626	21,258	68,213	112,680	62	130,596	45,692	48,600			78,815	4,068 (stalls)	3,896 (stalls)	680 (stalls)	4,157 (stalls)	4,245 (stalls)	4,349 (stalls)	281 (stalls)	-81 (stalls)	202 (stalls)	104 (stalls)

(1) Block 17 night parking demand has Credit Union One parking removed from parking inventory (233 stalls)

Affirmations (16,500 sqft) new center will need 10 stalls during the day and 43 stalls at night







City of Ferndale  
Downtown Parking Study

Ferndale Parking Analysis Spreadsheet Summer

Appendix C

A	B	C	D	F	G	H	I	J	K	L	M	N	O	P	P	Q	R	S	T	U	V	W	X	Y	Z	AA
	Office	Medical Office	Retail	Service	Mixed Use	Restaurant/Bar	Night Club	Residential	Commercial	Hotel	Community & Civic Org.	Church	Gov.	Bowling Alley (per lane)	Movie Theater (per seat)	Vacant	Demand (current) Day	Demand (current) Night	Future Adjust. *	5 yr. Peak Demand	10 yr. Peak Demand	Parking Supply	Surplus/ Deficit (current) Day	Surplus/ Deficit (current) Night	Surplus/ Deficit (5 years)	Surplus/ Deficit (10 years)
Daytime	3.33	3.76	2.74	3.76	2.81	8.13	0.76	1.00	2.81	0.98	0.60	0.60	3.50	0.15	0.15	2.81										
Nighttime	0.09	2.19	1.28	1.81	1.63	13.79	17.20	1.50	1.63	0.98	2.60	0.60	0.09	3.47	0.38	1.63			*							
Block #1A	8,987	0	5,472	8,086	0	0	0	0	0	0	0	0	0	0	0	0	75	22	0	75	75	61	-14	-37	-14	-14
Block #1B	5,833	1,864	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	5	0	26	26	19	-7	-12	-7	-7
Block #2A	0	7,750	0	0	0	2,565	0	0	4,329	0	0	0	0	0	0	0	62	59	0	62	62	41	-21	-81	-21	-21
Block #2B	0	0	9,860	0	0	0	0	4,930	0	0	0	0	0	0	0	0	32	20	0	32	32	45	13	-7	13	13
Block #3A	1,939	0	4,036	1,595	0	0	1,595	0	5,057	0	0	0	0	0	0	3,537	39	44	10	43	47	34	-5	-49	-9	-13
Block #3B	0	0	0	0	0	2,804	0	0	15,225	0	0	0	0	0	0	0	66	63	0	66	66	27	-39	-102	-39	-39
Block #4A	0	2,811	0	1,095	0	4,208	0	0	2,206	0	986	0	0	0	0	0	56	70	0	56	56	59	3	-11	3	3
Block #4B	4,107	0	6,096	1,485	0	0	0	1,146	0	0	0	0	0	0	0	0	37	13	0	37	37	33	-4	20	-4	-4
Block #5A	0	2,536	0	3,194	0	0	0	0	8,668	0	0	0	0	0	0	5,641	46	25	16	52	59	19	-27	-6	-33	-40
Block #5B	0	0	0	0	26,907	0	0	0	0	0	3,248	0	0	0	0	0	78	46	0	78	78	27	-51	-19	-51	-51
Block #6A	0	2,077	0	0	4,436	3,321	0	0	0	0	0	0	0	0	0	0	47	58	0	47	47	40	-7	-18	-7	-7
Block #6B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	28	28	28	28
Block #7A	0	0	6,050	0	0	2,675	0	6,049	0	0	0	0	0	0	0	1,036	44	54	3	46	47	60	16	6	14	13
Block #7B	2,985	0	1,200	0	0	0	0	0	0	0	0	0	0	0	0	0	13	2	0	13	13	30	17	28	17	17
Block #8A	2,025	0	0	0	0	9,461	0	0	7,284	0	2,500	0	0	0	300	0	106	144	0	106	106	167	61	23	61	61
Block #8B	0	0	7,400	8,000	0	2,000	12,000	0	0	0	0	0	0	0	0	0	76	258	0	76	76	142	66	-116	66	66
Block #9A	600	0	21,930	1,525	0	2,900	0	0	9,200	0	0	0	0	0	0	0	117	86	0	117	117	168	51	82	51	51
Block #9B	0	0	48,241	0	0	0	0	0	0	0	302	0	0	0	0	0	132	62	0	132	132	368	236	306	236	236
Block #10	9,825	1,800	65,760	4,771	0	39,051	0	0	0	0	0	0	0	0	0	16,500	555	636	46	574	592	335	-220	-301	-229	-257
Block #11	14,400	0	0	2,410	0	22,666	0	0	14,014	0	15,000	0	0	0	0	7,100	290	350	20	298	306	109	-181	-241	-189	-197
Block #12	0	0	1,752	0	10,596	0	0	0	0	0	0	0	18,100	0	0	0	98	21	0	98	98	81	-17	60	-17	-17
Block #13	6,300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	1	0	21	21	89	68	88	68	68
Block #14	0	0	19,477	0	0	0	0	0	4,560	0	0	0	0	0	0	0	66	32	0	66	66	96	30	64	30	30
Block #15	0	0	0	0	0	0	0	0	8,717	0	0	0	0	0	0	0	24	14	0	24	24	28	4	14	4	4
Block #16	31,246	0	4,080	0	0	0	0	49,000	0	0	0	0	0	16	0	0	167	137	0	167	167	161	-6	24	-6	-6
Block #17 <sup>(1)</sup>	50,550	0	1,008	0	37,600	9,338	0	0	0	0	22,473	0	27,000	0	0	0	461	212	0	461	461	495	34	50	34	34
Block #18	9,475	0	18,190	7,186	17,000	15,475	0	0	0	0	11,035	0	0	0	0	10,700	289	285	30	301	313	65	-224	-220	-236	-248
Block #19	0	0	18,740	14,216	0	10,968	0	0	0	0	0	0	0	0	0	0	194	201	0	194	194	158	-36	-43	-36	-36
Block #20	0	8,100	0	2,904	0	0	0	0	0	0	0	0	0	0	0	0	41	23	0	41	41	41	0	18	0	0
Block #21	0	0	5,155	0	0	0	0	0	0	0	0	0	0	0	0	1,129	14	7	3	15	17	18	4	11	3	1
Block #22	0	0	1,350	4,385	1,350	0	0	0	0	0	0	0	0	0	0	0	24	12	0	24	24	35	11	23	11	11
Block #23	1,200	0	1,310	0	0	604	0	0	2,800	0	0	0	0	0	0	0	20	15	0	20	20	24	4	9	4	4
Block #24	0	0	0	0	0	2,791	0	0	0	0	0	0	0	0	0	0	23	38	0	23	23	27	4	-11	4	4
Block #25	4,050	0	0	0	0	7,665	0	0	9,431	0	0	0	3,500	0	0	1,250	115	122	4	116	117	273	158	151	157	156
Block #26	0	0	10,285	0	4,000	14,000	0	0	0	0	0	0	0	0	0	0	153	213	0	153	153	92	-61	-121	-61	-61
Block #27A	0	0	4,600	0	0	0	0	0	1,676	0	0	0	0	0	0	3,200	17	9	9	21	25	32	15	23	11	7
Block #27B	0	0	0	0	0	5,627	0	0	0	0	0	0	0	0	0	0	46	78	0	46	46	77	31	-1	31	31
Block #28A	0	0	2,862	1,491	0	0	0	4,353	14,718	0	0	0	0	0	0	0	59	37	0	59	59	44	-15	7	-15	-15
Block #28B	0	0	0	0	0	2,382	0	0	0	0	0	12,016	0	0	0	0	27	40	0	27	27	153	126	113	126	126
Block #29A	0	0	13,784	0	0	0	0	0	0	0	0	0	0	0	0	21,006	38	18	59	61	85	48	10	30	-13	-37
Block #29B	959	0	0	0	0	0	0	0	0	0	0	18,828	0	0	0	0	14	11	0	14	14	41	27	30	27	27
Block #30A	0	0	0	0	0	5,946	0	0	0	0	0	0	0	0	0	5,537	48	82	16	55	61	80	32	-2		

(1) Block 17 night parking demand has Credit Union One parking removed from parking inventory (233 stalls)

Affirmations (16,500 sq/ft) new center will need 10 stalls during the day and 43 stalls at night





City of Ferndale  
Downtown Parking Study

Ferndale Parking Analysis Spreadsheet  
Zone 1 Summer

Appendix D

A	B	C	D	F	G	H	I	J	K	L	M	N	O	P	P	Q	R	S	T	U	V	W	X	Y	Z	AA
Block	Office	Medical Office	Retail	Service	Mixed Use	Restaurant/ Bar	Night Club	Residential	Commercial	Hotel	Community & Civic Org.	Church	Gov.	Bowling Alley	Movie Theater	Vacant	Demand	Demand	Future	5 yr.	10 yr.	Parking Supply	Surplus/ Deficit	Surplus/ Deficit	Surplus/ Deficit	Surplus/ Deficit
Daytime	3.33	3.76	2.74	3.76	2.81	8.13	0.76	(per unit) 1.00	2.81	0.98	0.60	0.60	3.50	(per lane) 0.15	(per seat) 0.15	2.81	(current) Day	(current) Night	Adjust. *	Peak Demand	Peak Demand		(current)	(current)	(5 years)	(10 years)
Nighttime	0.09	2.19	1.28	1.81	1.63	13.79	17.20	1.50	1.63	0.98	2.60	0.60	0.09	3.47	0.38	1.63			*				Day	Night		
Block #7B	2,985	0	1,200	0	0	0	0	0	0	0	0	0	0	0	0	0	13	2	0	13	13	30	17	28	17	17
Block #8B	0	0	7,400	8,000	0	2,000	12,000	0	0	0	0	0	0	0	0	0	76	258	0	76	76	142	66	-116	66	66
Block #9B	0	0	48,241	0	0	0	0	0	0	0	302	0	0	0	0	0	132	62	0	132	132	368	236	306	236	236
Block #10	9,825	1,800	65,760	4,771	0	39,051	0	0	0	0	0	0	0	0	0	16,500	555	636	46	574	592	335	-220	-301	-239	-257
Block #18	9,475	0	18,190	7,186	17,000	15,475	0	0	0	0	11,035	0	0	0	0	10,700	289	285	30	301	313	65	-224	-220	-236	-248
Block #19	0	0	18,740	14,216	0	10,968	0	0	0	0	0	0	0	0	0	0	194	201	0	194	194	158	-36	-43	-36	-36
Block #20	0	8,100	0	2,904	0	0	0	0	0	0	0	0	0	0	0	0	41	23	0	41	41	41	0	18	0	0
Block #25	4,050	0	0	0	0	7,665	0	0	9,431	0	0	0	3,500	0	0	1,250	115	122	4	116	117	273	158	151	157	156
Summary	26,335	9,900	159,531	37,077	17,000	75,159	12,000	0	9,431	0	11,337	0	3,500	0	0	28,450	1,415 (stalls)	1,588 (stalls)	680 (stalls)	1,447 (stalls)	1,479 (stalls)	1,412 (stalls)	-3 (stalls)	-176 (stalls)	-35 (stalls)	-67 (stalls)

Ferndale Parking Analysis Spreadsheet  
Zone 2 Summer

A	B	C	D	F	G	H	I	J	K	L	M	N	O	P	P	Q	R	S	T	U	V	W	X	Y	Z	AA
Block	Office	Medical Office	Retail	Service	Mixed Use	Restaurant/ Bar	Night Club	Residential	Commercial	Hotel	Community & Civic Org.	Church	Gov.	Bowling Alley	Movie Theater	Vacant	Demand	Demand	Future	5 yr.	10 yr.	Parking Supply	Surplus/ Deficit	Surplus/ Deficit	Surplus/ Deficit	Surplus/ Deficit
Daytime	3.33	3.76	2.74	3.76	2.81	8.13	0.76	(per unit) 1.00	2.81	0.98	0.60	0.60	3.50	(per lane) 0.15	(per seat) 0.15	2.81	(current) Day	(current) Night	Adjust. *	Peak Demand	Peak Demand		(current)	(current)	(5 years)	(10 years)
Nighttime	0.09	2.19	1.28	1.81	1.63	13.79	17.20	1.50	1.63	0.98	2.60	0.60	0.09	3.47	0.38	1.63			*				Day	Night		
Block #7A	0	0	6,050	0	0	2,675	0	6,049	0	0	0	0	0	0	0	1,036	44	54	3	46	47	60	16	6	14	13
Block #8A	2,025	0	0	0	0	9,461	0	0	7,284	0	2,500	0	0	0	300	0	106	144	0	106	106	167	61	23	61	61
Block #11	14,400	0	0	2,410	0	22,666	0	0	14,014	0	15,000	0	0	0	0	7,100	290	350	20	298	306	109	-181	-241	-189	-197
Block #12	0	0	1,752	0	10,596	0	0	0	0	0	0	0	18,100	0	0	0	98	21	0	98	98	81	-17	60	-17	-17
Block #13	6,300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	1	0	21	21	89	68	88	68	68
Block #17	50,550	0	1,008	0	37,600	9,338	0	0	0	0	22,473	0	27,000	0	0	0	461	212	0	461	461	495	34	50	34	34
Block #26	0	0	10,285	0	4,000	14,000	0	0	0	0	0	0	0	0	0	0	153	213	0	153	153	92	-61	-121	-61	-61
Summary	73,275	0	19,095	2,410	52,196	58,140	0	6,049	21,298	0	39,973	0	45,100	0	300	8,136	1,172 (stalls)	994 (stalls)	680 (stalls)	1,182 (stalls)	1,191 (stalls)	1,093 (stalls)	-79 (stalls)	-134 (stalls)	-89 (stalls)	-98 (stalls)

(1) Block 17 night parking demand has Credit Union One parking removed from parking inventory (233 stalls)

