

# DOWNTOWN BAKERSFIELD PARKING STUDY



## FINAL REPORT

Prepared By Quantum Consulting

April 5, 2018

2720 Sepulveda Blvd #100, Torrance, CA 90505

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## 24<sup>th</sup> Street



## Downtown Bakersfield Parking Study- Area 1

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Downtown Bakersfield Parking Study- Area 2

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# **Acknowledgements**

## **City Council**

Karen Goh, Mayor  
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Willie Rivera, Ward 1 Councilmember  
Andrae Gonzales, Ward 2 Councilmember  
Ken Weir, Ward 3 Councilmember  
Bruce Freeman, Ward 5 Councilmember  
Jacquie Sullivan, Ward 6 Councilmember  
Chris Parlier, Ward 7 Councilmember

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# **1. INTRODUCTION**

In response to business, resident, and visitor concerns regarding public and private parking in downtown, the City of Bakersfield initiated a study and strategic plan to review existing parking conditions, policies and enforcement mechanisms and make recommendations for improving parking infrastructure, enforcement and overall parking management. Further, a study was deemed to be necessary in response to a variety of recent developments in concert with City council's decision to utilize resources and partnerships to increase the population of downtown area to 10,000 residents by 2030. Additionally, it is necessary to engage the community to prepare a planned High Speed Rail Station Area Plan, which will lead to improvements over the next 10 to 20 years. Major street-widening projects and anticipated private developments also contributed to initiating this downtown parking study.

# **2. BACKGROUND INFORMATION**

In preparation of this draft report, Quantum consulting had 3 meetings between November 2017 and March 2018, with City officials from the City Manager's office, City Planning, Public Works, Traffic and the Police Department. The staff provided us copies of documents pertaining to preparation of this report, such as memos regarding High Speed Rail Station, a previous parking study for downtown that was conducted prior to 1980, the Downtown Business Association Parking Map, City's minimum parking requirements, City's Parking Structure reports, City's GIS planning information, etc. Furthermore, the staff responded graciously to questions raised regarding planning, enforcement, future developments, land uses, on-street and off-street parking opportunities and prospects.

# **3. EXISTING PARKING CONDITIONS**

## **3.1 Downtown Land Use and Street Layout for Area 1**

The layout of the streets and blocks within the Downtown study Area 1 follow an equally spaced grid pattern with Truxtun Ave. and Chester Ave. serving as the major cross streets. Properties facing these streets are generally commercial in nature, along with some governmental areas, educational areas, light industry areas, and limited pockets of residential areas. The commercial properties generally include office, retail, service-oriented uses, as well as sit-down and high turnover restaurants.

Some governmental and county offices exist in the Downtown with a mix of religious properties generally clustered near the City Hall which almost encompasses an entire block on Truxtun Avenue between "F" Street and "L" Street and extending northerly to 17<sup>th</sup> and 18<sup>th</sup> Streets.

## 3.2 Parking Study Boundaries for Area 1

The boundary of this area was identified to be:

- “F” street on the west;
- 24<sup>th</sup> Street on the north;
- “Q” Street on the east;
- Truxtun Avenue on the south.

23<sup>rd</sup> and 24<sup>th</sup> streets are extensions of State Highway 178 operating as one-way couplet and parking has been prohibited along these two streets and therefore, so they are not included in this study.

Appendix A-1 shows the project study Area 1. The grid patterns are generally equally spaced starting with “F” street going easterly to “G”, “H”, Eye, Chester, “K”, “L”, “M”, “N”, “O”, “P” and “Q” streets. “G”, “K” and “P” streets are not continuous streets within the study area. Going northerly, the study area begins with Truxtun Avenue and includes 17<sup>th</sup>, 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup> and 22<sup>nd</sup> streets. There is low availability of on-street parking and commercial loading on 17<sup>th</sup> Place, Wall Street, Service Street and Center Place alley. The study area is roughly 0.38 Square Miles. There is currently no revenue generation from downtown on-street parking supply provided for and maintained by the City of Bakersfield.

## 3.3 Parking Capacity for Area 1

Parking supply, or parking capacity, is the term that will be used to describe actual parking stalls within the study areas of downtown Bakersfield. Parking capacity within the study area is determined through visual observations, block measurements, and counts of parked vehicles and vacant spaces. For roadways that do not have striping on the ground to identify each stall, the on-street parking capacity was measured based on available space along the block, accounted for driveway buffer space, with the assumption that a typical parking stall length of twenty-four feet based on California design standards.

Field observations to conduct block inventory and count the parking study area capacity occurred on December 15, 2017 when the Quantum Consulting Inc. (hereon “Quantum”) crew conducted area wide inventory of more than 220 street frontage blocks in Area 1 and Area 2. The parking study area generally consists of publicly owned parking areas, such as on-street parking and City-owned off-street parking lots. Table 1 summarizes the parking spaces provided for two categories; off-street parking and on-street parking.

Table 1: Parking Study Area 1 - Total Supply

Parking Area Type	Spaces Provided
On Street Parking Areas	2,816
Off-Street Parking Areas	509
Total, Study Area 1	3,325



As shown in Table 1, the total capacity for the Downtown Study Area 1 is 3,325 parking spaces. It is worth noting the parking study area includes the city's parking structure located at the corner of Eye Street and 18<sup>th</sup> Street with a combined standard, compact, and handicapped total capacity of 509 spaces. City's Parking structure had adequate pavement striping to record the number of parking spaces provided. No obstructions were noted that limited parking supply, such as semi-permanent parking of equipment, construction materials, storage/trash bin units, etc.

### 3.4 Parking Regulations for Area 1

Table 2 summarizes the on-street parking and associated limitations in use.

Table 2: On-Street Parking Supply based on Time Restrictions in Area 1

<b>Restriction Type</b>	<b>General Use spaces</b>
<b>15 Minutes Limit</b>	33
<b>Combined 15 Minutes and 90 Minutes</b>	8
<b>30 Minutes Limit</b>	277
<b>One Hour Limit</b>	117
<b>Combined 1 Hour and 30 Minutes</b>	59
<b>90 Minutes Limit</b>	638
<b>Combined 90 Minutes and 30 Minutes</b>	143
<b>2 Hour Limit</b>	391
<b>Combined 2 Hour and 15 Minutes</b>	8
<b>Combined 2 Hour and 30 Minutes</b>	42
<b>Combined 2 Hour and 1 Hour</b>	15
<b>Combined 2 Hour and 90 Minutes</b>	50
<b>Combined 2 Hour- 5 Hour</b>	28
<b>5 Hour Limit</b>	71
<b>Combined 5 Hour and 30 Minutes</b>	10
<b>10 Hour Limit</b>	9
<b>Unlimited (all day allowed)</b>	853
<b>Loading Zones (Yellow curb zone)</b>	9 areas
<b>Handicapped (H)</b>	16 areas
<b>Taxi Zone</b>	2 zones
<b>Bus Zones</b>	18
<b>10 Minute Parking</b>	15
<b>Total On-Street Parking Areas</b>	2816

### 3.5 Parking Utilization for Area 1

Parking utilization is the term used to describe observed vehicles parked within the downtown. As noted, the study area was evaluated following dates to capture peak activity levels:

- Weekday Survey and Inventory (Thursday, December 14, 2017) from 9:00 AM to 5:00 PM
- Weekday Survey (Monday, January 8, 2018) from 9:00 AM to 5:00 PM
- Weekday Survey (Thursday, January 11, 2018) from 9:30 AM to 4:30 PM
- Weekday Survey (Wednesday, January 17, 2018) from 9:30 AM to 4:30 PM
- Weekday Survey (Tuesday, January 23, 2018) from 9:00 AM to 5:00 PM
- Friday Night Event Survey (Friday, February 2, 2018) from 5:00 PM to 11:00 PM
- Weekend Survey (Saturday, December 9, 2017) from 11 AM to 3 PM
- Weekend Survey (Saturday, February 3, 2018) from 10 AM to 4 PM

The following tables summarize existing parking utilization for the Downtown Study Area 1. For each weekday of the study between 9 AM to 5 PM. Detailed parking count data for each block is provided in spread sheets shown in Appendix B.

Table 3.1: Observed Monday Parking Utilization

Parking Type	Late Morning	Mid-Day	Afternoon	Capacity	Highest Use
On-Street Total Parked	1,235	1,416	1,195	2816	1416
Off-Street Total Parked	67	98	85	509	98
Total Monday Utilization	1302	1,514	1,280	3,325	1,514
Percent of Supply	39%	46%	38%		46%

Table 3.2: Observed Tuesday Parking Utilization

Parking Type	Late Morning	Mid-Day	Afternoon	Capacity	Highest Use
On-Street Total Parked	1,365	1,441	1,333	2816	1441
Off-Street Total Parked	60	103	92	509	103
Total Monday Utilization	1,425	1,544	1425	3,325	1,544
Percent of Supply	43%	46%	43%		46%

Table 3.3: Observed Wednesday Parking Utilization

Parking Type	Late Morning	Mid-Day	Afternoon	Capacity	Highest Use
On-Street Total Parked	949	1436	1,269	2816	1436
Off-Street Total Parked	79	100	101	509	100
Total Wednesday Utilization	1028	1536	1370	3,325	1536
Percent of Supply	31%	46%	41%		46%

Table 3.4: Observed Thursday Parking Utilization

Parking Type	Late Morning	Mid-Day	Afternoon	Capacity	Highest Use
On-Street Total Parked	1365	1444	1342	2816	1444
Off-Street Total Parked	83	110	111	509	110
Total Thursday Utilization	1448	1554	1453	3,325	1554
Percent of Supply	44%	47%	44%		47%

Table 3.5: Comparison of December and January Thursday Parking Utilization

Parking Type	12/14/2017	1/11/2018	Capacity	Highest Use
On-Street Total Parked	1430	1444	2816	1444
Off-Street Total Parked*	160*	157*	509	157
Total Thursday Utilization	1590	1601	3,325	1601
Percent of Supply	47.8%	48.1%		48%

\*Based on information furnished by the City SKIDATA monthly report

As shown in the above tables, for weekdays between 8 AM to 6 PM, the maximum percent use within Area 1 of Downtown Bakersfield is 48%. This means that 1730 Spaces (100%-48%=52%) of the total 3,325 parking spaces are available during daytime.

Next, we look at the Friday night and mid-day Saturday results of the surveys to identify higher demand and accumulation. Quantum staff conducted a parking survey during the February First Friday of the Month event, which appeared to indicate the highest parking demand for downtown Bakersfield. We conducted two periods for the Friday parking survey. The first survey period was between 6:30 PM to 8:30 PM to ensure that survey covered participants of the event. An additional survey period was between 8:30 PM and 10:00 PM to ensure that the highest demand of parking would be observed. The following table indicates the summary results of this study. Detailed parking count data is contained in Appendix B.

Table 4.1: Observed Friday Night Parking Utilization for Area 1

Parking Type	6:30 PM to 8:30 PM	9:00 PM to 11:00 PM	Capacity	Highest Use
On-Street Total Parked	1643	1154	2816	1643
Off-Street Total Parked	226	205	509	226
Total Friday Utilization	1869	1359	3,325	1869
Percent of Supply	56%	48.1%		56%

As shown on Table 4.1, the parking demand for the Friday event represents the highest recorded parking demand of 56 percent use for Area 1. It appears that 44% of Area 1 parking capacity (about 1450 parking spaces) would be excess and available for parking. However, this conclusion could be misleading as Area 1 selected by the City for parking study is too large for this event (12 blocks in east-west direction and 8 blocks in north-south direction) and therefore, the walkability factor shall be considered for parking closer to the center of the event. In this regard and based on parking use study for the entire boundary of Area 1 on Friday night, Quantum considered a “*smaller*” area to correctly evaluate the parking utilization of the Friday night event. This confined area was selected to be between Truxtun Avenue and 21<sup>st</sup> Street assuming a maximum 3 walkable blocks to the center of the event between 18<sup>th</sup> and 19<sup>th</sup> on Eye Street. On the east-west approaches, the boundary of this new area was between “F” Street and “N” Street with the addition of few eastern blocks like “O” Street near Truxtun Avenue. The following Table 4.2 shows the percent use of the Friday night event parking within the walkable confined area:

Table 4.2: Observed Friday Night Parking Utilization-Confined Area 1

Parking Type	6:30 PM to 8:30 PM	9:00 PM to 11:00 PM	Capacity	Highest Use
On-Street Total Parked	1557	1086	1974	1557
Off-Street Total Parked	226	205	509	226
Total Friday Utilization	1783	1291	2,483	1783
Percent of Supply	72%	52 %		<b>72%</b>

As shown on Table 4.2, the maximum parking demand for the Friday night event is now calculated to be 72%. This appears to be more realistic presentation of parking utilization. It should be noted that there is very insignificant turn-over parking (more than one car using the same space within certain periods). Also noteworthy is that the event participants usually arrive around 6:30 PM and begin to leave around 9:30 PM. Therefore, the parking demand is about 1783 vehicles. This leaves about 400 on-street spaces and about 300 parking spaces in the City Parking Structure unused. Unused on-street spaces could be few blocks away and not desirable. However, the City Parking Structure which is in the heart of downtown and close to these events had about 300 parking spaces available. Quantum staff identified reasons why the City Parking Structure was not fully utilized and this issue will be further discussed in the short-term improvements section, later in this report. Other than 1<sup>st</sup> Friday of the month parking demand, based on our staff observations and sample collections, it appears that the weeknights and weekend nights parking demand in downtown Bakersfield is low and manageable.

Quantum staff conducted a survey on Saturday February 3<sup>rd</sup> to identify the weekend parking demand for downtown Bakersfield. Usually, in order to obtain the highest use of parking supply on a weekend, Saturdays are selected. We conducted two periods of parking Survey. First between 11:00 AM to 1:30 PM and then we conducted another survey between 1:30 PM and 3:00 PM to ensure that the highest demand of parking was observed. The following Table 5 indicates the summary results of the Saturday study. Detailed parking count data is contained in Appendix B.

Table 5: Observed Saturday Mid-Day Parking Utilization for Area 1

Parking Type	11AM to 1:00 PM	1:00 PM to 3:00 PM	Capacity	Highest Use
<b>On-Street Total Parked</b>	931	912	2816	931
<b>Off-Street Total Parked</b>	42	42	509	42
<b>Total Thursday Utilization</b>	971	952	3,325	971
<b>Percent of Supply</b>	29%	28.6%		<b>29%</b>

As shown on Table 5, the parking demand for Saturday represents the highest demand of 29 percent use. This is a low demand, so we conclude that there will be plenty of parking available for many years to come for Saturdays and Sundays within Area 1 of downtown Bakersfield.

The field parking data collection revealed that for Area 1, the busiest day of the week in terms of parking demand is Thursday. This agrees with our past experience of parking studies elsewhere in Southern California. However, the parking demand in downtown Bakersfield was not necessarily much lower for other days of the week and actually it was consistent on weekdays. The graph below shows the comparison of parking demand on 4 weekdays, the Special Event Friday, and on Saturday:

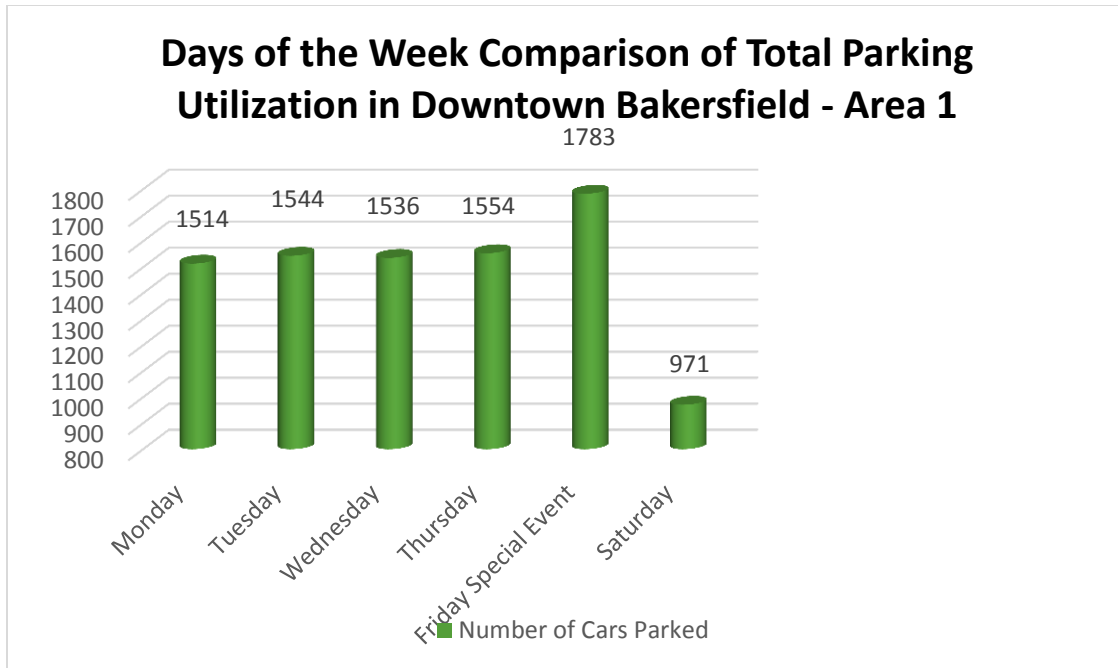


Figure 1: Parking utilization by day of the week for Area 1

On a typical day, the parking utilization survey started at 9:00 AM and concluded at 4 PM. As expected, the peak parking activity was between 11 AM and 2 PM. The following chart demonstrates the parking utilization per hour of the day.

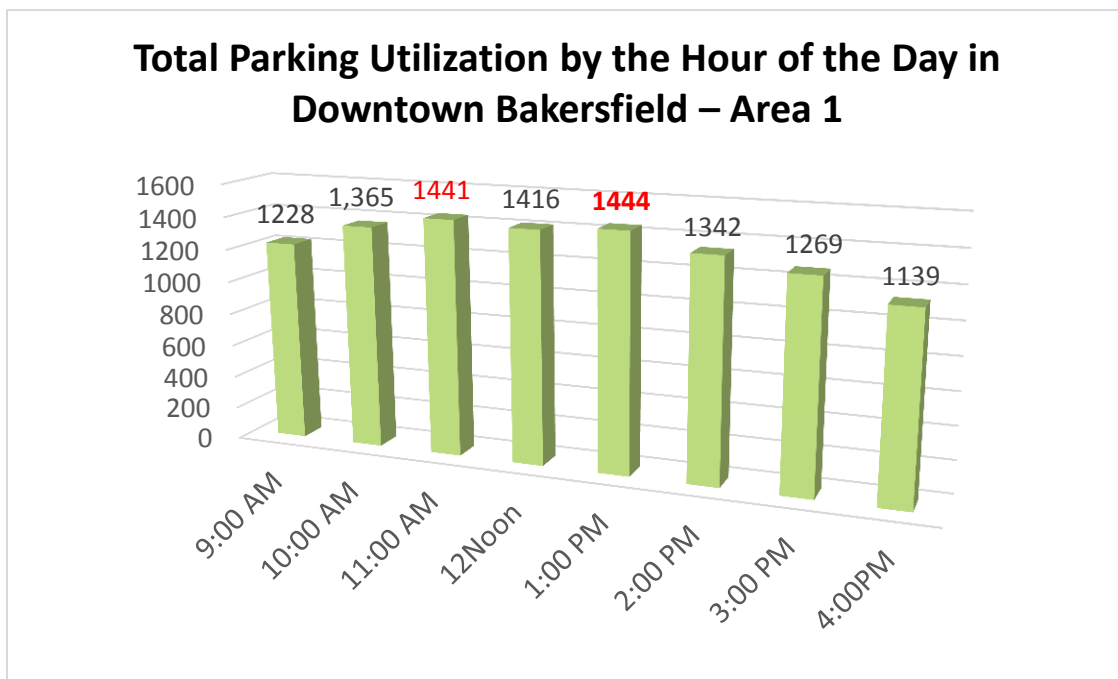


Figure 2: Parking utilization by hour of day for Area 1

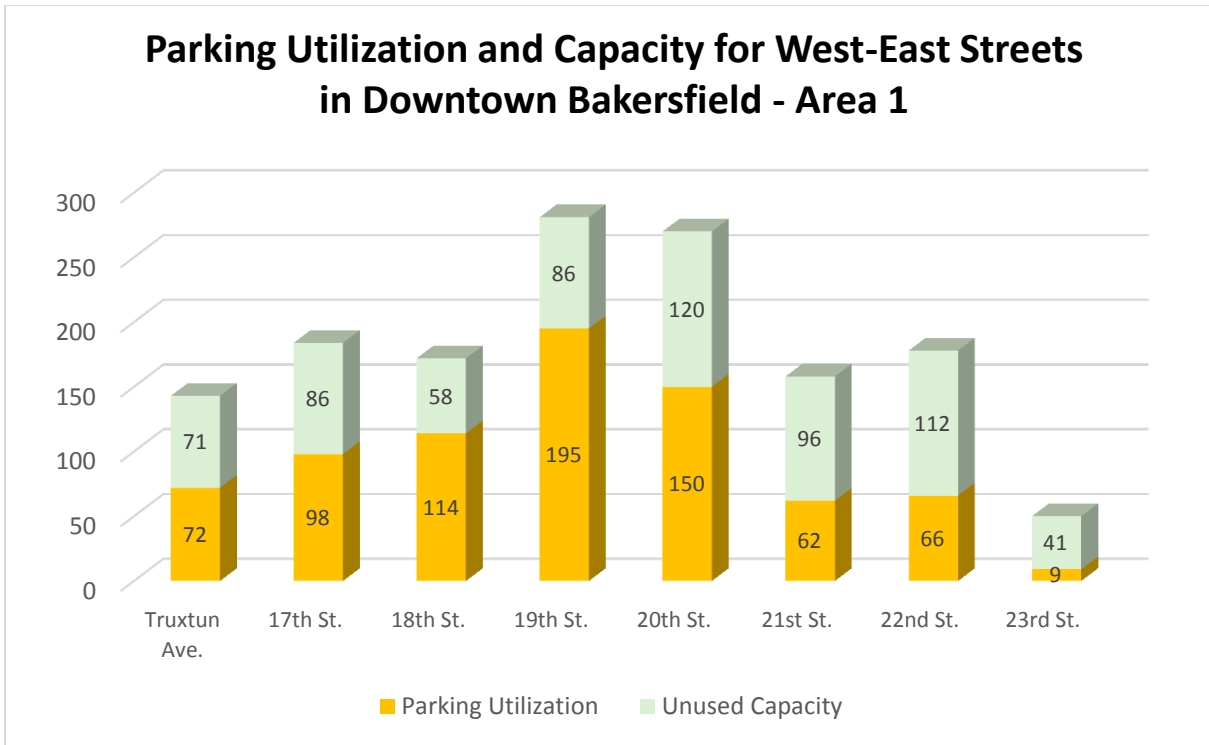


Figure 3: Parking utilization for west-east streets for Area 1

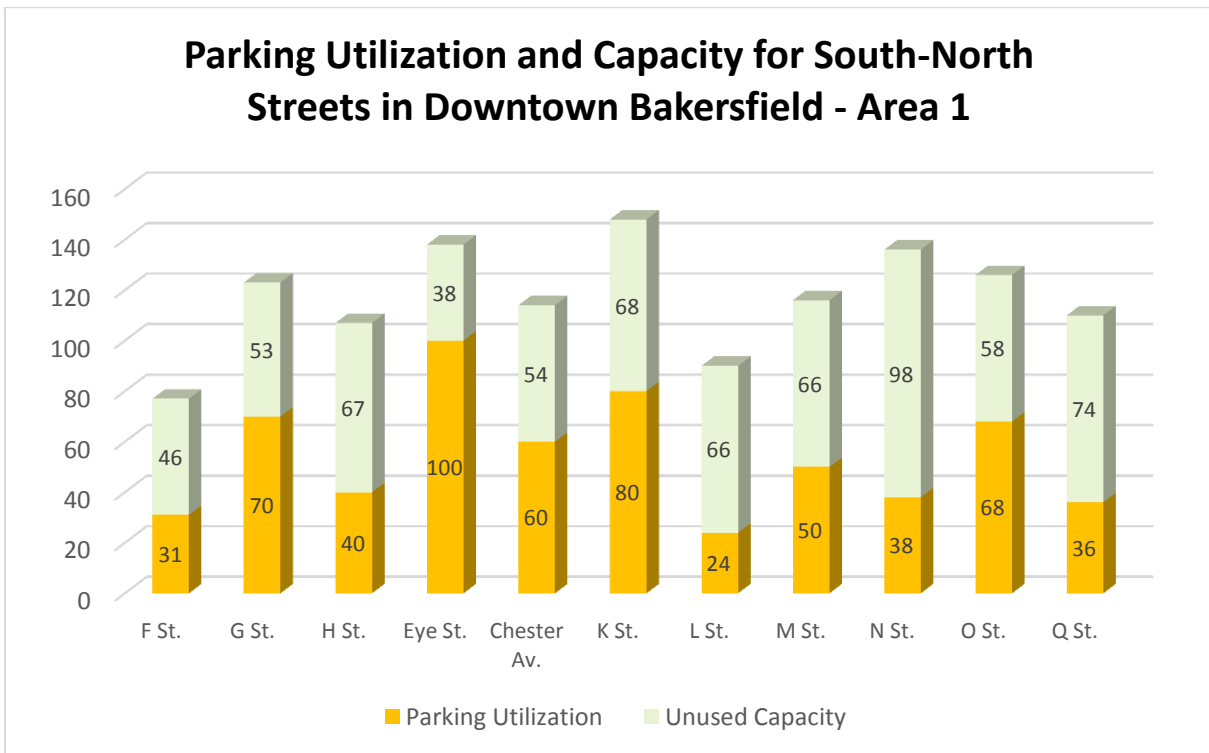


Figure 4: Parking utilization for south-north streets for Area 1

Above two charts show the parking utilization and unused capacity for each street within Area 1. As shown, **19<sup>th</sup> Street**, **20<sup>th</sup> Street**, **Eye Street** and **“K” street** are the streets with the highest parking usage, mainly due to the presence of a number of Parking Malls where double sided diagonal parking spaces are provided. Later in the report, we will discuss the benefits of these parking malls and recommend expansion of this unique feature to other areas in downtown Bakersfield.

### 3.6 Land Uses and Streets Layouts for Area 2

The boundary of this area was identified to be:

- “F” Street on the west;
- 28<sup>th</sup> Street on the north;
- Chester Ave. on the east;
- 24<sup>th</sup> street on the south.

The study area is roughly 0.07 Square miles or 44 Acres. This area is also grid pattern street system between “F” Street and Chester Avenue and 24<sup>th</sup> and 28<sup>th</sup> Streets. The land use in this area is primarily Medical and Dental including 3 major hospitals and many smaller medical and dental offices. There are few auto repair shops located along this area with some commercial businesses, especially along “F” Street.

### 3.7 Parking Capacity for Area 2

Table 6: Parking Study Area 2 Supply

Parking Area Type	Spaces Provided
On Street Parking Areas	530
City’s Off-Street Parking Areas	0
<b>Total, Study Area 2</b>	<b>530</b>

As shown in Table 6, the total capacity for Area 2 is 530 parking spaces. It should be noted that there are a number of off-street parking lots and structures which are controlled by medical facilities in that area. Furthermore, there are undeveloped properties that could be used for parking. The Area 2 study focuses on supply of on-street parking. On-Street parking capacity was measured based on available space along the block, accounting for driveways, and assuming a typical parking stall length of twenty-four feet stall length supported by California design standards. No obstructions were noted that limited parking supply, such as semi-permanent parking of equipment, construction materials, storage/trash bin units, etc.



### 3.8 Parking Regulations within Area 2

Table 7 summarizes the on-street parking and associated limitations in use.

Table 7: On-Street Parking Supply Limitations for Area 2

Restriction Type	General Use Spaces
30 Minutes Limit	32
90 Minutes Limit	18
Combined 90 Minutes and 30 Minutes	16
2 Hour Limit	196
Combined 2 Hour and 15 Minutes	8
Combined 2 Hour and 30 Minutes	25
Combined 4 Hour and 90 Minutes	10
Combined 2 Hour- 4 Hour	9
Unlimited (all day allowed)	216
<b>Total On-Street Parking Areas</b>	<b>530</b>

### 3.9 Parking Utilization for Area 2

The following tables summarize the existing parking utilization for the study Area 2, which includes each weekday of the study between 9 AM and 5 PM, Friday night between 7 PM and 9 PM, and Saturday mid-day between 12 noon and 2 PM. Detailed parking count data is contained in Appendix B.

Table 8.1: Observed Monday Parking Utilization for Area 2

Periods Studied	Late Morning	Mid-Day	Afternoon	Capacity	Highest Use
On-Street Total Parked	379	304	321	530	379
Percent of Supply	72%	57%	61%		<b>72%</b>

Table 8.2: Observed Tuesday Parking Utilization for Area 2

Periods Studied	Late Morning	Mid-Day	Afternoon	Capacity	Highest Use
On-Street Total Parked	348	330	296	530	348
Percent of Supply	66%	62%	59%		<b>66%</b>

Table 8.3: Observed Wednesday Parking Utilization for Area 2

Periods Studied	Late Morning	Mid-Day	Afternoon	Capacity	Highest Use
On-Street Total Parked	353	344	320	530	353
Percent of Supply	67%	65%	60%		67%

Table 8.4: Observed Thursday Parking Utilization for Area 2

Periods Studied	Late Morning	Mid-day	Afternoon	Capacity	Highest Use
On-Street Total Parked	324	304	291	530	324
Percent of Supply	61%	57%	55%		61%

Table 8.5: Comparison of the Highest Day Time Parking Utilization for Area 2

Dates Studied	12/14/17	Mon 1/8	Tues 1/23	Wed 1/17	Thurs 1/11	Capacity	Highest Use
On-Street Total Parked	305	379	348	353	324	530	379
Percent of Supply	58%	72%	66%	67%	61%		72%

Table 9: Observed Friday Night Parking Utilization for Area 2

Parking Type	6:30 PM to 8:30 PM	9:00 PM to 11:00 PM	Capacity	Highest Use
On-Street Total Parked	81	48	530	81
Percent of Supply	15%	9%		15%

Table 10: Observed Saturday Mid-Day Parking Utilization for Area 2

Parking Type	12 to 2:00 PM	Capacity
On-Street Total Parked	85	530
Percent of Supply	16%	

In summary, the highest demand for Area 2 is calculated to be **72%** of the capacity, providing about 150 parking spaces available during daytime. In comparison with Area 1, this appears to be a higher capacity. Later in this report, a number of options will be discussed to increase the capacity for this area during weekdays. Evenings and weekends have an average occupancy of 16% in Area 2, so there is and will be no shortage of weekend parking for Area 2. Exhibit below shows the percent use for each block of Area 2. Detailed parking count data is contained in Appendix B for both Areas 1 and 2.

The field study parking data collection revealed that for Area 2, the busiest day of the week in terms of parking demand is Monday. This agrees with our past experience of medical use parking studies elsewhere in Southern California. However, the parking demand in Area 2 was steady during weekdays. The graph below shows the comparison of parking demands on 4 weekdays, the Friday night and on Saturday:

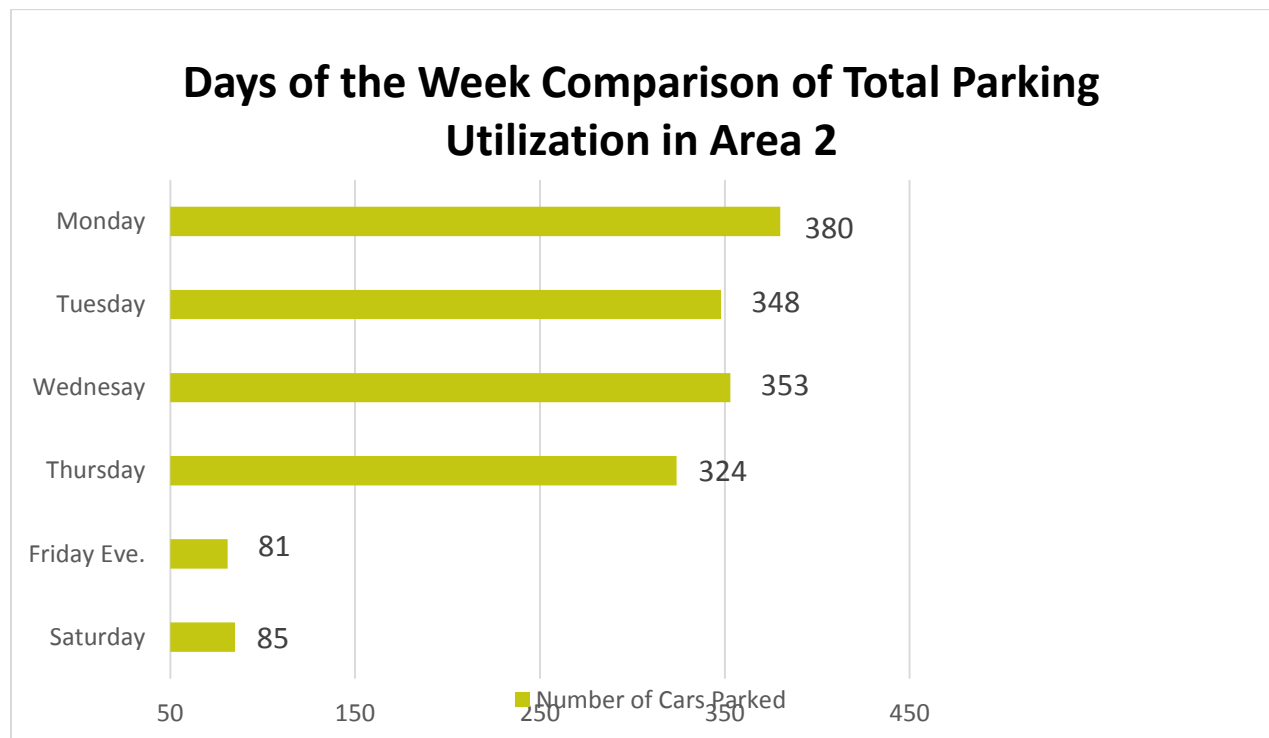


Figure 5: Parking utilization by day of the week in Area 2

On a typical day, the parking utilization survey started at 9:00 AM and concluded at 4 PM. As expected, the peak parking activity was between 11 AM to 12 noon in Area 2. The following chart demonstrates the parking utilization per hour of the day.

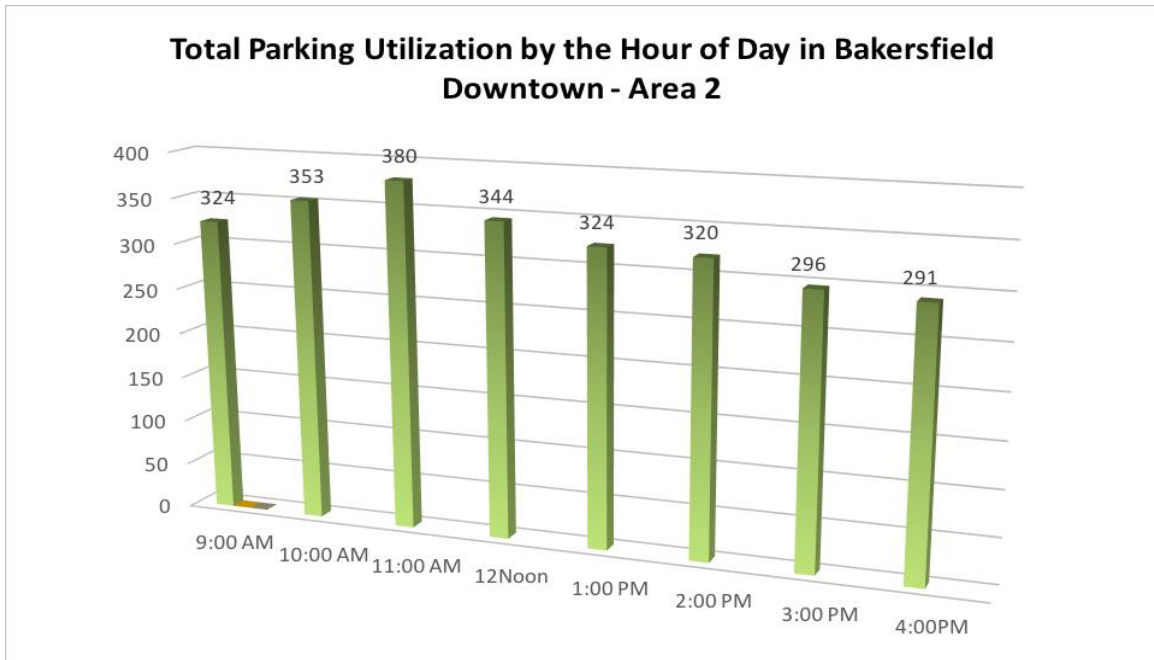


Figure 6: Parking utilization by hour of day in Area 2

The next chart shows the total parking utilization and capacity of each street within Area 2:

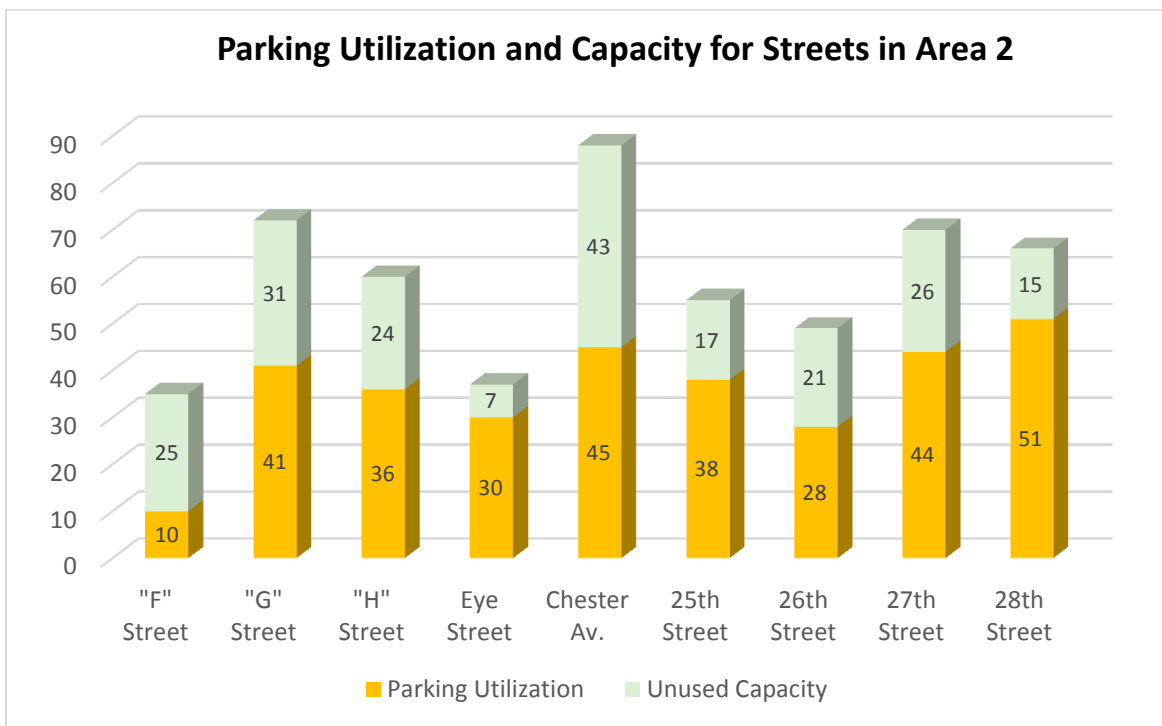


Figure 7: Parking utilization by street for Area 2

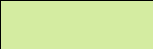



As shown in the above charts, **Eye**, **25<sup>th</sup>**, **27<sup>th</sup>** and **28<sup>th</sup>** are streets with highest parking usage mainly due to the proximity of hospitals, emergency rooms and major medical offices. “**F**” Street has the lowest use and Chester Ave. is fully used on the west side of the street and seldom used on the eastside. Area 2, with 72% use of on-street parking supply, calls for more short term improvements, which will be recommended later in the report.

### 3.10 Parking Occupancy Definitions

Parking occupancy is the term used to describe the percentage of total supply occupied by a car during the study period. Parking occupancy is determined by dividing the number of parked vehicles (utilization) by the available number of parking spaces (capacity). Reviewing parking occupancy can help identify areas of “congestion” where 75-percent of parking supply is in use. The upper limit of 75-percent is typical within the industry to determine where parking availability is limited to only a few parking spaces, often requiring motorists to “cruise” or circle an area to find convenient parking. Parking occupancy is determined including all parking spaces such as time restricted spaces, accessible spaces, and loading restricted areas. In recent years, the use of parking availability guidance systems and pricing schemes allows for higher utilization rates to be achieved, but without them using “85-percent” is a good rule of thumb for to consider higher Occupancy goal for commercial areas.

For the ease in viewing and highlighting the parking concentration areas, occupancy exhibits have been prepared for each street and each block on both sides using color-coding where heavy and light parking activity occurs. Table 11 summarizes ratios used for the parking occupancy exhibits.

Table 11: Parking Occupancy Ranges

Occupancy Range	Color	
<b>0%-24% Parking Spaces Occupied</b>	Light Green	
<b>25%-49% Parking Spaces Occupied</b>	Yellow	
<b>50%-74% Parking Spaces Occupied</b>	Orange	
<b>75%-100% Parking Spaces Occupied</b>	Red	

As shown in Table 11, the least occupied (utilized) parking areas are shown in light green, and the most occupied (utilized) parking areas are shown in red.

Since parking counts were scheduled for a total of 13 periods (four days of the week during January 2018, 3 sessions each day, as well as one additional session count in December 2017), we needed to calculate the average of these values in order to identify occupancy data for each block. This leads to the calculation of “percent use” to apply the ranges shown on the above table. The “percent use” was a calculated average value of the 13 occupancy counts divided to the parking capacity of each side of a block. Detailed tabular format calculations of each block are shown in the Appendix “B” using the above color coding for each block. Similarly, detailed parking occupancy exhibits are provided in Appendix “C”.

### 3.11 City Parking Structure at 18th and Eye Streets

One of the tasks of parking study for Downtown Bakersfield was to evaluate the utilization and the capacity of City's parking structure located at the north-west corner of the intersection of 18<sup>th</sup> Street and Eye Street. This structure was built in 1987 and it has a total capacity of 509 spaces.

Table 12: City Parking Structure Utilization

Month	Total Parked in a Month	Total Parked in One Day	Parking Capacity	Percent Utilized
October 2017	3870	125	509	25%
November 2017	4995	166	509	33%
December 2017	4957	160	509	31%
January 2018	4868	157	509	31%
<b>AVERAGE</b>	4673	152	509	<b>30%</b>

Source: SKIDATA for the City of Bakersfield

Table 13: City Parking Structure Counts by Day of the Week

Date	Total Parked	Parking capacity	Percent utilized
Monday 1/8/18 @12 Noon	98	509	19%
Tuesday 1/23/18 @1 PM	103	509	20%
Wednesday 1/17/18 @1 PM	100	509	20%
Thursday 1/11/18 @2 PM	111	509	22%
Friday Night 2/2/18 @8 PM	226	509	44%
Saturday 2/3/18 @1 PM	42	509	8%
<b>Average</b>	113		<b>22%</b>

Table 12 shows the average daily use. This information was received from parking management of the City indicating an average 30% accumulation per day. Table 13 shows Quantum staff survey on particular times and days showing lower percentage. For consistency, we will use 30% utilization data for the rest of this report.

### 3.12 Pedestrian Activity

Pedestrian infrastructure is a critical part of a district parking approach because it influences customers' willingness to walk from a parking space to their destination. Walkability and willingness to park and walk to and from destination is the major factor to utilize the existing available parking. Based on our experience and industry standards, people are willing to park a

maximum of between 300 and 500 feet from their destination. The lower the supply of affordable parking available the greater the distance people are willing to walk. For example, in downtown Los Angeles where on-street parking is scarce and private pay parking lots are expensive, studies indicate that drivers are willing to park between 3 and 4 blocks away from their destination. If a typical block is about 300 feet long, this means that drivers were willing to walk about 1000 feet from where they parked their vehicles. In Downtown Bakersfield it seems this process is reversed and people are accustomed to free and close parking and therefore, the average walkability distance is estimated to be about one block away (300 feet) from the destination. In communities where parking pricing exists, the goal is to make streets attractive and safe for walking to help meeting the area parking demands. Walkability greatly impacts long term parking management decisions.

### **3.13 Transit Infrastructure**

At the present time the primary transit establishment for downtown Bakersfield is provided by Golden Empire Transit District. The downtown “Transit Center” is located between 21<sup>st</sup> and 22<sup>nd</sup> Streets (Southern/northern Boundaries) and Eye Street and Chester Avenue (East-West Boundaries). This bus terminal services the following **8** bus lines to and from communities and major trip attractions within larger Bakersfield area:

- Line 21: Cal State Univ. Bakersfield - Transit Center - Bakersfield College
- Line 22: Cal State Univ. Bakersfield - Transit Center - Oildale
- Line 42: Panama Lane - Transit Center - Westchester
- Line 43: Truxtun - Transit Center - Bakersfield College
- Line 45: Oildale - Transit Center - Foothill
- Line 81: Valley Plaza - Transit Center - Bakersfield College
- Line 82: CSUB - Rosedale
- Line 84: Northwest - Downtown Transit Center

Although the ridership on these bus lines appears to be low, this transit center contributes to reduction of downtown traffic and, therefore, a reduction in parking demand. This is especially true since downtown Bakersfield is mostly a commercial and employment center. We did not notice of any indication of park and ride in the vicinity of the Downtown Transit Center. The overwhelming majority of bus riders arrive to downtown walking to work and walking back to the bus. Therefore, bus services of Bakersfield have positive impact to parking demand. With the proposed upcoming High Speed Rail Station planned for Bakersfield, we anticipate a major overhaul to the existing transit service and bus terminal.



Downtown Bakersfield Transit Center

## **4. OBSERVATIONS AND IDENTIFYING ISSUES**

### **4.1 Area 1 Observations and Issues**

Based on the parking inventory, data review, field observations, research, and public input at the community meeting, the following observations for existing parking conditions are noted:

1. The overall study area parking supply exceeds the peak parking demand, indicating adequate supply is provided to serve the downtown. However, the high occupancy (percent of parking stalls occupied by cars) at some parking areas indicates clustering of parking activity and so these parking spaces may not be the preferred location to serve the overall needs of the public for parking.
2. Certain uses within the downtown have notable periods of intense parking activity, but then are quiet at other times. The concentration of activities occurs with office uses during the day, as well as retails and service businesses. Restaurants and entertainment generate demand during both lunch and dinner but the evening impact is not significant due to availability of unrestricted parking on the block and adjacent blocks.
3. Turnover parking rate appears to be low. For example, in busy blocks, when a block is posted for 90 Minutes parking, it is expected that each parking space accommodates about 6 vehicle turnovers between the designated hours of 8 AM to 6 PM. The turnover expectation for a 30 Minutes parking zone is probably 3 times more than a 90 Minutes zone. However, in our parking utilization survey, we observed that in many instances the same cars stayed at the same space without regards to time limitation. This meant that at most busy blocks there were low turnover rates or, in some cases, no turnover of the parking. Therefore, our estimate of the percentage of unused parking had to be based on minimal turnovers. In other words, with more turnover of parking more capacity of the block would be resulted. Among other factors, a rigid enforcement of parking regulations and price parking would contribute to higher turnovers.



4. Peak parking utilization occurs around 11 AM or 1 PM for weekday conditions. The peak activity occurring during the day indicates there is capacity for growth both in the weekday and evening parking demand.
5. The presence of Parking Malls is a great feature of parking in downtown Bakersfield. There are a total of 18 blocks designated for diagonal parking on both sides with one lane, one-way traffic. This concept has been tried in many cities in California but not all have been successful implementations. Because of the relatively low volume of traffic in downtown Bakersfield, the pass through traffic chooses the wide parallel parked streets like Truxtun Ave, 18<sup>th</sup>, 21<sup>st</sup>, 22<sup>nd</sup>, "F", "H", Chester Ave. and "L." Street. This leaves the streets with Parking Malls or attractive destinations for parking. We have observed that a minimal traffic queue occurs when parked cars back out to leave. Since the parking capacity of these streets are usually 40% higher and the pedestrian movements appears to be safer, we encourage the expansion of this "Parking Mall" concept in downtown Bakersfield and recommend adding few more blocks where more spaces are needed.



### Entering an existing Parking Mall

6. The current “time” regulations are not consistent with area needs. At some locations they are excessively relaxed and at other areas appear to be too prohibitive. There are 17 different types of time limits within Area 1 which makes enforcement of parking violations very difficult for enforcement staff.
7. At some blocks there are mixed regulations. For example, a few spaces can be parked for 30 Minutes and the rest of the block can be parked for 90 Minutes. Since the on-street parking is free in downtown Bakersfield, parking users arrive on a first come and first serve basis and naturally fill the 90 Minutes parking spaces even they may not need that many minutes of parking. The remaining available 30 Minutes parking spaces get filled by parkers who really need more duration to park. This makes the enforcement of these zones difficult and time consuming.
8. The 30 Minutes parking zones located at different spots within downtown are very difficult to enforce. It takes about 2 Hours for one enforcement officer to drive through Area 1 of the Downtown. Therefore, the “30 Minutes” parking regulation may require 5 officers (4 active and 1 backup) to effectively enforce this regulation. More officers are needed to enforce other zones like 1 hour, 90 Minutes and 2 hour zones as a single officer may not be able to return to the original point on time to enforce these zones. Moreover, there is a demand for additional officers to enforce mixed zones and the 5 Hours and 10 Hours parking regulations.
9. With the reserved parking capacity of over 40%, there is no reason to designate time regulations for more than 2 Hours, like the designation of 5 Hours and 10 Hours parking zones.
10. There are over 60 blocks within downtown (mostly on the eastern side) where the parking utilization is less than 25% of the supply. These blocks do not need timed parking regulations. There is plenty of parking available right across the block. Removing timed regulations on these blocks will help provide longer term parking during the day allowing reduced congestion at busy blocks and lets enforcement staff concentrate on busy blocks. Generally, timed regulation will become effective when more than 50% of the capacity of the block is utilized.
11. Because of the variety of parking zones and time limits and the size of the area to enforce, the capacity of the enforcement authority would be exhausted to the point that they would need to reduce the frequency of enforcement. Unfortunately, this could lead to the lack of respect to the regulation posted in the blocks. For example, during the parking survey, we spotted many vehicles in the “30 Minutes” zone that were parked in excess of 90 Minutes, as they were still parked during our next round of parking survey (our one round of survey typically took two hours for Area 1). We took a note of many vehicles parking for hours beyond the regulation. This was noticeably evident in the Parking Malls.

12. We believe that the size of Area 1 might be too large to enforce parking regulations with the existing enforcement capacity. Based on our repeated field observations, we conclude that the parking spaces in the area bounded by “M” street on the west, 22<sup>nd</sup> Street on the north, “Q” Street on the east, and 17<sup>th</sup> Street on the south are less than 25% occupied. Therefore, they should not have any “timed” parking restrictions during daytime and there is no need for enforcement in this area. This leaves the area bounded by “F” street on the west, 21<sup>st</sup> Street on the north, “L” Street on the east, and Truxtun Avenue on the South as the focus zone of the downtown parking enforcement. Please see Section 8.4 where the proposed enforcement zone map is shown.
13. The current free parking policy does not provide any revenue for community improvements such as enforcement funding, sidewalk upgrade to improve walkability, landscaping, improved signage and parking striping parking lighting improvements, etc.
14. There is no overflow of parking onto residential streets adjacent to the downtown area and vice versa.
15. There are inconsistencies with parking regulations after midnight hours. Most blocks with combined signs of daytime and overnight regulation indicate “No Parking between 1 AM and 4 AM”. At some blocks, overnight parking is prohibited between 2AM and 4 AM. There are other blocks that have no restriction during the daytime but have signs indicating overnight parking prohibition. At the same time there are blocks that have no overnight regulations. Parking prohibition after midnight hours is not usually based on parking demand and supply as there are plenty of parking spaces available during later hours. Usually, the decision to prohibit late-night parking has the safety reasons behind it. More cities in urbanized areas are going toward area-wide prohibition as a measure to control crime. Enforcement authorities tend to believe that security will be better maintained if the streets are empty of parked cars within the commercial zones especially in downtown areas during dark hours of the morning.

## **4.2 Area 2 Observations and Issues**

The parking availability in Area 2 is confined to on-street parking only and there is no city parking lot or structure. There are a number of private parking lots and structures controlled by medical facilities.

1. The Area 2 parking supply exceeds the peak parking demand. However, the demand rate for weekday is high (72%) and therefore the supply can only last for few years. There are some parking areas that indicate clustering of parking activities.
2. The concentration of activity occurs with medical and dental offices and major hospitals parking uses during the day with 12 noon reaching the peak. Our study shows the night time and weekend parking demand are nominal.
3. Turnover parking rate appears to be low and most cars are parked for many hours. For example, in busy blocks, when a block is posted for 2 Hours parking, it is expected that each parking space accommodates about 4 vehicle turnovers between the designated hours of 8

AM to 6 PM. However, in our parking utilization survey, we observed that in many instances the same cars stayed at the same space without regards to time limitation. Two major factors that could create more turnovers are a rigid enforcement of parking time regulations and priced parking.

4. The current timed regulations are not consistent with area needs. At some locations they are excessively relaxed regulation and at other areas appear to be too prohibitive. There are 8 different types of time limits within this confined Area 2 which makes enforcement of parking violations difficult to attend periodically for enforcement staff.
5. With the low reserved capacity of 28% of unused parking spaces, there should be more consistent time designations to better utilize the growing parking demand.
6. Abundance of unlimited and free parking appears to crowd the streets blocks while code required private parking spaces remains partially unused. At the peak hour of 12 noon, we noticed that the southern parking structure for the (San Joaquin Community Hospital) was only 48% filled, while there were no spaces available on the adjacent Eye Street between 24<sup>th</sup> and 26<sup>th</sup> streets.
7. During the parking survey, we spotted many vehicles in the 30 Minutes, 90 Minutes and 2 Hour and mixed regulation zones that were parked in excess of time restrictions. Because of variety of parking zones and time limits and the size of the large area to enforce, the capacity of the enforcement authority would be exhausted to the point that they would need to reduce the frequency of enforcement. This could lead to the lack of observance of the regulation posted in the block.
8. There are inconsistencies with parking regulations after midnight hours. Within some blocks, overnight parking is prohibited between 2 AM and 4 AM and prohibited between 1 AM and 4 AM at others. Some blocks have no overnight regulation. With a 15% utilization of nightly use of parking is not clear as to why there is a need for overnight prohibitions within Area 2.

### 4.3 Private Parking Facilities Parking Utilization



A complete survey of private parking lots and structures was not a part of the tasks of this study. However, in order to be able to calculate the future parking demands, we selected few large

private parking structures and large parking lots within downtown and conducted utilization and capacity counts between 12 noon and 2 PM when the demand was the highest. The following table provides the summary of findings:

Table 14: Selected Private Sites Parking Utilization

Site	Capacity	Cars parked	Empty Spaces	Percent Use
Chase Building (17th St.)	90	64	26	72%
Kern Co School SUPNT.	290	235	55	81%
Kern Co, Child Support Center	440	320	120	73%
Bank of America street level	100	61	39	60%
Surface lot N/o K-Chester	75	60	15	80%
SJ Hospital Parking Bldg.	410	320	90	78%
Hospital south Parking	280	160	120	58%
The Weill Institute Of BC	230	150	80	65%
Average Percent Use				<b>71%</b>

Based on this study, it appears that code required private parking is highly utilized. Yet, it does have about 29% unused capacity. This could lead to the conclusion that private parking demand may not directly impact the existing available City provided parking supply.

## 5. COMMUNITY INPUT AND PUBLIC MEETINGS

### 5.1 General

Productive community input was solicited during a focused Downtown Parking Study community meeting held on Monday, March 26, 2018 from 5:30 PM to 7:15 PM at 1300 17<sup>th</sup> Street, Kern County Superintendent of Schools (KCSOS) Conference Room. An estimated 35 community members attended the public workshop representing business owners, employees, residents, shoppers and DBA representative(s). Present from the City, Council member Andrae Gonzales of Ward 2, Vice Mayor Bob Smith of Ward 4, Management Assistant Brianna Carrier of the City Manager's Office, Assistant City Manager Chris Huot, Civil Engineer III Ed Murphy from Bakersfield Public Works Department, and Sergeant Jeff Saso of the Bakersfield Police Operations, were in attendance. A summary of the meeting is provided below and more details are provided in Appendix D.

The meeting began with a background and informational slideshow presentation by Quantum Consulting staff, which covered the basis and the findings of the study. The findings consisted of a review of existing parking conditions, as well as the demand and supply for both study Area 1 and study Area 2. The presentation continued with observations and issues, present and future parking demand, parking needs, short term recommendations, long term recommendations, and

future recommended parking management strategies. The 35-minute presentation was followed by a Q&A session among the meeting participants for about 55 minutes.

## 5.2 Question and Answer Session

A detailed list of questions and answer text is provided in Appendix “D”. The following are general questions and issues shared by the majority of participants:

### 5.2.1 - Questions

Q: How do we improve enforcement of existing parking regulations?

*A: The majority of our short-term recommendations will achieve improved enforcement.*

Q: How did you come up with 20 Minute meters? What are the benefits?

*A: 20 Minute meters provide short-term parking with multiple turnovers, are self-enforcing, and are very popular with shop owners because they can be used for quick transactions, drop-off, pickup, etc.*

Q: Was the parking demand projection based on the growth of the City?

*A: Yes we estimated 4% growth rate per year to project the future parking demand.*

Q: How quickly will we see changes (short term)?

*A: Changes are pending the approval of the City Council and City’s departments follow up.*

Q: Where will we add diagonal parking?

*A: We are recommending the addition of diagonal parking on 4 blocks of “G” Streets (2 in Area 2) and on at least 4 other blocks.*

Q: Did we study private parking lots?

*A: Yes we selected 8 private lots and structures for sampling study.*

Q: Any revenue projections?

*A: Yes, we estimated the annual revenue generated based on placement of 40 metered spaces (20 Minutes) to be approximately \$60,000 based on \$.50 fee for 20 minutes.*

Q: What is the recommended parking enforcement zone?

*A: The recommended enforcement zone lies within a more confined boundary of Area 1 to provide higher enforcement frequency.*

Q: Did we study alleys? Illegally parked cars often occupy loading areas.

*A: Yes. We reviewed parking and loading activities on 17<sup>th</sup> Place, Wall Street, Service Street, Center Place Alley, and their extensions. We confirm parking usages at some loading areas.*

Q: How will regulations be distributed?

*A: We recommend four types 2 Hour, 90 Minutes, 1 Hour, and 20 Minute metered parking.*

Q: How to improve pedestrian safety in high traffic areas?

*A: We observed that parking malls are safer for pedestrians as the approach speed is low. The pedestrian safety problem is more apparent on high speed roadways, where adding crosswalk markings and mid-block signage could help.*

Q: How will recommendations improve parking in densely-parked areas?

*A: Enforcement, simplified regulations, "Walk and Park" concept and placement of short duration "20 Minutes" and Loading zones will achieve a higher rate of parking turnover.*

Q: How can public enter parking structure?

*A: Both entrances are now accessible. (Responded from the City staff)*

Q: News about back-in parking?

*A: A location has been selected for implementation (Responded from the city staff)*

### **5.2.2 - Comments/Concerns**

Comment: Employees parking all day in spaces limits parking space use by patrons.

Comment: A number of questions/comments about ways to increase use of the City's parking structure.

Comment: Available parking spaces are scarce at certain times of day (around noon).

Comments by City: City has established new positions for enforcement.

Comment: We need cost-effective, long-term parking for employees in Downtown.

Concern: Need more consideration for pedestrians/bikes. Need more public transportation.

Concern: 90 minutes is too long.

Comment: There is low turnover on 18<sup>th</sup> and 19<sup>th</sup> Streets. Related suggestion: Add meters in this area.

Comment: New HST will create more growth in city, and therefore create a higher parking demand.

Comment: More enforcement needed.

Concern: 24<sup>th</sup> Street Widening (parking spaces will be removed). Not within study, but worth looking into.

Comment: Look at parking usage year-round to account for different events.

Comment: Agree with Quantum's proposal for red curb at intersections to help with safety

Comment: Add setbacks and bike lanes.

Comment: Need more parking enforcement on 18<sup>th</sup> – 19<sup>th</sup> and Chester

### **5.2.3 - Suggestions/Recommendations**

Suggestion: Take out first floor spaces near exit in the City's parking structure. Display number of spaces available.

Suggestions: Validate Structure parking. Utilize private parking structures/lots. Private lots underutilized during First Friday events.

Recommendation: Advertise monthly parking (30 dollars/month). Add bigger, more readable signs. Reserve upper levels for monthly parkers.

## **5.3 Our Conclusions**

The community meeting was very productive and fruitful. The participants understood and followed the presentation. They generally appeared to be in support of our findings and recommendations. They understood the importance of parking turnover and enforcement of the regulations. The new concept of placing 20 Minute zones did not seem to be unfamiliar with them, and we didn't hear any direct opposition to replace the 30 Minutes parking with 20 Minute meters. Participants brought up a number of suggestions, comments, and concerns regarding the operation of the City's parking structure. We have adjusted some of our final recommendations in response to participant's comments, but the majority of their concerns and comments were already addressed in our findings and recommendations. The support of City staff and the Council members present was instrumental in experiencing a productive community outreach. Additional details of the community meeting are provided in the Appendix "D".

## **6. PARKING NEEDS & OPPORTUNITIES**

Since the Downtown is a civic and commercial district with neighboring residential uses, the customers and shoppers are the highest priority users to consider. However, the parking needs for civic, cultural, and employment uses are also important to success in finding harmonious parking improvements within Downtown Bakersfield.

A review of parking needs and opportunities is provided to establish the baseline of key issues within Downtown Bakersfield. With the context provided by needs and opportunities, potential parking strategies can be evaluated.



## 6.1 City's Minimum Parking Requirements

City of Bakersfield zoning code Section 17.58.110 provides parking space requirements by land use. This requirement is for the entire city of the Bakersfield. However, off-street parking within the "central district" as defined in Chapter 17.04, "Old Town Kern" and further defined in Chapter 10.08, regarding C-B zone district, and C-C zone district (a mixed-use residential and retail/office commercial project where the design and development functions as an integrated unit as approved by the advisory agency), may be reduced by up to fifty percent of the minimum requirement assessed under Section 17.58.110. The number of off-street parking spaces shall not exceed one hundred fifty percent of the minimum requirement (limit does not apply to residential uses) (Ord. 4754 § 2, 2013; Ord. 4521 § 10, 2008).

Below are some highlights of off-street parking requirements for potential future developments within the study Area 1 and comparison of requirements with the industry average of built out cities shown in Table 15:

Table 15: Comparing Bakersfield's Minimum Off-Street Parking Requirements with Other Cities

Land Use	Parking Spaces Required Per Sq. Ft. Per Gross Floor Area	Per 1000 Square Feet	Compared with Built Out Cities
General Office	1 space per 250 Sq. ft.	4	2.85
Medical Office	1 space per 200 Sq. Ft.	5	4
General Retail	1 space per 300 Sq. Et.	3.3	2.85
Restaurant (sit in)	1 space per 75 Sq. Ft.	13.3	10
Restaurant (take out)	1 space per 300 Sq. Ft.	3.3	2.85
Convenient market	1 space per 200 Sq. Ft.	5	4
Banks and Saving & Loans	1 space per 300 Sq. Ft.	3.3	2.85
Hotel	1 space per sleeping unit		same
Hospital	$\frac{3}{4}$ space per bed		$\frac{1}{2}$ per bed
Health club	1 space per 300 Sq. Ft.	3.3	2.85
Elementary School	1 space for each faculty-Emil.		same

In order for the Bakersfield downtown to function as a vibrant area that supports multimodal travel such as bus, shuttle, carpooling, taxi and other similar services, bicycles and walking, the City's parking policies must support those goals. Minimum parking requirements, however, have emerged as one of the biggest obstacles to many cities' efforts to encourage new commercial development and develop pedestrian and transit friendly districts. Currently, the City Code requires between 3.3 and 13.3 parking spaces per 1,000 square feet. There is a possibility that up to 50% reduction be applied for downtown area. As a comparison, Table 14 shows the range of parking requirements for a typical urbanized fully built out area with high parking demands, which require a lower range of 2.85 to 10 minimum parking spaces per 1000 square

feet. Given that the peak demand in downtown reaches about 51% of the available capacity during day time, it appears that there is considerably more parking being required than is necessary. In addition to the economic implications of requiring an oversupply of parking, high minimum parking requirements could be also damaging to the character of a modern downtown. It is very difficult to create a walkable and bike friendly atmosphere when off-street parking lots take up more space than buildings.

Further discussion of the minimum parking requirements is beyond the capacity of this report. However, it can comfortably be concluded that because of the minimal parking requirements for private developments in downtown, there will be no demand and impact on the on-street and city structure parking capacity when new developments appear in downtown. These new developments can take care of their own parking needs through the creation of underground parking facilities or surface lots and their unused capacity can alleviate the parking demand for existing buildings without off street parking supply, in addition to supporting the annual growth of population. If existing capacity is better managed resulting in higher turnover rates, one could conclude that the downtown parking demand would be met for at least a decade.

## 6.2 Parking Needs

Based on the community input and analytical observations, the following needs related to Downtown parking have been identified:

1. At the peak parking demand period, more customer parking availability is required within the City Center Commercial District (where occupancy is high and is over 75% of capacity for both sides of the block). The following 26 street blocks are presently experiencing high parking demands:

***Truxtun Ave. —Segment between Chester Ave. and “K” St.***

***Truxtun Ave. —Segment between “K” St. and “L” St.***

***17<sup>th</sup> Street—Segment between “H” St. and “L” St. (4 blocks)***

***18<sup>th</sup> Street—Segment between “F” St. and “H” St. (2 blocks)***

***18<sup>th</sup> Street—Segment between Eye St. and “K” St. (2 blocks)***

***19<sup>th</sup> Street—Segment between “F” St. and “L” St. (7 blocks including Parking Malls)***

***20<sup>th</sup> Street—Segment between “H” St. and Eye St. (Parking Mall)***

***20<sup>th</sup> Street—Segment between “N” St. and “O” St.***

***22<sup>nd</sup> Street—Segment between “G” St. and “H” St.***

***22<sup>nd</sup> Street—Segment between “L” St. and “M” St.***

***“G” Street—Segment between 18<sup>th</sup> Street and 19<sup>th</sup> Street***

***“K” Street—Segment between 19<sup>th</sup> Street and 21<sup>st</sup> Street (2 blocks including Parking Malls)***

***“N” Street—Segment between Truxtun Ave. and 17<sup>th</sup> Street***

***“O” Street—Segment between Truxtun Ave. and 17<sup>th</sup> Street***

2. Drop-off and short-term parking is lacking for concentrated parking activity such as pick-up/drop-off delivery, food items, passenger drop off and pick up. The existing 30 Minutes zones are not functioning for this purpose.
3. Operations and management associated with the current public parking supply within downtown is a burden placed upon the City with no revenue generation to offset the costs.

Costs include parking enforcement staff and equipment, infrastructure upkeep, and signage and striping maintenance. This need primarily affects the City of Bakersfield.

4. During peak demand of 1<sup>st</sup> Friday event, more parking availability is required. The overwhelming number of blocks listed above indicates 100% utilization between 6 PM and 10 PM. Meanwhile, the City parking structure utilized fewer than 50% percent of its capacity.

## 7. FUTURE PARKING DEMANDS

Advanced identification of concentrations of activity can help avoid surprises between the availability of parking and increasing demand. Based on information received from the city, the majority of downtown businesses take advantage of the 50% reduction for being located in the central district. Therefore, we need to investigate whether the future developments including developments of vacant lots and tenant improvements could directly impact the existing parking capacity or not.

The following table estimates the range of parking requirements in the downtown area based on the required code and the 50% reductions:

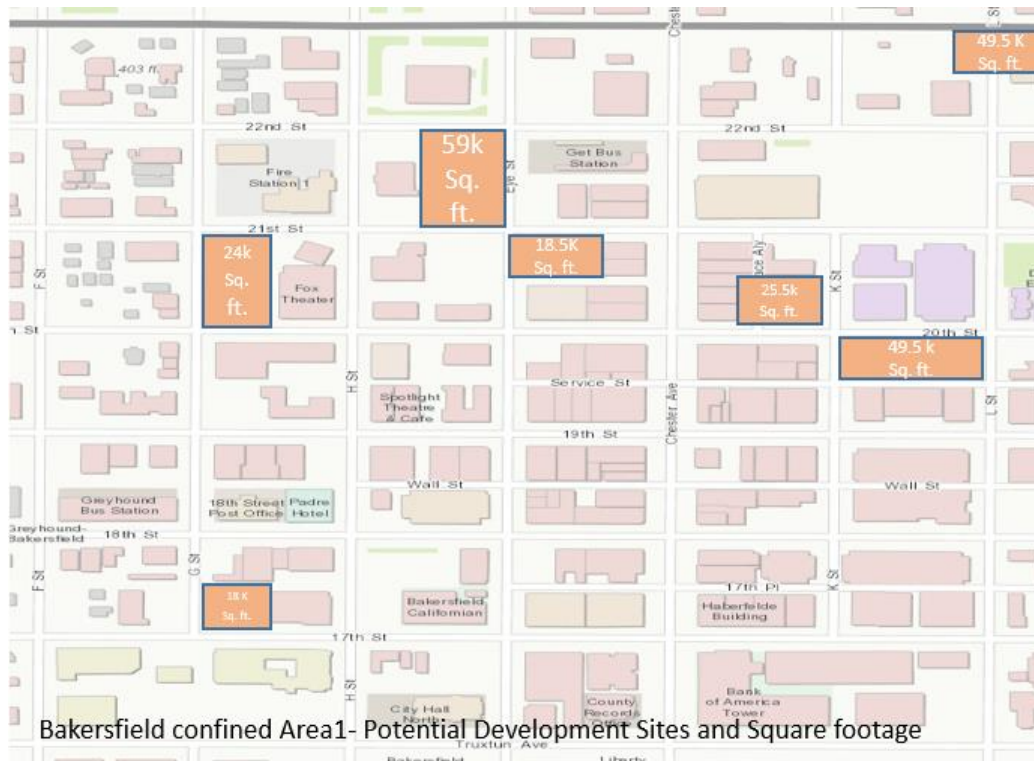
Table 16: Downtown Bakersfield Estimated Minimum Parking Requirements

Land Use	Parking Spaces Required Per Sq. Ft. Per Gross Floor Area	Per 1000 Square Feet	With 50% Reduction Per 1000 Sq. ft.
<b>General Office</b>	1 space per 250 Sq. ft.	4	2
<b>Medical Office</b>	1 space per 200 Sq. Ft.	5	2.5
<b>General Retail</b>	1 space per 300 Sq. Et.	3.3	1.65
<b>Restaurant (sit in)</b>	1 space per 75 Sq. Ft.	13.3	6.56
<b>Restaurant (take out)</b>	1 space per 300 Sq. Ft.	3.3	1.65
<b>Convenient Market</b>	1 space per 200 Sq. Ft.	5	2.5
<b>Banks and Saving &amp; Loans</b>	1 space per 300 Sq. Ft.	3.3	1.65
<b>Average</b>			2.64

Based on the information provided by the City, “the downtown area is primarily zoned C-C and C-B with a height limitation of 180 feet (approximately 12 story) and no height restriction, respectively. Both the C-C and C-B zones have a maximum FAR of 3.0; however additional floor area may be permitted by the approval of public benefit features”. At the present time, the City does not have a confirmed list of potential development applications for the next 5 years. There are preliminary discussions of “large” mixed-use development via tenant improvements that could affect parking requirements. However, no official application has been received.

Therefore, in order for us to estimate future parking demands, we need to consider full buildouts scenario of potential developments on vacant properties and conversion of some locations of existing inactive surface lots to new developments.

Based on our field survey and information provided by the City's GIS, we have identified 7 underdeveloped properties within the confined area of downtown limited to "F" Street, 23<sup>rd</sup> Street, "L" Street and Truxtun Ave. (an example of a site shown in the picture below). The sizes of these 7 square lots are shown on the map below:





Example of a vacant lot potential for development

The total area of these lots is estimated to be about 200,000 square feet. Assuming a 3.0 “FAR”, we can estimate a total built of 600,000 Square Feet. Using the average required parking rate of 2.64 spaces per 1000 square feet (shown in Table 15), we estimate that the downtown parking future demand by private developments would be about **1600 spaces**. Assuming that the private lots and structures have 72% occupancy parking rate as shown earlier in this report, this means about 28% of 1600 spaces built off-street (450 spaces) would remain unoccupied ensuring that there will not be an overflow of parking demand to on-street and city structure parking. In short, the future private developments’ parking demand, even with the 50% reduction factor for downtown area, will be self-sufficient and not impacting significantly, the existing available on-street spaces.

Other factors contributing to parking demand are population factors, annual rate of growth and unforeseen shift of economic activities either negatively or positively. Furthermore, there could be some reducing demand factors such as expansion of transit operation, High Speed train station, and increased public use of other transportation modes such as cycling, carpooling, taxi, Uber/Lyft, city shuttle, pay parking, and other Transportation Demand Management (TDM) programs. Based on growth rate information of greater Bakersfield and within downtown area, it is estimated that with a high end “4%” steady growth rate per year, the existing capacity could satisfy the parking demand for the next 10 years. However, this estimate is based on the existing conditions and parking behavior. If the proposed “short term” and long term” recommendations are implemented, providing more parking turnover and more efficient design and operation, then we can expect the parking demand of Downtown Bakersfield could be met for more than 10 years.

## 8. PARKING OPPORTUNITIES

Based on the review of existing infrastructure, current public policy and enforcement, and technical review of collected data, a preliminary list of potential opportunities has been identified. The list of opportunities is grouped into recommendations that eventually could lead to more parking supply capacity in Downtown Bakersfield. This increased parking supply could meet the parking demand for the next 10 plus years in Bakersfield, in concert with City council's adoption of utilizing resources and partnerships to increase the population of downtown area to 10,000 residents by 2030.

These recommendations are grouped into 3 parts: short term improvements, long term improvements designed for implementation within the next 3 years. Later, in the Strategic Parking Recommendations, we discuss future parking management strategies.

### 8.1 Short Term Recommendations

The following recommended improvements address each street within Area 1. These recommendations are designed for improving turnover parking and increasing capacity by consolidating many types of parking time limits into a more standard hour limits practical in small urban setting, allowing manageable and effective enforcement.

We are recommending primarily 3 “time limits” for on-street parking regulations. These are “1 Hour”, “90 Minutes” and “2 Hours” parking restrictions for streets within the confined area of downtown bounded by “F” Street on the west, 21<sup>st</sup> Street on the north, “M” Street by the east and Truxtun Ave by the south.

Reducing a variety of regulations into these 3 time limits will make them more manageable to enforce which would result in more efficient use of parking supply and increase of turnover capacity. Further, daily parkers tend to respect and observe the parking regulations more if they are applied to a group of streets within the same characters.

If there is a need for a shorter than 1 Hour of parking, we are recommending a new concept for Bakersfield which is establishment of “20 Minutes” metered parking operation at selected areas that are currently posted for 30 Minutes parking zone. Alternatively, we recommend establishment of passenger loading spots on blocks with 90 Minutes and 2 Hour restrictions.

Based on repeated observations of parking behavior in downtown Bakersfield, we have come to conclusion that 30 Minute parking zones, especially the ones with mixed parking regulations such as (30 Minute - 90 Minute) and or zones like (2 Hours - 5 Hours) on the same side of a block are not easily enforceable and parkers tend to over-park, disregarding regulations, and therefore, these blocks regulations should be simplified to only one type of zone. We have also concluded that blocks presently with more than “2 Hours parking restrictions” (such as 5 Hours zones) mostly have very low use (about less than 30%) and therefore, with such a high unused capacity they won't need to have timed restricted at present time and we recommend that some blocks be included in the “unrestricted parking” category.

The following sections identify our **short term** recommendations for streets within Area 1. The order of street listing are from south to north, and west to east.

### **8.1.1 - Truxtun Ave.**

- a) The block between F and H is heavily underutilized (25% use) - consider removing time limits.
- b) The frontage of the New City Hall building would need a passenger drop off and pick up zone (H to Eye). Presently the area is underutilized.
- c) Between N and "O" Streets, consider replacing existing combined time limits to "2 Hours" for the entire block.
- d) Between O and "Q" Streets, add more 90 M. typical signs.

### **8.1.2 - 17th Street**

- a) The block between K and L streets - consider diagonal parking striping to increase capacity to 14 spaces.
- b) The block between L and M streets - there is a need for more than 1 parking sign.
- c) Between M and "N" Streets - striping is faded and needs refreshing.
- d) Between N and O, install "No Stopping Any Time" on the north side. It is too narrow to combine park and drive lane.

### **8.1.3 - 18th Street**

- a) Between H and Eye change the old 2 Hour sign to 2Hr typical.
- b) Between Chester Ave. and "K" Street consider removing mixed time limits (30M and 1 Hour) to 1 Hour typ. for both sides.
- c) Between K and L, change the old 2 Hours sign to 2Hr typical. Remove mixed time limit and to 2 Hours parking on both sides of the block.
- d) Between L to M, add 1 Hr. typical to the north side consistent with south side.
- e) Between M and N, consider removing time restrictions altogether. The occupancy is 30%
- f) Between N and O, consider removing time restrictions of 5 Hours. On the north side, the occupancy is 13%.
- g) Between O and Q, Change the old 2 Hours sign to 2Hr.typ signs on the south side.

### **8.1.4 - Wall Street**

Between Chester and K consider adding NPAT signs where designated for loading.

### **8.1.5 - 19th Street**

- a) Between F and G, change no restriction segments to include 90M.typical on both sides. The utilization rate is high (87%).
- b) Between Eye and Chester, modify 90Minutes non-typical to 90 Minute typical signs.
- c) Between M and N, consider removing 2hour restriction to no restriction with 35% occupancy.
- d) Between N and O, consider removing 2hour restriction to no restriction with 33% occupancy.
- e) Between O to Q, on the south side correct confusion about night time and remove 30 Minute.

### **8.1.6 - Service Street**

Between Eye to Chester Ave., install NPAT signs as cars regularly park in the loading area.

### **8.1.7 - 20<sup>th</sup> Street**

- a) Between F and G, install 1 Hr. Typ. Signs on the south side where there is no restriction and is fully utilized.
- b) Between H and Eye, utilization is over 80%. Request rigid enforcement of “90 Minutes” to increase the parking turnover.
- c) Between K and L, add 90M. Typical signs on the north side, replacing the no restriction.
- d) Between L and M (parking mall), consider changing no restriction to 2 Hours on both sides.
- e) Between M and N, consider removing 10 Hour restriction on the north side to “diagonal” parking with no restriction, increasing the capacity of 9 to 14 spaces
- f) Between O and Q, consider removing the “15 Minute” signs and mark passenger and goods loading zone (yellow curb) accommodating 3 vehicles.

### **8.1.8 - 21<sup>st</sup> Street**

- a) Between F and G, consider changing the 30 Minutes prohibition to 2 Hour (36% use).
- b) Between K and L, remove the 5 Hour regulation on both sides (45% use) to no regulation.
- c) Between N and P, remove the 5 Hour regulation on the north side and 30 Minutes on south.
- d) Between P and Q, change the non-typical 2 Hour parking sign to 2Hr. typical.

### **8.1.9 - 22<sup>nd</sup> Street**

- a) Between G and H, consider placing 2 Hours restriction in place of no restriction (80% use)
- b) Between K and L, consider removing both 90 Minutes and 5 Hours on both sides and keep the block as no restriction zone. The average occupancy is 19%.
- c) Between O and P, refresh faded diagonal striping.

### **8.1.10 – “F” Street**

- a) Between 19th and 20th, consider removing the mix zone and keep all under 90 Minutes. (11% use)
- b) Between 20th and 21st, the south side NPAT sign appears to be faded.

### **8.1.11 - “G” Street**

- a) Between 20<sup>th</sup> and 21<sup>st</sup>, consider removing 30 Minutes on the west side and maintain 90 Minutes parking on both sides. (38% use)



- b) Between 21<sup>st</sup> and 22<sup>nd</sup>, remove the 30 Minutes short section while the rest of the block has no Restriction. (32% use)
- c) Between 22<sup>nd</sup> and 23<sup>rd</sup>, consider removing the 30 Minutes parking segment and install passenger loading zone for the school.

#### **8.1.12 - “H” Street**

- a) Between 18<sup>th</sup> and Wall Street, consider removing 30 Minutes parking signs and install 2 Hour parking signs (42%)
- b) Between 19<sup>th</sup> and 20<sup>th</sup>, consider removing combined 30 Minutes zone and install 1 Hour parking on both sides of the street. City Parking Structure can accommodate longer parking demands.
- c) Between 21<sup>st</sup> and 22<sup>nd</sup>, mark 30 feet red zone at intersection approaches (parked cars clearance).
- d) Between 22<sup>nd</sup> and 23<sup>rd</sup>, consider removing 30 Minutes parking to 1 Hour zone (53% use). Mark a 30 feet red zone at intersection approaches (parked cars clearance).

#### **8.1.13 - Eye Street**

- a) Between 21<sup>st</sup> and 22<sup>nd</sup>, establish a 2 Hour parking zone by installing 2Hr.typ signs over present no restriction zone. (85% use)
- b) Between 22<sup>nd</sup> and 23<sup>rd</sup>, remove the 2HR. zone and establish no restriction parking zone (Presently 10% used).

#### **8.1.14 - Chester Avenue**

- a) Between Truxtun Ave. and 17<sup>th</sup> Street, consider converting the 30 Minutes zone in front of the Bank of America Building to a passenger loading zone.
- b) From 21<sup>st</sup> to 23<sup>rd</sup> Streets, consider changing 30 Minutes zone to a 2 Hour zone consistent with the west side. (Only 50% used). Install new 10PM - 4AM parking prohibition signs. (Average 30% used).
- c) Between 23<sup>rd</sup> and 24<sup>th</sup>, consider changing 30 Minutes zone to 1 Hour zone consistent with the west side. Install new 10PM - 4AM parking prohibition signs.

#### **8.1.15 - “K” Street**

- a) Between 17<sup>th</sup> Street and 17<sup>th</sup> Place, this block has private parking signs placed on “K” which is a public street. Not knowing the history of this issue, we cannot recommend directions. However, if it is found to be within the City’s jurisdiction, we recommend 90 Minutes zones on both sides.
- b) Between 18<sup>th</sup> and 19<sup>th</sup>, consider removing mixed 30 Minutes and 90 Minutes zones, and instead maintain the 90 Minutes parking zone on both sides (58% use). Modify one space on each side to a passenger loading zone.

- d) Between 19<sup>th</sup> and 20<sup>th</sup>, consider removing 30 Minutes zone and maintain a 90 Minutes zone on both sides (85% use).
- e) Between 20<sup>th</sup> and 21<sup>st</sup>, 90 Minutes parking signs missing on the east side.

#### **8.1.16 - “L” Street**

- a) Between Truxtun Ave. and 17<sup>th</sup> Street, consider removing mixed 30-90 Minutes zone and establish a 90 Minutes zone on both sides (42% use).
- b) Between 20<sup>th</sup> Street and 21<sup>st</sup> and 22<sup>nd</sup>, remove the existing 90 Minutes, 5 Hour, and combined 2 Hour - 90 Minutes zones and allow non-restricted parking (20% use).
- c) Between 23<sup>rd</sup> and 24<sup>th</sup>, improve faded signs and markings.

#### **8.1.17 - “M” Street**

- a) Between 19<sup>th</sup> and 20<sup>th</sup>, consider removing the 5 Hour zones and maintain no restriction parking on both sides (19% use).
- b) Between 20<sup>th</sup> and 21<sup>st</sup>, consider removing the 5 Hour zones and maintain no restriction parking on the south side.
- c) Between 22<sup>nd</sup> and 23<sup>rd</sup>, verify why the east side is posted for No Parking Any Time.

#### **8.1.18 - “N” Street**

- a) Between Truxtun Ave. and 17<sup>th</sup> Street, consider removing mixed 30 Minutes – 2 Hours zone and establish a 2 Hour zone on West side adjacent to Office (60% use). Install more signs on the east side.
- b) Between 19<sup>th</sup> and 20<sup>th</sup>, consider removing the 5 Hour – 2 Hour zones and maintain no restriction parking on the south side (12% use).
- c) Between 22<sup>nd</sup> and 23<sup>rd</sup>, consider establishing 2 Hour parking zone as the block is over parked.

#### **8.1.19 - “O” Street**

Between Truxtun Ave. and 17<sup>th</sup> Street, consider removing 30 Minutes and no restriction zones and establish 2 Hour zones on both sides adjacent to Office (80% use).

#### **8.1.20 - “Q” Street**

Between Truxtun Ave. and 24<sup>th</sup> Street, consider removing time restriction parking signs on all blocks of “Q” Street (36% use).

## 8.2 Long Term Recommendations

### 8.2.1 - 19th Street

From G to K, consider removing all 30 Minutes zones within the Parking Malls and installing 20 Minute pay meters: 2 spaces on each side of block one at the beginning and one at the end or placed in front of a type of business needing short term parking the most. A total of sixteen 20 Minute metered spaces is to be considered.

### 8.2.2 - “F” Street

Between 18<sup>th</sup> and 19<sup>th</sup>, consider removing 30 Minutes signs and place two 20 Minute metered spaces on the west side.

### 8.2.3 - New Parking Mall on “G” Street

Between 18<sup>th</sup> and 19<sup>th</sup>, design two sided diagonal parking on both sides (Create a new parking mall) with one way direction northbound to increase capacity from 16 spaces up to 30 spaces. Remove 30 Minutes parking and keep 90 Minutes on both sides with handicapped spaces at the beginning and the end of the block.



Approaching northbound on “G” Street between 18<sup>th</sup> and 19<sup>th</sup> streets

### 8.2.4 - New Parking Mall on “G” Street

Between 19<sup>th</sup> Between 20<sup>th</sup>- Design two sided diagonal parking on both sides (Create a new parking mall) with one way direction northbound, to increase capacity from 24 spaces to 32 spaces. Remove the combined 2 Hours parking and keep 90 Minutes on both sides with handicapped spaces at the e end of the block. The existing diagonal striping on the west side allows alternative design of back-in parking spaces if the block is designated as one way northbound.



Approaching northbound on “G” Street between 19<sup>th</sup> and 20<sup>th</sup> streets

### **8.2.5 - “H” Street**

Between 20<sup>th</sup> and 21<sup>st</sup>, consider removing combined 30 Minutes zone and install two 20 Minute metered parking spaces. Maintain the 2 Hours zone elsewhere. Mark 30 feet red zone at intersection approaches for better visibility of the cross traffic (33% use).

### **8.2.6 - Eye Street**

Between 17<sup>th</sup> and 18<sup>th</sup>, consider removing 15 Minutes and 30 Minutes zones and install 1 Hour zone in their place. Install two 20 Minute parking meters on each side to accommodate shorter term parking demands.

### **8.2.7 - Eye Street**

Between 18<sup>th</sup> and 19<sup>th</sup>, consider removing combined 30 Minutes and 90 Minutes zones in the parking Mall and maintain the 90 Minutes zones in place. Install two 20 Minute parking meters on each side where the 30 Minutes zone used to exist.

### **8.2.8 - Eye Street**

Between 19<sup>th</sup> and 21<sup>st</sup>, consider installing one 20 Minute parking meters for short term parking on each side and each block. A total of 4 parking meters are to be considered for this segment.

### **8.2.9 - Chester Avenue**

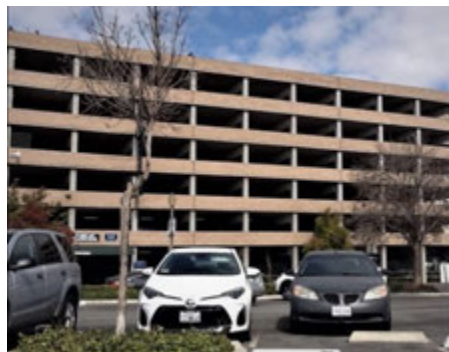
Between 18<sup>th</sup> and 19<sup>th</sup>, consider removing 30 Minutes combined zone and install one 20 Minute metered parking on the beginning and ending spaces. (65% used). A total of 4 metered parking spaces is to be considered for this segment.

#### **8.2.10 - “K” Street**

Between 17<sup>th</sup> Place and 18<sup>th</sup>, consider removing mixed zones of 30 Minutes and 90 Minutes and no restriction. Install 2 metered 20 Minute spaces on each side while maintaining the 90 Minute parking zone. A total of 4 meters is to be considered.

In summary, we are recommending forty (40) new 20 Minute parking spaces be established in high parking occupancy blocks of downtown Bakersfield.

### **8.3 City Parking Structure Operation Improvement Recommendations**

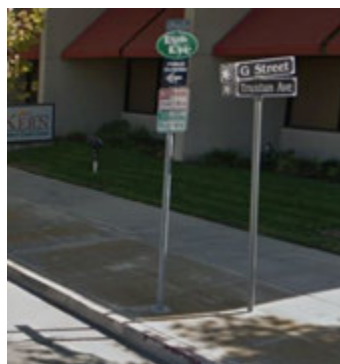


The City Parking Structure located at Eye Street and 18<sup>th</sup> Street intersection is a great asset of parking for downtown Bakersfield. With 509 parking spaces, this structure can meet the demand of the present and the future years. Based on our study, we found that the average daily use of this structure is about 150 spaces occupying only 30% of the capacity. The highest use was noted during the 1<sup>st</sup> Friday of the month event which occupied about 44% of the capacity. We noticed that a long queue of cars was waiting to enter the structure as the mechanism of issuing entrance tickets were time consuming. Formation of a long queue entering a parking usually could be misunderstood by parkers as the capacity already being full (which was not the case here) and therefore, it was noticed that some drivers tend to give up waiting in line and turning away from the structure. Based on our experience of special events parking operation elsewhere in Southern California, we recommend that during such events that require high parking demand, the gates of the structure entrance and exit remain open and hired attendants receive low cost advance parking fee in cash only for quick arrival and park. This process could fill up the structure quickly and provide more and closer on-street parking opportunities for other event attendants.



As a long term recommendation, we are encouraging that the City adopts policies and pricing techniques to increase the use of the structure. For example, we recommend consideration of lower cost long term parking. This could encourage the use of nearby employees who work for establishments lacking off-street parking. This structure offers cool shaded, clean, convenient and secure parking and establishment of affordable long-term parking could be very attractive.

Other factors which contribute to more use especially for new visitors and tourists of Downtown Bakersfield, would be improving the visibility of way-finding signs leading to the structure. Presently, small size signs with small fonts indicating “Public Parking” are installed at busy intersections along with other traffic and parking signs (picture below shows Truxtun Ave. and “G” Street). It would be more effective if larger size signs are placed midblock, isolated and with strong contrasting background colors and larger “Public Parking” fonts to guide motorists to the structure.



## 8.4 Enforcement of Parking Regulations

As discussed earlier, because of many different time limits of on-street parking regulation, enforcement of parking in downtown Areas 1 and 2 appears to be a challenge for the enforcement agency, requiring more man-power and costs to the city. This cost factor is important for the city where there is no income to be generated due to the lack of parking pricing management. For example, enforcement of “30 Minutes” parking zones scattered within

downtown is practically impossible with the existing enforcement capacity. It takes a minimum of 2 Hours for one officer to cruise around the 300 acres of downtown and Area 2. Therefore, we need 4 officers just to enforce effectively the 30 Minutes parking regulation. At least 2 or 3 other officers would be assigned to enforce 1 Hour, 90 Minutes, 2 Hours and isolated 5 Hours, 10 Hours, 10 Minutes, 15 Minutes, and many other combined parking regulation zones.

Enforcement of parking zones is the most effective tool to provide more turnovers and increase the existing capacity. Furthermore, effective enforcement will redirect the parkers from on-street back to private off-street parking where we estimate that there is a 30% unused capacity. Obviously, this directly increases on-street capacity helping to meet the future demand.

We recommend the following steps to help meet the enforcement challenge within the existing enforcement manpower and budget:

1. Confine the downtown parking enforcement zone to a smaller and closely spaced area bounded by clockwise order of “F” Street, 21<sup>st</sup> Street, “M” Street, and Truxtun Ave. The area to the east, bounded by “M” Street, 21<sup>st</sup>, “Q” Street and Truxtun, will be mostly unrestricted parking (if the present occupancy is less than 30%) and few isolated blocks with parking regulations. Similarly, the area bounded by “F”, 24<sup>th</sup>, “Q” and 22<sup>nd</sup> would be mostly a “no parking restriction” not requiring a continuous enforcement.



2. We recommend that 30 Minutes parking zones be gradually removed and be replaced by either “20 Minutes” metered parking if City adopts the limited scope of parking pricing. Alternatively, 1 or 2 passenger loading spaces replace the 30 Minutes zone and the remaining 30 Minutes spaces change to the adjacent 1 Hour, 90 Minutes and 2 Hours zones.





Mixed parking regulations abounds in Downtown Bakersfield

3. Ultimately, we recommend that downtown Areas 1 and 2 have only 4 types of time regulations. One Hour parking zone, 90 Minutes Parking zone, 2 Hours parking zone and short term parking such as 20 Minute metered or passenger loading zone per definitions of California Vehicle Code.
4. With the consent of the enforcement authority, we conclude if the above recommendations are implemented, the parking enforcement capacity of 2 to 3 officers can effectively provide enforcement of downtown sub areas at the present time.

## 8.5 Proposed Improvements for Area 2

As stated earlier the Area 2 selected for parking study has a high percentage of use (72%) during weekdays and implementation of certain measure to increase the on-street capacity is of an utmost importance. The most effective strategy is to utilize the existing available unused private parking capacity by selecting shorter terms parking regulations on-street so that parkers wishing to park long hours use private structures. The parking regulations within Area 2 should be to either 1 Hour parking or 2 Hour parking depending the walking distance to the hospitals.

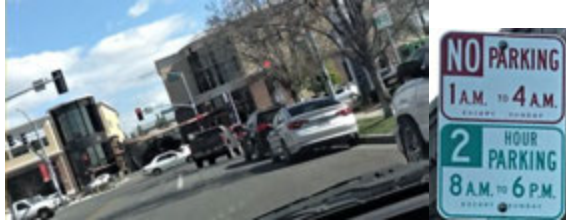
The following are recommended improvements for Area 2 for Streets and Blocks:

1. Eye Street (Between 25<sup>th</sup> and 26<sup>th</sup>) - Modify the existing 2 Hour parking regulation to 1 Hour. The parking structure of the hospital has 64 free spaces capacity occupied by about 15 spaces (23% use). Provide enforcement for parking over 1 Hour limit.



2. 26<sup>th</sup> Street (between Eye Street and Chester Ave.) - Modify the existing 2 Hours parking regulation to 1 Hour. The adjacent parking structure of the hospital has 77% capacity. Provide enforcement for parking over 1 Hour.





3. “G” Street (between 26<sup>th</sup> and 27<sup>th</sup>) – Create a double sided diagonal parking (West side is already striped diagonally) to increase the capacity from 34 to about 42 spaces. The block can function as one-way southbound to accommodate double sided diagonal parking.
4. 25<sup>th</sup> Street (between “G” Street and “H” Street and Chester Ave.) may be posted for 2 Hours in place of 90 Minutes parking. This block is further away from the Hospital and so Area 2 parking regulation shall be limited to only 1 Hour parking and 2 Hours parking.
5. 28<sup>th</sup> Street (between “H” Street and Chester Ave.) – Parking on the south side (adjacent to the hospital’s two parking structures shall be diagonal striping with 1 Hour parking to encourage long term parkers to park at the structure (about 90 spaces unused capacity).
6. “H” Street (between 27<sup>th</sup> and 28<sup>th</sup>) on the eastside has no restrictions. It has a 78% use and is located next to the hospital parking structure. This provides a long-term parking opportunity while they have access to available “staff” parking floors. This side should be posted for 1 Hour parking. Please focus on enforcement of 1 Hour regulation.
7. 26<sup>th</sup> Street (between G and “H” Streets) – Consider restriping to diagonal spaces to increase capacity. Maintain the “No restriction” parking and remove the “4 Hour” spaces as they don’t match with “unrestricted” parking elsewhere.
8. “F” Street (between 24<sup>th</sup> and 26<sup>th</sup>) has very low parking use. Remove the 30 Minutes and maintain no restriction along the cut-out curbs. Installations of multiple “No Parking Any Time” signs outside the cut-out curbs might be construed as “No Parking prohibition” is referring to cut-outs (which is not the case). It will be better apparent to parkers if the “No Parking Any Time” signs and posts are removed and the curbs outside the cutouts are painted red.
9. “G” Street – The vacant undeveloped property located between 24<sup>th</sup> Street and 25<sup>th</sup> has a potential to become a surface lot for present time and potentially a location for a new City parking facility in future to help with future shortage of Area 2 Parking.

## 9. PARKING STRATEGIES

Before focusing on long term recommendations, this section provides an analysis of parking program scenarios, parking costs and pricing, and a benefits review. The result of the analysis is to determine a set of strategic parking recommendations that will guide planning efforts for near-term and long-term implementation. Long-term parking solutions that require large financial contributions may require 3 to 5 years of programming, so a comprehensive review of capital intensive measures by City staff can begin implementation of strategic recommendations

## 9.1 Parking Program Scenarios

Provision of vehicular parking is an essential element of the success of Downtown Bakersfield. Parking facilities are costly, yet they provide easy and convenient access to destinations in support of local businesses. In many downtowns, parking complaints are among the most common issues facing developers, planners and local businesses. Parking problems can typically be defined either in terms of supply (e.g., the perception of too few spaces, legitimate parking undersupply, or excess spaces and wasted resources) or in terms of management (achieving more efficient use of existing facilities, underuse of certain facilities are not fully utilized, etc.).

This analysis has compiled community input, identified needs, and identified potential opportunities to develop three scenarios for strategic parking recommendations. These scenarios represent three points along a continuum of approaches that have been judged to fit Downtown Bakersfield's situation, offered here to help compare and contrast the mechanisms for managing parking. These scenarios include a parking management-only approach, an approach that combines parking management and pricing, an approach that includes parking management, pricing, and new parking construction. These scenarios can be used as a single scenario or combined with altered or added items, and be used as a short-term, medium-term, or long-term approach. They can help decision makers identify the preferred approach.

### 9.1.1 - Scenario 1: Parking Management, Limited Pricing

Parking Supply:

- a) No additional parking lots or structure unless code required privately owned.
- b) Increase Supply of on-street parking through restriping, time regulations and efficiencies
- c) No change to parking code requirements

Parking Pricing and Time Limits:

- a) Introduce trial parking pricing gradually by increasing low cost 20-minute parking supply within the City center commercial District directly adjacent to specific concentrated demand uses.
- b) Reduce the pricing of long stay - in public off-street lot to increase the utilization.
- c) Create longer hours parking opportunities in the outskirt of downtown area to encourage park and walk concept.

Parking Management:

- a) Increase and encourage shared parking opportunities with private/public
- b) Improve wayfinding/signage/lighting/pedestrian environment to support walking
- c) Establish Business Improvement District to lease private parking and make available to public.
- d) Respond to commercial spillover problems on side streets by coordinating with businesses and directing staff/customers to park throughout Downtown.

### 9.1.2 - Scenario 2: Parking Management + Pricing

#### Parking Supply:

- a) No additional parking lots or structure unless code required privately owned.
- b) Increase supply of existing on- and off-street parking through restriping, efficiencies
- c) Modifications to parking code, such as allowing flexibility with TDM, shared parking, expanding application of Specific Plan parking provisions.

#### Parking Pricing and Time Limits:

- a) Increase and expand 20-minute parking supply within the City Center Commercial District directly adjacent to specific concentrated demand uses.
- b) Modest parking charges in highest demand areas using multi-space meters.
- c) Create longer hours parking opportunities in the outskirt of downtown area to encourage park and walk concept.

#### Parking Management:

- a) Establish programs and cost saving opportunities to reduce parking demand such as shared parking, free and preferential carpool spaces, free transit vouchers for employees and bikers and other measures under TDM program.
- b) Establish Business Improvement District to lease private parking and make available to public.
- c) Optimize investment in parking by making most efficient use of all public and private parking facilities and encouraging use of viable alternative mode options, before constructing new parking.

### **9.1.3 - Scenario 3: Parking Management + Pricing + Additional Parking Supply**

#### Parking Supply:

- a) Increase parking supply core using infill structures.
- b) Increase supply of existing on- and off-street parking through restriping, efficiencies.
- c) Establish In-Lieu Parking Program where new business pay fees to the city in place of providing parking. The funds collected lead to construction of a new public structure.

#### Parking Pricing and Time Limits:

- a) Modest parking charges in highest demand areas using multi-space meters.
- b) Parking charges in high demand on-street and off street parking areas. Adjust to achieve 85-percent occupancy. Eliminate time limits, use scaled rates (low cost for 2 Hours, higher thereafter).
- c) Maintain free parking in lower demand locations.

#### Parking Management:

- a) Provide parking **Shuttle service** between structures, City Centers, Transit Stations
- b) Improve wayfinding/signage/lighting/pedestrian environment to support walking
- c) Establish Business Improvement District to lease private parking and make available to public.

- d) Respond to commercial spillover problems on side streets by coordinating with businesses and directing staff/customers to park throughout Downtown.

## **9.2 Benefits of Shared Parking**

Shared parking allows for better usage of parking spaces between complimentary uses. Natural shared parking opportunities exist within the downtown where private parking lots are restricted in use to a specific business. Different businesses have varying times of peak parking demand, such as office uses which peak during the day and restaurants which may peak in the evening.

When a business is built, it is required to park for the single use based on city code, ignoring any fluctuations in time and day. Shared parking moderates the peaks in parking demand. Shared parking can be expanded within the downtown where private off-street parking areas neighbor each other. Consolidation of private parking lots into one larger parking lot for public use eliminates time restrictions and underutilized parking spaces.

Through shared parking, the supply of parking within the downtown can be increased without costly financial resources. Achieving agreement on liability and division of potential for revenue requires the City or Chamber of Commerce to facilitate shared parking activity. A Business Improvement District (BID) can provide the means to facilitate shared parking.

## **9.3 Parking Pricing Benefits/Phasing/Technology**

### **9.3.1 - Parking Pricing Benefits**

1. Implementation of parking pricing provides some key benefits that will help minimize challenges to parking management and supply within Downtown Bakersfield. While some business owners have concerns that pricing will discourage customer visits, it is important to note that parking pricing improves convenience by making the most convenient spaces more frequently available. Parking pricing produces revenue that can create and support enforcement, parking equipment upgrade, and maintenance of parking zones. This eventually leads to business improvement district activities. Many of the most successful downtown areas have instituted pricing while maintaining high business levels. In a downtown such as Bakersfield, pricing would not be instituted on all spaces, only those with the highest demand beginning with short-term parking. This provides shoppers with a choice of free parking (with a slightly longer walk) or paying for a more conveniently located parking space.
2. Parking pricing, increases parking turnover in the most desirable spaces, thereby increasing the number of customers who use the best spaces. For example, if 20 Minute parking meters are placed at most high demand spots, it is estimated that the same space can be used by as many as 30 vehicles between 8AM and 6 PM. Rapid turnover in high-demand areas can be attractive for businesses that provide quick purchase service, dropping off and picking up goods, or delivery services. Eventually, the higher turnover, the higher capacity of available parking supply.
3. Parking pricing near the City's off-street parking facilities, encourage greater use of these facilities available parking specially, with the attractive low and comparable costs. This will free up more on-street parking spaces and therefore create higher turnover.

4. Parking pricing provides an incentive for private property owners to make restricted off-street parking areas more available and attractive for public use. This turns each parking space in downtown into a commodity. In the absence of parking pricing, visitors to business establishments do not try to use free and available provided off-street as they see free on-street parking in front of the business. With parking pricing implemented, private owners may then charge at or below City rates to fill up their empty off-street parking. Increasing the value of private spaces increases access to additional parking areas, in turn increasing public supply without cost to the City.
5. The revenue generated through parking pricing helps with enforcement costs and parking equipment and maintenance costs. Successful parking pricing programs can lead to reinvestment within the downtown to implement physical and programmatic improvements supportive of economic growth and cultural activities.
6. Encourages Remote Parking: Parking pricing within a core area promotes parking by staff at “remote” areas, better using existing parking supply within the downtown.
7. Encourages Non-Vehicular Access: Nearby residents who could walk, bicycle or use a shuttle are encouraged to avoid the parking charge. Parking pricing is generally the single most effective strategy to encourage people to use alternatives to automobile use.

### **9.3.2 - Parking Pricing Phasing**

Parking pricing for a community accustomed to free parking for years needs to be implemented gradually and in phases. Begin the program with parking charges on short term parking meters such as “20 minutes” parking spaces at blocks presently having over 75% parking use. This means establishing a limited number of paid parking adjacent to no cost regulations such as 90 minutes zones. It should be noted that when we refer to metered parking spaces that does not necessarily mean installation of a park-o-meter at each space. Today’s technology provides many options to initiate charged parking program.

If parking pricing produces positive outcomes consistent with downtown goals, then parking pricing can potentially be expanded to other areas presently having parking occupancy over 50%. With more success, this could lead to establishing metered parking for 1 Hour and 90 Minutes zones in later years. Meanwhile, it would be a necessity to maintain 2 Hours free parking on side streets and blocks further away from the center of downtown’s high demand parking areas.

Strategies for monitoring implementation include the following:

- a) Provide periodic review of occupancy data for refining pricing of meters (such as every six months).
- b) Establish procedures that allow parking pricing changes to be made within defined limits by City staff.
- c) Monitor spillover of parking onto other streets to determine if changes are required.
- d) Ensure that there will be always be free or low-cost parking available within radius of 500 feet walking.
- e) Establish low cost fines of citations issued due to parking in expired meters while the program is in experimental stage.
- f) Allow a one-time waiver for the first violation offence of parking in expired meters.

- g) Issue first time warnings instead of issuing parking ticket to allow public to get familiar with the program.

### **9.3.3 - Parking Pricing Technology**

Implementation of parking pricing should be accompanied with use of the latest technologies available to provide a user-friendly experience. Parking meters were first developed for use in Oklahoma City in 1935. This eighty-year old technology has evolved and now provides a variety of innovations for ease and convenience by the public, and management by agency staff.

Single-space parking meters are typically employed when parking meter poles are already in place. Multi-space parking meters allow for a consolidated system for collection of parking fees, freeing up valuable space along the sidewalk. Meter technology includes the opportunity to pay via credit cards, and remote payment using a phone number and/or additional technology such as a Quick Reader (QR) code.

Meters today can include solar panels to collect energy to power the equipment in addition or in lieu of a conventional battery for nighttime use or when not enough sunshine is available. Typically, cashless meters use encryption technology to keep credit card information safe, and if a jam occurs with the meter system, then a message can be sent directly to City staff for rapid repair.

Some cities in Southern California allow for purchase of pre-paid parking cards that can be used to pay a meter, and provide a refund for excess time “purchased”. The pre-paid parking meter card is available in pre-set increments and can be purchased at City Hall as well as the local Business Improvement District and other locations such as chamber of commerce, the City Parking Structure etc.

There are other technologies available such as in-car parking meters, which allow individual motorists to pay for parking using a pre-paid smartcard and device kept within the vehicle. The pocket calculator-size electronic device can be purchased and loaded with time using a smartcard or telephone. The device is then displayed in the vehicle for parking enforcement review. However, the use of an in-car device may be more useful for a community where paid parking has been in place for many years, and daily parking in meters occurs. We recommend that parking pricing program starts with basic and more familiar metered devices.



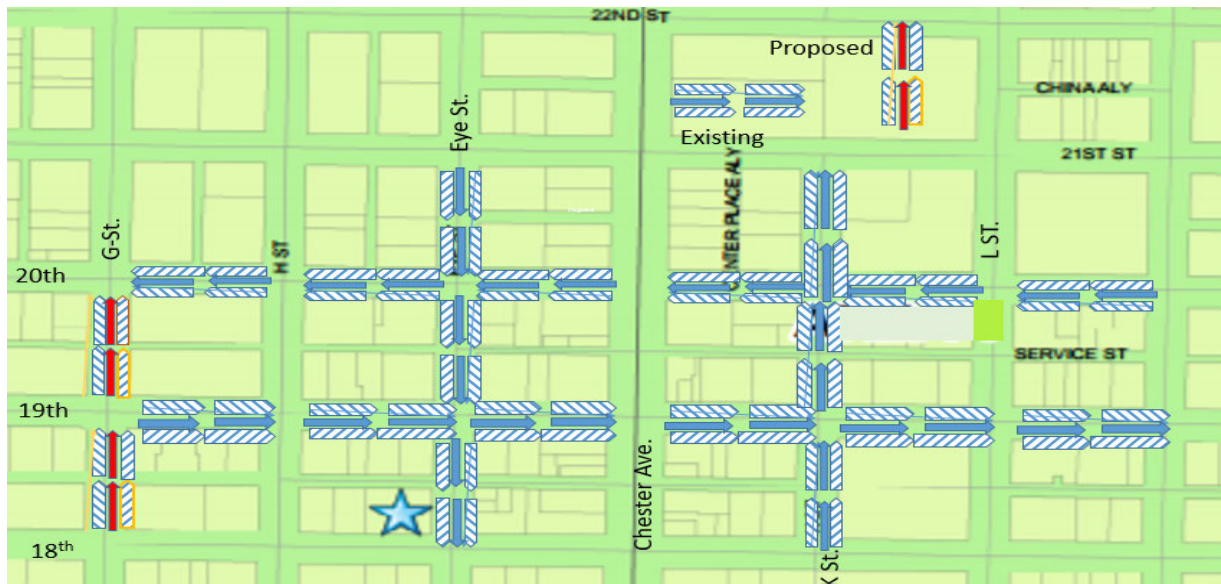
Two types of pay parking machine as alternative to park-O-meters

## 9.4 Parking Designs

Parking design constitutes techniques and strategies that would provide safer circulation, easier maneuverability, efficient ingress and egress and more capacity for both on-street and off-street parking operation. In the following sections, we provide more details focusing “on-street” designs.

### 9.4.1 - Diagonal Parking Design and Parking Malls

Installation of diagonal parking to increase capacity usually is the first option that comes to mind when urban parking studies are considered. Fortunately, the City of Bakersfield appears to be ahead of other communities in implementation of diagonal parking both on one side of commercial streets and formation of Parking Malls where diagonal striping placed on both sides. Implementing diagonal parking is not feasible in every downtown. There are requirements such as the low volume of approaching traffic (to minimize the conflict with diagonal backing out) and adequate geometric design and land use of the street to be considered to design for diagonal parking. It appears the street network of Downtown Bakersfield fits these requirements. We recommend expanding this successful strategy and design additional diagonal parking blocks on at least 2 blocks of “G” street to operate as a parking mall as shown below:



Existing 18 and the Proposed 2 Parking Malls in Downtown Bakersfield

#### 9.4.2 - Revising the Parking Space Dimensions in Parking Lots

Over the years, the parking industry has experienced design and installation of compact parking spaces as a measure to increase the capacity. However, compact parking spaces are not self-enforceable and are not favored and comfortable parking for first come first serve customers. People tend to choose standard parking spaces as they enter a parking lot and it is only when the standard spaces are full that they try to park in a compact space, regardless of the length and width of their vehicle. If a vehicle with at least one door half open turns out be wider than the width of a compact space, then the adjacent compact space will be utilized, making the second space practically unusable for parking. In our past parking studies elsewhere, we found as an average for every 10 compact parking design (for example, with the dimension of 7.5 feet by 16 feet) there were 3 (about 30%) unusable parking spaces. When we removed the compact space design and installed a conservative standard space of 8.5 feet by 17 feet (some cities use the 9'x19" dimension), the parking lot became fully utilized to the extent that the loss of spaces due to the change from compact to standard was lower than full lot capacity gained by this change.

This observation is very applicable to downtown Bakersfield mostly because the number of large trucks and large SUVs being driven in this city appears to be far more than in other urbanized jurisdictions. It is a common knowledge that trucks and compact spaces don't agree with each other. We would like to recommend to the City to delete compact space design and allowance in the parking standards and focus on a more conservative standard space of 8.5 feet wide and 18 feet long which could accommodate over 90% of cars and trucks operating.

#### 9.4.3 - Revising On-Street Parking Space Dimensions



The older standards of on-street parking spacing were based on lengthy American built vehicles requiring 28 feet of spacing which usually was striped for 20 feet parking and 8 feet red curb between the two spaces. In more recent parking dimension standards (CA MUTCD), in response to design of new cars including SUV's and trucks being shorter in length (despite being bulky and taller), the 8 feet red curb was removed and parking space markings was based on a 24 feet long space. This resulted in gaining more spaces for on-street parking specially, on a long block. As a part of capacity improvement strategy, we are recommending that parallel parking space markings with up to date standards be instituted on blocks with over 50% parking demand.

#### **9.4.4 - Curb Marking in Support of Parking**

A curb marking is the most essential factor in safety, efficiency, enforcement of parking stalled either on street or off street. Every block needs to have some areas painted red to ensure that parking does not block visibility of streets and approaching traffic. During our field study of parking utilization, we identified a number of blocks where red curbs would be needed near the intersections to prohibit vehicles being parked all the way to the end of the block, which causes blockage of visibility for cross traffic. This is especially true at intersections controlled by a two-way stop facing minor streets. Red curbs will need to be painted on the major street approaching the intersection to allow cross traffic to see the fast approaching vehicles without any stop control. In an ideal situation, every 4-way intersection in a commercial district should have 8 corner segments of red curbs varying from 20 feet to 40 feet. In addition to the safety aspect, red curbs can regulate on-street parking to park in a more compact manner and not leave pockets of unusable spaces between 2 cars.

In addition to painting red curbs as described above, it is important to paint and maintain curbs in other CVC approved curb colors for purposes such as designation of bus stops.

A blue curb designates disabled spaces, which presently exist on 16 spaces within downtown Area 1. However, there is a greater need for blue curbs for Area 2 since the major land use in Area 2 is medical.

Yellow curbs designate a loading zone (20 Minute loading of goods) and are presently in about 9 locations. There needs to more areas placed specifically within eastern part of downtown where light industry land uses are located.

White curb is used for passenger loading and unloading per California Vehicle Code. The designation is for 3 minutes. Some jurisdictions allow longer times between 5 and 15 minutes with a sign accompanying the white curbs. We did not see any areas in downtown with white curbs. This could be a very useful in areas like schools, medical offices, post offices and mail box drops. We recommend that City begins using white zone starting with the existing 10 Minutes zone in front of the post office.

Green curb is used for "20 Minutes" metered parking area as the meter itself is painted green. This ties with our recommendation to establish limited number of "20 Minutes" metered parking especially on block presently posted for 30 Minutes.

### 9.4.5 - Back in Angle Parking

For the past few months, City of Bakersfield has shown interests to study feasibility of “Back-in” parking design at certain locations. This study was not a part of our task. However, we would like to share the information we have about Back-in angle parking.

Back-in angle parking provides multiple benefits as summarized below:

- The parking maneuver is completed with knowledge of surrounding traffic and oncoming traffic;
- Visibility of oncoming motorists and cyclists is greatly improved when leaving the parking space;
- In locations with steep terrain, the vehicle wheels can automatically be curbed;
- Loading and unloading the vehicle from the trunk of the car can be facilitated without entering the roadway.

However, there are disadvantages with operation of Back-in angle parking:

On busy streets where the speed is usually higher than speed limit, the vehicles behind the driver who attempts to back-in parking get trapped forcing them to stop hurriedly to avoid hitting the front car. Sometimes, they end up blowing the horn blocking the parking attempt and not anticipating the intent of front vehicle driver. It is therefore necessary to select streets or blocks with low pass through traffic and lower approach speed to install “back-in” design.



- Source: RBF-Consulting

Furthermore, the convenience and safe arrival to the parking area appears to be more important than departing the parking area. It seems people are more in rushed behavior when looking for parking and more relaxed upon leaving. On the contrary, Police, fire and other emergency drivers would benefit to park where quick exit is more manageable. Perhaps that is where back-in parking would be the most appropriate.

Within the State of California, back-in angle parking occurs in downtown communities such as Chico, Sacramento, San Francisco, and Ventura. In the City of Sacramento, dedicated signs are provided to illustrate the back-in parking maneuver.



Source: RBF-Consulting

## 10. FUTURE PARKING MANAGEMENT STRATEGIES

Our recommendation for implementation of long term strategic parking is based on successful implementation of short term and long term proposals. In addition, in order to recommend effective and workable strategic recommendations, the City needs to select one of the 3 parking management scenarios described earlier in this report. Fortunately, the prospects of parking demand for downtown Bakersfield appears to be short of the supply and therefore, the City has more time to establish its preferable parking management strategy.

The following are the highlighted future parking management strategies that have demonstrated to be effective and successful in a growing city like Bakersfield:

1. Establish a pilot parking shuttle service focused on high ridership using a simple route connecting major destinations such as the downtown transit center, schools & city colleges, City Parking Structure, governmental buildings and the arena along Truxtun Avenue, special events, parking lots and buildings where shared parking could be established. The goal would be connectivity between key commercial areas within City allowing for “park once” and return to car provided through shuttle. Upon success of the pilot program, the service could be extended to the future HST station and to the future City structures or parking lots.
2. Empower Business Improvement District (BID) to lease private parking, and allow shared parking between businesses/properties
3. Establish a subcommittee of elected and appointed community members, business owners, and residents focused on downtown parking management or to act as advisory body to the City Council on parking and traffic matters.
4. Implement demand-responsive parking pricing for on and off-street parking. Use latest technology system.

5. Implement TDM Program to reduce travel to Downtown by single occupant vehicles. Provide greater availability for public, improved use of transit, active transportation systems.
6. Acquire lower cost available or vacant properties for future development of public parking lots or shared parking opportunities in concert with shuttle service.
7. Use efficient license plate reading technology to improve enforcement efficiency and provide ongoing parking data
8. Collect parking duration data (frequency of car turnover) to determine how best to refine time restrictions.

This report was prepared by Quantum Consulting- Bakersfield Downtown Parking Study

Draft Final Report –Last modified on April 4, 2018