TRANSPORTATION PLANNERS AND ENGINEERS

Town of Okotoks
Downtown Parking Study

Final Report

Prepared for:	Town of Okotoks
Date:	January 28, 2014
Prepared by:	Bunt & Associates Engineering (Alberta) Ltd.
Permit No.:	P 7694
Project No.	1107-27

January 28, 2014

1107-27

Colin Gainer

Town of Okotoks
5 Elizabeth Street, PO Box 20
Okotoks, Alberta T1S 1K1

Dear Colin

Re: Town of Okotoks Downtown Parking Study – Final Report

Bunt & Associates Engineering (AB) Ltd. has completed the Downtown Parking Study for the Town of Okotoks. The analysis and key findings summarized in this report were undertaken in accordance with the requirements of the Town of Okotoks. As requested, a full electronic version of this report has been provided.

Thank you for the opportunity to be involved on this project, and please call if you have any questions and/or wish to discuss any issue in further detail.

Sincerely,

BUNT & ASSOCIATES

Per:

Mike Furuya, M.Eng., P.Eng.
Principal

Mf, mf
Encl.

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i. Introduction and Study Objectives

In April 2013, the Town of Okotoks retained Bunt & Associates to undertake a review of the current parking issues and the potential impacts associated with the growth/development within the Downtown area. The intent of this Parking Study was to provide the Town with input and direction regarding the development of a comprehensive parking strategy for the Downtown area. The scope of the project included the following tasks as outlined in the RFP:

- Undertake a comprehensive field survey exercise to collect and assimilate parking demand patterns within the Downtown area.
- Evaluate parking management implications associated with the current/future conditions within the Downtown area.

ii. Key Findings

- The overall peak hour occupancy remains between 50-54% on weekdays and 34-37% on weekends. This suggests there are a sufficient number of spaces within the downtown area to accommodate the current parking demand. It is noted that the majority (if not all) of the on-street spaces are within a reasonable walking distance (i.e., 600m) to the high demand land uses. With this in mind, the current inventory could support additional development without developing additional parking spaces.
- The west zone has the highest on-street occupancy on both weekdays and weekends, and certain blocks within the downtown west zone experience peak occupancies above 85%, specifically Elizabeth Street.
- The overall off-street peak hour occupancy ranged between 61-64% on weekdays and 39% on weekends, which is higher than on-street occupancy. This suggests that the majority of the employees/visitors to the downtown area prefer to park as close as possible to the desired land use.
- The off-street parking demand was observed to be different for the various areas within the downtown area. For example, the central zone has the highest off-street occupancy on weekdays, whereas the west zone had the highest off-street occupancy on the weekends. Considering the mixture of the land uses (i.e., more retail in the west and a higher concentration of office in the central area), the peak parking behaviour is considered to be typical.

- The results of the parking needs assessment generally confirmed there is more than a sufficient amount of parking for the current land use mixture. In other words, additional parking spaces are not required for the downtown area. That said, the introduction of additional spaces in the high demand areas (in the west and central zones) may mitigate some of the parking concerns in these areas, specifically up to 7 on-street stalls and up to 6 off-street spaces.

- The result confirms that for the most part, drivers appear to be obeying the parking restriction rules. That said, a review of the long stay parking (i.e., greater than 4 hours) indicated that on weekdays approximately 115 to 127 vehicles are considered to be long stay parkers in spots that are considered to be very desirable for short stay/high turnover parking. Ideally, long stay parkers/patrons should be placed in long stay facilities.

iii. Recommended Parking Strategy

Short Term Parking Strategy

- Optimize parking supplies that currently exist in lanes and on-site at existing developments.

- Improve directional signage to existing parking facilities.

- Encourage shared-parking between property owners.

- Increase enforcement of current parking Bylaws. Active enforcement will promote higher turnover rates in the high parking demand areas and will set the stage for other parking management alternatives (e.g., paid on-street parking).

Long Term Parking Strategy

- Identify future sites where central pooled parking facilities could be developed.

- It is recommended that the Town continue to implement other Transportation Demand Management (TDM) techniques (such as upgrades to trails, sidewalks, bike lanes, transit, etc…) to encourage the use of alternative modes and to promote a more walkable community within the Downtown

- Allow shared parking analysis in determining bylaw parking requirement for mixed-use sites

- Although not generally supported by the public, it is suggested the Town of Okotoks work towards instituting market pricing for the on-street parking supply

- Consider replacing the one-time Cash in Lieu (CIL) fee with a benefit assessment Bylaw fee to be collected monthly for either a finite or indefinite period of time and used for a variety of purposes and not limited to the construction of new off-street stalls.

1. INTRODUCTION

1.1 Background

In April 2013, the Town of Okotoks issued a Request for Proposals (RFP) to review the current parking issues and the potential impacts associated with the growth/development within the Downtown area. As part of the review, the Town is seeking a proactive approach in terms of managing its existing and future parking needs within the Downtown Core area. As such, the intent of this Parking Study was to provide the Town with input and direction regarding the development of a comprehensive parking strategy for the Downtown area.

1.2 Study Objectives

The objective of this study is to review the current and future parking arrangements and the need for a parking strategy for the Downtown area, assess the effectiveness of existing arrangement, propose new strategies to address any shortcomings identified in the analysis, and propose a comprehensive parking strategy that is implementable.

The scope of the project included the following tasks as outlined in the RFP:

- Undertake a comprehensive field survey exercise to collect and assimilate parking demand patterns within the Downtown area, specifically: 1) confirm the existing parking supply of on and off-street parking in the study area, 2) Determine the number of stalls currently utilized for short stay parking and long stay parking in the study area, and 3) seek input from the key business stakeholders.

- Evaluate parking management implications associated with the current/future conditions within the Downtown area. The recommended parking strategy will have to be robust enough to accommodate seasonal spikes in demand and cognizant of the Town's desire to develop a sustainable environment within the Downtown area.

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2. EXISTING PARKING CONDITIONS

2.1 Assessment of Existing Parking Conditions

The assessment of the existing parking conditions forms the basis for understanding the parking patterns and associated problems. In this case, the existing parking condition refers to availability of parking for employees, residents, and patrons/visitors in the define study area, duration of parking at each stall, location of parking spaces, the ease of finding those parking spaces, the number of available parking spaces, ingress and egress conditions at off-street parking facilities, parking restrictions and parking enforcement.

In order to fully assess the existing conditions, and any issue raised through feedback, two major parking surveys were completed by Bunt & Associates during peak periods in April 2013 and September 2013. Specifically, a detailed parking inventory, license plate, and parking space utilization surveys were completed as part of this study. The results of these studies formed the basis for establishing short term and long-term recommendations.

The study area is approximately defined as the Crescent Road to the north, Northridge Drive to the west, Lineham Avenue on the east, and the Canadian Pacific Railway defines the southerly boundary.

The precise study area is shown in **Exhibit 2.1.**

2.1.1 Parking Inventory

An updated inventory of public on-street and off-street parking spaces was completed prior to the commencement of the parking utilization surveys. The intent of the parking inventory survey was to gain an understanding of the number of spaces, the location of these spaces, and the form of parking control. As part of the parking inventory assessment, all available spaces that were situated in public parking facilities were counted, which included the surface lots, and on-street curb parking[1].

The available parking spaces in the surface lots are summarized in **Table 2.1,** and illustrated in **Exhibit 2.2.** The associated on-street stalls are shown in **Table 2.2** and illustrated in **Exhibit 2.3**.

[1] The number of on-street parking spaces was estimated by dividing available parking spaces by 7 metres. The length of a parallel parking space is approximately 7 metres.

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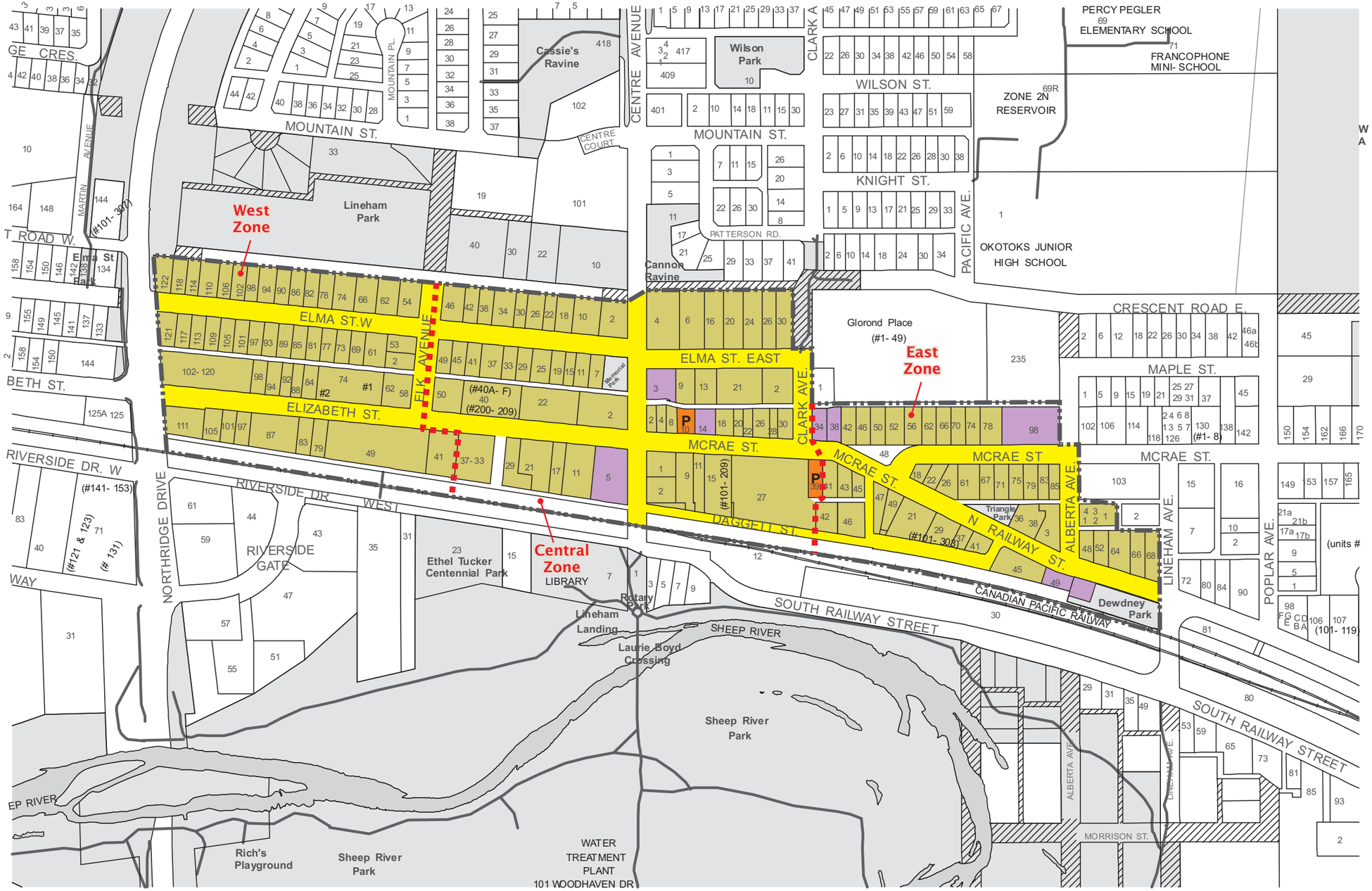

Base Map Source: The Town of Okotoks

LEGEND

- Study Area Boundary
- Zone Boundary
- Public Roads / On-Street Parking
- P — Public Parking Lots
- Private Properties
- Provincial / Municipal Properties

Exhibit 2.1

Parking Study Area

Okotoks Downtown Parking Study
December 2013 Scale NTS

bunt & associates

Table 2.1: Existing Off-Street Parking Supply

Zone	Parking Lot		Location	Number of Parking Spaces
West	A	Essential Group Business Centre	121 Elma St W	8
	B	Elizabeth/Northridge Strip Mall	102-120 Elizabeth St	29
	C	Pet Hospital	74 Elizabeth St	24
	D	RE/MAX & Big Rock Inn	97-105 Elizabeth St	20
	E	Executive Business Centre Front	87 Elizabeth St	9
	F	Executive Business Centre Back	87 Elizabeth St	16
	G	79 & 83 Elizabeth Street	79-83 Elizabeth St	6
	H	Elma/Elk West Lot	54 Elma St W	10
	I	Town Square Strip Mall	41-49 Elizabeth St	55
	J	Dagget Street Retail	33-49 Elizabeth St	26
Central	K	Centre for Learning at Home	46 Elma St W	8
	L	Star Cast/ Royal LePage	33-37 Elizabeth St	31
	M	Okotoks Professional Centre	40 Elizabeth St	27
	N	Elizabeth Back Lane (Elk-Centre)	2-50 Elizabeth St	30
	O	Royal Duke & Strip Mall	2-22 Elizabeth St	45
	P	Centre 21	17-21 Elizabeth St	45
	Q	11 Elizabeth Court	11 Elizabeth St	29
	R	Town Hall Back	5 Elizabeth St	11
	S	Catholic Schools & 15 McRae Centre	1-15 McRae St	62
	T	Public Stockton Block Lot	10 McRae St	14
	U	Sears Mall	27 McRae St	52
	V	Public Clark Ave Lot	39 McRae St	15
	W	Sears Back (Dagget)	27 McRae St	13
East	X	Heartland Café & The Eagle	42-46 McRae St	11
	Y	North Railway commercial	21-29 North Railway St	31
	Z	Provincial Court	98 McRae St	29
	AA	Museum & Art Gallery	49-53 North Railway St	18
	BB	Rumpled Quilt Skins	64 North Railway St	9
			TOTAL	**683**

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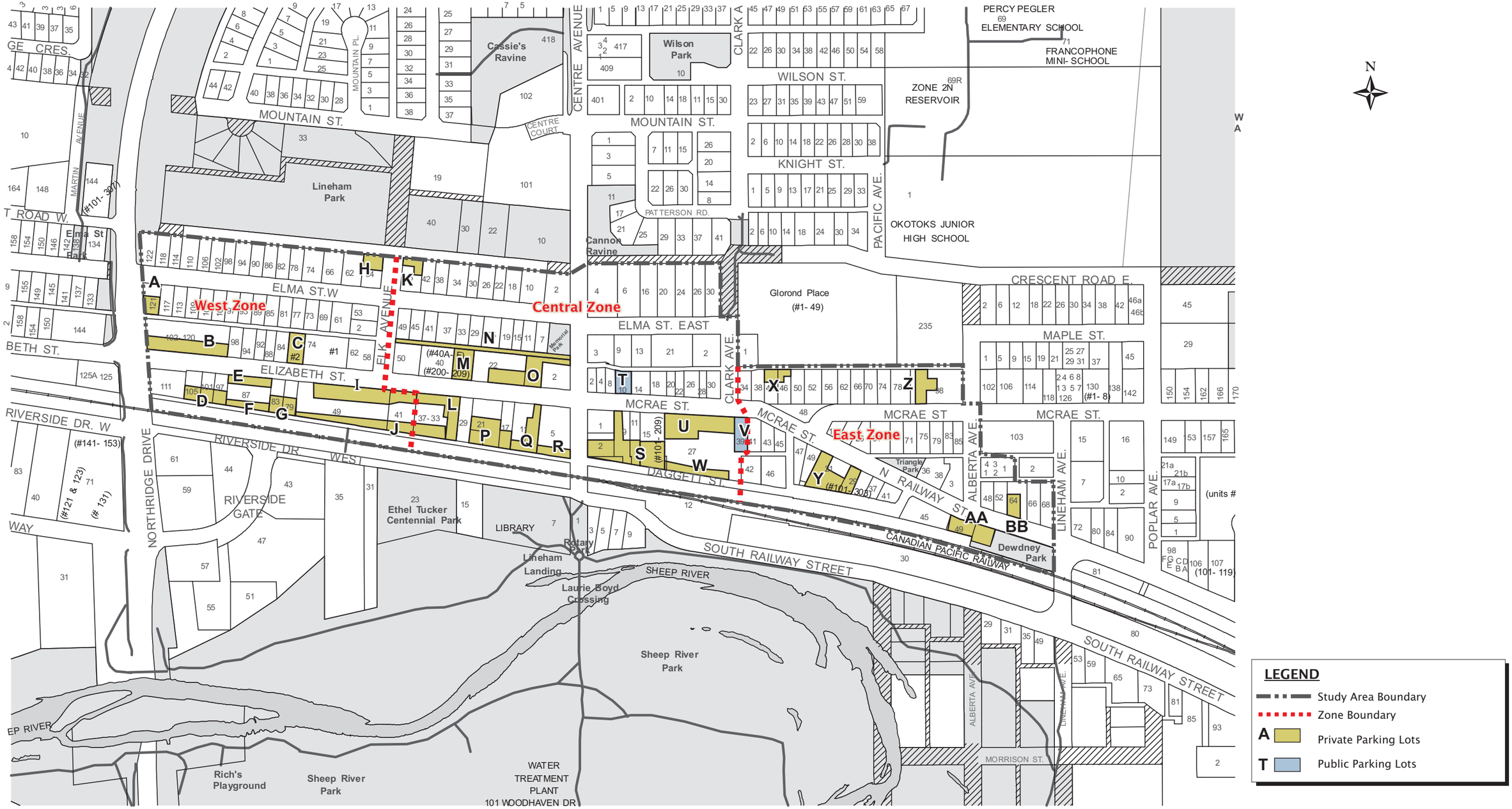

Base Map Source: The Town of Okotoks

Exhibit 2.2

Location of Private Off-Street Parking Supply

Okotoks Downtown Parking Study
December 2013 Scale NTS

Table 2.2: Existing On-Street Parking Supply

Street	From	To	Block Face	Number of Parking Spaces
Elizabeth Street	Northridge Dr	Elk Ave	North	19
			South	21
	Elk Ave	Centre Ave	North	17
			South	14
Elma Street	Northridge Dr	Elk Ave	North	34
			South	33
	Elk Ave	Centre Ave	North	25
			South	24
	Centre Ave	Clark Ave	North	13
			South	18
McRae Street	Centre Ave	Clark Ave	North	17
			South	10
	Clark Ave	N Railway St	North	5
	N Railway St	Alberta Ave	North	21
			South	18
N Railway Street	McRae St	Alberta Ave	North	20
	McRae St	Daggett Ave	South	14
	Alberta Ave	Lineham Ave	North	11
	Daggett St	Lineham Ave	South	16
Elk Avenue	Crescent Rd	Elma St	West	4
			East	3
	Elma St	Elizabeth St	West	9
			East	6
Centre Avenue	Elma St	McRae St	West	4
			East	4
	McRae St	Daggett St	West	4
			East	4
Clark Avenue	Elma St	McRae St	West	10
			East	10
Alberta Avenue	McRae St	N Railway St	West	13
			East	14
Daggett Street	Centre Ave	N Railway St	North	9
	Centre Ave	Clark Ave	South	58
	Clark Ave	N Railway St	South	24
			Total	**526**

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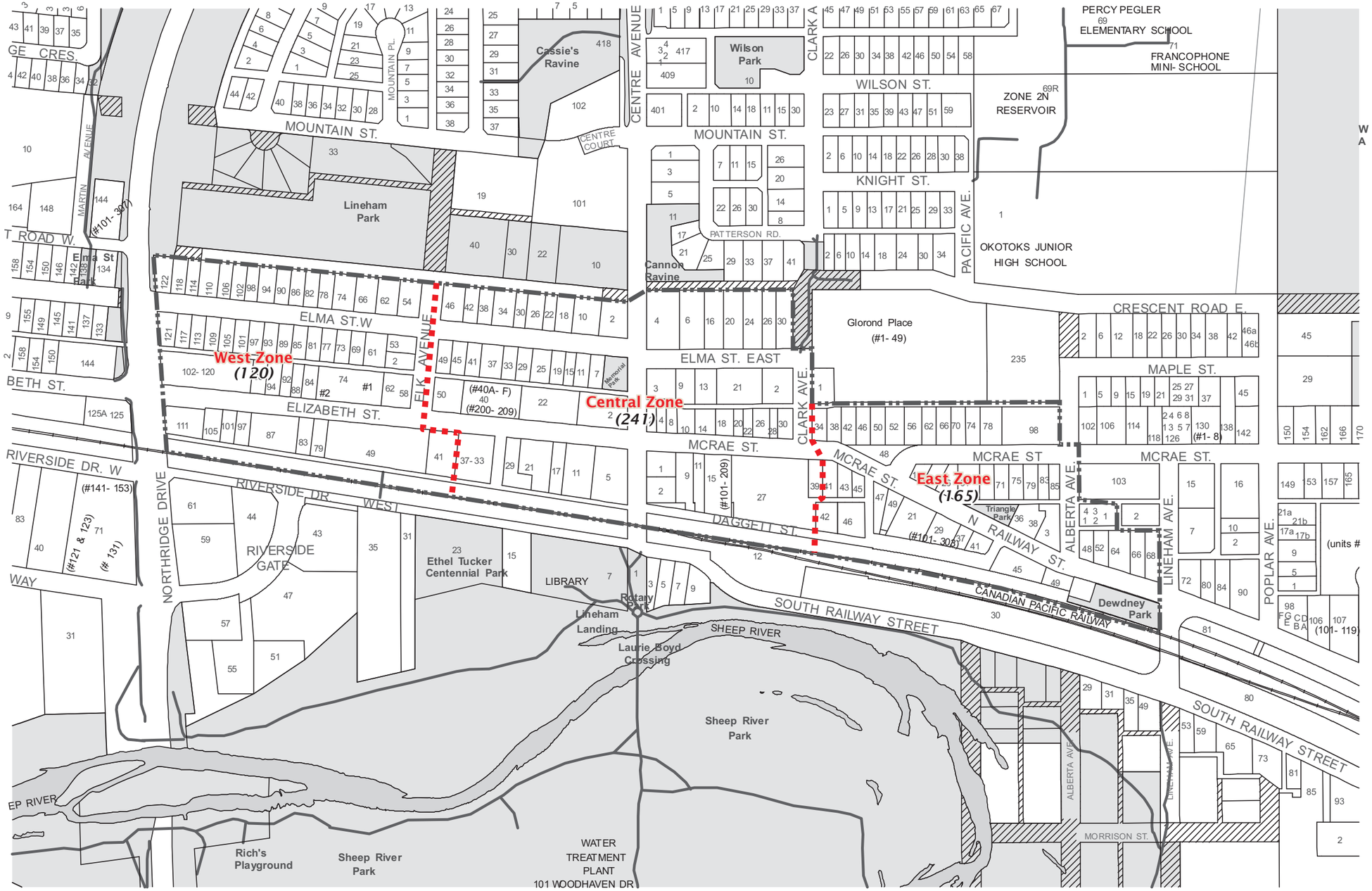

LEGEND

- Study Area Boundary
- Zone Boundary
- *(120)* On-Street Parking Supply

Base Map Source: The Town of Okotoks

Exhibit 2.3

Existing On-Street Parking Supply

Okotoks Downtown Parking Study
December 2013 Scale NTS

2.1.2 Parking Occupancy

To evaluate the existing parking conditions, Bunt & Associates conducted an extensive data collection program during the months of April and September at key on-street and off-street parking facilities. The periods selected were intended to represent the typical design period for analysis. Specifically, parking counts were conducted on the following days:

- April 20, 2013 (Saturday) – 8 AM to 8 PM,
- April 23, 2013 (Tuesday) – 10 AM to 8 PM,
- September 26, 2013 (Thursday) – 9 AM to 6 PM, and
- September 28, 2013 (Saturday) – 11 AM to 5 PM.

Parking demand data was collected as part of the data collection program, and specifically included the following tasks:

- Day long off-street parking demand surveys were conducted at the surface lots. Parking occupancy data was collected on one-hour increments.
- Day long on-street parking demand surveys within the defined parking area (covering all block faces) were conducted. Both occupancy and license plates were collected. License plate numbers were recorded every 60 minutes for the on-street parking spaces near the downtown core. The recording of license plates allows for the determination of parking space occupancy, turnover, and average duration of stay data.

The primary objective of the data collection program was to establish the peak parking demand and to ascertain the current long stay and short stay parking characteristics for the on-street and off-street parking spaces situated within the defined study area. An assessment of the average 3-hour peak occupancy, peak occupancy, and average duration was completed. The results of the assessment are illustrated in the following sub-sections and the detailed analysis is attached in **Appendix A**.

On-Street Parking Occupancy

In terms of assessing the availability of parking, the occupancy parameter is represented as an average value of a peak period. For this study, two occupancy values were calculated as follows:

- Average 3-hour peak occupancy – this represents the average occupancy values over the highest consecutive 3 one-hour periods.
- Peak occupancy – this represents the occupancy values over the highest one-hour period.

Both the peak occupancy and the average 3-hour peak occupancy data are presented on a block face basis in **Exhibit 2.4** to **Exhibit 2.11** and in **Table 2.3** and **Table 2.4**.

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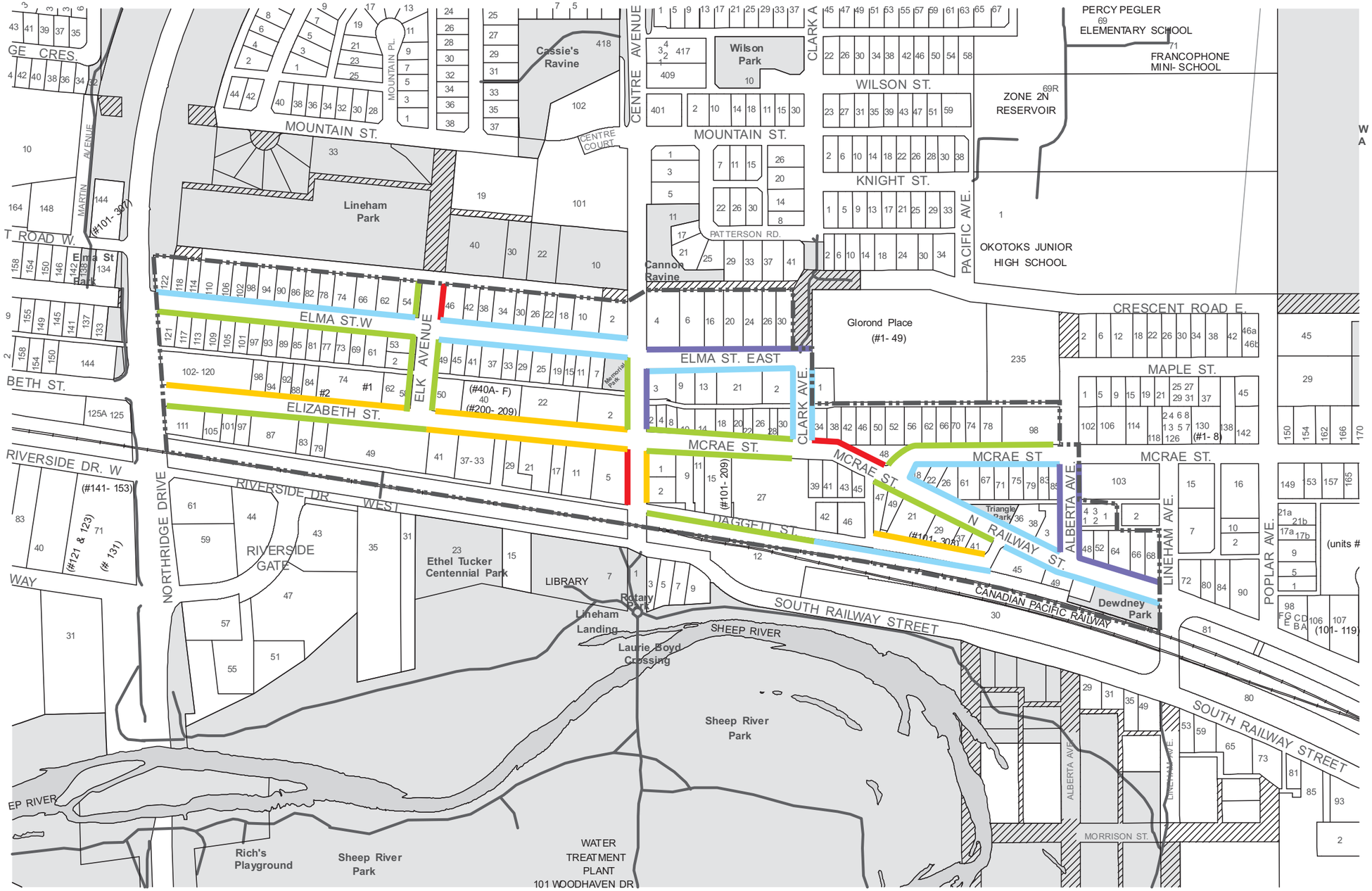


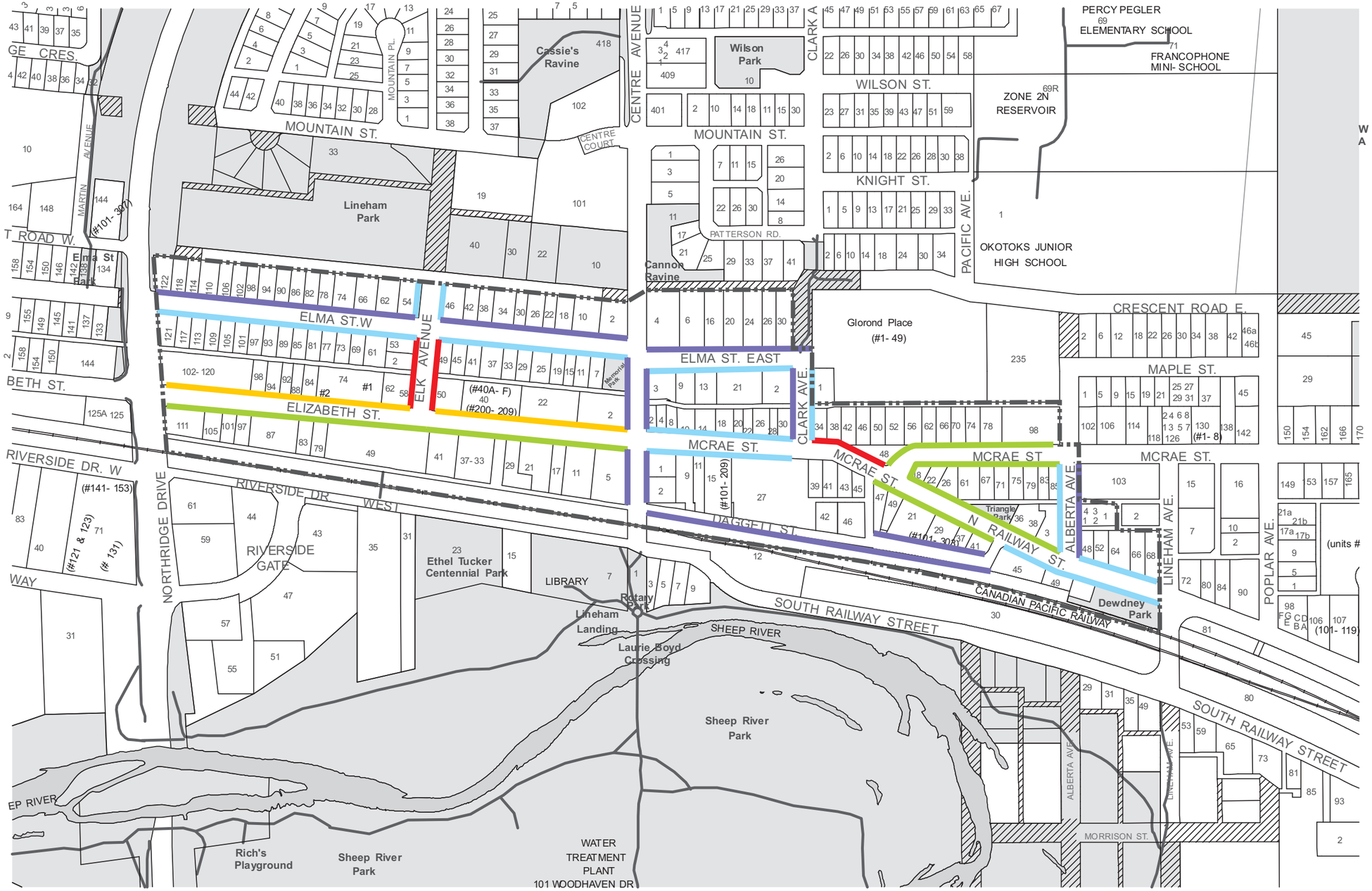
Base Map Source: The Town of Okotoks

Exhibit 2.4

Average 3 Hr. Peak Occupancy - Tuesday April 23, 2013 (12PM - 3PM)

Okotoks Downtown Parking Study
December 2013 Scale NTS

bunt & associates



Base Map Source: The Town of Okotoks

LEGEND

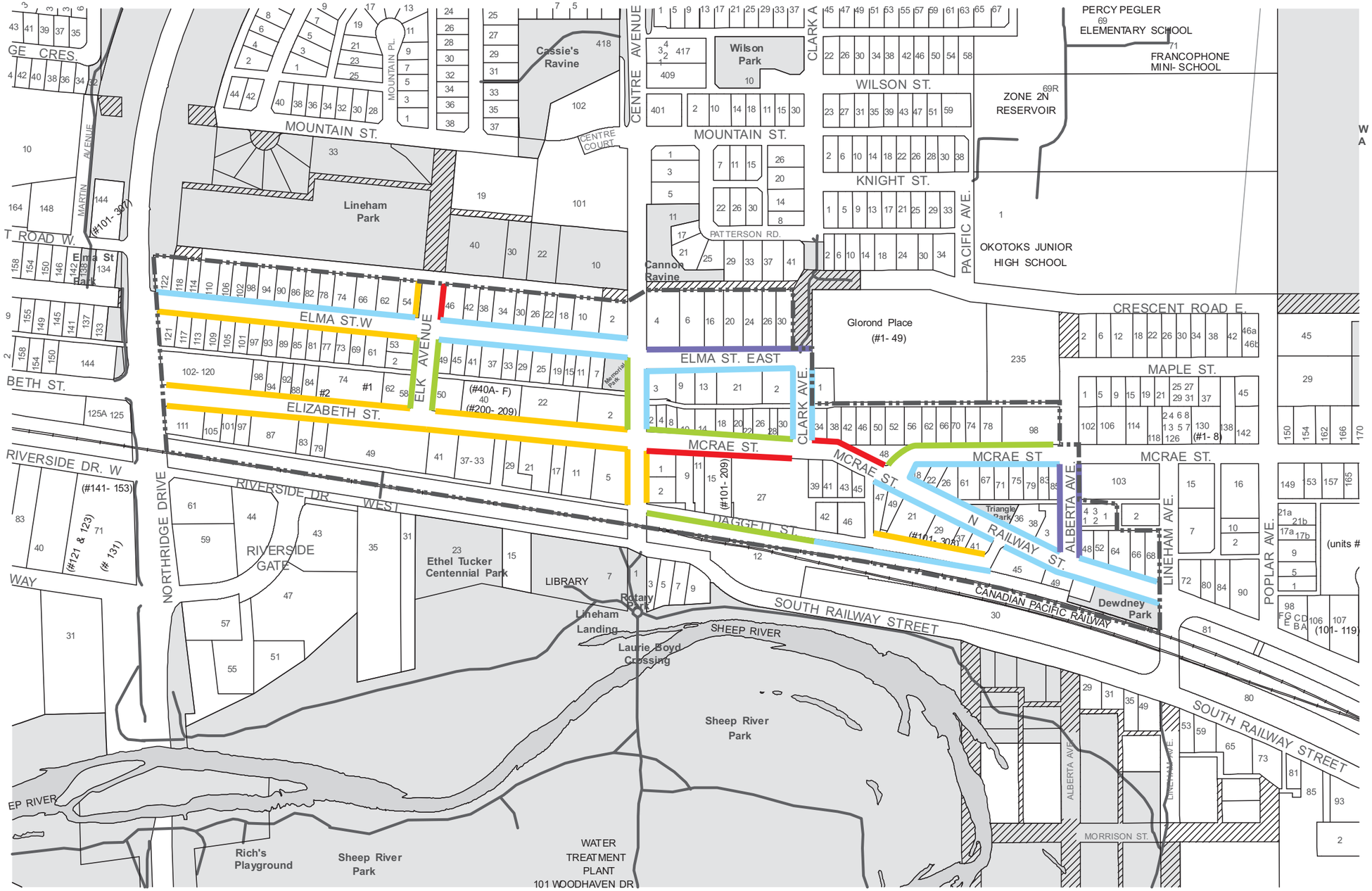
- Study Area Boundary
- 85%-100% Occupancy
- 70%-84% Occupancy
- 50%-69% Occupancy
- 25%-49% Occupancy
- 0%-24% Occupancy

Exhibit 2.5

Average 3 Hr. Peak Occupancy - Saturday April 20, 2013 (12PM - 3PM)

Okotoks Downtown Parking Study
December 2013 Scale NTS

bunt & associates



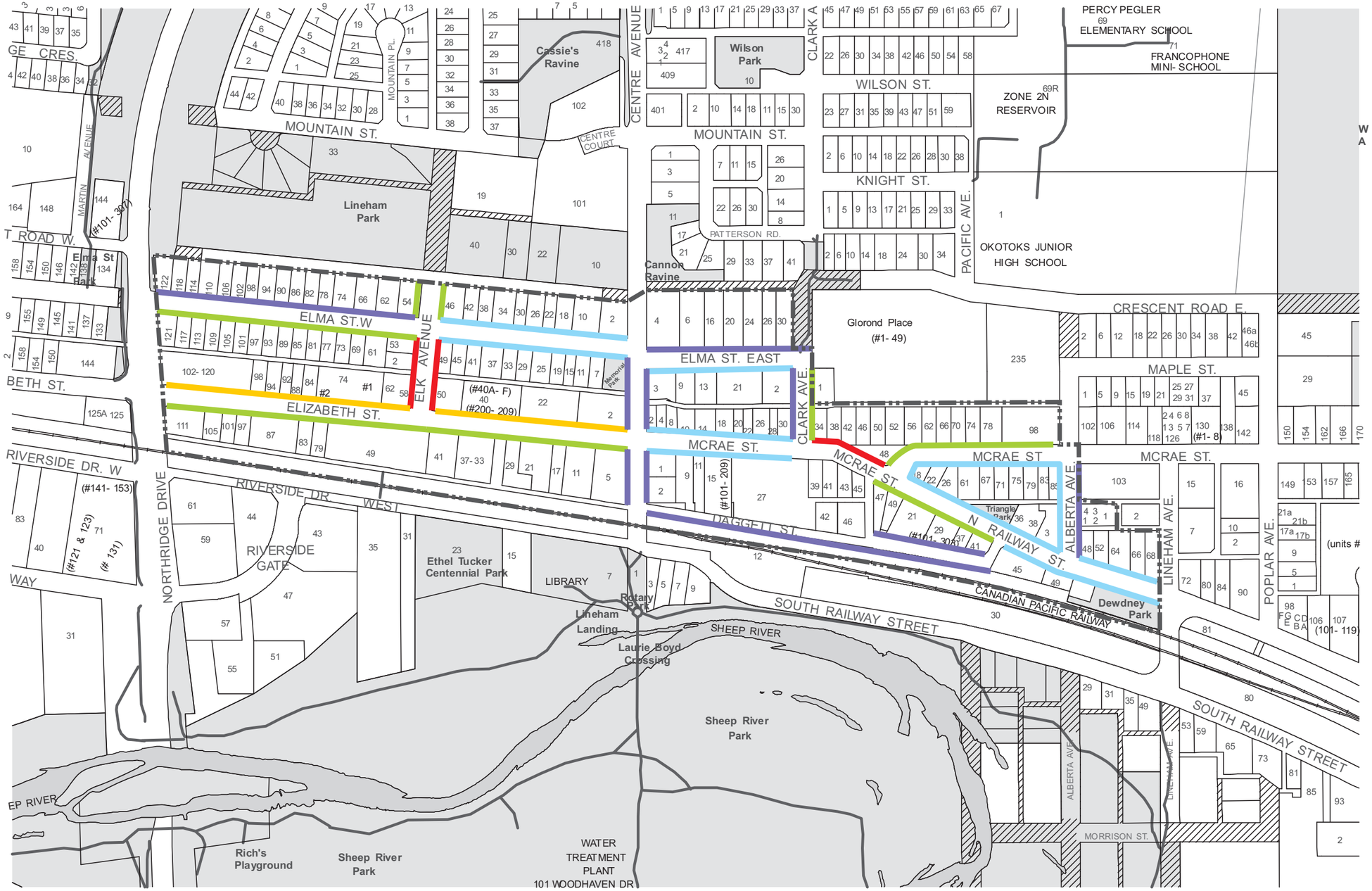
Base Map Source: The Town of Okotoks

Exhibit 2.6

Peak Hour Occupancy - Tuesday April 23, 2013 (1PM)

Okotoks Downtown Parking Study
December 2013 Scale NTS

bunt & associates



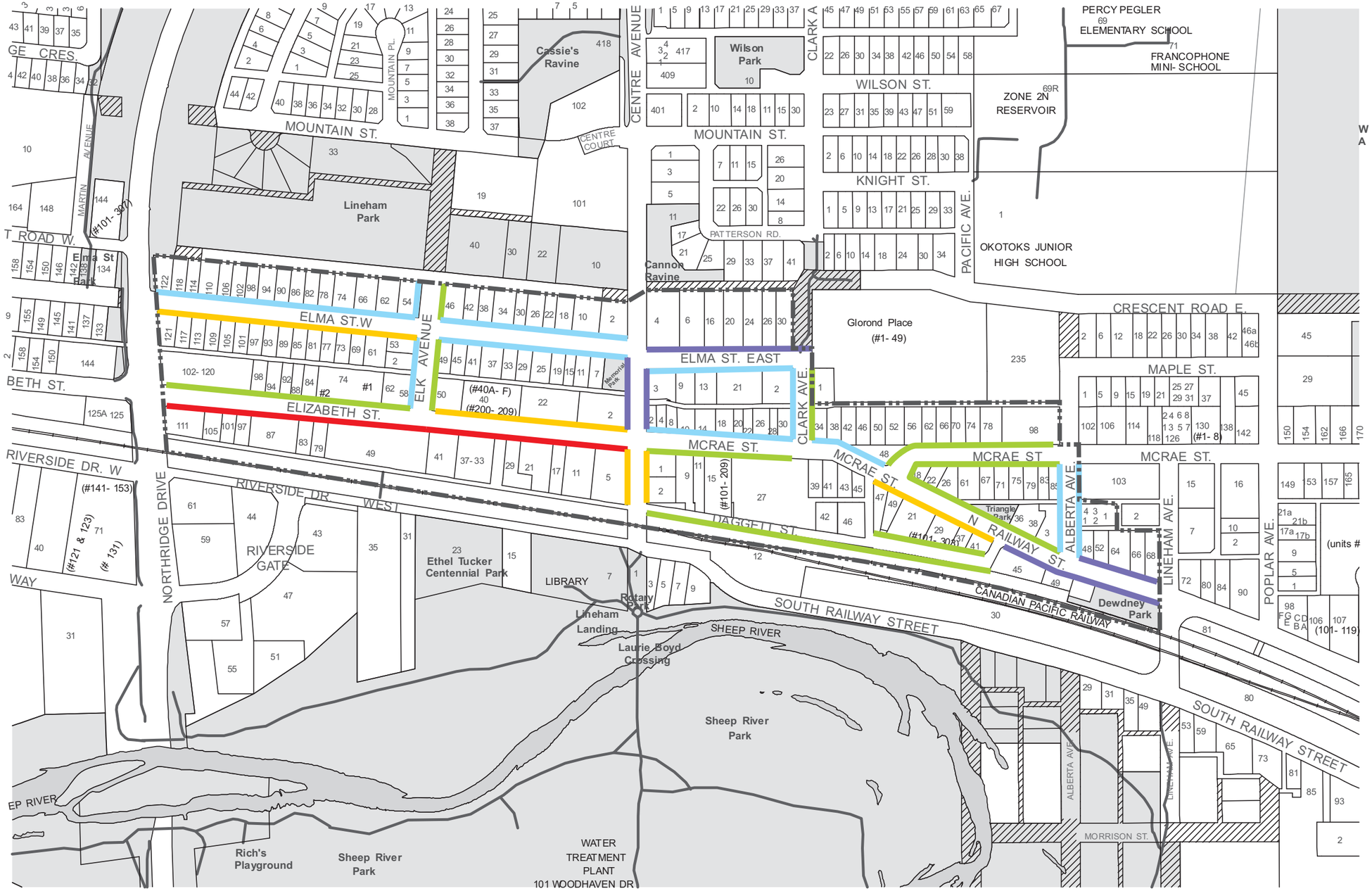
Base Map Source: The Town of Okotoks

Exhibit 2.7

Peak Hour Occupancy - Saturday April 20, 2013 (2PM)

Okotoks Downtown Parking Study
December 2013 Scale NTS

bunt & associates

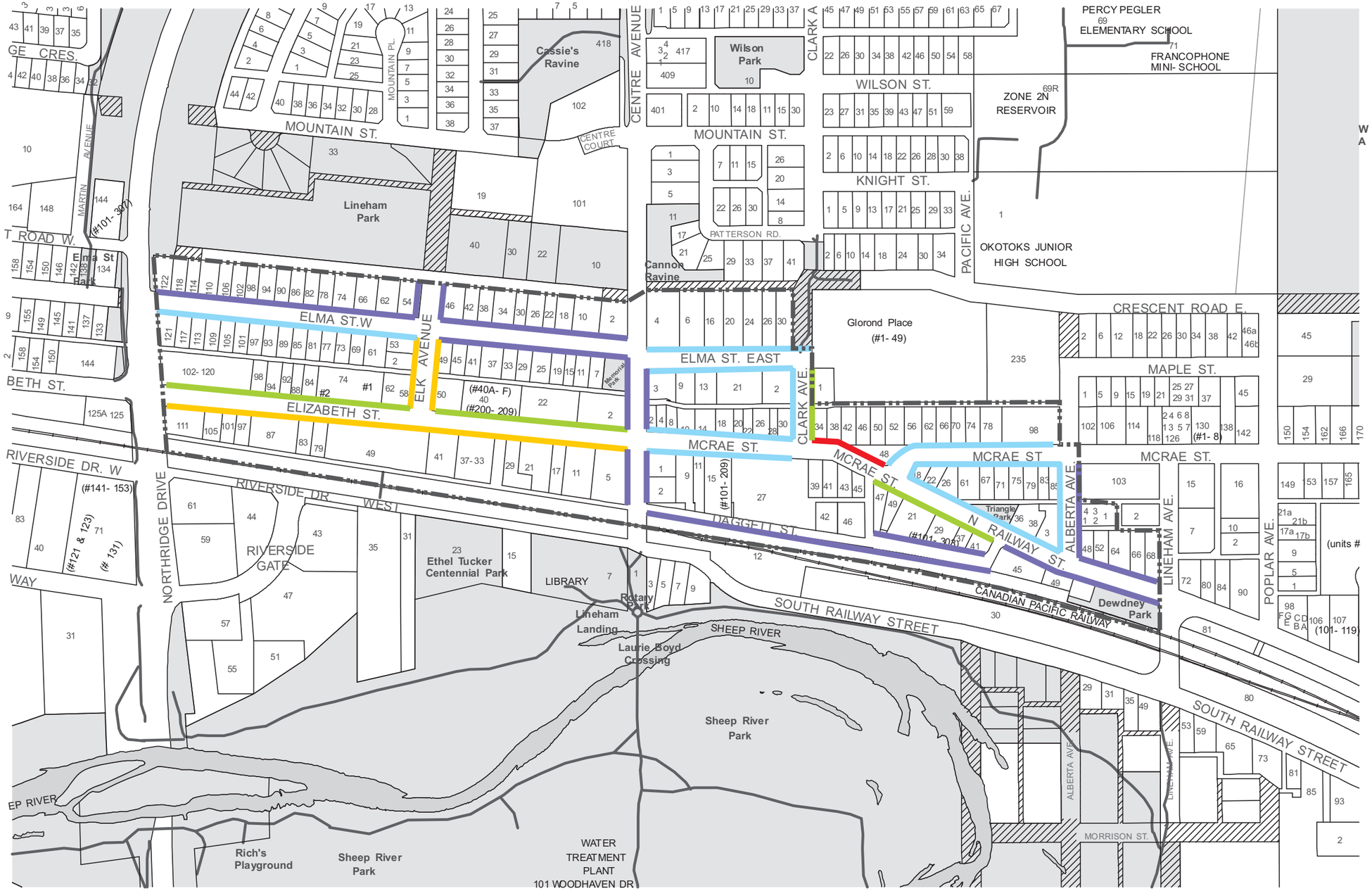


Base Map Source: The Town of Okotoks

Exhibit 2.8

Average 3 Hour Peak Occupancy - Thursday September 26, 2013 (11AM - 2PM)

Okotoks Downtown Parking Study
December 2013 Scale NTS



Base Map Source: The Town of Okotoks

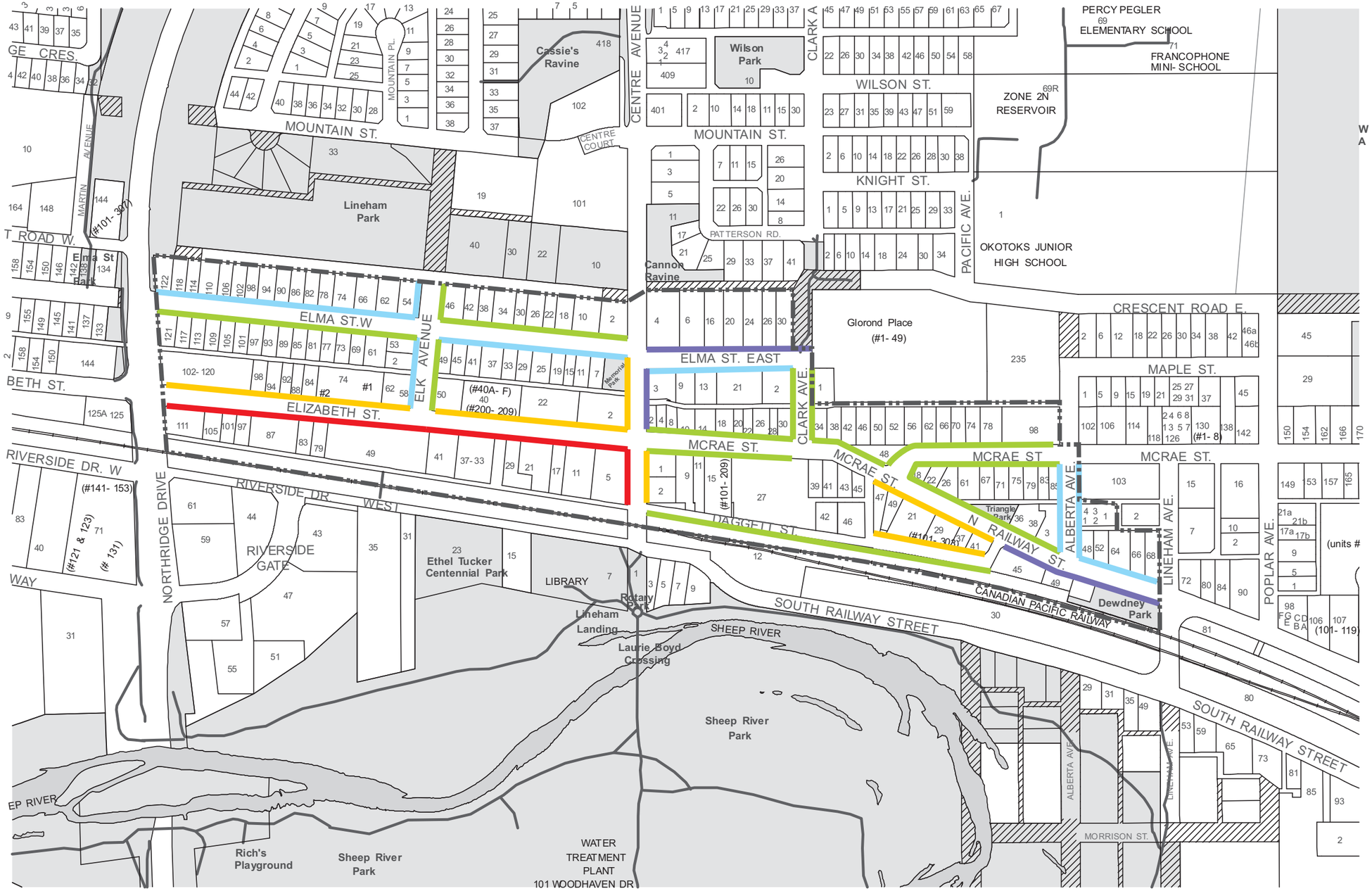
LEGEND

- Study Area Boundary
- 85%-100% Occupancy
- 70%-84% Occupancy
- 50%-69% Occupancy
- 25%-49% Occupancy
- 0%-24% Occupancy

Exhibit 2.9

Average 3 Hour Peak Occupancy - Saturday September 28, 2013 (1PM - 4PM)

Okotoks Downtown Parking Study
December 2013 Scale NTS



LEGEND

- Study Area Boundary
- 85%-100% Occupancy
- 70%-84% Occupancy
- 50%-69% Occupancy
- 25%-49% Occupancy
- 0%-24% Occupancy

Base Map Source: The Town of Okotoks

Exhibit 2.10

Peak Hour Occupancy - Thursday September 26, 2013 (12PM)

Okotoks Downtown Parking Study
December 2013 Scale NTS

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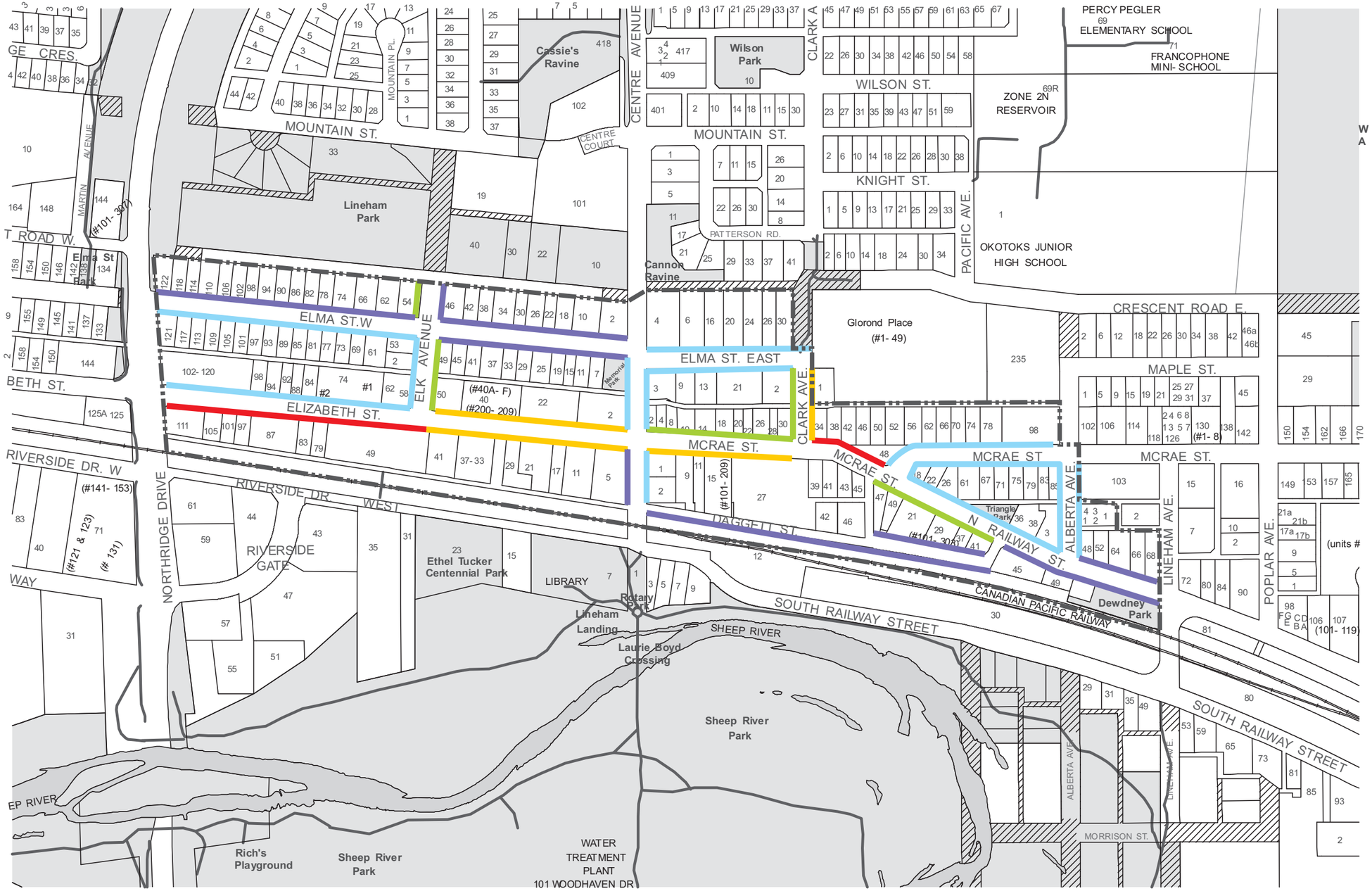

LEGEND

- Study Area Boundary
- 85%-100% Occupancy
- 70%-84% Occupancy
- 50%-69% Occupancy
- 25%-49% Occupancy
- 0%-24% Occupancy

Base Map Source: The Town of Okotoks

Exhibit 2.11

Peak Hour Occupancy - Saturday September 28, 2013 (1PM)

Okotoks Downtown Parking Study
December 2013 Scale NTS

bunt & associates

Table 2.3: On-Street Occupancy (April 2013)

Zone	Supply	Weekday (April 23, 2013 Tuesday)				Weekend (April 20, 2013 Saturday)			
		Peak Demand	% Peak Occupancy	3-Hour Peak Demand	% 3-Hour Peak Occupancy	Peak Demand	% Peak Occupancy	3-Hour Peak Demand	% 3-Hour Peak Occupancy
West	120	77 (1PM)	64%	72 (12PM-3PM)	60%	66 (2PM)	55%	64 (2PM-5PM)	53%
Central	241	128 (1PM)	53%	122 (12PM-3PM)	51%	71 (10AM)	29%	66 (1PM-3PM)	28%
East	165	72 (12PM)	44%	70 (11AM-2PM)	42%	67 (12PM)	41%	64 (12PM-3PM)	39%
STUDY AREA	**526**	**265 (1PM)**	**50%**	**252 (12PM-3PM)**	**48%**	**192 (2PM)**	**37%**	**185 (12PM-3PM)**	**35%**

Table 2.4: On-Street Occupancy (September 2013)

Zone	Supply	Weekday (September 26, 2013 Thursday)				Weekend (September 28, 2013 Saturday)			
		Peak Demand	% Peak Occupancy	3-Hour Peak Demand	% 3-Hour Peak Occupancy	Peak Demand	% Peak Occupancy	3-Hour Peak Demand	% 3-Hour Peak Occupancy
West	120	78 (11AM)	65%	77 (11AM-2PM)	64%	54 (3PM)	45%	51 (1PM-4PM)	43%
Central	241	135 (11AM)	56%	133 (9AM-1PM)	55%	84 (1PM)	35%	78 (12PM-3PM)	32%
East	165	89 (12PM)	54%	82 (10AM-1PM)	50%	46 (11AM)	28%	43 (11AM-2PM)	26%
STUDY AREA	**526**	**284 (12PM)**	**54%**	**278 (11AM-2PM)**	**53%**	**177 (1PM)**	**34%**	**170 (1PM-4PM)**	**32%**

The key findings of the analysis are summarized here:

- The overall peak period occurs during the early afternoon, with the weekdays experiencing higher peak occupancies. Considering the current mixture of land uses (i.e., employee based), the weekday peak is expected for the downtown area. With this in mind, there are opportunities to introduce land uses that utilize some the existing parking inventory, specifically during the evenings and weekends.
- The overall peak hour occupancy remains between 50-54% on weekdays and 34-37% on weekends. This suggests there are a sufficient number of spaces within the downtown area to accommodate the current parking demand. It is noted that the majority (if not all) of the on-street spaces are within a reasonable walking distance (i.e., 600m) to the high demand land uses. With this in mind, the current inventory could support additional development without developing additional parking spaces (albeit supporting parking studies would need to be conducted to verify the impacts are deemed minimal).
- The west zone has the highest on-street occupancy on both weekdays and weekends, and certain blocks within the downtown west zone experience peak occupancies above 85%, specifically Elizabeth Street. The parking demand on this street was observed to be occupied the majority of the time during both the weekday and weekends.
- Demand did not differ significantly between April and September

Off-Street Parking Occupancy

The results of the off-street assessment for both the 3-hour parking occupancy values and the peak occupancy are summarized in **Table 2.5** and **Table 2.6.**

Table 2.5: Off-Street Occupancy (April 2013)

Zone	Supply	Weekday (April 23, 2013 Tuesday)				Weekend (April 20, 2013 Saturday)			
		Peak Demand	% Peak Occupancy	3-Hour Peak Demand	% 3-Hour Peak Occupancy	Peak Demand	% Peak Occupancy	3-Hour Peak Demand	% 3-Hour Peak Occupancy
West	203	130 (11AM)	64%	124 (11AM-2PM)	61%	111 (12PM)	55%	108 (2-5PM)	63%
Central	382	257 (1PM)	67%	247 (1PM-4PM)	65%	123 (12PM)	32%	114 (10-1PM)	30%
East	98	46 (12PM)	47%	45 (11AM-2PM)	46%	43 (1PM)	44%	38 (11-2PM)	39%
STUDY AREA	**683**	**417 (11AM)**	**61%**	**412 (11-2PM)**	**60%**	**269 (12PM)**	**39%**	**256 (11-2PM)**	**37%**

Table 2.6: Off-Street Occupancy (September 2013)

Zone	Supply	Weekday (September 26, 2013 Thursday)				Weekend (September 28, 2013 Saturday)			
		Peak Demand	% Peak Occupancy	3-Hour Peak Demand	% 3-Hour Peak Occupancy	Peak Demand	% Peak Occupancy	3-Hour Peak Demand	% 3-Hour Peak Occupancy
West	203	137 (12PM)	67%	135 (12PM-3PM)	67%	121 (2PM)	60%	115 (2PM-5PM)	57%
Central	382	265 (11PM)	69%	265 (10AM-1PM)	69%	141 (11AM)	37%	131 (11AM-2PM)	34%
East	98	37 (12PM)	38%	31 (11AM-2PM)	32%	27 (1PM)	28%	24 (12PM-3PM)	25%
STUDY AREA	**683**	**438 (12PM)**	**64%**	**424 (11AM-2PM)**	**62%**	**265 (2PM)**	**39%**	**262 (12PM-3PM)**	**39%**

The key findings of the analysis are summarized here:

- The results of the analysis confirmed that the off-street occupancy is higher than on-street occupancy. This suggests that the majority of the employees/visitors to the downtown area preferred to park as close as possible to the desired land use.
- The off-street parking demand was observed to be different for the various areas within the downtown area. For example, the central zone has the highest off-street occupancy on weekdays, whereas the west zone had the highest off-street occupancy on the weekends. Considering the mixture of the land uses (i.e., more retail in the west and a higher concentration of office in the central area), the peak parking behaviour is considered to be typical.
- While certain lots experience peak occupancies above 90%, the overall peak hour occupancy remains between 61-64% on weekdays and 39% on weekends
- Demand did not differ significantly between April and September

2.1.3 Average Duration of Stay

In order to understand temporal distribution of demand throughout the day as well as the proportion of short stay versus long stay, a duration analysis was performed on the observed parking demand data. Duration of stay data was collected for on-street spaces within the downtown area. The largest observation of on-street parking duration was under one hour during the survey period.

A summary of duration of stay on the two study days is shown in **Table 2.7** and **Table 2.8.**

Table 2.7: On-Street Parking Space Duration of Stay – April 2013

Hours Stayed	Tuesday (8AM-8PM)	Saturday (10AM-8PM)
0 – 1 Hours	547	373
1 – 2 Hours	127	122
2 – 3 Hours	72	51
3 – 4 Hours	37	31
4 – 5 Hours	20	16
5+ Hours	95	50

Table 2.8: On-Street Parking Space Duration of Stay – September 2013

Hours Stayed	Thursday (9AM-6PM)	Saturday (11AM-5PM)
0 – 1 Hours	476	280
1 – 2 Hours	99	99
2 – 3 Hours	65	32
3 – 4 Hours	33	23
4 – 5 Hours	29	7
5+ Hours	98	38

As can be seen from Tables 2.7 to 2.8, the on-street parking spaces are being used extensively for short stay parking. This is consistent with their intent, and as such, the current activity represents what should in fact be occurring. Most of the parking demand was 2 hours or less. The reason may be because of the parking restrictions on most of the streets within the study area. The result confirms that for the most part, drivers appear to be obeying the parking restriction rules. That said, a review of the long stay parking (i.e., greater than 4 hours) indicated that on weekdays approximately 115 to 127 vehicles are considered to be long stay parkers in spots that are considered to be very desirable for short stay/high turnover parking. Ideally, long stay parkers/patrons should be placed in long stay facilities.

2.1.4 Parking Needs Assessment

A detailed parking needs assessment was completed to determine whether-or-not the current parking supply adequately accommodates the parking demand during the design period (weekends and weekdays) for both employees and visitors of the downtown area. In assessing the existing parking supply and the associated demand as they relate to potential deficiencies of stalls, a practical capacity threshold was established. For short-stay parking (in this case, the on-street spaces), the threshold occupancy value is set at approximately 85 percent. This threshold value takes into consideration spaces that are not usable due to improper parking or the affects of snow clearing. It also considers the potential frustration that can occur for parkers having difficulties to easily find an available stall when trip durations are short. For parking facilities that cater to longer-stay parkers, the threshold practical value can be in the order of 95 percent. This threshold value can also be set to a mid-point of 90 percent where the parking facility tends to serve both short and long-stay parkers.

Three observations may indicate that deficiencies exist:

- Large number of illegally parked vehicles.
- Large number of vehicles parked at significant distances from primary parking generators.
- High parking occupancy levels which occur for long periods of the day and/or where maximum accumulations reach the point of maximum capacity.

Parking Space Utilization

Based on the parking data collected during the April and September 2013 conditions, a supply/demand analysis was completed based on typical capacity thresholds (85% for short-stay on-street to 90% for long-stay off-street parking) and on the peak and average peak 3-hour parking occupancy values.

The resulting On-street and Off-street Parking deficiencies are summarized in **Table 2.9, Table 2.10A and Table 10B**.

Table 2.9: On-Street Deficiencies Based on April Demand

Street	Between	Block Face	Parking Supply	Practical Supply	3-Hour Avg. Peak Demand	Peak Demand	Parking Space Deficiency
Tuesday April 23, 2013							
Elizabeth St	Elk to Centre	North	17		13	15	
Elizabeth St	Elk to Centre	South	14		11	13	
McRae St	Centre to Clark	South	10		7	10	
McRae St	Clark to N Railway	North	5		5	5	
Elk Ave	Crescent to Elma	East	3		3	3	
Centre Ave	McRae to Daggett	West	4		4	5	
Centre Ave	McRae to Daggett	East	4		4	4	
Daggett St	Centre to Clark	North	9		8	8	
TOTAL			**66**	**56**	**55**	**63**	**0 to 7**
Saturday April 20, 2013							
Elizabeth St	Elk to Centre	North	17		**14**	**15**	
Elizabeth St	Elk to Centre	South	14		**9**	**12**	
McRae St	Centre to Clark	South	10		**8**	**10**	
McRae St	Clark to N Railway	North	5		**5**	**5**	
Elk Ave	Elma to Elizabeth	West	9		**9**	**9**	
Elk Ave	Elma to Elizabeth	East	6		**6**	**6**	
TOTAL			**61**	**52**	**51**	**57**	**0 to 5**

Table 2.10A: On-Street Deficiencies Based on September Demand

Street	Block	Block Face	Parking Supply	Practical Supply	3-Hour Avg. Peak Demand	Peak Demand	Parking Space Deficiency
Thursday September 26, 2013							
Elizabeth St	Northridge to Elk	South	21		18	20	
Elizabeth St	Elk to Centre	North	17		15	16	
Elizabeth St	Elk to Centre	South	14		14	14	
N Railway	McRae to Dagget	South	14		10	12	
Elk Ave	Crescent to Elma	West	4		4	4	
Centre Ave	McRae to Daggett	West	4		4	4	
Centre Ave	McRae to Daggett	East	4		4	5	
TOTAL			**82**	**70**	**69**	**75**	**0 to 5**
Saturday September 28, 2013							
Elizabeth St	Northridge to Elk	South	21		16	21	
McRae St	Clark to N Railway	North	5		4	5	
Elk	Elma to Elizabeth	West	9		8	9	
TOTAL			**35**	**30**	**28**	**35**	**0 to 5**

Table 2.10B: Off-Street Deficiencies Based on April Demand

Zone	Parking Lot	Parking Supply	Practical Supply	3- Hour Average Peak Demand	Peak Demand	Parking Space Deficiency
Tuesday April 23, 2013						
West	Executive Business Centre Front & Back	25	23	22	24	0 to 1
West	54 Elma St	10	9	11	11	2
Central	Star Cast Lot	31	28	24	29	0 to 1
Central	Public Stockton Lot	14	13	12	15	0 to 2
TOTAL		**80**	**73**	**69**	**79**	**2 to 6**
Saturday April 20, 2013						
West	Town Square Strip Mall	**55**	**50**	**49**	**51**	**0 to 1**
Thursday September 26, 2013						
West	Re/MAX & Big Rock Inn	20	18	19	20	1 to 2
Central	Okotoks Professional	27	24	23	25	0 to 1
Central	1-15 McRae Centre	62	56	55	57	0 to 1
TOTAL		**109**	**98**	**97**	**102**	**1 to 4**
Saturday September 28, 2013						
West	Town Square Strip Mall	55	50	52	55	2 to 5
West	Dagget Retail	26	23	22	24	0 to 1
TOTAL		**81**	**73**	**74**	**79**	**2 to 6**

The key findings of the analysis are summarized here:

- The results of the parking needs assessment generally confirmed there is a sufficient amount of parking for the current land use mixture if the whole Downtown were considered together. In other words, additional parking spaces are not required for the downtown area. That said, the introduction of additional spaces in the high demand areas (in the west and central zones) may mitigate some of the parking concerns in those areas, specifically:
    - On streets with occupancy above 85%, the deficiency is between 0 to 7 stalls
    - On lots with occupancy above 90%, the deficiency is between 2 to 6 stalls
- Deficiencies on weekdays tend to occur on lots associated with employees, while deficiencies on weekends occur on retail parking lots.

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3. PUBLIC CONSULTATION

3.1 Background

As part of the overall program for the Downtown Parking Study, the Town of Okotoks and Bunt & Associates undertook a public consultation exercise. The overall consultation process was managed and led by the Town Administration. Bunt & Associates' role was to support Administration, respond to any inquiries that arose through the process, and to present draft and final reports to Administration.

The process was limited to on-line questionnaire exercise, and the intent of the consultation process was to seek input from the general public regarding the potential concerns related to the Downtown parking conditions and possible solutions to mitigate these concerns. As part of the overall process, the information generated from this process was reviewed, assessed, and incorporated into the overall planning process.

3.2 Input Received

3.2.1 Town Online Survey

Bunt & Associates prepared a set of questions for the online survey conducted by the Town of Okotoks. The survey targeted both the business owners and residents of downtown Okotoks. A total of 95 responses were obtained through the process, out of which, 56% of the respondents were Business Owners and 44% were local residents. The survey questions and the full results are outlined in the following sub-sections and in **Appendix B.** As well, all additional input/correspondence from the public is attached in Appendix B.

Business Owner Survey Results

Do your customers frequently complain about insufficient parking?

Answer Options	Response Count	Response Percent
Yes	28	52.8%
No	25	47.2%
Total Responses	*53*	

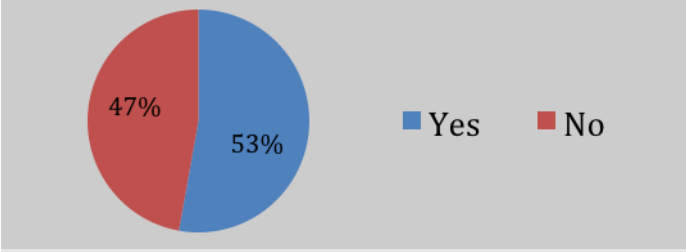

Figure 3.1: Business Owners Response on Available Parking

Where are the parking problems?

Answer Options	Response Count	Response Percent
On the street	16	30.2%
Near your place of business (e.g. parking lot or lane)	9	17.0%
Other, please specify	9	17.0%
No parking problem specified	19	35.8%
Total Responses	*53*	

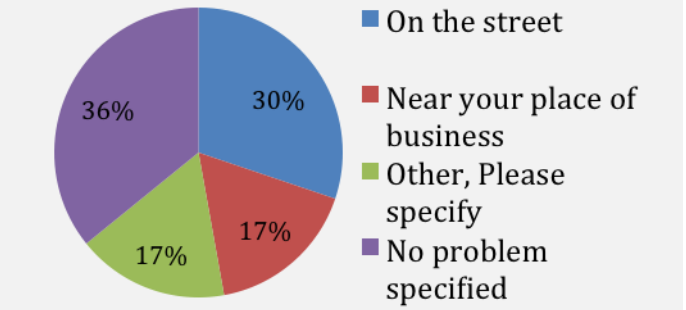

Figure 3.2: Business Owners Response on Parking Areas

Paid Parking

Answer Options	Response Count	Response Percent
Good idea	3	5.7%
Poor idea	44	83.0%
No opinion	6	11.3%
Total Responses	*53*	

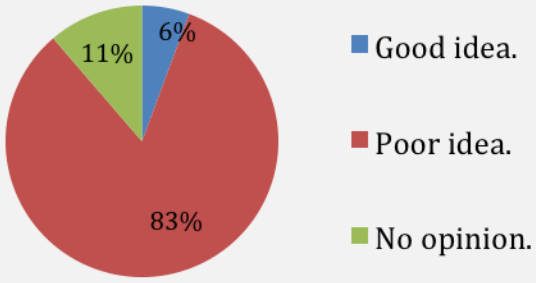

Figure 3.3: Business Owners Response on Paid Parking

Increase parking enforcement

Answer Options	Response Count	Response Percent
Good idea	17	32.1%
Poor idea	24	45.3%
No opinion	12	22.6%
Total Responses	*53*	

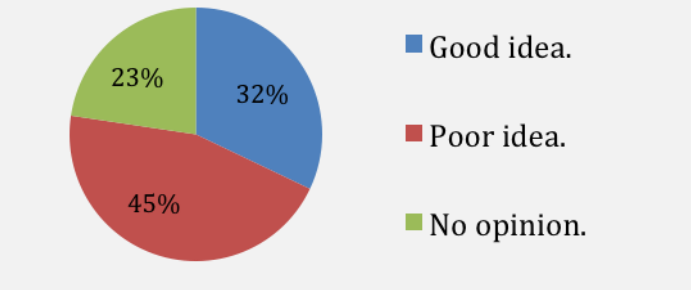

Figure 3.4: Business Owners Response on Parking Enforcement

Improved parking signage

Answer Options	Response Count	Response Percent
Good idea	38	76.0%
Poor idea	7	14.0%
No opinion	5	10.0%
Total Responses	*53*	

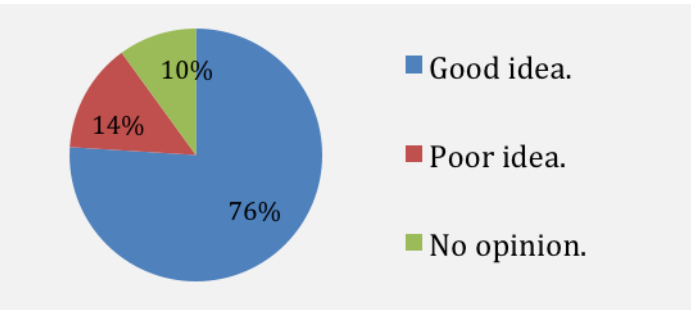

Figure 3.5: Business Owners Response on Parking Signage

Development of long-term parking locations. (e.g. parkade)

Answer Options	Response Count	Response Percent
Good idea	40	76.9%
Poor idea	5	9.6%
No opinion	7	13.5%
Total Responses	*53*	

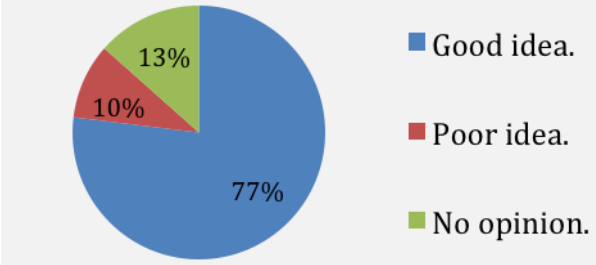

Figure 3.6: Business Owners Response on Future Parking Facilities

Enhance pedestrian and multi-use pathways and provide additional bike lanes

Answer Options	Response Count	Response Percent
Good idea	22	42.3%
Poor idea	14	26.9%
No opinion	16	30.8%
Total Responses	*53*	

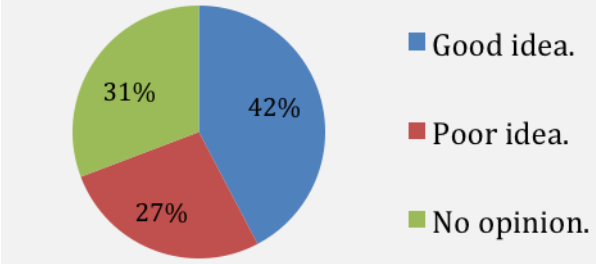

Figure 3.7: Business Owners Response on Active Modes

Do you provide designated parking spaces for employees?

Answer Options	Response Count	Response Percent
Yes	32	61.5%
No	20	38.5%
Total Responses	*52*	

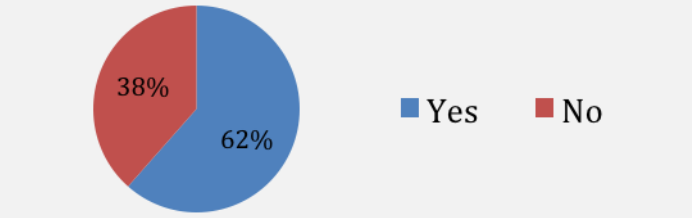

Figure 3.8: Business Owners Response on Reserved Parking

If yes, where are the spaces provided?

Answer Options	Response Count	Response Percent
Parking lot	17	48.6%
Back lane	18	51.4%
Separate off-site parking lot	0	0.0%
Total Responses	*35*	

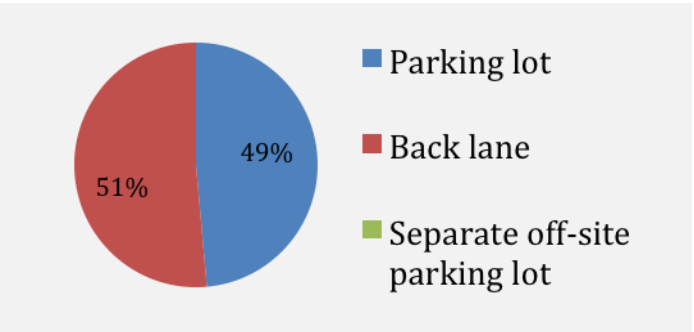

Figure 3.9: Business Owners Response on Future Parking Locations

If no, where do your employees park?

Answer Options	Response Count	Response Percent
On-street	13	37.1%
On your parking lot	15	42.9%
Separate off-site parking lot	3	8.6%
Other (walk, cycle, carpool,...)	4	11.4%
Total Responses	*35*	

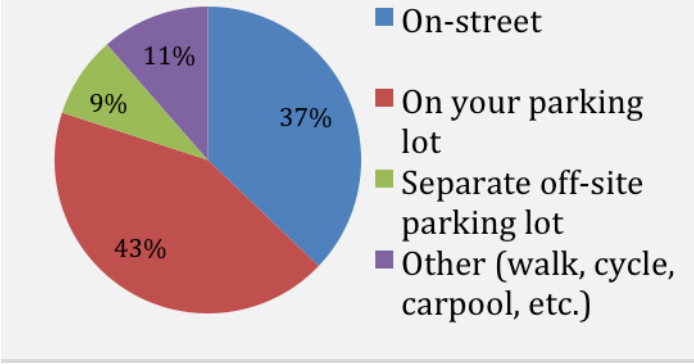

Figure 3.10: Business Owners Response on Placement of Current Employee Parking

How far are you willing to walk for free parking?

Answer Options	Response Count	Response Percent
Less than 1 Block	13	24.1%
1 Block	16	29.6%
2 Blocks	9	16.7%
3 Blocks	10	18.5%
Greater than 3 Blocks	6	11.1%
Total Responses	*54*	

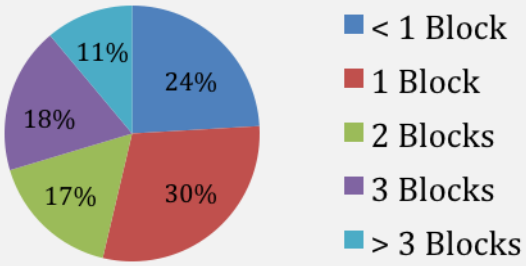

Figure 3.11: Business Owners Response on Walking Distance

Residential Survey Results

Does the Downtown parking activity affect your residential parking experience?

Answer Options	Response Count	Response Percent
Yes	13	31.0%
No	29	69.0%
Total Responses	*42*	

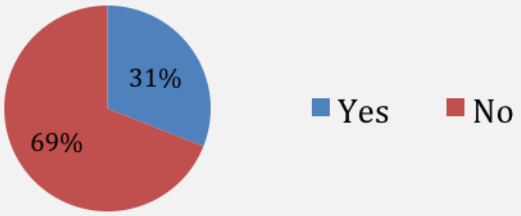

Figure 3.12: Residents Response on Parking Impacts

Paid Parking

Answer Options	Response Count	Response Percent
Good idea	2	4.9%
Poor idea	37	90.2%
No opinion	2	4.9%
Total Responses	*41*	

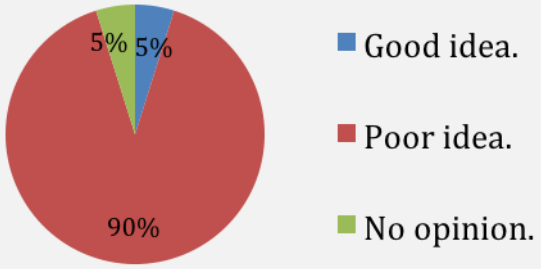

Figure 3.13: Residents Response on Paid Parking

Increase parking enforcement

Answer Options	Response Count	Response Percent
Good idea	20	50.0%
Poor idea	13	32.5%
No opinion	7	17.5%
Total Responses	*40*	

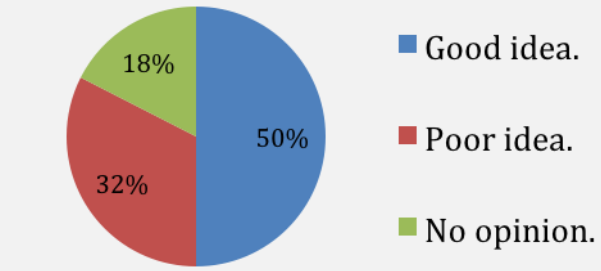

Figure 3.14: Residents Response on Parking Enforcement

Improved parking signage

Answer Options	Response Count	Response Percent
Good idea	26	66.7%
Poor idea	6	15.4%
No opinion	7	17.9%
Total Responses	*39*	

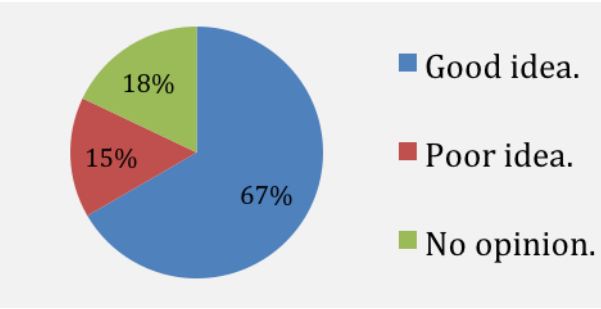

Figure 3.15: Residents Response on Parking Signage

Development of long-term parking locations. (e.g. parkade)

Answer Options	Response Count	Response Percent
Good idea	61.0%	61.0%
Poor idea	34.1%	34.1%
No opinion	4.9%	4.9%
Total Responses	*41*	

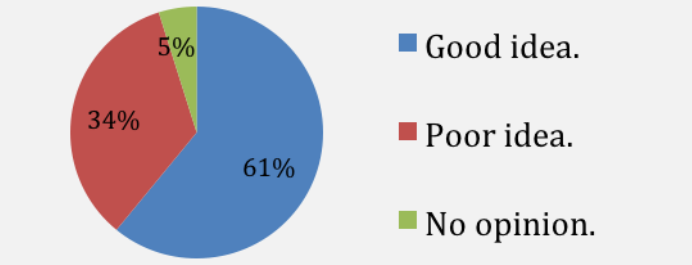

Figure 3.16: Residents Response on Future Parking Facilities

Enhance pedestrian and multi-use pathways and provide additional bike lanes

Answer Options	Response Count	Response Percent
Good idea	24	58.5%
Poor idea	10	24.4%
No opinion	7	17.1%
Total Responses	*41*	

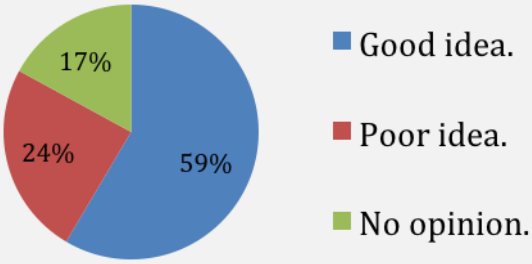

Figure 3.17: Residents Response on Active Modes

3.3 Summary of Inputs

3.3.1 Key Trends

These were the reoccurring key trends that were heard throughout the public consultation process:

- Parking congestion is considered to be an issue for the majority of the business owners, specifically for the customers; however, residents in the downtown area do not consider parking congestion to be a major concern.
- Both business owners and residents of downtown support the need for future parking lots for the downtown area.
- The residents of downtown support the need to improve pedestrian and bike activity in downtown; however only 40% of the business owners support the need to improve the active mode network.
- Both the business owners and residents of downtown do not support paid parking.
- Although the resident supports parking enforcement, the business owner do not support this a solution to be viable.
- Both business owners and residents of downtown support enhancements to the parking signage.
- Approximately 40% of the employees in the downtown park on the street.
- Of the employers that provided staff parking, approximately 50% of the business owners provide on-site parking.

4. PARKING ISSUES

4.1 Identification of Emerging Parking Issues

In terms of emerging parking related issues, several areas were determined to be in need of attention, either under existing conditions or into the future. In addition, Bunt & Associates has also identified additional emerging issues as a result of input received from the public input, specifically the on-line questionnaire.

The full list of emerging issues assessed as part of the study are summarized here:

- Overall, the available parking spaces were underutilized, both street and in designate parking areas. The on-street parking supply appears to be the preferred parking locations for both customers and employees, which follows the typical parking hierarchies (i.e., on-street parking is the first choice).
- There is insufficient signage to available parking (specifically to the public on-site parking spaces), resulting in the on-street parking being more intensely used on certain block faces.
- Lack of long-term employee parking – employees parking in front of establishments and/or on the street, and in some cases, double parking behind buildings were observed.
- Heavily utilized parking on certain block faces induce vehicles to circulate in preferred parking areas, which leads to traffic congestion/safety issues (i.e., pedestrian/vehicle related conflicts) on key roadways.
- High parking demand in preferred parking areas. Observations confirm that certain areas within downtown are heavily parked, and result in other operational issues.
- The results of the duration analysis confirmed that there are a number of long stay parkers utilizing the short stay spaces. Based on discussions the Town, enforcement is limited and generally complaint driven.

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5. PARKING MANAGEMENT

5.1 Parking Management Options

As summarized in Section 4.0, there is indeed a need for some form of parking strategy. With this in mind, a series of parking management options were developed and assessed. These possible solutions are summarized in the following sub-sections.

5.1.1 Development of Additional Parking Facilities

Based the existing parking behaviour and on the parking needs assessment, there are a number of long stay patrons parking in the short stay spaces (i.e., on the street), up to 127 spaces were identified. With development, demand for short stay parking stalls is expected to increase with time. If the growth occurs and no further improvements in the way of either enhanced parking management or increased parking supply, then the current parking conditions is expected to be exacerbated. To alleviate this demand (both current and future), long-stay patrons should be placed/relocated to an off-street parking facility. It is noted there are a number of factors that determine the optimum location, and typically include: 1) Capacity or Roads or Traffic Impacts, 2) Walking Distance to the Study Area Land Uses, 3) Social Considerations, 4) Environmental Impacts, and 5) Costing Related Issues.

The results of the high level assessment (specifically based on Town ownership and walking distance) suggest that the placement of the long term facility could be situated on the eastside of the downtown area. With the development of an off-street parking facility, the long-stay parkers could be relocated the off-street parking facility and therefore providing more short stay spaces in the high demand parking areas. The high level assessment is summarized in **Appendix C**.

5.1.2 Introduce Market Pricing of On-street Parking

This option would allow the Town to charge for on-street parking. On-street parking spaces are the most desirable spaces to park. This applies to customers and to staff since these stalls are the easiest to see and often closest to the businesses that are being visited. Appropriate or "right" pricing has been determined as that which would always result in approximately 85% occupancy (Dan Zack, 2005)[2]. By pricing the on-street parking space appropriately, customers who are willing to pay will always have spaces as approximately one in eight spaces are projected to be available at 85% occupancy. Studies have also shown that when parking turnover is encouraged, businesses tend to benefit.

[2] Dan Zack, 2005. " The Downtown Redwood City Parking Management Plan "

If the pay to park operation starts early enough in the day, and continues late enough in the day to also capture the arrival of the entertainment and dinning customers. By doing so, the available on-street spaces would be used by more customers. Businesses would also benefit, especially those catering to eating and drinking which do most of their businesses in the evening. This is therefore the time when parking needs to be most controlled. One of the means of controlling parking is to match the business operating hours with pay-to-park operations.

Since this option would increase turn over, it would result in less driving by the visitors to the Downtown. Employees in the Downtown who may have been parking on-street because of the current on-street parking pricing regime may be encouraged to use other means of transportation.

That said, the provision of paid parking has the potential to result in those seeking free parking to spill into the residential streets. As such, there may be a need to implement a residential parking permit program in adjacent communities and/or increase the level of enforcement to minimize the impacts on the adjacent streets.

All of this parking data suggested that Downtown core parking utilization could be managed in part through introducing a fee to park, either to all users or limited to certain user groups (i.e., visitors). An immediate impact of requiring a fee for parking by the hour would be an increase in stall turn-over and a reduction in residential auto usage to the core area, both of which would increase availability of stalls to visitors.

5.1.3 Optimize Parking Supplies by Using Alleys and On-site Stalls

Often, spaces behind business on private property along alleyways are not well kept or used. These spaces could be cleaned up and provided with lighting and line painting. Where there is adequate space, shared parking opportunity could be created. Attention would be called to these parking spaces by appropriate signage. The back alleys and the street would then be connected by pedestrian friendly walkways.

5.1.4 Include Shared Parking Assessment for Multi-Use Sites

Rather than providing the minimum Bylaw parking requirement for each land use in a multi-use development, this option would encourage developers to consider the temporal demand of their land uses in determining the amount of parking spaces to be provided. The calculation would be based on the minimum Bylaw parking requirement or on a parking study approved by the Town of Okotoks.

5.1.5 Improve Signage to Existing Parking

Sometimes existing parking facilities are not well utilized either because their locations are not obvious to infrequent visitors or because there is no adequate wayfinding to them. By ensuring that available parking facilities are advertised and that drivers are directed to them, they would be well used and the perception of inadequate parking would be reduced.

5.1.6 Cash in Lieu

Cash in Lieu (or fee-in-lieu as it is generally known in the USA) is a system whereby a developer or a business owner is allowed or required to provide some of the Bylaw parking requirements as cash to the municipality (e.g. Town) for building public parking facilities or for other uses that have long term aims of managing parking and transportation problems or achieving land use objectives.

Several purposes are served when Cash in Lieu funds are used to build a public parking facility. It creates a shared and joint use parking environment with the benefit of minimizing the inefficient use of Bylaw required parking spaces (Jeffery Tumlin, 2005)[3]. CIL is also intended to allow certain types of land uses to locate in the CIL areas without the need to provide all the Bylaw required parking stalls on-site (City of Calgary, 1980[4], Coconut Grove, Miami Florida[5]). CIL funds are used in some other municipalities not only for building parkades but also for constructing, maintaining, operating, leasing, managing, or otherwise providing off-street parking facilities for public use. The funds could also be used to provide public information to enhance parking utilization including publicity campaigns, graphics and signage, and other informational devices.

With the above in mind, it recommended that the Town consider replacing the one-time CIL fee with a benefit assessment Bylaw fee to be collected monthly for either a finite or indefinite period of time and used for a variety of purposes and not limited to the construction of new off-street stalls.

[3] Jeffery Tumlin, 2005. "Reforming Parking Requirements" Nelson Nygaard Consulting
[4] City of Calgary, 1980. " Land Use Bylaw" Chapter 18
[5] City of Miami, 2004. " Coconut Grove Business District Improvement Trust" Ordinance Number 12564

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6. RECOMMENDED PARKING STRATEGY

As a result of the data collection exercises and analysis of existing conditions and emerging issues, Bunt & Associates was able to gain a thorough insight into current conditions, limitations/opportunities related to future conditions, etc. Based on this analysis, it was clear to Bunt & Associates that some changes to the current parking policies are necessary. As well, assessment of current parking conditions/policies allowed Bunt & Associates to identify a series of specific improvements that are suggested for implementation by the Town based on a Short Term and Long-Term need.

The recommended parking strategy is summarized in the following sections.

6.1 Short Term Parking Strategy

- Optimize parking supplies that currently exist in lanes and on-site at existing developments.
- Improve directional signage to existing parking facilities.
- Encourage shared-parking between property owners.
- Increase enforcement of current parking Bylaws. Active enforcement will promote higher turnover rates in the high parking demand areas and will set the stage for other parking management alternatives (e.g., paid on-street parking).

6.2 Long Term Parking Strategy

- Identify future sites where central pooled parking facilities could be developed.
- It is recommended that the Town continue to implement other Transportation Demand Management (TDM) techniques (such as upgrades to trails, sidewalks, bike lanes, transit, etc…) to encourage the use of alternative modes and to promote a more walkable community within the Downtown.
- Allow shared parking analysis in determining bylaw parking requirement for mixed-use sites
- Although not generally supported by the public, it is suggested the Town of Okotoks work towards instituting market pricing for the on-street parking supply
- Consider replacing the one-time CIL fee with a benefit assessment Bylaw fee to be collected monthly for either a finite or indefinite period of time and used for a variety of purposes and not limited to the construction of new off-street stalls.

APPENDIX A

Parking Analysis – See Technical Files

APPENDIX B

On-Line Questionnaire Analysis – See Technical Files

APPENDIX C

Walking Distance Analysis

Base Map Source: The Town of Okotoks

Exhibit A

Walking Distance Analysis

Okotoks Downtown Parking Study
December 2013 Scale NTS

bunt & associates