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PARKING AND
MOBILITY MASTER
PLAN
DOWNTOWN WICHITA,
KANSAS

August 3, 2007





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PROJECT NO. 23-7104.00

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DOWNTOWN WICHITA, KANSAS



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Downtown Wichita is a community brimming with theaters, live music, sports, fine dining, and thousands of shopping locations. The development of a new downtown arena, WaterWalk, the expansion of the Century II Convention Center, and the success of the Old Town and Delano districts create an interest in planning for and managing further growth. To assist with the development of this growth plan, Sedgwick County ("County") engaged Walker Parking Consultants ("Walker") to create a parking and mobility master plan for downtown Wichita. This executive summary provides an overview of our findings and recommendations. The body of the report details parking and transportation options, recommendations, and an action plan for the future.

EXECUTIVE SUMMARY



PARKING POLICY AND SYSTEM REVIEW

A review of the current system found that the management of off-street parking, downtown shuttles, and on-street parking enforcement is fragmented and not administered as an interrelated and efficient system. With no one person or entity responsible for downtown parking, there is no one to educate, communicate, and respond to parking issues.

The responsibility for directing and managing the parking system for downtown Wichita most appropriately lies with the City Government of Wichita ("City"). Now is the time for the City to bring focus and direction to the various parking functions by establishing a municipal parking and transportation department to direct and manage the City's parking assets.

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Walker recommends creating the Wichita Parking and Transportation Department (WPTD) to manage parking operations through an auxiliary enterprise fund separate from the municipality's general fund. Creating a municipal parking department is a logical step for Wichita because the City already has significant influence through its administration of on-street parking and its contract management of off-street City-owned parking facilities. Similarly, using an auxiliary enterprise fund is the most prudent means of administering finances for the department, as it provides a financial structure that consolidates those costs and benefits that it controls, which in turn, defines responsibility and accountability. This is an important benefit for Wichita, whose current parking system, as aforementioned, is so fragmented. It is also recommended that the Wichita Parking and Transportation Department be led by a full-time director through the creation of a new city staff position. If needed, a citizen advisory

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committee may be formed to offer guidance and help support difficult decisions. The details of departmental organization, branding, and public relations are contained within this report.

UNIFIED PARKING CODE REVIEW

Additionally, Walker reviewed sections of Wichita's Unified Parking Code and has recommended improvements. There are areas of the code that could be improved and expanded upon, and some new features that Walker recommends be considered for inclusion in the code. One such addition is the fee-in-lieu financing ordinance.

The fee-in-lieu ordinance provides a mechanism for developments to fund shared parking improvements. This model includes the following major points:

- The developer is provided an incentive to pay an in-lieu fee to the city to reduce the developer's construction requirement, which will increase the density and the overall feasibility of the project;
- Wichita will use the in-lieu fees to finance the construction of shared-use municipal parking facilities; and
- Wichita must develop parking facilities with collected fees in a timely manner so that adequate parking is available for development projects.

It should be noted that new zoning code changes should be enacted that will effectively require the minimum and place a maximum on the number of spaces be provided based on the zoning requirement. A reduction based on shared parking can be considered for mixed use developments. Developments will still require some on-site space for visitors and VIPs, but employees can be accommodated in shared parking facilities.

PARKING SUPPLY AND DEMAND ANALYSIS

Our analysis includes 169 city blocks. We identified six unique districts within the study area to provide a clearer picture of parking adequacy for specific areas of interest: the Arena; Century II; Delano; Government; Old Town; and WaterWalk. The remaining areas are included in the totals for each time period and shown as Remote, Residential, Industrial, or Other.



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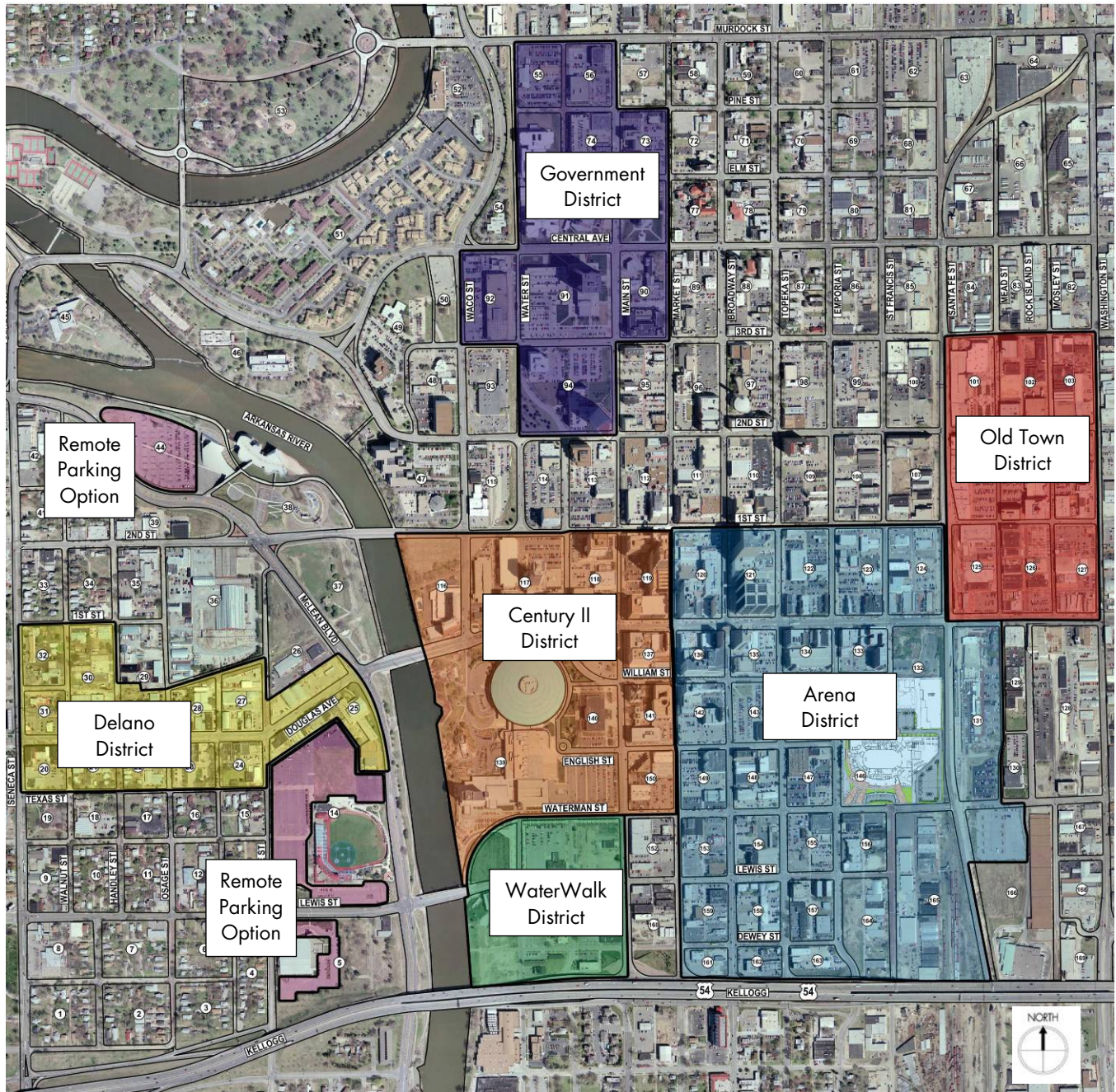
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The study area is bordered by Murdock Street to the north, Washington Street to the east, Kellogg Drive (Highway 54) to the south, and Seneca Street to the west. A map of the complete study area is provided below. To facilitate our analysis, each block was given a unique number, from 1 to 169. These block numbers are referenced throughout the report.



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CURRENT PARKING CONDITIONS

Parking conditions at present are found to be adequate throughout the study area, with overall peak occupancy occurring between 9 a.m. and 3 p.m. on a weekday. The observed peak parking occupancy for the entire area was approximately 17,164 vehicles, equating to an overall occupancy of 52 percent. It should be noted that during off-peak hours, which fall after 3 p.m. on weekdays and on weekends, parking occupancy is less than 52 percent.

The *Current Peak Parking Occupancy* table below shows the current observed peak parking occupancy rates during a weekday for private and public off-street parking and on-street parking. Block-by-block occupancy data is provided in Appendix G.

Current Peak Parking Occupancy

Type of Parking	Supply	Occupied Spaces	Parking Occupancy
Public Off-Street	12,573	6,315	50%
Private Off-Street	16,678	9,455	57%
On-Street	3,519	1,394	40%
Totals	32,770	17,164	52%

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Future parking conditions and impacts to the parking supply and demand over the next 5, 10, and 20 years were examined. The *Projected Parking Adequacy* table shows the current and projected adequacy of each sub-area, as well as the total. Adequacy is defined as the effective parking supply¹ less parking demand. Given assumed future development plans included herein, if no additional parking is provided, the WaterWalk District is expected to have a parking shortage beginning in 5 years, followed by shortage in Old Town in 10 years; these potential deficit areas have been highlighted. All other areas will have at least an adequate supply of parking for the next 20 years.

Future conditions are based on the assumption of the completion of potential developments that were outlined in various development plans, including the Arena Neighborhood Redevelopment Plan; the Century II HVS convention center expansion plan; North Old Town; Wichita Downtown Development Corporation; and the WaterWalk

¹ The effective parking supply is equal to 85 to 95% of the total parking capacity to provide a cushion for user convenience and comfort.

Parking conditions at present are found to be adequate throughout the study area, with peak occupancy of 52 percent. This means that during peak times, over 15,600 spaces are empty.

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site plan. As development plans are made, it is important to review the location and land use data to determine if parking is adequate.

Projected Parking Adequacy

District/Area	Current Adequacy	5 Year Adequacy	10 Year Adequacy	20 Year Adequacy
Arena	3,040	970	483	58
Century II	1,518	1,356	951	857
Delano	259	205	189	70
Government	654	604	553	446
Old Town	292	67	(175)	(871)
Waterwalk	318	(370)	(752)	(752)
Remote	1,319	1,316	1,313	1,305
Residential	658	657	657	653
Industrial	135	155	154	152
Other	4,802	4,167	3,353	3,212
Totals	12,995	9,127	6,726	5,130

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Note: this table assumes that no other parking facilities will be built.

IMPACT OF ARENA ON FUTURE PARKING CONDITIONS

The adequacy of public parking within 1,400 feet, the maximum reasonable walking distance to/from the arena, is summarized in the *Projected Arena Event Parking Adequacy and Frequency* table on the following page. As shown, for all but about 19 occasions per year, adequate public parking is now available within a reasonable walking distance to the arena site. This does not take into account parking within the effective parking supply cushion, or private parking spaces that are not being used. On these 19 occasions, remote parking with shuttle is an alternative to meet the parking demand.



As there are few events that create peak demand during the weekday daytime, and this does not take into account private parking that could provide up to an additional 2,000 spaces or a potential shuttle system for remote parking, Walker DOES NOT recommend building parking that will be used so few times per year.

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Projected Arena Event Parking Adequacy and Frequency

Time Period	Arena Event Size		
	Small	Medium	Large
Weekend/Evening	1,882	549	(1,784)
Frequency	86	62	14
Weekday/Day	705	(628)	(2,961)
Frequency	8	4	1

Considering available parking within walking distance:

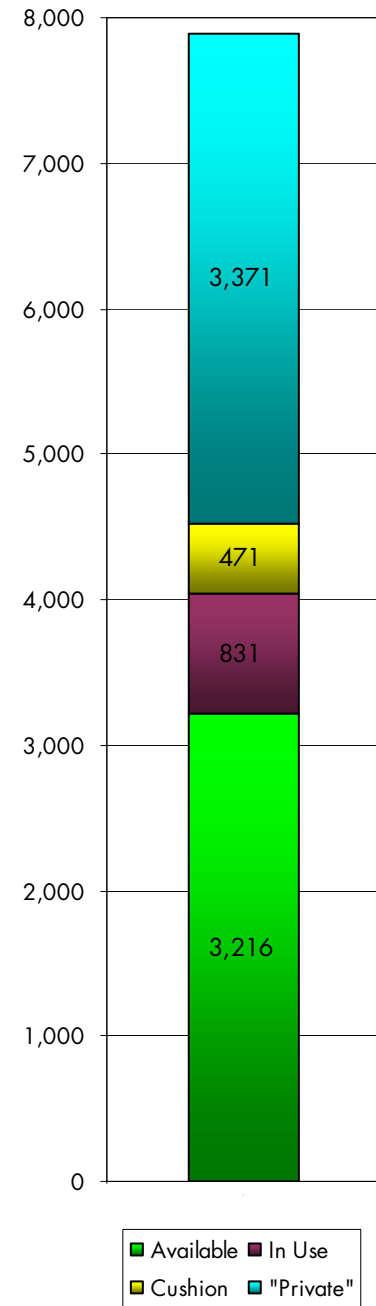
Events with adequate parking:	156
Events requiring remote shuttle:	19

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The total parking supply within the walking distance is just under 8,000 spaces. Available parking spaces are defined as the identified public parking spaces in the area, less what is in use and less the effective supply cushion. The effective supply cushion adds 471 spaces around the arena. The private spaces include the total number of spaces that are not open to the public, such as commercial businesses, or restricted spaces. Of the 3,371 private spaces, just over 2,000 are vacant after adjusting for current usage and the effective parking supply during a weekend/evening.

Also considered is the impact of a large or medium-sized Century II event occurring simultaneously with an arena event. Our analysis provides a similar comparison of parking adequacy based on the time period and size of each event. Our *Impact of Century II and Arena Events* table shows that inadequate public parking is projected about 29 times per year, when considering only the public parking that has been identified as available for events.

Parking Supply for Arena



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Impact of Century II and Arena Events

Century II Event	Arena Event Size		
	Small	Medium	Large
<i>Weekend/Evening</i>			
No Event	1,882	549	(1,784)
Frequency	31	14	8
Medium	1,726	393	(1,940)
Frequency	45	40	4
Large	926	(407)	(2,740)
Frequency	10	8	2
Events	86	62	14
<i>Weekday/Day</i>			
No Event	705	(628)	n/a
Frequency	3	2	0
Medium	497	(836)	(3,169)
Frequency	3	1	1
Large	(303)	(1,636)	n/a
Frequency	2	1	0
Events	8	4	1

Considering available parking within walking distance:

Events with adequate parking:	146
Events requiring remote shuttle:	29
Less Cushion	19
Less Cushion and Private	4

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It is Walker’s opinion that the shared use of existing parking assets, mobility management, and the future development of shared parking facilities are the critical elements of the parking solution for downtown Wichita. As new developments around the arena are proposed, the City should encourage shared parking and partnerships to ensure that public parking remains available.

Considering only the available public parking supply within a reasonable walking distance, we project 29 instances of remote parking with shuttle required. When the effective parking supply cushion is used, just over 450 spaces, this drops to 19 instances that require remote parking with shuttle. When the cushion and available private supply is used, all within a reasonable walking distance of the arena, the number of instances remote parking with shuttle parking is needed drops to 4 instances.

Walker recommends that as new developments around the Arena are proposed, the City should encourage shared parking and partnerships to ensure public parking remains available.

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ALTERNATIVES ANALYSIS

The third section of this report focuses on secondary recommendations; potential enhancements to current policy and/or practices that are supplementary to our aforementioned primary advisements. These recommendations are intended to facilitate more efficient parking practices. Included within the full report are our detailed findings, with complete explanations and graphic representations for ease of access.

To enhance current parking assets, Walker recommends increasing the number of angled parking spaces along Douglas Avenue as a way of supplementing the parking supply and calming traffic. This step alone potentially adds 59 public parking spaces. Additionally, the City should consider a new parking layout for the lot at Waterman and Mead. By changing the parking bays from east/west to north/south and removing the islands, there is a potential to add about 75 parking spaces to the lot.

The City is also advised to employ a comprehensive signage program that would lead visitors to parking. Century II events and the Broadview Garage would particularly benefit from this program. An example of the implementation of such a program might be that during large events, the Broadview Garage would be staffed, with advertisements that parking is available to the public. Signage would include wording such as "Event Parking", "Public", with an arrow and the rate, even if the rate is free. Should the City choose to execute this program, Walker suggests charging a small rate and using the revenues to fund the cost of staffing the garage during said events.

The City should also consider applying additional measures to improve and maintain their parking facilities. Both privately and city-owned parking structures ought to receive proper maintenance and the City may consider establishing a policy to return parking revenues back to parking improvements. Funds should be used to improve existing facilities through maintenance and to add parking supply where needed.



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Additionally, a parking partnership should be started, headed by the parking director. This group would consist of local parking operators, building managers, police officials, and land owners with ties to parking. Indianapolis, Indiana has a Parking Partnership sponsored by Indianapolis Downtown Inc. The group meets quarterly to discuss upcoming parking concerns and conducts an annual inspection of parking facilities.

Furthermore, the City may wish to take further steps to ensure that future developments plan adequately for their parking needs. The City may wish to require each new development to provide a parking plan. The added parking should be based on the projected land use before or as each area is developed. Where possible and beneficial, the City or County may want to adjust the plan to ensure a portion of parking is available to the general public.

TRANSIT OPTIONS ASSESSMENT

This report section presents a comprehensive examination of local transportation options that allow patrons to park and visit multiple downtown attractions and destinations. The focus of this analysis is to understand the existing resources and recommend future transit and shuttle services in downtown, as well as to recommend specific solutions to meet the peak parking demands of the Sedgwick County Arena; WaterWalk; the expansion of Century II; a possible casino; and other downtown generators when parking demand cannot be met within their immediate walking areas.

It is Walker's opinion that the various planned improvements throughout the six defined districts will require the support of an integrated transit and pedestrian access plan that will link existing and proposed parking assets to the new arena and thus increase mobility and connectivity throughout the downtown.

Walker recommends the expansion of the Q line trolley under one of three possible levels of service: limited, expanded, and full service. Each is explained fully within the report body, with budgetary concerns taken into account. It should be noted that even the most extensive full level of service, used to shuttle the peak passenger capacity required by the overflow parking demand of the Arena and the simultaneous Arena + Century II events, is considerably less expensive than a parking structure.

Currently, shuttling peak passenger capacity is estimated at approximately \$103,500 per year at 2008 cost. This cost is



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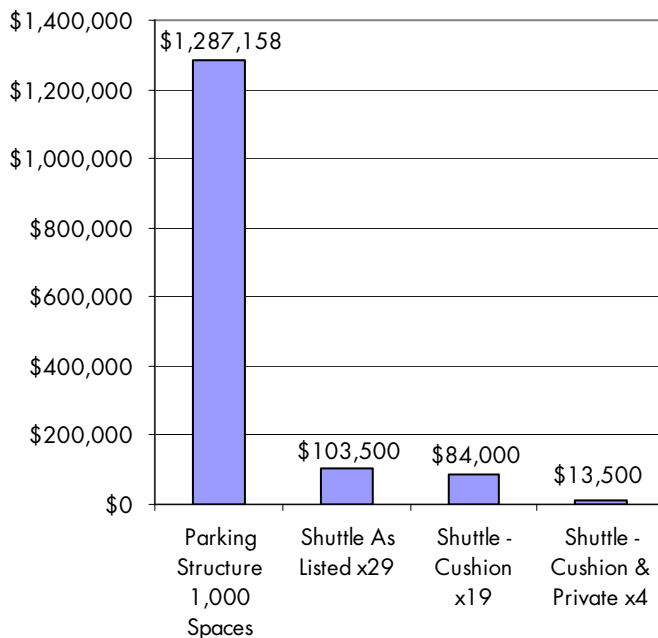
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estimated to increase at 3% to 5% per year. It also assumes that no additional land rent associated with the use of the identified remote parking sites will occur.

The cost of a parking structure is currently estimated at \$15,000 to \$18,000 per space, excluding land acquisition costs. Thus, a 1,000-space parking structure would cost approximately \$15,000,000 to \$18,000,000. The debt service alone would exceed \$1,200,000 per year.²

The cost of the shuttle operation is about one tenth of debt service for a 1,000-space parking structure. Under similar assumptions, the operating budget for shuttle parking would pay off only about 88 parking structure spaces.

Annual Cost to Provide Parking



CONCLUSION

As Wichita looks forward to completing the arena and further development, it is important to put into place a parking management system to oversee and provide coordination and monitoring of its parking assets. To do this, we recommend the city establish the Wichita Parking and Transportation Department (WPTD) to manage

² Assumes 7% rate for 25 years.

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parking operations through an auxiliary enterprise fund separate from the municipality's general fund. Priority of the department will be to gather the various parking pieces under their leadership and to develop the necessary marketing tools to educate the masses on parking in Wichita.

A comprehensive wayfinding and signage program should be established to guide visitors in and around downtown, including parking. Coordination between private lot owners around the arena should begin to increase the number of known public parking areas for events. We further encourage establishing a parking partnership program to coordinate public parking in the future.

Coordination of remote parking with shuttles should be done well in advance of the arena completion. This can begin to take shape with the new parking director and arena management team. Based on our analysis, we believe there will only be a handful of events requiring remote parking requiring shuttles. These events are limited to large events and medium events occurring on a weekday day.



SECTION I

PARKING POLICY AND SYSTEM REVIEW

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This report section presents an examination of current policies and management options for parking and transportation employed in Wichita.

PROBLEMS OBSERVED

Based on our observations of existing operations, we conclude that there are serious problems with the current methods of parking management. The functions of parking management, parking revenue accountability, parking facility maintenance, parking enforcement, and downtown shuttles, are not managed as an inter-related and efficient system. The following statements illustrate our findings:

- The City Property Management Director controls non-metered surface lots, the State Office Building garage, and City Hall garage. City Property Management and Sedgwick County contract independently with a professional parking company (AMPCO) for the management of their municipal parking facilities.
- Maintenance for City and County parking facilities is provided by the parking operator (AMPCO), but most maintenance is supervised by the Building Services Department of Public Works.
- The Q-Line and Final Friday Gallery Crawl are managed by Wichita Transit, but are partially funded and promoted by the Wichita Downtown Development Corporation (WDDC).
- City parking garage revenue is deposited to the City's Property Management Fund. Revenue from the State Office Building garage goes to the State Office fund. City employee parking revenue from the City Hall Garage is deposited directly to a debt service fund for that property, only. Surface lot revenue goes to a special revenue fund of the Support Division.
- Parking tickets are issued by the Wichita Ambassadors, who are supervised by the Police Department. The Ambassador Program appears to be an appropriate and very successful method of improving the Wichita downtown experience for tourists, visitors, and on-street parking patrons; however, this system does not coordinate on- and off-street parking management.

CURRENT PARKING MANAGEMENT

Off-street parking, downtown shuttles, and on-street parking enforcement are not managed as an interrelated system.



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- Citation fines are collected by the Court Clerk, but the collected revenue is deposited to the General Fund. Thus, this revenue stream is lost to parking or transportation services.

Walker has determined that at the core of these problems is that no central authority manages parking and downtown transportation. As a result, City and County parking and downtown mobility assets are inconsistently managed.

These problems lead to the following unintended negative consequences:

- There are inefficient duplications of efforts;
- Parkers sometimes are confused about how to find information about parking, particularly regarding who to contact regarding problems;
- Parking assets are difficult to share;
- Parking is poorly distributed;
- Parking revenue is not tied to all expenses of parking operations.
- Parking revenue is commingled with general funds; and
- Long-term maintenance, replacement of equipment, construction seed money, and other needed reserves are difficult to fund.

Thus, it is Walker's opinion that the consolidation of parking and mobility supervision and the shared use of parking assets are critical to the continuing resurgence and long-term parking solution for downtown Wichita.

No central authority manages downtown parking and transportation.

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Consolidating public parking management has the potential to advance efficiencies, share existing parking assets, promote the development of future facilities, better distribute parking demand, and generally improve the overall parking experience for all user groups in downtown Wichita.

An integrated parking and transportation system for downtown Wichita would accomplish the following:

- Facilitate economic development throughout downtown;
- Reduce the need for some employees to park close to destinations by linking under-used and/or remote parking assets to destinations, and distribute parking demand more evenly throughout the downtown;
- Facilitate the circulation of downtown visitors and patrons from one destination to another in a timely manner without re-parking;
- Consolidate all financial and operational oversight functions of existing downtown public parking facilities and the downtown transportation operations;
- Coordinate future parking infrastructure development and transportation in such a way as to motivate developers of future projects to consolidate and share parking facilities under common management, rather than overbuilding on-site parking facilities for private uses; and
- Provide a way to raise sufficient funds to adequately support the system.

It is extremely important for municipal parking management to monitor parking revenue, expenses, maintenance funds, and development funds. As parking strategy is carried forward, parking will be expected to fund management and operational changes, some new construction, additional programs, and other activities.

PARKING MANAGEMENT ALTERNATIVES

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Effective parking management should have the following objectives:

- Revenue should be tied to the expenses of operation (the true cost of parking) as closely as possible;
- Budget preparation and operations should be under the control of centralized parking management;
- The locations of parking management functions within the organizational structure should be equivalent to the importance of parking management issues as these issues are perceived in the marketplace;
- Parking management may have to meet demands based upon air quality issues or other monitoring requirements. The structure and budget of parking management should be flexible enough to meet these or similar demands whenever they are promulgated by regulatory or governmental agencies; and
- Where parking management will try to encourage change and alter behavior in some ways that people want to resist, it should be "protected" from political pressure as much as possible. If actions to accomplish goals could be overturned for political reasons, it may be impossible to successfully implement this parking and mobility plan.

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ORGANIZATIONAL OPTIONS

An integrated downtown parking and shuttle system is a critical element for the continuing resurgence of downtown Wichita. This analysis is intended to provide more focused direction for the management of existing and future parking and transit resources in downtown Wichita.

As Sedgwick County and the City of Wichita consider the consolidation of parking operations, the following organizational options are presented and examined sequentially as the most likely models.

- City Parking Department
- Parking Authority
- Business Improvement District (BID)
- Parking Tax District
- Non-Profit Organization
- Joint Enterprise or Partnership

The primary goals of any management model selected for Wichita are to emphasize the importance of parking issues to employees and patrons, and to more efficiently allocate resources. Parking is usually managed more efficiently when there are fewer layers of management and lines of responsibility are simple and direct. This approach results in less conflict of interest and more focus on issues. Each model has the potential to achieve these goals in a different manner.

Each management alternative is described and characterized with regard to selected elements of comparison. A comparison matrix of the alternatives will follow.

CITY PARKING DEPARTMENT (ENTERPRISE FUND)

The most viable option for Sedgwick County and the City of Wichita to organize their parking management is to create a municipal parking department. Walker recommends creating the Wichita Parking and Transportation Department (WPTD) which will manage parking operations through an auxiliary enterprise fund separate from the municipality's general fund.

Creating a municipal parking department is a logical step for Wichita because the City already has significant influence through its



Parking in Old Town Square

Walker recommends creating the Wichita Parking and Transportation Department (WPTD) which will manage parking operations through an auxiliary enterprise fund separate from the municipality's general fund.

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administration of on-street parking and its contract management of off-street City-owned parking facilities. Similarly, using an auxiliary enterprise fund is the most prudent means of administering finances for the department, as it provides a financial structure that consolidates those costs and benefits that it controls, which in turn, defines responsibility and accountability. This is an important benefit for Wichita, since the current parking system, as mentioned earlier, is so fragmented.

Highlighted below are several reasons why the City should establish a subsidiary department to manage parking:

- The City owns the majority of public parking assets, which it already administers through contract management with a professional parking operator;
- The City has the legal authority to administer parking, and already does so through the Department of Public Works Property Management Office, the Building Services Department, the Police, and other city offices;
- The City has the primary responsibility for economic redevelopment and infrastructure within the downtown. Wichita Transit is also a division of City government; and
- With the exception of consolidated zoning and planning, the City is vested with the primary legal powers and responsibility to administer on-street parking and transportation, which are important components of a consolidated parking and mobility plan.

While some municipal parking operations appear to be parking authorities, in fact, many city parking departments in operation throughout the U.S. are actually city departments with auxiliary enterprise funds. These examples include:

- Five Seasons Transportation and Parking, Cedar Rapids, Iowa
- Denver, Colorado
- Detroit, Michigan
- Lincoln, Nebraska
- Miami, Florida (Miami Parking Authority)
- Minneapolis Municipal Parking System, Minneapolis, Minnesota
- Tampa, Florida

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Additionally, it is important to recognize the benefit of using an enterprise fund as a means of organizing resources. The main purpose of the enterprise fund is to preserve parking revenues, segregate parking expenses, and establish a parking operating budget.

An auxiliary enterprise fund should be self-sustaining, meaning it must receive a revenue stream that is sufficient to cover ongoing operating expenses and outstanding debt service obligations to ensure its solvency. Operating deficits must be guaranteed by transfers. Excess revenues should be used to fund parking projects and parking-related capital improvements.

Parking revenue funds are typically collected from a variety of sources, including the following:

- Monthly leases or permit fees;
- Transient revenues;
- Parking meter revenues;
- Reserved parking spaces;
- Transferred funds; and
- Parking violation revenues.

Operating expenses include the costs associated with ongoing parking operations, which frequently include the labor costs associated with revenue collection, maintenance, security, on-street and off-street parking enforcement, utilities, supplies, equipment, management, and administration. Budgeting provides measurement and discipline.

An auxiliary enterprise fund may be administered through the existing municipal governmental structure. As such, an enterprise fund centralizes accountability for the overall activity. The auxiliary enterprise fund is most effectively managed through the creation of a new municipal parking department.

It should be noted that the role of such a city parking department varies from that of parking asset manager who delegates or contracts management of actual day-to-day parking operations, to that of actually operating the parking system, in addition to the role of asset manager.

There are several other alternatives to a municipal department with an auxiliary enterprise fund, as listed below. Walker has provided these alternatives purely as a basis for comparison and does not recommend their implementation.

PARKING AUTHORITY

Parking authorities offer similar advantages to those gained through the creation of auxiliary enterprise funds. Like enterprise funds, parking authorities should be self-supporting, meaning they generate operating revenues sufficient to cover both operating expenses and the debt service associated with any capital improvements. Following are some of the functions and responsibilities of a parking authority:

- To hire and compensate staff and manage parking facilities;
- To set parking rates and collect revenues from authority-owned facilities;
- To acquire property through negotiations and, if necessary, through eminent domain;
- To acquire existing parking facilities;
- To design, construct, and renovate parking facilities;
- To develop and implement master plans for municipal parking; and
- To define and implement parking management strategies aimed at improving traffic flow and parking conditions.

To create a parking authority, enabling legislation must be in place legalizing the formation. This legislation does not currently exist within the laws of Kansas, although many other states have enacted such laws. Following are some states that have parking authorities: Alabama, Alaska, California, Connecticut, Delaware, Florida, Maine, Maryland, Massachusetts, Missouri, New Jersey, New York, Oklahoma, Pennsylvania, Tennessee, Virginia, Washington, and West Virginia.

Once the parking authority is created, most laws provide for the municipality's mayor to appoint a board of directors. The board then governs the parking authority.

There are several other alternatives to a municipal department with auxiliary enterprise fund. Walker has provided these alternatives purely as a basis for comparison but does not recommend their implementation.

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Parking authorities have several characteristics that distinguish them from municipal parking departments or Non-Profit Organizations including the following:

- Where parking authorities are empowered to issue their own debt, that debt may or may not count toward the debt capacity of the municipality.
- Parking authorities can take action independently and without approval of local government.
- They can also create a new governmental agency with an independent Board of Directors.
- There are redundant costs of management and administration.
- They may face higher borrowing interest rates and costs than a city issuing general obligation bonds.
- Authorities may also have some powers that are beyond the immediate control of the citizens.
- They may still encumber the full faith and credit of the City in the calculations of some underwriters.

The use of parking authorities has declined in recent years in part because of changes in municipal bonding underwriting standards and other disadvantages described above, but also because similar results can be accomplished through the issuance of tax-exempt project revenue bonds and the use of less complex organizational models such as municipal parking departments, development corporations, special improvement districts, business improvement districts, neighborhood improvement districts, and tax increment finance (TIF) districts.



JOINT VENTURE OR PARTNERSHIP

The simplest cooperative operating entity is a joint venture or partnership, where each institution benefits proportionately and where expenses are equitably shared. In a joint venture or strategic alliance, owners come together to share knowledge, markets, and economic benefits. Even if each institution retains control over its own fees and policies, parking operations can be consolidated and centrally managed.

As revenue would be passed through to the partners, all partners would bear responsibility for costs and debts incurred. The partnership agreement would deal with issues of formation; revenue and expense sharing arrangements; salaries; employee taxes; unemployment insurance; workman’s compensation insurance; banking arrangements; changes of partners; liquidation; and responsibilities of partners. Items such as business name, licenses, trademarks, copyrights, patents, and designs would be registered by the joint venture or partnership.

A joint venture partnership can be used to manage joint operations and/or the development of new parking project capital improvements as joint ventures. Although revenues generated by a new structured parking facility may not be sufficient to fund both the operating expenses and debt service of that particular improvement, revenues from other facilities and partnership contributions may be pooled together. This pool should be sufficient to guarantee the solvency of the joint venture or partnership.

A joint venture or partnership would provide a financial structure that consolidates costs and benefits under its control. Its main purpose is to collect parking revenues and to pool parking expenses within the parking operating budget. Budgeted expenses include the operating costs associated with ongoing parking operations. The operating budget is typically funded by a stream of transfers collected from the owners.

The lifespan of a parking structure can often range from 30 to 50 years or more. However, because the development costs for such a structure are capitalized over a 20 to 30-year period, significant useful life remains after all debt is retired. This remaining life means that revenues may still be generated by this debt-free facility and that these revenues may be available to offset any new debt service payments required to fund new parking projects. These resources may then be used to fund parking project capital improvements.

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BUSINESS IMPROVEMENT DISTRICT

Some municipalities and county governments use business improvement districts (BIDs), special improvement districts (SIDs), and parking tax districts as a means to generate income to fund parking facility capital improvements and operating expenses. Both business improvement districts and parking tax districts can be used to finance the acquisition of land and the construction, operation, and maintenance of surface parking lots and parking structures.

The Wichita Downtown Development Corporation (WDDC) is a BID. BIDs, which are most often formed at the request of their member businesses, typically address a wide variety of issues such as marketing; transit; beautification; signage; lighting, parking, street and public space maintenance; security; and, additionally, provide information and assistance. The collection of assessments tends to be applied uniformly on a square foot, gross receipts, or assessed value basis because benefits are universally recognized by all property owners.

Within Old Town, parking is provided at no charge to visitors through surface and structured parking. A Parking Overlay District provides funding for free parking in an existing 241-space garage and a new 500-space garage. The City established a tax increment finance district (TIF) for the area to fund a range of public improvements within the district. Structured parking is one of the items included in that funding plan. TIF funds are used to pay the bond payments for the parking structures. On-going operating costs are covered by a self-imposed fee property owners pay to the Old Town SID.

PARKING TAX DISTRICT

A parking tax district typically addresses a narrow selection of issues directly related to parking. In cases where the municipality is the sole provider of parking, the collection of parking taxes tends to be applied in a uniform manner on an assessed value basis or as a fee per space based on zoning parking standards or requirements, and typically with a partial exemption for parking spaces provided above a threshold percentage. Typically, no commercial property is 100 percent exempt unless its owner provides 100 percent of the parking requirements mandated through the zoning ordinance within the district. Single-family residential property is usually exempt, but multi-family apartments usually are not.



Garage in Old Town
Financed through TIF Dollars

There are many precedents for parking tax districts. A number of parking tax districts are located in California, Maryland, Nebraska, and Oregon, with the majority of parking tax districts concentrated in California. The following are two examples of parking tax districts in the U.S.:

- *Long Beach, California* maintains the Belmont Shore Parking Commission, which exists as an approved city commission and enterprise fund. The commission receives parking revenue from existing facilities and tax revenue from the Parking and Business Improvement District (PBID) for the purpose of parking. This PBID has the power to impose a self-assessment of property owners and businesses, subject to a 50 percent protest vote that can terminate it at any time. The most recent assessment was approximately \$0.06 per SF, but has been reduced to \$0/SF pending the selection of a new set of goals and criteria. Because the PBID pertains to more than parking, the tax rate is applied across the board, with no exemptions for owners who provide their own parking.
- The Vehicle Parking District of *Pomona, California*, provides public parking for the entire downtown district. Businesses are not required to pay for parking credits or apply for parking variances. There is essentially no room for new parking. Parking is currently self-sustaining, as parking revenue from existing lots is sufficient to fund current obligations. As there are no ongoing parking structure development obligations, there is no additional parking district tax.

NON-PROFIT ORGANIZATION

A significant difference between contracting with a municipal division and a Non-Profit Organization is that the NPO usually has a broader perspective on issues other than parking.

Both may be concerned with supporting and encouraging the economic vitality of an activity center, but the NPO may have a more balanced approach because it may manage more elements, but at the same time, is more focused on a particular area. An example of this is the Wichita Downtown Development Corporation (WDDC). It should be noted that the WDDC is both an NPO and a BID. In either case, if parking is directed by an NPO, expenses must be guaranteed by the

parking asset owners. In this model, transfers and increases in future parking revenue would also fund future parking improvements.

All or part of parking management is delegated to an economic development non-profit entity in such cities as Kansas City, Missouri, and South Bend, Indiana.

MATRIX COMPARISON OF THE ALTERNATIVES

Each parking management alternative detailed above is evaluated on the basis of a number of subjective criteria. Each alternative is scored according to each element of comparison's relative ability to meet the expectations of the Implementation Partners in comparison to the other alternatives.

The following elements of comparison are considered:

- Is enabling legislation needed? Some alternatives are relatively easy to establish, while others require the approval of other legislative bodies. A special improvement district, business improvement district, or neighborhood improvement district would require the approval of the city and local taxing authorities, while a parking authority needs special legislative legislation to enact, resulting in negative scores. Those alternatives not requiring such action are positively ranked.
- How much direct oversight is required? Direct oversight and direct partner involvement is required for a joint venture or partnership, which is negatively ranked. Much less direct involvement is needed for the remaining alternatives.
- Is the City administratively involved? The City is directly involved in the administration of parking facilities and would be similarly involved in a number of alternatives, which are positively ranked.
- Are politics a factor? It is in everyone's interest to focus more on parking issues and not create new political bodies, new boards of directors, or commissions. Politics are considered to be a positive consideration for a city department, a special improvement district, a medium consideration for a non-profit organization, joint venture or partnership, and a negative factor for a parking authority. Each is ranked as shown.

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- Is the entity self-supporting? The ability of parking management to generate sufficient revenue to cover its immediate operating expenses, debt service, reserve funds and sinking funds for maintenance and replacement is one determining factor for the appropriateness of a particular model. The higher degree of financial autonomy or independence required of a non-profit organization, or a parking authority results in lower rankings for these alternatives.
- Can it receive tax revenue directly? The ability to tax is a strong reason for the selection of a city parking department, a special improvement district, or a parking authority. The joint venture partnership and the non-profit organization are negatively ranked.
- Would funding debt be complicated? To the extent that parking does not generate sufficient revenue to be self-sustaining, a subsidy from a general fund may be required. A non-profit organization may not have sufficient borrowing capacity to finance the system needs. Transfer of funds from the City or County general funds to a special improvement district or an independent parking authority to subsidize debt service shortfalls would be problematic, and are negatively ranked. Joint venture partners would be required to guarantee debt service as a shared burden.
- Is borrowing capacity isolated? In most cases, borrowing by a special taxing district does not consume the municipal borrowing capacity. However, due to changes in underwriting standards, the debt of some parking authorities cannot always be separated from the bonding capacity of the city. The remainders are negatively ranked.

The matrix analysis is found on the following page. This matrix is intended to meet the objectives of this study to consider a parking management system that operates in a business-like manner that is also consistent with the core values and needs of Wichita.

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Table 1: Matrix Analysis of the Alternatives

#	Alternative	Joint Venture		City Department w/ Enterprise Fund		BID of Special Impr. District		Non-Profit Organization		Parking Tax District		Parking Authority	
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	Requires new enabling legislation?	No	++	No	++	No	++	No	++	No	++	Yes	(--)
2	Requires direct City or County oversight?	Yes	(-)	Yes	(-)	Yes	(-)	No	+	Yes	(-)	No	+
3	Is there city administrative involvement?	Yes	(-)	Yes	(-)	Yes	(-)	No	+	Yes	(-)	No	+
4	Level of political considerations.	Low	++	Low	++	Low	++	Medium	0	Low	+	High	(--)
5	Must be self-supporting? (Degree of financial autonomy or financial independence)	Yes	(-)	No	+	Yes	(-)	Yes	(--)	No	+	Yes	(--)
6	Can it receive tax revenue or transfers?	No	(-)	Yes	++	Yes	+	No	(--)	No	(-)	Yes	+
7	Complications of deficit.	Shared	0	Impacts City budget	(-)	High	(--)	Shared	0	Shared	0	High	(--)
8	Is borrowing capacity isolated?	No	(-)	No	(-)	Yes	+	No	(-)	No	(-)	Not Always	0
Overall Value of Implementation			+		+		(-)		0		0		(--)

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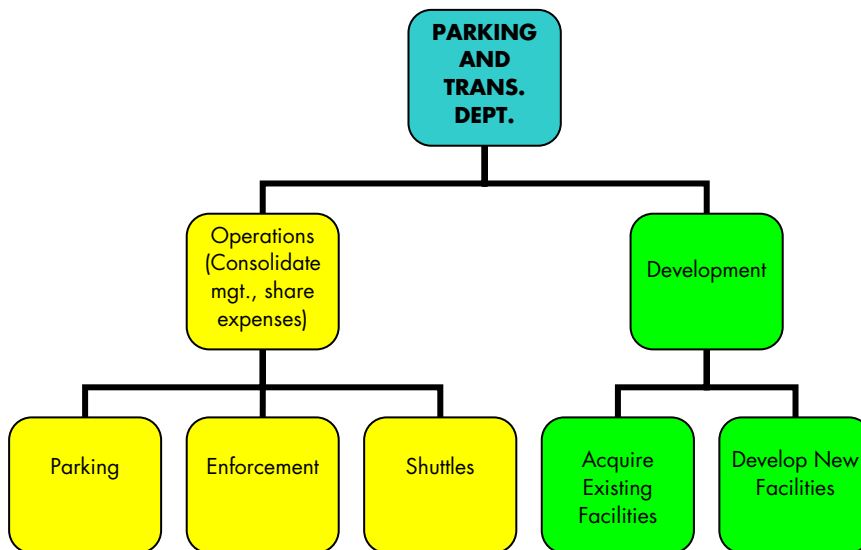
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As aforementioned, the recommended model is conceived as a municipal parking and transportation department called the Wichita Parking and Transportation Department (WPTD) to be managed with an auxiliary enterprise fund.

The following figure shows an organization chart that reflects how the recommendation would be implemented.

THE WICHITA PARKING AND TRANSPORTATION DEPARTMENT (WPTD)

Figure 1: Organization Chart



With this recommended organization, functions are divided between operations and development. The overall scope of the organization is envisioned to include pilot shuttle operations, parking operations, and the future ownership and development of parking structures. Preliminary organization tasks are recommended for early action. Parking supply options are considered long-term actions.

This recommended management model addresses two main functions:

- Management of parking, enforcement, transportation demand management, and shuttles would be managed by the WPTD (whether by contract or by self-operation); and
- Future acquisition of existing facilities or the development of new parking facilities would be managed by the WPTD with ownership held by a municipal capital corporation.

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Parking assets owned by the County or other entities would be managed by operating agreement. To facilitate this process, the following steps should be included:

- Negotiate and agree on operating structure and method of funding for operations between City and County;
- Establish operating principles, mission statement, goals contract vs. self-operation, budget, etc.; and
- Confirm if parking will continue to be managed by contract vs. self-operation.

Establishing this model will likely reduce parking management costs and allow the sharing of parking resources. This management structure also facilitates the development of future parking facilities.

MISSION STATEMENT

In support of the Wichita Parking and Transportation Department plan, the following "Mission Statement" is recommended:

"Our mission is to contribute to the success of Wichita by efficiently managing, marketing and providing affordable parking and mobility services to the citizens and patrons of downtown Wichita."

The objectives of the WPTD are:

- To maximize the use of the parking and transit assets as part of an interconnected parking and transit system;
- To simplify and coordinate public communications and public relations regarding the availability and pricing of parking, public transit, and other alternatives; and
- To maintain safe, adequate, and affordable parking facilities while planning for the development of new parking facilities in a cost-effective manner.

"Our mission is to contribute to the success of Wichita by efficiently managing, marketing and providing affordable parking and mobility services to the citizens and patrons of downtown Wichita."

To accomplish the objectives of this plan, it is necessary to develop a number of elements. The appropriate tools or components of this plan include:

- A management plan;
- An identity program;
- A communications plan, including improved signage, a city parking web site, brochures, and maps;
- Expansion of the “Ambassador” information and enforcement program; and
- A marketing plan.

BRANDING PARKING

Walker recommends that Sedgwick County and the City of Wichita create a single public identity brand for the parking operational entity. Examples include the “Five Seasons” Transportation and Parking Department Cedar Rapids, Iowa, and the “Central City Parking” program of Downtown Kalamazoo, Michigan.

Figure 2: Brand Logos



Kalamazoo, MI



Cedar Rapids, Iowa
Transportation and Parking

Verbal elements should include a name, style, and taglines. Visual elements include fonts, colors, shapes, and graphic elements (including logo). The elements and standards of the program should be used in a consistent manner. Ubiquity is achieved by using a full range of appropriate media. Frequency is also necessary to enhance the effectiveness of marketing and promotions through frequent advertising.



PUBLIC RELATIONS, COMMUNICATION, AND INFORMATION MANAGEMENT

The goals of these functions are to:

- Reinforce the central place of Wichita;
- Establish greater recognition and increased branding of a unified parking effort and the WPTD;
- Consolidate parking and transportation information under the WPTD banner;
- Establish better links to/from other partner information sources, such as:
 - o Newspapers
 - o The County
 - o The City
 - o The WDDC;
- Maintain a ride-share matching service and database; and
- Provide other commercial information, such as retail, entertainment, and restaurant news and links.

The parking relations and communications plan would provide information on key events impacting Wichita parking, transit, and access issues, and should be responsible for increasing public awareness through events, activities, publications, press releases, maps, and other literature.

The WPTD director would be responsible for a Parking Relations and Communications program that would:

- Include a comprehensive “Wichita Parking and Transportation” section of the city web site;
- Respond to questions and requests from the general public for locations of parking facilities, pricing and availability;
- Maintain the integrity of downtown parking promotional materials, and provide parking maps, business development packets, and fact sheets;
- Provide day-to-day media relations, and generate press releases as needed;

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- Provide public relations assistance to other City and County events as needed;
- Produce a quarterly WPTD newsletter for the community with news of economic developments in transit and parking, development and construction projects, upcoming Wichita events, and profiles of Wichita newsmakers; and
- Conduct meetings and presentations about Wichita parking and transportation to city business and civic groups upon request.

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It is recommended that the Wichita Parking and Transportation Department be managed by a full-time director with one additional staff position. The WPTD will contract for the management of assets under its authority. If needed, a citizen advisory committee may be formed to offer guidance and help support difficult decisions.

The following management practices are intended to define the responsibilities of the WPTD Director to ensure sound system management, provide good customer service, and protect system revenue.

- The WPTD Director will have the authority to approve and manage contracts related to on-street and off-street parking; coordinate downtown circulator and event shuttle operations and enforcement; to manage a parking enterprise fund; and have the power to approve system changes, such as rates and policy, within limits.
- The Director will retain and exercise the ultimate responsibility for policy decisions and contract compliance. The Director's duties will also include the following: general oversight, public relations, coordination of services, establishing and administering policies, monitoring Operator's performance, and reviewing reports submitted daily, weekly, and monthly.
- The City Parking Director and staff will establish and maintain a public relations and communications program, including a comprehensive web site, promotional materials such as maps, schedules, and program brochures, and provide public relations assistance. However, the Operators should always be the primary contact for customer issues. All signs should reference the Operator, include contact information for the Operator, and all communications with City agencies or WDDC by the public regarding parking, shuttles, or enforcement should be referred to the Operators.
- If the WPTD is contractually responsible for major facility repairs and replacements, the Director is responsible for maintaining adequate reserves in dedicated savings accounts for such repairs and replacements. Operators are typically responsible for routine building maintenance; equipment maintenance; electrical and custodial maintenance; materials and supplies purchases; and most contracting for services such as snow removal, power washing, etc.

WPTD RESPONSIBILITIES AND PRACTICES

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- The WPTD Director and staff must be knowledgeable and trained to adequately monitor preventative maintenance, troubleshooting, and equipment used by each Operator. The Director will assist the Operators in developing and approve specific personnel policies, job descriptions, manuals for employee training and equipment, and policies in written form. The Director will also approve distinctive uniforms with identification insignia of a style and type approved by Operators.
- The Director will conduct performance meetings quarterly, or more frequently as needed, with reporting Operators of parking, enforcement, and transit.
- The Director and staff will audit and confirm Operators' bank deposits, cash transfers, and documentation of cash custody, etc., on a regular basis. The Director must enforce requirements that all transfers of cash, receipts, deposits, tickets, counts, etc. between Operators and banks, cashier shifts, cashiers and managers, or between managers be fully reconciled. An auditable paper trail of documents must be maintained for an adequate time.
- The Director is expected to accurately audit cash and assess activity and other transactions. To do so, the Director and staff must be knowledgeable or trained as to how to understand Operators and industry specific access and revenue control system reports. The TMA must receive and the Director and staff must be able to understand the daily employee, cashier and route reports that summarize all transactions by driver, ticketwriter, cashier and/or shift as well as summary reports as the TMA will require to be provided each week, month, or year.
- The Director and staff must assure that the Operators maintain and provide sufficient records to match and reconcile such items as the number of tickets collected, the number of transactions as processed in a fee computer or automatic pay stations, passenger or loop counts, gate counts, and other automatic equipment counts as shall be deemed necessary by the Director. Each Operator must be required to generate and provide the following types of reports:

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- Cashier or Activity Reports must be generated and retained for a reasonable time by each Operator for each employee/shift. Cashier Shift Reports must be completed by each cashier for each shift. This report must summarize all transactions by employee or cashier and/or shift. This report must recap information in sufficient detail to allow the Director to confirm drop information, beginning bank, ending bank, document unusual transactions, and gate and loop counts, etc. To due so, Daily Summary Reports must be generated and retained by each Operator, summarizing all the reports for one day. The totals must equal the deposits for the day. The Director and staff must be able to confirm that cash reported on daily reports reconcile to bank deposit amounts.
- Cash and credit card slips must be reconciled to fee computers, fare boxes, citation collections, or automatic pay station revenue totals on a regular basis.
- Collected tickets must be retained by the Operator along with lost ticket forms and validations. This information should also be on the cashier reports and/or daily cash report.
- All exception tickets and forms must available for examination and proper documentation (lost tickets, validations, handicapped discounts, etc.) and audit by the Director and staff.
- The largest parking revenue loss exposure typically is from poor key card management. Lists of activated key cards, free card lists, or other access device lists must be reconciled between the Director and the Operators each month. The number of active key cards in the system must equal the number of invoiced key cards plus the number of free key cards.
- Audits must be conducted on a reasonable schedule, announced and unannounced, or as otherwise stipulated in each management agreement or contract.

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The City of Wichita currently has an established, multi-facility public parking operation, which is comprised of parking structures, surface parking lots, and on-street parking. Thus, public parking represents a considerable allocation of capital, generates significant revenue, requires frequent customer service contact, and creates wide-ranging responsibilities for the City. As part of its due diligence with regard to the performance of these responsibilities, the City of Wichita may wish to reconsider whether to continue to contract with an outside firm to operate the City-owned parking facilities or to revert to self-operation.

Walker recommends managing the city-owned parking through an arms-length management agreement that gives the City the best of both worlds. The parking facilities exist to serve the City and not make money; therefore, it makes little sense to lease them to the highest bidder and give up control of the facilities.

Private management typically is more efficient at deploying resources and tends to operate at lower costs than municipal operations. These lower costs usually compensate for the operator's management fee, which appears to be very reasonable in this case. With contract management, the City has control over major policies; however, the City does not have to employ a number of parking personnel for the day-to-day operations of the facilities. Contract management removes the burden of employee supervision from the City's staff. If the employees are employed by the City, there is much less flexibility in increasing or decreasing staffing levels and providing benefits.

Another advantage of using the services of a parking management company is that a parking operator has specific expertise in the business. Even though the City has the final say on policy decisions, the parking operator is a great source of information and may be called upon to offer their recommendations in parking related matters. Since AMPCO operates a number of other locations in the City, they should have a sufficient labor pool to provide coverage more efficiently than the City.

Most disadvantages of contract management can be met through changes to the operating agreements. As previously recommended, the City should consider alternate methods of providing an incentive to the operator other than the achievement of gross revenue thresholds. The contract should include standards of service, and personnel records and bookkeeping requirements should be more completely specified. The Operator should prepare and obtain the City's approval of a written operations manual, operating expenses should be better defined within the agreement, and the City's attorney should

CONTRACT MANAGEMENT VS. SELF- OPERATION

Walker recommends
managing the city-owned
parking through an arms-
length management
agreement.



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examine the agreement to incorporate changes in law since 1999 and consider the inclusion of any additional "boilerplate."

Again, even though the continued use of management contracts is recommended as the most appropriate method of parking management for Wichita, it still requires a great deal of oversight on the part of the City staff, who will still retain the ultimate responsibility for policy decisions and contract compliance.

Following is a review of the advantages and disadvantages associated with contract management over self-operation:

ADVANTAGES

Contract management has the following advantages over self-operation:

- Parking management companies are usually experienced in handling commercial parking by offering experienced management, revenue control, customer service, and quality control.
- Contract management typically requires lower startup costs. Parking operators are able to provide an established management system. Ownership can require that the operator prepare specific management reports, meet with ownership periodically to discuss those reports and other issues, and can usually offer specific recommendations to make the parking operation more efficient.
- In an area where it will be difficult to recruit or maintain a staff of your own with the needed experience and expertise, a larger operator has the labor flexibility to provide continuous service.
- The parking operator is responsible for hiring and training qualified parking personnel. They can develop a location-specific procedure manual, approved by ownership, which documents the day-to-day duties of all persons working at that location.



- Contracting through a parking company allows greater employee flexibility should problems arise. For example, ownership may request the parking operator to remove any of the operator's employees from the premises. As the parking company has managerial responsibility, they then have the ability to simply transfer the employee to another of their locations.
- Employee labor cost and benefits may be less expensive. Labor rates may not be governed by established city employee labor agreements. The parking operator is usually free to establish an approved labor and benefit schedule that may be lower than established rates for municipal employees.
- Ownership benefits from the expertise of the parking company without giving up control of the policy decisions.
- The management fee paid to the parking operator is usually off-set by cost savings realized by reducing the workload on certain departments, such as: human resources, accounting, and security.
- The operator's local manager may be required to attend meetings on a regular basis so that coordination between ownership and parking is ensured.
- The purchasing power of the parking company may save ownership money in the procurement of parking equipment, insurance, and supplies.

DISADVANTAGES

Contract management has the following disadvantages over self-operation:

- The parking operator may be perceived to have a different agenda than ownership. Some patrons may believe that an outside parking operator does not have the same degree of service and concern that a City employee may possess. The operator must be educated and properly incentivized to meet the goals of ownership. The operator agreement should address such concerns.
- Ownership must oversee the integrity of the parking operation. This is usually accomplished by monitoring reports and by completing periodic audits.

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- The operator should be prohibited from inflating contracted items such as insurance, uniforms, sweeping, etc.; inflating expenses, such as not crediting discounts for insurance experience discounts; or billing operator's general overhead expenses or other inappropriate expenses, such as:
 - Administrative and related costs and expenses incurred in the subject facilities or other ventures of the operator;
 - Maintenance of the general books and records of the operator;
 - Office supplies and equipment used by operators that are not used exclusively for the subject facilities;
 - Postal, telephone, and travel expenses related to the management of the subject facilities (except for the cost of telephones located at a facility); and
 - The cost of any managers, supervisors, or couriers who are not employed at the subject facilities on a full-time basis.
- Contract of management to a third party may limit the city's ability to appoint specific individuals for employment because of political reasons.
- Changes in management are subject to the terms of the management agreement. Ownership should retain the right to approve all policy decisions, such as: wage rates, levels of staffing, hours of operation, validation policies, etc. The agreement can even require that the parking company employees use specific uniforms and that they not display the company name on the facility signage. However, if ownership is dissatisfied, a management agreement typically can be cancelled by either party with thirty-days written notice.

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Walker reviewed sections of the Unified Parking Code as provided by Sedgwick County that pertain to parking in downtown Wichita. Walker was asked to provide comments and suggestions to better promote shared parking within the Central Business District.

UNIFIED PARKING CODE REVIEW

CURRENT CODE

The Unified Parking Code ("Code") is used by the Planning Department to ensure sufficient parking is provided for new and re-development in Wichita. The Code is applicable within the zoning jurisdictions of the City of Wichita and Sedgwick County, unless specifically exempted under Section I-E, which is for unincorporated and agricultural land use. Specific features of the current code pertaining to parking include:

- Minimum parking provisions based on the type of land use;
- Dimensional requirements for stall widths;
- Loading area requirements;
- ADA requirements in detail;
- Set-back requirements;
- Surface type and material;
- Reduced parking requirement for Old Town; and,
- A reduction option through shared parking.

There are some areas of the code that could be improved and expanded upon, and some new features that Walker recommends be considered for inclusion in the code. The following two sections detail Walker's recommendations concerning potential code improvements, as well as several optional enhancements. As some of this information may include parking jargon, there is a brief explanation of terms at the beginning of the section.

Additionally, as the Code contains provisions for the use of a shared parking analysis, there is a discussion following our code improvement recommendations on its potential role in Wichita.

EXPLANATION OF TERMS

FEE-IN-LIEU

A number of cities have tried to find a means to advance the concept of shared parking by motivating developers or property owners who create the need for additional parking to contribute some or all of the cost of developing additional parking in municipal facilities. The approach provides the developer with an opportunity to contribute a predetermined amount for each required parking space not constructed on site. Funds contributed to the in-lieu account are used by the city to provide an appropriate number of spaces in municipal parking facilities. Such a fund must be sufficient to cost-effectively develop adequate parking in reasonable proximity and in a timely manner to each new development. The city must charge a sufficient fee-in-lieu to cover the cost of land and construction, even when it isn't immediately turning the fee into parking spaces.

SPECIAL TAXING DISTRICTS

Special taxing districts collect a tax on an annual basis from property owners in the vicinity of a proposed municipal parking facility. Variations include tax incremental financing districts, special assessment districts and parking improvement districts. The advantage of special taxing districts is that parking can be developed in a timelier manner, with public financing secured by anticipated tax income. There is some risk that development will not occur as planned, resulting in an inadequate revenue stream. Special taxing districts do not promote market pricing of parking or alternative modes of transportation if parking rates in the municipal facility are kept artificially low. Special taxing districts may be appropriate to very well defined and limited areas, such as Old Town.

TAX INCREMENT FINANCING

Tax Increment Financing, or TIF, is a tool that has been used for redevelopment and community improvement projects throughout the United States for more than half a century. With federal and state sources for redevelopment generally less available, TIF has become an often-used financing mechanism for municipalities. Cities use TIF to finance public infrastructure, land acquisition, demolition, utilities and planning costs, and other improvements.

Existing Fee-in-Lieu Programs

Town of Davie, Florida
Orlando, Florida
City of Bend, Oregon
Corvallis, Oregon
Town of Jackson, Wyoming
Berkley, California
Davis, California
Laguna Beach, California
Wheaton, Illinois
Sioux Falls, South Dakota



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TIF is a tool to use future gains in property taxes to finance the improvements that will create those gains. When a public project such as a road, school, or hazardous waste cleanup is carried out, there is an increase in the value of surrounding real estate, and often new investment (new or rehabilitated buildings, for example). This increased site value and investment creates more taxable property, which increases tax revenues. The increased tax revenues are the "tax increment." Tax Increment Financing dedicates that increased revenue to finance debt issued to pay for the project.

TIF districts are subject to increasing criticism. Some question whether TIF districts actually serve their resident populations. TIF financing diverts the growth in property tax revenues away from public uses such as local schools and fire districts. The loss of this growth tends to increase the tax rate city-wide. The growth in the number of TIF districts can lead to a lack of discipline. It has been reported that Chicago runs 131 districts with tax receipts totaling upwards of \$325 million per year, which impacts about one-third of the city's total property tax revenue.

RECOMMENDED UNIFIED PARKING CODE CHANGES

After careful consideration of both the needs of the City and the various ways in which parking improvements may be funded, Walker recommends the Fee-in-Lieu shared parking model.

The Fee-in-Lieu model provides a mechanism for developments to fund shared parking improvements. This model includes the following major points:

- Developer is provided an incentive to pay an in-lieu fee to the city to reduce their construction requirement, which will increase the density and the overall feasibility of the project;
- Wichita will use the in-lieu fees to finance the construction of shared-use municipal parking facilities; and
- Wichita must develop parking facilities with collected fees to meet project completions in a timely manner.

It should be noted that new zoning code changes should be enacted that will effectively demand construction of 100% to 110% of the zoning requirement (after some shared parking consideration.) Developments will still require some on-site space for visitors and VIPs, but employees can be accommodated in shared parking facilities;

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Unlike the Fee-in-Lieu model, TIF is designed to channel funding toward improvements in distressed or underdeveloped areas where development would not otherwise occur therefore creating funding for public projects that may otherwise be unaffordable. Despite this, there are several important reasons Walker does not recommend a TIF model. They are:

- Downtown Wichita CBD is considered to be too large an area to cover with one TIF district;
- TIF is a primary financing tool that should be reserved to fund new primary projects (demand generators);
- Parking is not a primary land use or generator, but a secondary service; and
- Parking would be more efficiently funded by the primary generators themselves.



OPTIONAL CODE ENHANCEMENTS

As a point of discussion and consideration, we introduce the following issues and strategies that Wichita may consider in order to further enhance the current code.

“FREE PARKING” IS NOT FREE

Wichita and Sedgwick County have intervened to take significant responsibility for developing parking. One unfortunate side effect is that the market price of parking is constrained, thereby significantly under-pricing parking. Some stakeholders do not appreciate the high cost of providing parking and apply significant pressure to keep parking prices low. Even though they may point out that suburban parking is “free,” in fact the cost of parking is included in the calculation of rents and common area maintenance cost, which are passed along to customers in the form of higher prices. An efficient Central Business District (CBD) parking system charges market rates for parking and offers multiple pricing options based on convenience to destinations in the CBD.

REINSTATE PARKING REQUIREMENTS WITHIN THE CBD

Many cities have long feared that requiring parking for each building in the CBD will “destroy the fabric” of the downtown. In other cases, cities have found that requiring parking for each building seriously constrains the revitalization of downtowns and the adaptive reuse of nearby industrial buildings that were not required to provide parking when first built, but now are under-utilized or vacant. Therefore, many cities, including Wichita, waived parking requirements in the CBD. However, if parking requirements are not applied to the CBD in some manner, the principles of shared parking and fees-in-lieu cannot be applied within the downtown.

PROHIBITION OF NEW SURFACE PARKING WITHIN THE CBD

As an alternate approach, some cities have gone as far as prohibiting the development of new off-street parking anywhere in the downtown to help achieve the goals of New Urbanism and Smart Growth planning goals, and then collect fees-in-lieu to build municipal parking, usually on the periphery. While prohibiting all off-street parking in a CBD may not be the choice of every community, prohibiting new surface parking lots can improve the “pedestrian ambience” of the downtown.

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SHARED PARKING

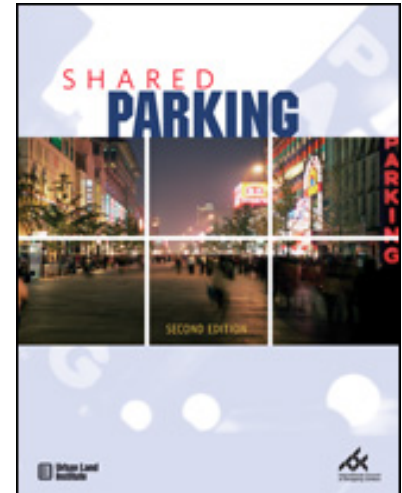
The Unified Parking Code contains provisions for the use of a shared parking analysis. Shared parking is defined as parking spaces that can be used to serve two or more individual land uses without conflict or encroachment. The resurgence of many central cities resulting from the addition of vibrant office, residential, retail, and entertainment developments continues to rely heavily on shared parking for economic viability. In addition, mixed-use projects in many different settings have benefited from shared parking. Numerous benefits of shared parking exist to a community at large, not the least of which is the environmental benefit of significantly reducing the square feet of parking provided to serve commercial development.

The ability to share parking spaces is the result of two conditions:

- Variations in the accumulation of vehicles by hour, by day, or by season at the individual land uses.
- Relationships among the land uses that result in visiting multiple land uses on the same auto trip.

For example, office buildings require parking spaces during daytime hours on weekdays, while restaurants and entertainment venues have peak parking needs during the evening and weekends. The interplay of land uses in a mixed-use environment also produces a reduction in overall parking demand. For example, a substantial percentage of patrons at one business (restaurant) may be employees of another downtown business (office). This phenomenon is referred to as the "effects of the captive market." Because these patrons are already parking, they contribute only once to the number of peak hour parkers. In other words, the parking demand ratio for individual land uses should be factored downward in proportion to the captive market support received from neighboring land uses.

Although the interplay of land uses can reduce the overall demand, it should be noted that there are limits imposed by proximity of land uses to each other and to parking facilities. While "shared parking" by definition is capitalizing on the different demand period for a combination of land uses, it is not logical to assume that a hotel (with peak demand in the evening) can share with an office building (with peak demand during the day) if the two land uses are too far apart. Human behavior restricts shared parking opportunities by limiting the distance users are willing to walk from a parking facility to their final destinations.



MAXIMIZING SHARED PARKING

The type of land use dictates parking behaviors and patterns. When land uses have different peak periods or when they can share patrons, such as a restaurant located in an office building, parking assets can be effectively shared. Walker has been involved in several research projects of specific land uses to estimate demand ratios and parking behaviors. Other sources for estimating parking demand come from the Institute of Transportation Engineers (ITE) and the Urban Land Institute (ULI). Gaining an understanding of the parking characteristics of each land use is the first step to identifying potential sharing opportunities.

Table 1 lists complimentary land uses based on variations in peak parking for a weekday. Land uses that peak during the daytime share well land uses that peak in the evening. As potential developments are considered by the Planning Department, interaction between uses should be considered, even between different developments, as long as they are located within a reasonable walking distance, such as adjacent blocks in Wichita.

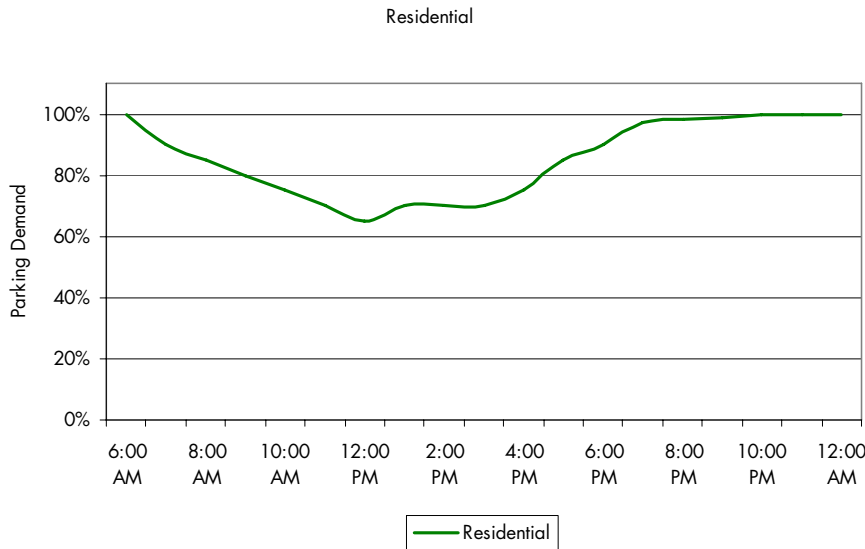
Table 1: Peak Parking by Land Use for a Weekday

Daytime	Evening
Office	Nightclubs
Bank	Restaurants
Government	Hotels
Schools	Arena
Medical Office	Cineplex

Source: Walker Parking Consultants

Residential land use generally offers limited sharing opportunities with other land uses. This is because residential developments tend to be occupied during weekdays and weekends, and only opens up a little during the weekday. Many times residential developers require a percentage of the parking to be reserved for tenants in order to market the units. Reserved spaces do not share and should be discouraged. Assuming residential parking is not reserved, Figure 3 illustrates residential weekday parking characteristics from 6:00 a.m. to Midnight. The residential graph indicates parking will be available for sharing within another land use peaks between 8:00 a.m. and 5 p.m.

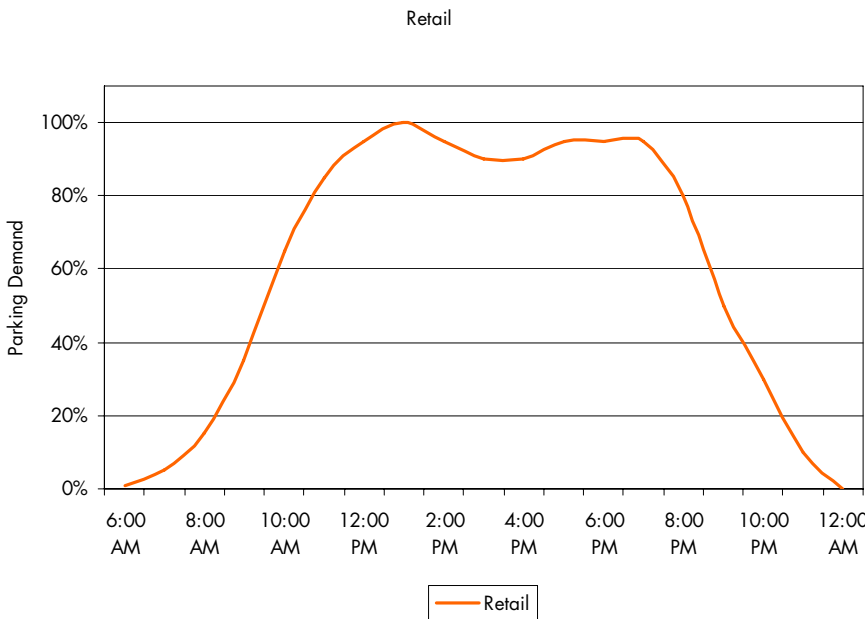
Figure 3: Weekday Residential Land Use



Source: Parking Generation, Third Edition. Washington DC: Institute of Transportation Engineers, 2004 and Walker Parking Consultants Research

To further our example of parking characteristics, we have assembled the weekday parking characteristics of several types of land use in the following figures. We then show how they interact with each other during a weekday.

Figure 4: Weekday Parking Characteristics



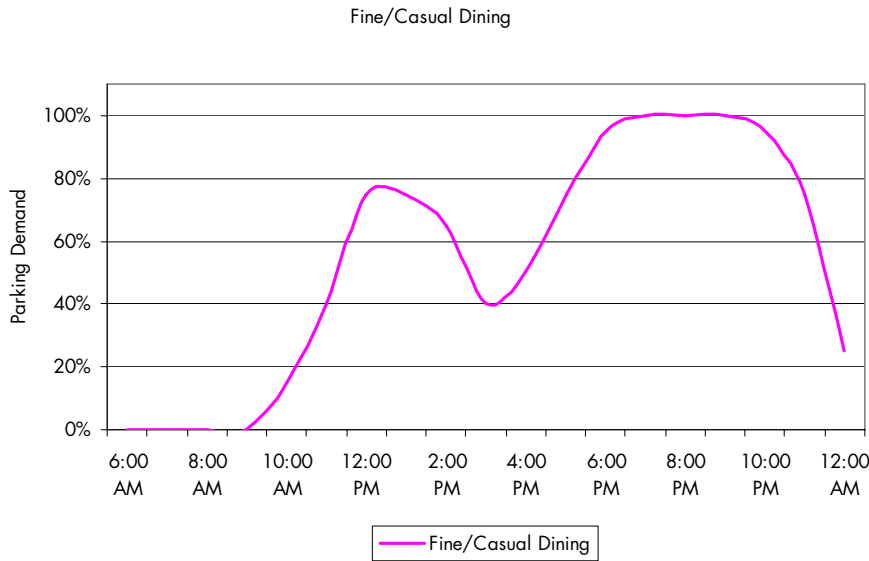
Source: Parking Requirements for Shopping Centers, Second Edition. Washington DC: ULI-The Urban Land Institute, 1999.

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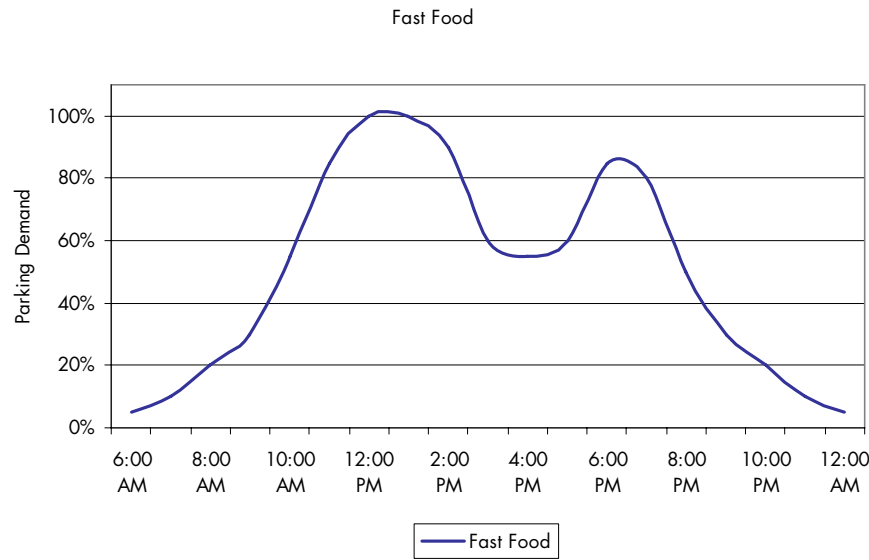


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Source: Parking Generation, Third Edition. Washington DC: Institute of Transportation Engineers, 2004



Source: Parking Generation, Third Edition. Washington DC: Institute of Transportation Engineers, 2004

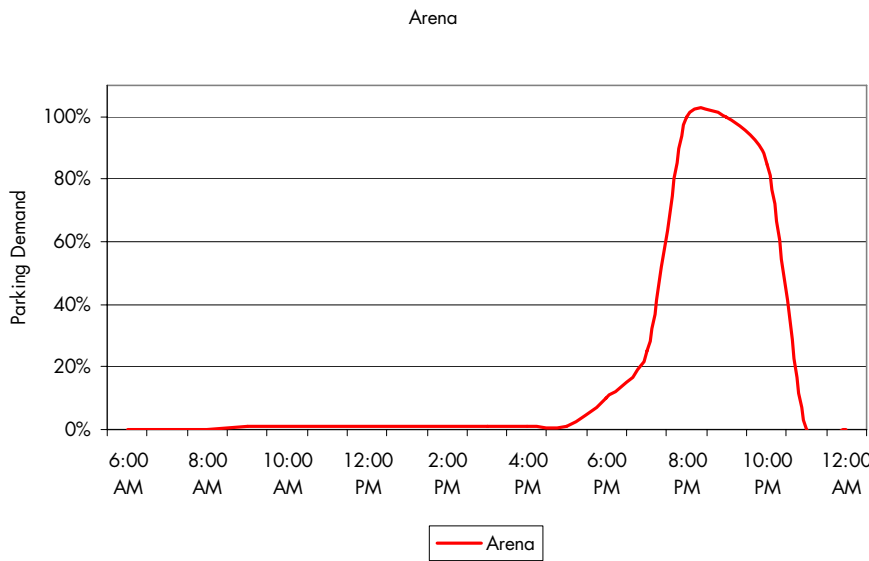
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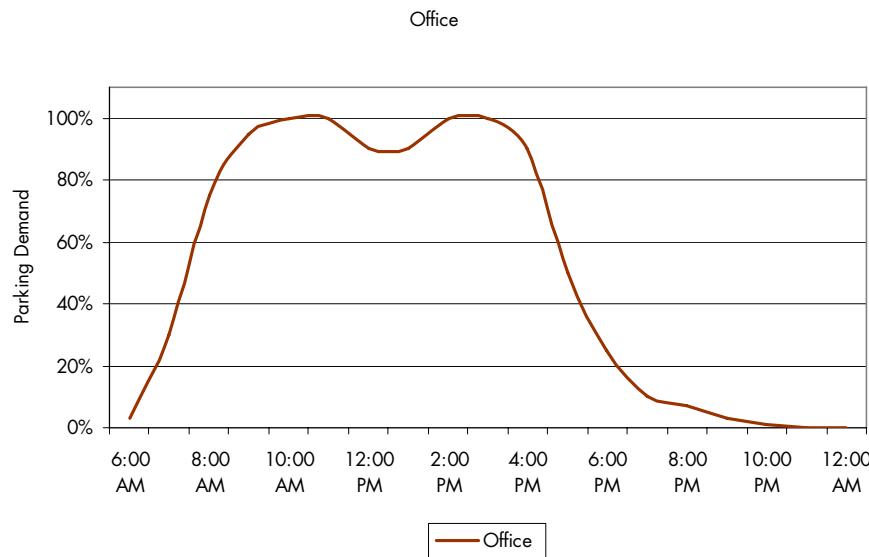


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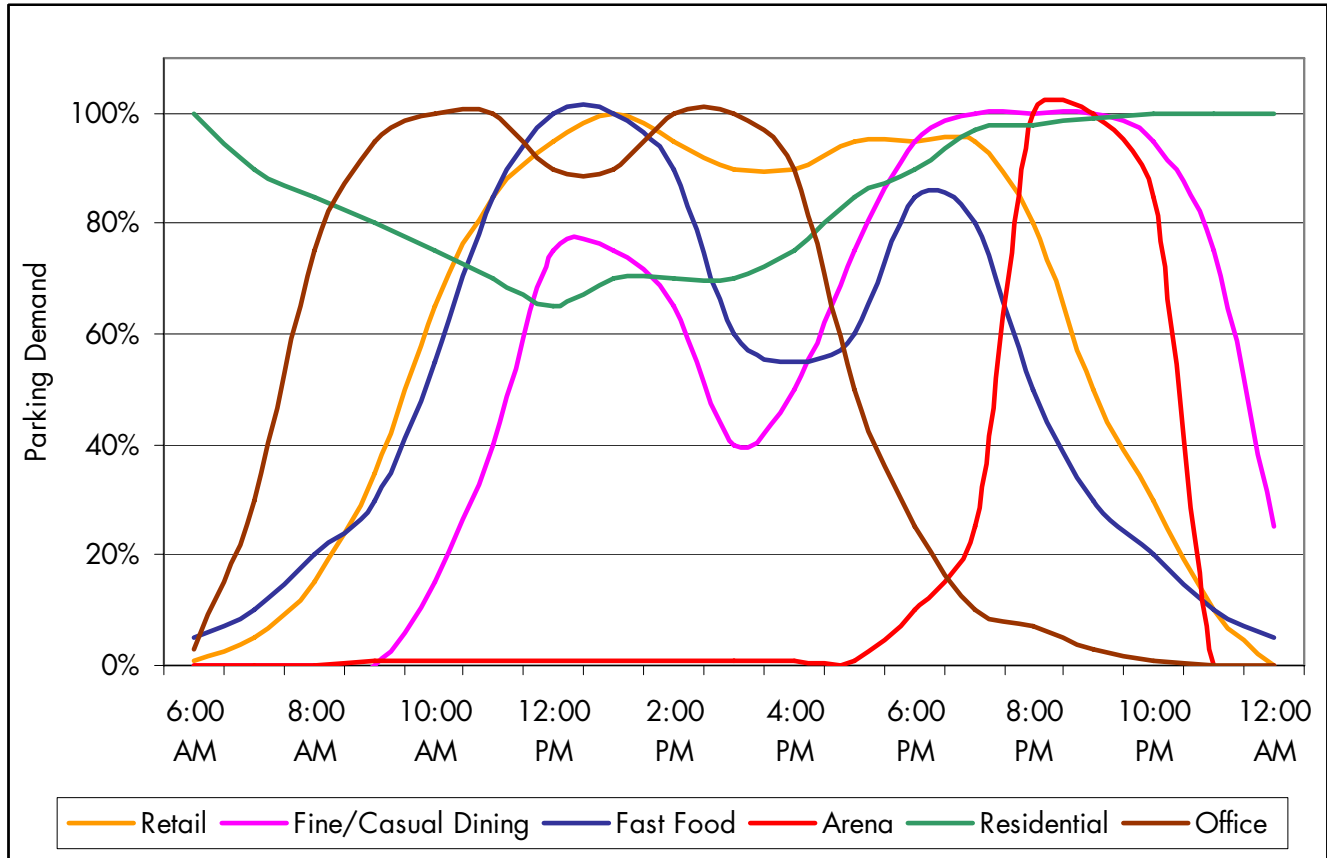
Source: Walker Parking Consultants Research



Source: Parking Generation, Third Edition. Washington DC: Institute of Transportation Engineers, 2004

Combining the individual hourly parking demand from the various land uses results in Figure 5. Those uses that peak at different times tend to share parking more efficiently. When the peaks are far apart, such as office and arena, it is easy to justify a large reduction to the overall parking demand then if the two separate uses were counted alone.

Figure 5: Weekday Parking by Time of Day



We provide additional examples of individual land use parking demand rates for a weekday in the Appendix.

COORDINATING SHARED PARKING

Coordinating shared parking opportunities for downtown Wichita should lie with the Planning Department. Strategies for successfully sharing parking could be discussed with other key groups that are likely to learn of upcoming development projects, but ultimately, the Planning Department should review each new development and consider potential ways to share parking, either within the development as a whole, or between projects that are located in adjacent blocks. The Jacksonville Economic Development Commission (JEDC), in Jacksonville, Florida, established a downtown design review committee that reviews potential developments, which include a detailed site plan showing parking. The review committee includes JEDC staff members, area business owners, property owners, realtor representative, and architects. Details of their application process can be found at www.jaxdevelopment.org. During this type of review process potential synergies for shared parking between developments can be identified and offered as potential solutions for encouraging shared parking.

EXAMPLE OF DEVELOPMENT

As a hypothetical example of how the recommended parking strategies could be employed in Wichita, we provide the following development scenario for the Allis Hotel block. In our scenario, the developer assembled a site plan for a mixed use development consisting of the following land uses:

- 84 Residential Units;
- 30,000 SF Retail;
- 20,000 SF Restaurant; and
- 50,000 SF Office.

Prior to bringing forth the development proposal, the developer hired a professional parking consulting firm to conduct a shared parking analysis to determine the appropriate number of parking spaces for the development. Using shared parking strategies consistent with *ITE's Shared Parking Publication*, weekday peak parking demand of 516 spaces, and peak weekday demand of 571 spaces were calculated, as shown in the following tables.

Table 2: Peak Shared Parking Demand

WEEKDAY							Demand
Land Use	Unadj Demand	Month Adj December	Pk Hr Adj 6:00 PM	Non Captive Evening	Drive Ratio Evening	December 6:00 PM	December 6:00 PM
Retail	87	100%	80%	95%	100%	66	66
Employee	21	100%	95%	100%	90%	18	18
Fine/Casual Dining	305	100%	95%	90%	100%	261	261
Employee	55	100%	100%	100%	90%	50	50
Residential Guest	13	100%	60%	100%	100%	8	8
Residential Reserved	0	100%	100%	100%	100%	0	0
Residential Shared, Rental	126	100%	90%	100%	100%	113	113
Subtotal Customer/Guest Spaces	392					327	327
Subtotal Employee Spaces	76					68	68
Subtotal Resident Spaces	139					121	121
Total Parking Spaces	607					516	516
					% reduction	15%	15%

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WEEKEND

Land Use	Unadj Demand	Month Adj December	Pk Hr Adj 8:00 PM	Non Captive Evening	Drive Ratio Evening	Demand December 8:00 PM
Retail	96	100%	65%	95%	100%	59
Employee	24	100%	75%	100%	90%	16
Fine/Casual Dining	340	100%	100%	90%	100%	306
Employee	60	100%	100%	100%	90%	54
Residential Guest	13	100%	100%	100%	100%	13
Residential Reserved	-	100%	100%	100%	100%	0
Residential Shared, Rental	126	100%	98%	100%	100%	123
Employee	-	100%	100%	100%	100%	0
Subtotal Customer/Guest Spaces	436					365
Subtotal Employee Spaces	84					70
Subtotal Resident Spaces	139					136
Total Parking Spaces	659					571
					% reduction	13%

Source: Walker Parking Consultants, Shared Parking Model

Based on the projected shared parking demand, the developer decided to include a 550 space parking structure with the development, to satisfy the parking demand. This was slightly less than the 571 spaces needed based on the shared parking analysis, but on-street parking was available to off-set the difference.

As the City reviewed the plan, it saw an opportunity to expand the parking structure by adding an additional level to provide parking for another proposed development located one block to the north. That development included a fast food restaurant, retail, and office space, but lacked sufficient parking. This developer was offered the option to satisfy their parking needs by paying a fee in-lieu payment of \$15,800 per space (as outlined in the new fee in-lieu ordinance passed in 2007). They agreed, and the City assisted with brokering the two deals.

An updated shared parking analysis was done to determine the size of the parking structure based on both developments, and agreements regarding how parking would be shared, monthly parking rates, operating expenses, and parking controls were established (again, as outlined in the new ordinance).

CONCLUSIONS

Based in part on these concepts, Walker makes the following recommendations to better promote shared parking within the Central Business District. These also are based in part on "Recommended Zoning Ordinance Provisions" published by the National Parking Association as of December, 2006.

- The schedule of land use parking requirements contained in the Unified Parking Code should be updated to reflect to the most current recommended base parking space ratios developed by the Urban Land Institute, the Institute of Transportation Engineers (ITE), or the Parking Consultants Council of the National Parking Association (as included in this section).
- Walker strongly recommends that the Unified Parking Code allow reduction of the required number of parking spaces based upon a shared parking study performed in accordance with the latest edition of Shared Parking, by a qualified traffic or parking consultant. The process may be facilitated by prescribing acceptable mode adjustments, particularly for employee parking, based upon local census data on modal splits. The ordinance should continue to set a maximum reduction in parking requirements for shared parking that can be administratively approved without a public hearing or approval by the zoning board.
- The calculated total number of parking spaces should be required to be provided for any new development.
- The provided parking shall not exceed 10% more than the required number of spaces.
- The parking requirement may be reduced or eliminated by the payment of the Fee-in-Lieu of parking. This fee would be established and occasionally updated by vote of the city council, for each space not provided on-site. This fee should be equivalent to the cost of construction of a structured parking space.
- The required parking may be provided as off-site parking on sites elsewhere within the same pedestrian shed (walking area) or outside the pedestrian shed with shuttle service if approved as an administrative adjustment.

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- Covenants between property owners should not be required in the CBD zoning district.
- Except for surface lots existing on the effective date of this Unified Parking Code revision, surface parking lots are prohibited between the building face and front and side property lines in the CBD. Surface parking may only be provided to the rear of the principle building, with access from alleys. Temporary permits for interim use of surface parking lots otherwise prohibited may be issued and renewed on an annual basis, but in no case shall a temporary permit be issued for a property for more than five years from the date of issue.
- Parking would not be required in the following cases:
 - Buildings located in the CBD that existed prior to this ordinance are exempt from the parking requirements as long as the primary use is not changed. If a change of use occurs, no additional parking beyond that provided as of the effective date of this ordinance shall be required, except that parking shall be provided for residential uses as otherwise required herein.
 - No off-street parking is required for non-residential uses in this district unless such uses exceed 3,000 square feet of gross floor area.
 - No off-street parking is required for non-residential uses in this district unless the gross floor area of such uses exceeds twice the area of the lot.
 - Linear buildings at parking facilities and that are secondary to the primary land use(s) shall be exempt from any parking requirement.
- The required number of off-street spaces for all non-residential uses, after administratively approved adjustments, may be reduced by (an agreed number) of parking spaces for every one parking space that will be made available to the public (including visitors and area employees) for a fee or dedicated to the municipality for public parking and the cap on maximum parking (of no more than 10% more than the required number of spaces) will be removed.

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- As previously mentioned, the off-street parking space schedule contained in the current Unified Zoning Code does not meet the most current recommended base parking space ratios developed by the Urban Land Institute, the Institute of Transportation Engineers (ITE), or the Parking Consultants Council of the National Parking Association. Walker recommends the adoption of the base parking ratios recommended by the NPA as shown in the table on the following page.

Note: The previous recommendations are not represented to be suitable as written for inclusion in an amendment to the existing Unified Parking Code, nor are they represented to be exhaustive. Walker Parking and its consultants do not represent these points as a legal document or model ordinance. The Wichita-Sedgwick County Metropolitan Area Planning Department is expected to seek its own legal advice or develop its own opinion in this matter.

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Table 3: Base Parking Ratios Recommended by the NPA

Use	Parking Ratio	Source
Residences and Accommodations		
Single Family Dwellings	<2,000 sq ft: 1/dwelling unit; 2,000 to 3,000 sq ft: 2/dwelling unit; over 3,000 sq ft: 3/dwelling unit	4
Multi-Family Dwellings		
Rental	1.0/dwelling unit for efficiency units; 1.5/dwelling unit for the first bedroom in units with one or more bedroom, plus 0.25 space for each additional bedroom*	2,4
Owned	1.0/dwelling unit for efficiency units; 1.75/dwelling unit for the first bedroom in units with one or more bedroom, plus 0.25 space for each additional bedroom*	2,4
Rental in University District	1.0/dwelling unit for efficiency and 1 bedroom units; plus 0.5 space for each additional bedroom	4
* A Den must be counted as a bedroom if it has a closet. Note that the base ratios include 0.15 space per unit for visitors.		
Accessory Dwelling	Add 1/accessory dwelling unit	4
Sleeping Rooms	1/unit or room plus 2 for owners/managers	4
Commercial Lodgings	1.25/sleeping room or unit plus 10/1,000 sq ft GFA restaurant lounge plus the following for meeting/banquet space; less than 20 sq ft/sleeping room, none; 20 sq ft/sleeping room; 30/1,000 sq ft GFA; 20 to 50 sq ft/sleeping room; scaled between 20 and 50 sq ft/sleeping room; over 50 sq ft/sleeping room; 20/1,000 sq ft GFA	2,4
Elderly Housing	0.5/dwelling unit	
Congregate Care/Assisted Living	0.35/dwelling unit	1
Group, Convalescent and Nursing Home	0.5/bed	1
Retail Sales and Services		
General and Convenience Retail **	2.75/1,000 sq ft GFA	1
Grocery Stores **	6.75/1,000 sq ft GFA	1
Heavy/Hard Goods Retail **	2.5/1,000 sq ft GFA, including outdoor sales areas	1,4
Discount Superstores **	5.5/1,000 sq ft GFA, including outdoor sales areas	1
Specialty Superstores **	4.5/1,000 sq ft GFA, including outdoor sales areas	1
Shopping Center, not more than 10% GLA in non-Retail Sales and Services uses as defined herein	4.0/1,000 sq ft GLA up to 400,000 sq ft GLA; scaled	3
Shopping Center, more than 10% GLA in non-Retail Sales and Services Uses as defined herein	Between 400,000 to 600,000 sq ft GLA; 4.5/1,000 sq ft of GLA over 600,000	
Shopping Center, more than 10% GLA in non-Retail Sales and Services Uses as defined herein	To be established based on a shared parking study prepared specifically for the subject project	2
** Not in shopping center		

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Use	Parking Ratio	Source
Food and Beverage		
Fine/Casual Dining (with Bar)	20/1,000 sq ft GFA	2
Family Restaurant (without Bar)	15/1,000 sq ft GFA	2
Fast Food	15/1,000 sq ft GFA	2
Night Clubs	19/1,000 sq ft GFA	2
Office and Business Services		
General Business Offices	3.8/1,000 sq ft GFA up to 25,000 sq ft; scaled between 25,000 to 100,000 sq ft; 3.4 for 100,000 sq ft; scaled between 100,000 and 500,000 sq ft; 2.8/1,000 sq ft GFA over 500,000 sq ft	2
Consumer Services Offices	4.6/1,000 sq ft GFA	2
Data Processing/ Telemarketing/Operations Offices	6/1,000 sq ft GFA	2
Medical Offices (not part of hospital campus)	4.5/1,000 sq ft GFA	2
Medical Offices (on hospital campus)	4/1,000 sq ft GFA	4
Governmental	To be established based on a study of parking needs prepared specifically for the subject property	
Industrial/Storage/Wholesale		
Industrial/Manufacturing	1.85/1,000 sq ft GFA plus required parking spaces for office, sales, or similar use where those uses exceed 10% GFA	1
Storage/Wholesale	0.67/1,000 sq ft GFA	1
Mini-Warehouse	1.75/100 units	1
Educational and Institutional		
Elementary, Middle Schools	Higher of 0.2/seat in auditorium or gym and 0.25/student	1,4
Secondary Schools	Higher of 0.3/seat in auditorium or gym and 0.3/student	4
College and University	To be established based on a study of parking needs prepared specifically for the subject institution	4
Day Care Center	0.3/person licensed capacity enrollment	1
Hospital/Medical Center	To be established based on a study of parking needs prepared specifically for the subject institution	4
Arts, Recreation and Entertainment		
Convention Centers, Meeting/Banquet Facilities, not within a hotel or in a hotel but exceeding 100 sq ft/sleeping room	Up to 25,000 sq ft, 30/1,000 sq ft GFA; scaled between 25,000 and 50,000 sq ft; 50,000 sq ft, 20/1,000 sq ft GFA; 10/1,000 sq ft GFA; scaled between 100,000 and 250,000 sq ft, 250,000 or more sq ft GFA; 6/1,000 sq ft	
Health Club	7.0/1,000 sq ft GFA	2
Cinemas	Single screen: 0.5/seats; 2 to 5 screens: 0.33/seat; 5 to 10 screens: 0.3/seat; over 10 screens: 0.27/seat	2,4
Theatres (live performance), Churches and Religious Centers	0.4/seat	2
Arenas	0.33/seat	2
Football Stadium	0.31/seat	2
Baseball Stadium	0.35/seat	2
All other Public Assembly	0.3 per seat 0.25/permitted capacity where not seated	4

Sources:

- 1) *Parking Generation, Third Edition, ITE*
- 2) *Shared Parking, Second Edition, UII*
- 3) *Parking Requirements for Shopping Centers, Third Edition*
- 4) *Collective Experience of PCC*



SECTION II

PARKING SUPPLY/DEMAND
ANALYSIS AND NEEDS
ASSESSMENT



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This section presents a comprehensive examination of the current and future parking supply, demand, and adequacy for the study area. Future scenarios covering the next 5, 10, and 20 years are discussed and evaluated in depth based on several resources available for the area. Event parking was also considered based on the current and future conditions. In addition to the parking supply and demand data analysis, a turn-over survey was conducted to determine the average length of stay and detailed occupancy of three separate sections within the study area.

PARKING SUPPLY/DEMAND ANALYSIS AND NEEDS ASSESSMENT

DEFINITION OF TERMS

Several terms in this section are parking jargon and perhaps thus not readily understood by the reader. Definitions of these terms appear below.

- *Demand* – The number of spaces required to satisfy visitor, employee, and resident needs on a given day.
- *Demand Generator* – Any building, structure, business, or attraction that brings individuals into the study area, thereby increasing parking demand and occupancy.
- *Drive Ratio* – How people travel to a destination, listed as a percentage. Typical travel modes include private automobile, car pool, bus, or walking.
- *Effective Supply* – The inventory adjusted by the optimum utilization factor.
- *Inventory* – The total number of parking spaces counted during survey day observations within the study area.
- *Occupancy (Counts)* – The number of vehicles observed parked on a survey day.
- *Optimum Utilization Factor* – The occupancy rate at which a parking supply operates at peak efficiency. This factor allows patrons to spend less time looking for the last available spaces and allows for the dynamics of vehicles moving in and out of spaces. It also allows for spaces lost to poor or improper parking, snow removal, derelict vehicles, and spaces lost for repair.
- *Parking Adequacy* – The difference between parking supply and demand.
- *Survey Day* – The day that the parking occupancy counts were conducted in the study area.

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STUDY AREA

The study area consists of approximately 169 city blocks, located in the downtown Wichita, Kansas and generally bordered by Murdock Street to the north, Washington Street to the east, Kellogg Drive (Highway 54) to the south, and Seneca Street to the west.

The study area contains several small pockets of residential and light industrial areas that are unique in that they are fairly self-contained and do not lend themselves to shared parking. There may be a need at some point to provide residential parking permits, which we cover in the Alternatives Section of this report, but, for the most part, their parking is dedicated to their specific use and sets them apart from the study area.

A map of the complete study area is provided in Figure 6 on the following page with the residential and light industrial areas highlighted for reference.

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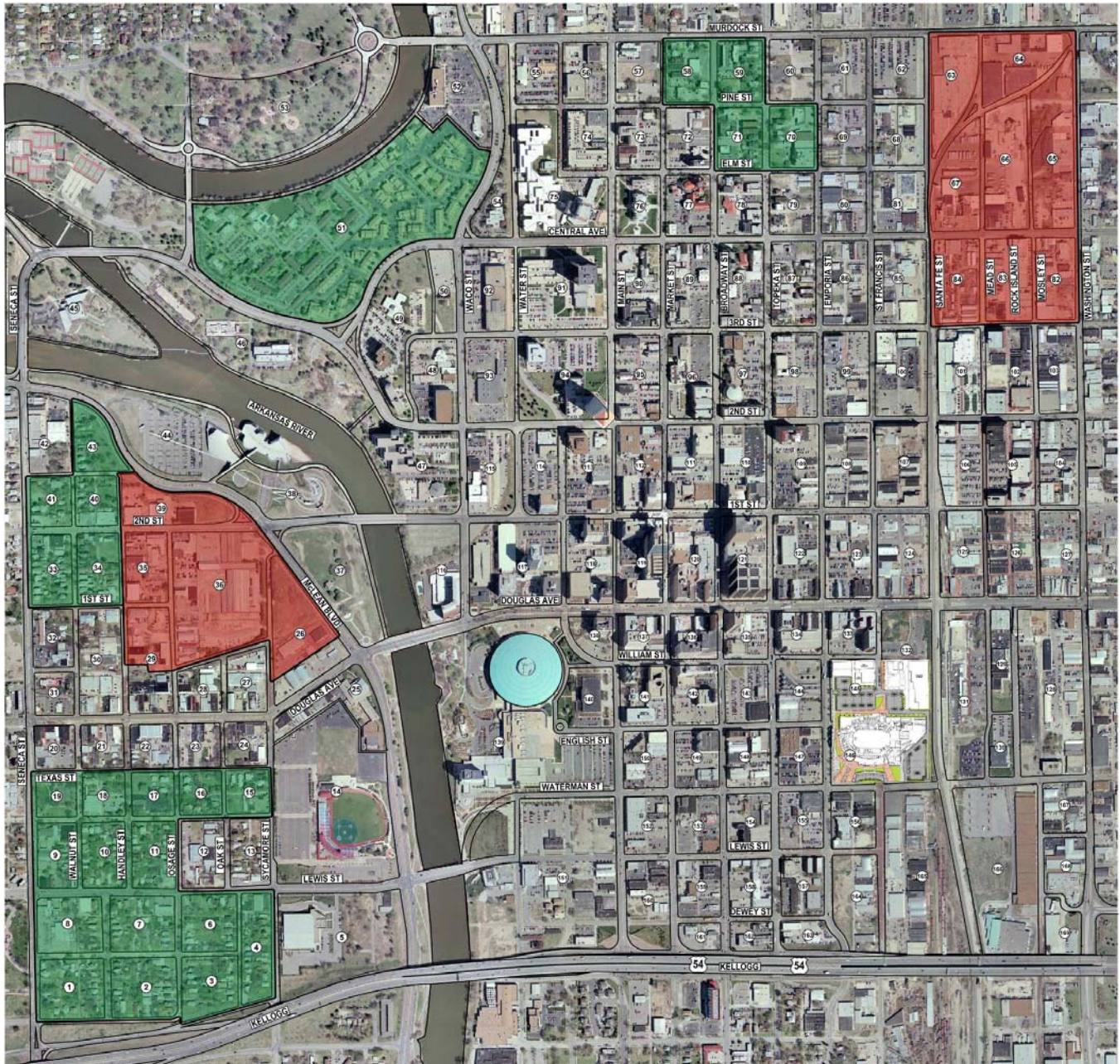


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Figure 6: Study Area



The green areas are primarily residential in nature, featuring a mix of single family and small apartment residences. The red areas are primarily light industrial in nature, some of which are closed and vacant parcels.



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STUDY METHODOLOGY

The first step in a supply demand analysis is to determine the parking supply in the area. Public parking was inventoried and tabulated by block and categorized as on-street, public off-street, or private off-street for the entire study area. A portion of the data collected during the 2005 Arena Study effort was used to augment the data collected for this study. The parking supply was then adjusted to reflect the effective supply, which is slightly lower than the actual parking supply. This is explained in more detail later in the report.

The next step is to determine the parking demand. To do this, we took parking occupancy counts in the study area, resulting in a tabulation of the physical number of vehicles. We took the counts during a weekday between the hours of 9:00 a.m. and 3:00 p.m., during the weeks of March 12th and April 9th, 2007. By comparing the supply with the observed occupancy on a block-by-block basis, we were able to determine the occupancy levels and quantify specific parking demand for each block.

The final step is to calculate the projected future parking demand. Walker reviewed several development plans for the area, including the Arena Neighborhood Redevelopment Plan, North Old Town Plan, the HVS Century II Study, and the WaterWalk Master Plan drawing. In addition, we incorporated a list of specific developments provided by the Wichita Downtown Development Corporation to aid in forecasting the five year scenario with a little more accuracy.

When specific land use data was available, we applied parking demand generation rates of each potential development, relying on sources including the Urban Land Institute (ULI), the Institute of Transportation Engineers (ITE), and Walker's own research. We further analyzed parking demand by land use using Walker's Shared Parking Model, which projects the recommended parking supply for each month and hour of the year for each of the land uses.

When specific land use data was not available, such as in the Arena Neighborhood Redevelopment Plan, we applied an overall blended parking demand ratio, assuming that shared parking strategies would be employed. In other areas, such as the Delano District, where no specific plan was available, we applied a general increase to the current parking demand, assuming the area would continue to grow.

Additions and subtractions to the supply and demand, considering both the block and development type, show how the City's parking

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adequacy will be impacted in the future. This projection is located in the Future Conditions Section of this report.

Throughout the process, Walker facilitated workshop meetings to gain input and provide feedback on the parking and transit issues in the study area. These meeting minutes and attendees are provided in the Appendix.

ORGANIZING THE DATA

The data was further analyzed by subdividing the 169 blocks into six unique districts within the study area. The districts include:

- Arena District
- Century II District
- Delano District
- Government District
- Old Town District
- WaterWalk District

The proximity of some of the districts creates overlap during peak parking demand periods. An example of this overlap is during events at the new Arena and Century II. To account for this overlap, our analysis includes parking demand generated during simultaneous events at various venues. In addition, rather than simply count the parking spaces surrounding the arena; we adjusted the inventory by the observed occupancy during a daytime weekday and during a weekend/evening period. The following figures depict the boundaries of each unique district.

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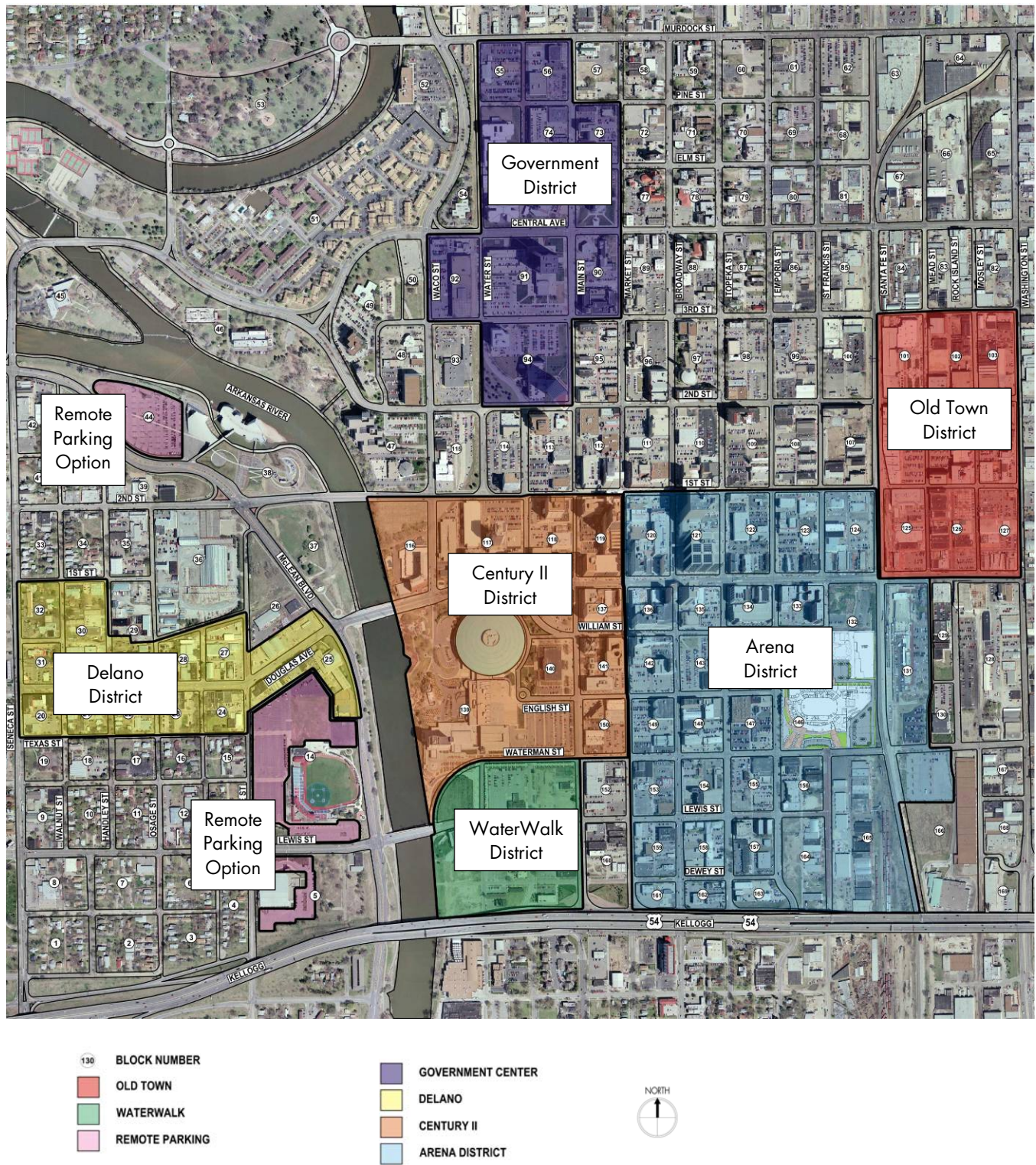


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Figure 7: District Map



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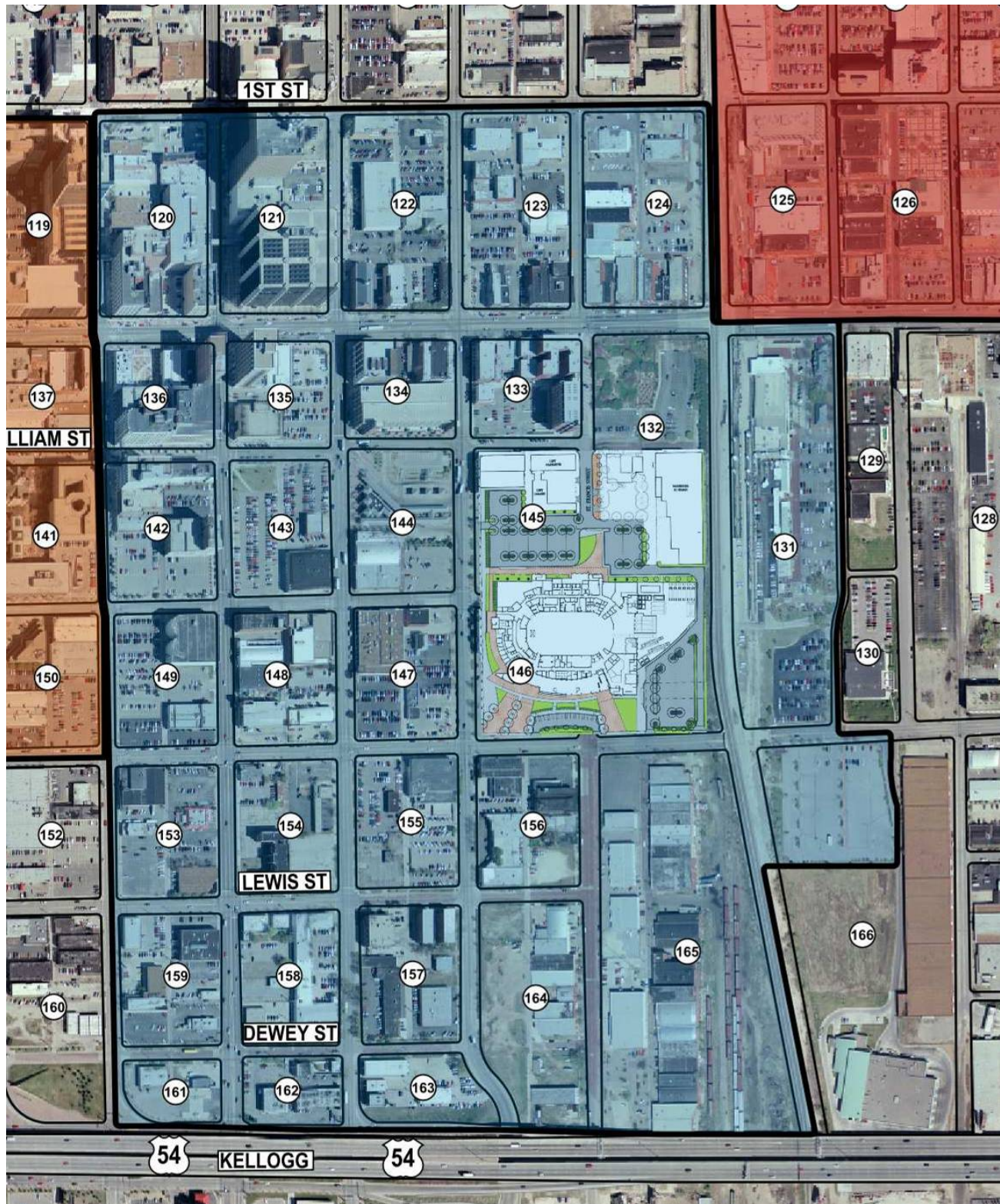
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Figure 8: Arena District



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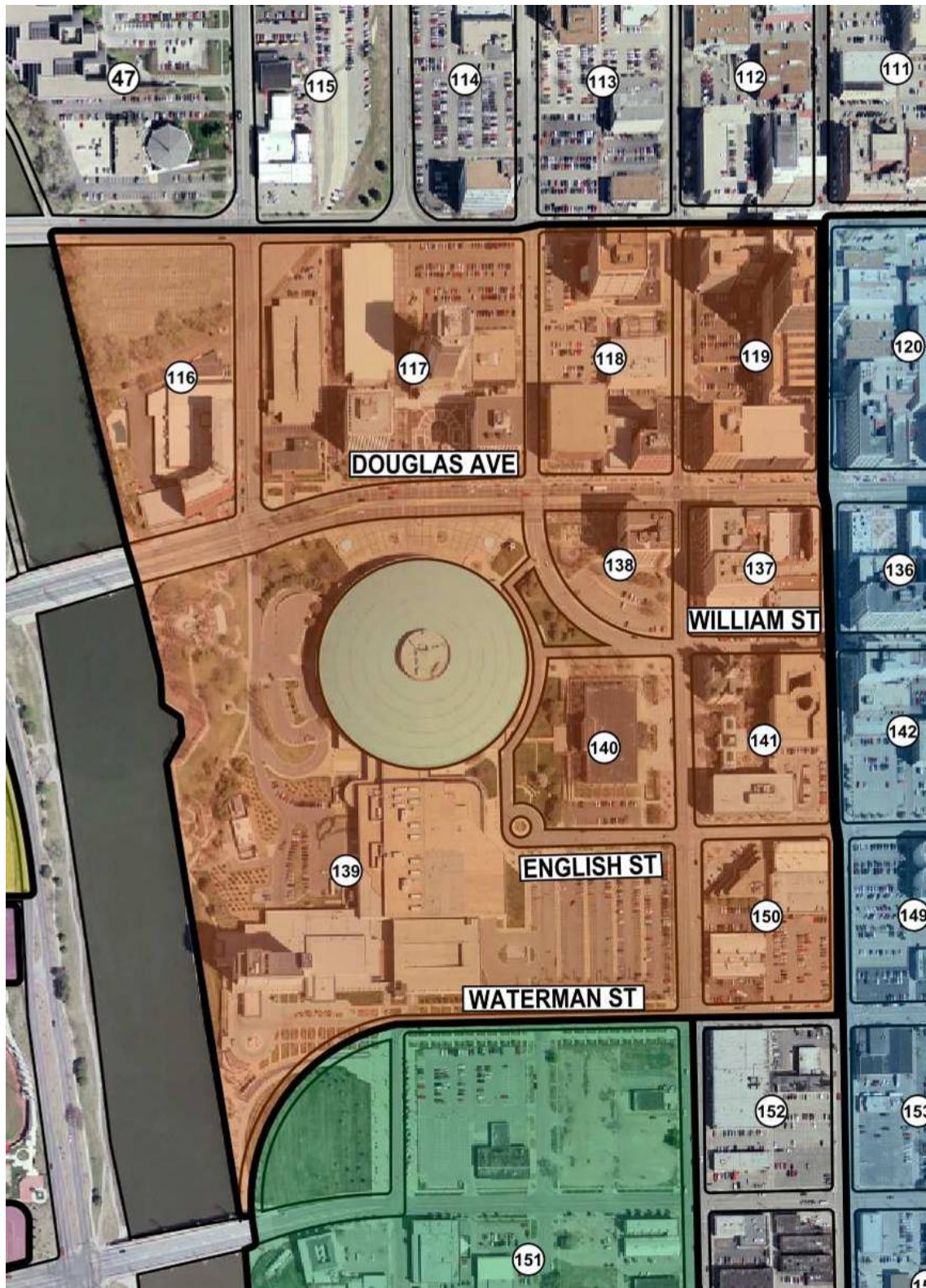
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Figure 9: Century II District



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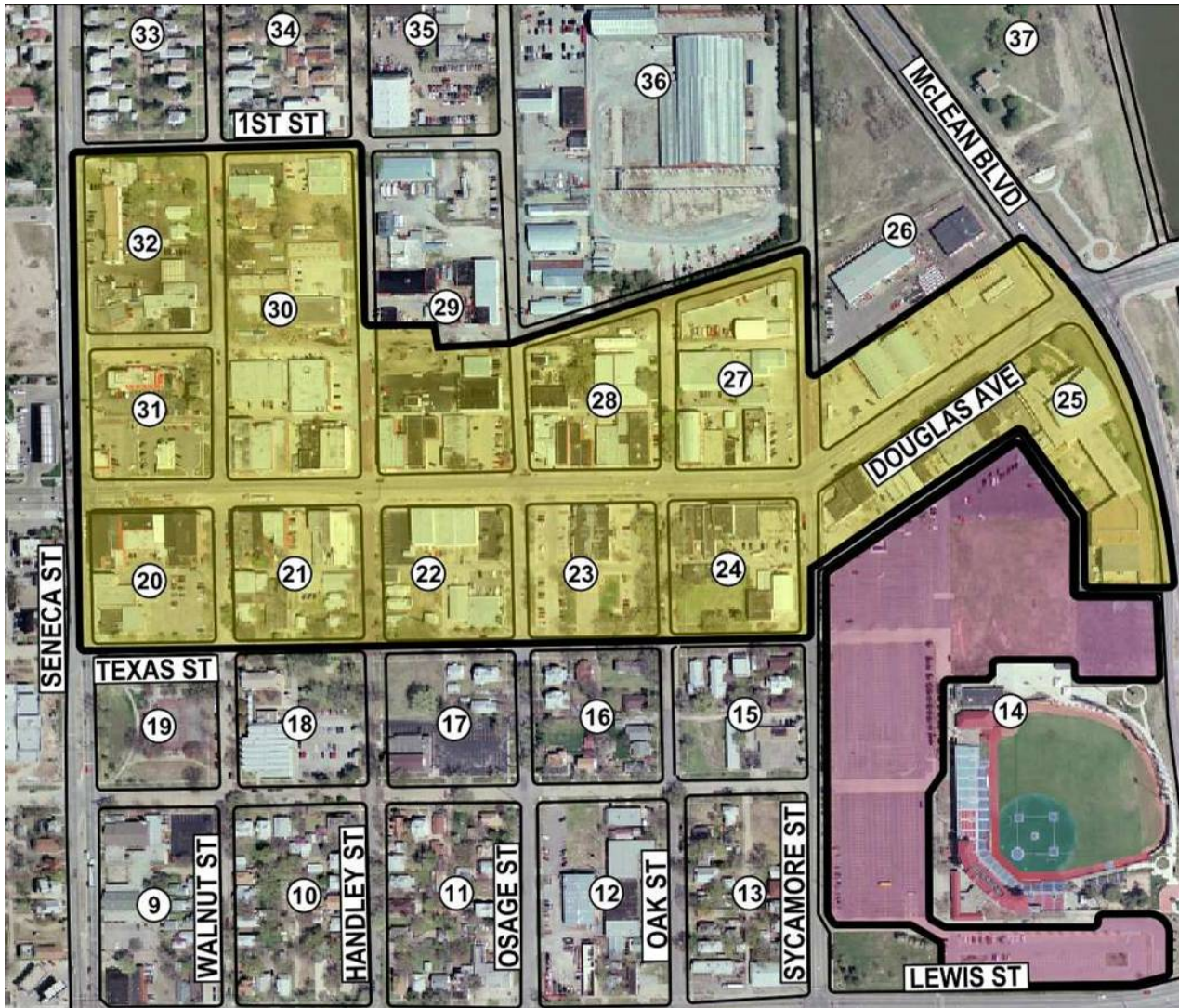
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Figure 10: Delano District



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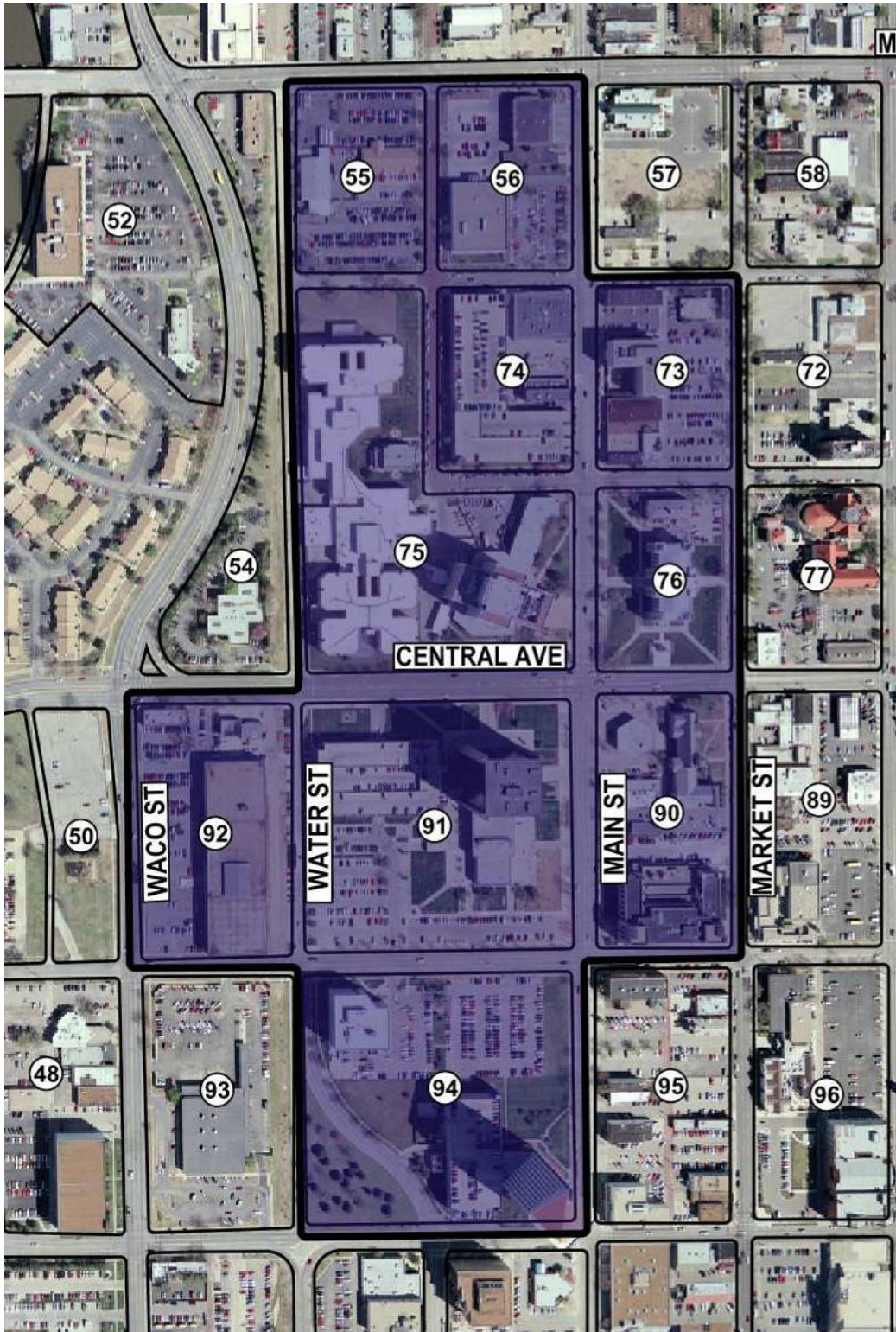
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Figure 11: Government District



Walker Parking Consultants, Google Earth Map

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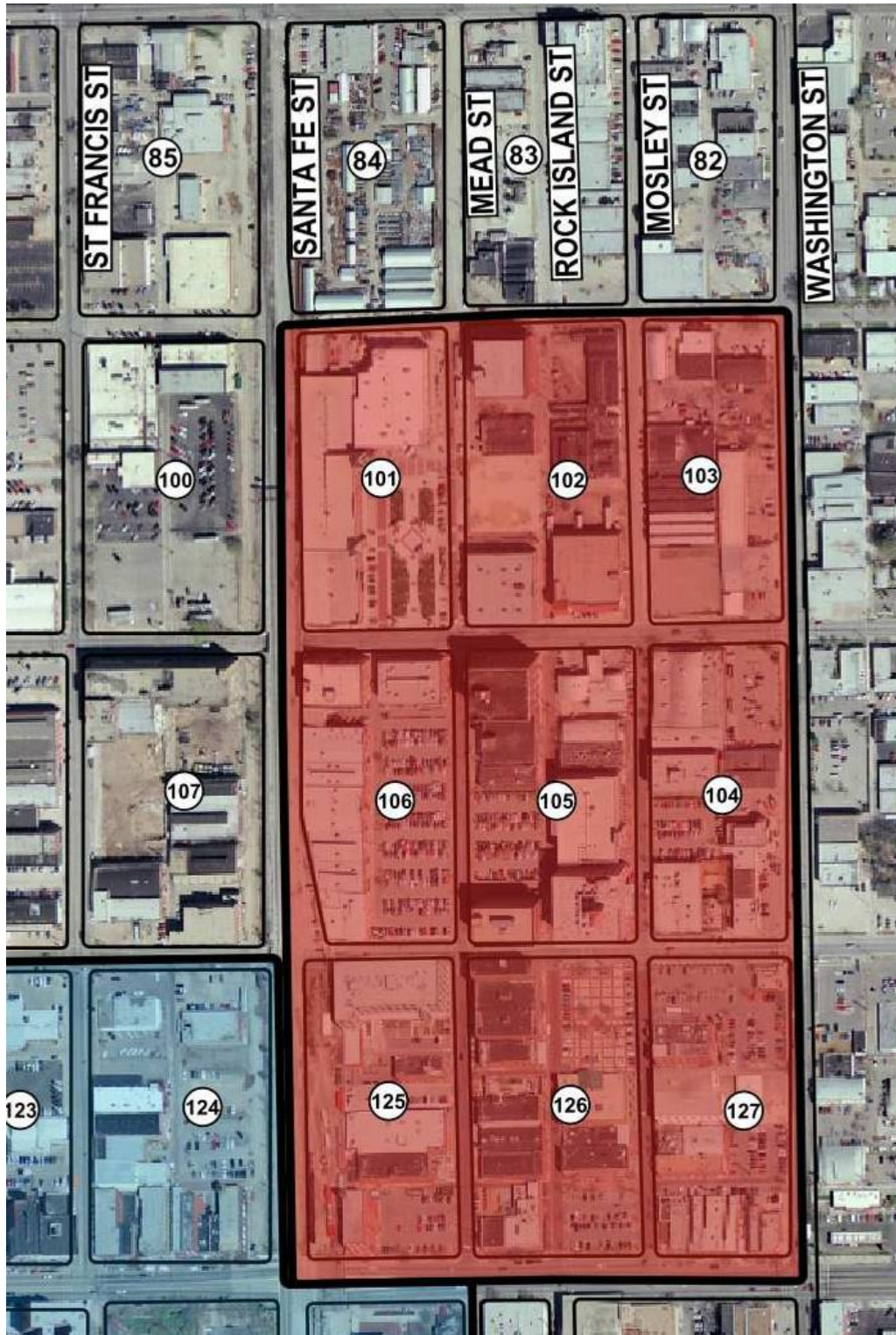
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Figure 12: Old Town District



Walker Parking Consultants, Google Earth Map

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Figure 13: WaterWalk District



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WaterWalk construction site, looking north toward Century II.



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This section of the report documents our understanding of the current parking characteristics of the study area. The information contained herein serves as the basis for analysis of the current needs of the study area. Included in this section are discussions of parking supply, effective supply, observed parking occupancy, current parking demand, and the dynamics of the parking system.

CURRENT CONDITIONS

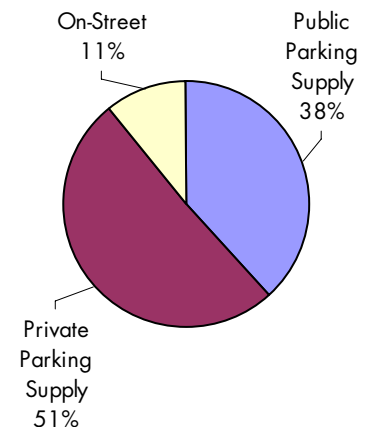
PARKING SUPPLY

The foundation of a parking supply and demand study is an inventory of the existing parking supply. Parking in the study area is available in several forms. On-street parking is available as paid single-space metered spaces, offered at no charge with a time limit, or offered with no restrictions. For the most part, on-street parking is signed and restrictions clearly marked. It is important to maintain on-street parking areas with fresh paint, maintained curbs, working meters, and good signage, as parking is many times the first experience for a visitor to the downtown area. Off-street parking is available to the public in lots and garages, in both publicly and privately owned facilities. Private parking is available for specific user groups in the study area in both lots and garages restricted for use by individual businesses. Observations indicate that many businesses offer free parking to their visitors.



The inventory is compared to the parking demand to quantify the existence of a parking surplus or deficit. We conducted this analysis on a block-by-block basis within the study area, segmenting the demand by block.

Based on the data Walker collected, there are approximately 32,770 total spaces in the study area. Following is a breakdown of these spaces: 3,519± on-street and 29,251± off-street. Of the off-street spaces, 12,573± are open to the public and 16,678± are available for private or restricted-use. Table 4 shows the breakdown of the parking supply. A complete block-by-block listing of the parking supply is provided in Appendix B.



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Table 4: Parking Supply Summary

Public Parking Supply	Private Parking Supply	On-Street Parking Supply	Total Parking Supply
12,573	+ 16,678	+ 3,519	= 32,770

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Table 5 shows the parking supply located within each district, as well as the areas not included in a specific district.

Table 5: Current Parking Supply by District

District/ Area	Public Supply	Private Supply	On-Street Supply	Total Supply
Arena	2,638	+ 2,811	+ 892	= 6,341
Century II	2,564	+ 2,345	+ 148	= 5,057
Delano	75	+ 429	+ 304	= 808
Government	1,837	+ 1,520	+ 212	= 3,569
Old Town	1,673	+ 164	+ 210	= 2,047
WaterWalk	611	+ 0	+ 0	= 611
Remote	1,123	+ 680	+ 0	= 1,803
Residential	22	+ 481	+ 531	= 1,034
Industrial	0	+ 194	+ 21	= 215
Other	2,030	+ 8,054	+ 1,201	= 11,285
Totals	12,573	16,678	3,519	32,770

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EFFECTIVE PARKING SUPPLY

The inventory of parking within the study area is adjusted to allow for a cushion necessary for vehicles moving in and out of spaces and to reduce the time necessary to find the last few remaining spaces when the parking supply is nearly full. We derive the effective supply by deducting this cushion from the total parking capacity. The cushion allows for vacancies created by restricting parking spaces to certain users (reserved spaces), mis-parked vehicles, minor construction, and debris removal. A parking supply operates at peak efficiency when parking occupancy is 85 to 95 percent of the supply. When occupancy exceeds this level, patrons are likely to experience delays and frustration while searching for a space. Therefore, the parking supply may be perceived as inadequate even though some spaces are available in the parking system.



A parking supply operates at peak efficiency when parking occupancy is 85 to 95 percent of the supply.

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As a result, the effective parking supply is used in analyzing the adequacy of the parking system, rather than the total supply or inventory of spaces. Following are some factors that affect the efficiency of the parking system:

- Capacity – Large, scattered surface lots operate less efficiently than a more compact facility, such as a double-threaded helix, which offers one-way traffic that passes each available parking space one time. Moreover, finding the available spaces is more difficult in a widespread parking area than in a centralized parking area.
- Type of user – Monthly or regular parking patrons can find the available spaces more efficiently than infrequent visitors because they are familiar with the layout of the parking facility and typically know where the spaces will be available when they are parking.
- On-street vs. Off-street – On-street parking spaces are less efficient than off-street spaces, due to the time it takes patrons to find the last few vacant spaces. In addition, patrons are typically limited to one side of the street at a time and often must parallel park in traffic to use the space. Many times on-street spaces are not striped or are signed in a confusing manner, thereby leading to lost spaces and frustrated parking patrons.

After reviewing the study area, we applied an 85 percent effective supply factor for all on-street spaces, 90 percent for all public off-street spaces and 95 percent for all private off-street spaces. As previously mentioned, the study area contains a total of 32,770± spaces before any adjustments. After the effective supply factor is applied to the overall supply numbers, the study area's effective supply is 30,159± spaces. Table 6 shows the Effective Parking Supply and cushion for the study area as a whole. The total cushion of parking spaces is calculated to be approximately 2,611 spaces.

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Table 6: Effective Supply Summary

	Public Parking Supply		Private Parking Supply		On-Street Parking Supply		Total Parking Supply
Actual	12,573	+	16,678	+	3,519	=	32,770
- Cushion	1,251	+	820	+	540	=	2,611
EPS ¹	11,322	+	15,858	+	2,979	=	30,159

¹ Effective Parking Supply, calculated and rounded by Block

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The effective parking supply is calculated for each block and rounded accordingly.

PARKING DEMAND

To determine the parking patterns of patrons in the study area, we evaluated the usage of all parking facilities located in the study area. An understanding of these parking patterns helped define both patron types and parking locations.

Occupancy data from both the Walker 2005 Arena Study and data collected during the weeks of March 12th and April 9th, 2007 were used in this analysis. Counts were typically taken during a weekday between the hours of 9:00 a.m. and 3:00 p.m., hours when demand is relatively static and at its peak. Parking demand typically decreases after 3:00 p.m. and is significantly less during weekends. The observed peak parking occupancy count was recorded as the parking demand for each block.

Table 7 summarizes the observed occupancy rates during a weekday for private and public off-street parking and on-street parking. The data is tabulated by district and other specific areas within the study area. Block-by-block occupancy data is provided in Appendix C.

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Table 7: Peak Hour Parking Occupancy Summary – Weekday

Type of Parking	Supply	Occupied Spaces	Parking Occupancy
Public Off-Street	12,573	6,315	50%
Private Off-Street	16,678	9,455	57%
On-Street	3,519	1,394	40%
Totals	32,770	17,164	52%

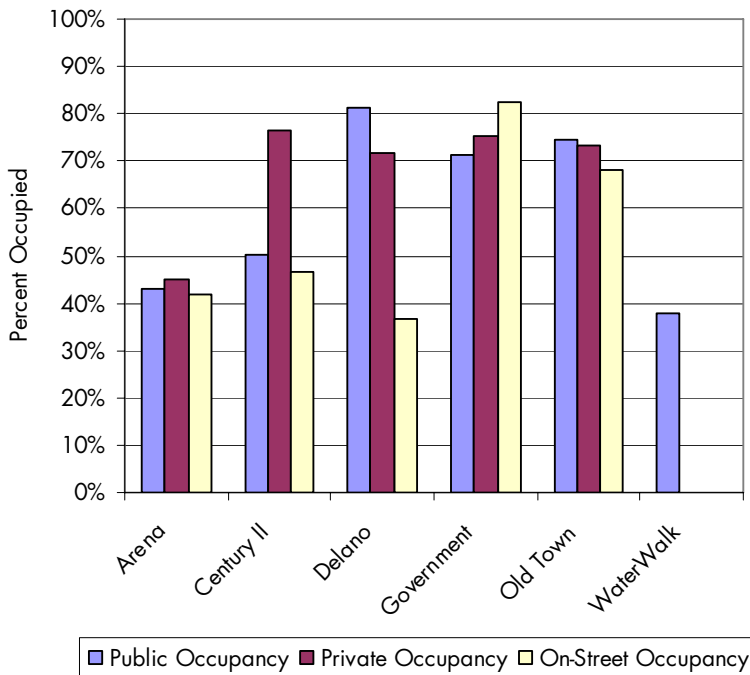
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The observed peak parking occupancy for the entire area was approximately 17,164 vehicles, equating to an overall occupancy of 52 percent.

Generally, parking occupancy at 85 percent is considered optimal. When occupancy levels are greater than 85 percent, parking is perceived as a problem. Analyzing the data by district provides a more meaningful analysis of the data when judging current parking conditions. The highest occupancy rates were recorded in the Delano and Government Districts, with occupancy at or just above 80 percent. Figure 14 depicts the current parking occupancy by district.

The observed peak parking occupancy for the entire area was approximately 17,164 vehicles, equating to an overall occupancy of 52 percent.

Figure 14: Current Parking by District



Note: WaterWalk has no on-street or private parking.

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Current occupancy rates, as a whole, do not indicate a shortage of parking. About a dozen blocks located throughout the study area are experiencing parking occupancy levels greater than 85 percent, which generally indicates parking above the optimum utilization level. As long as there are nearby blocks with available parking, this rate does not necessarily mean parking is a major issue for that area.

The Current Parking Occupancy Map in Figure 15 uses color coding to show the current occupancy of the entire study area. Those blocks shaded red are experiencing parking occupancy issues, with occupancy at or greater than 85 percent. When either no or limited parking alternatives exist within adjacent blocks, parking is an issue.

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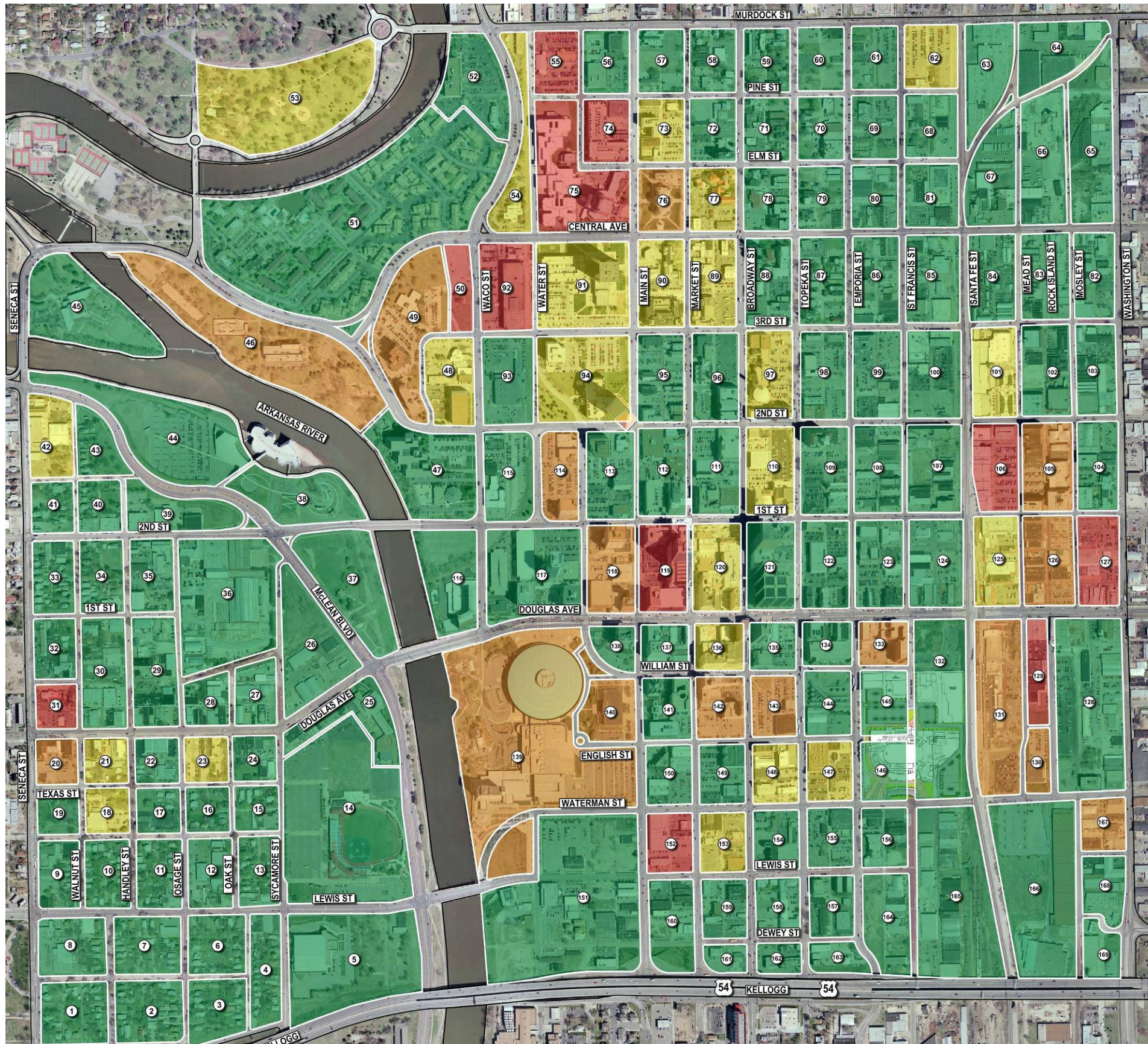
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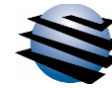


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Figure 15: Current Parking Occupancy Map



LEGEND	
	BLOCK NUMBER
<u>Current Occupancy</u>	
	Occupancy 85% or Greater
	Occupancy 70% - 84%
	Occupancy 60% - 69%
	Occupancy 59% or Less
NORTH 	



PARKING ADEQUACY

Parking adequacy is the ability of the parking supply to accommodate the parking demand. In the case of the study area, the demand was estimated based on the observed peak parking occupancy counts. The peak observed occupancy was subtracted from the effective supply to determine the adequacy for the study area. The overall parking adequacy for the study area, by type, is summarized in Table 8 below.

Table 8: Summary of Current Parking Adequacy

Parking	Effective Supply	Demand	Adequacy
Public Off-Street	11,322	6,315	5,007
Private Off-Street	15,858	9,455	6,403
On-Street	2,979	1,394	1,585
Totals	30,159	17,164	12,995

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As a whole, the current parking system has a surplus of about 13,000 spaces during peak weekday occupancy. To get a more meaningful picture of parking adequacy, we calculated the parking adequacy for each of the districts. This information is shown in Table 9 on the following page.

Overall, only on-street parking in Old Town has a deficit of parking, with a deficit of only two spaces (off-street parking is available in ample supply, so this does not represent a problem). A couple of other areas are experiencing parking adequacy with a surplus of less than ten spaces, but as a whole, no district is experiencing an inadequate parking supply.

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Table 9: Current Parking Adequacy by District

District/ Area	Effective Supply			Parking Demand			Parking Adequacy			Overall Adequacy
	Public Off-Street	Private Off-Street	On-Street	Public Off-Street	Private Off-Street	On-Street	Public Off-Street	Private Off-Street	On-Street	
Arena	2,374	2,676	762	1,132	1,266	374	1,242	1,410	388	3,040
Century II	2,309	2,233	126	1,283	1,798	69	1,026	435	57	1,518
Delano	68	409	261	61	307	111	7	102	150	259
Government	1,654	1,444	182	1,308	1,143	175	346	301	7	654
Old Town	1,506	156	141	1,248	120	143	258	36	-2	292
Waterwalk	550	0	0	232	0	0	318	0	0	318
Other	2,861	8,940	1,507	1,051	4,821	522	1,810	4,119	985	6,914
Totals	11,322	15,858	2,979	6,315	9,455	1,394	5,007	6,403	1,585	12,995

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Areas with less than ten surplus spaces are highlighted yellow. Again, only on-street parking in Old Town was found to have a deficit of parking. This is more than made up for by the surplus of off-street public parking in Old Town and is fairly common, as many visitors prefer to park on-street, especially when it is free and more convenient to visitors' final destinations.

Our analysis indicates that the current parking supply is adequate for existing conditions, both as a whole and within each of the districts. Our next section will cover future conditions and impacts to the parking supply and demand over the next 5, 10, and 20 years.



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To calculate the projected future parking demand, we reviewed several development plans and scenarios for the area, including the Arena Neighborhood Redevelopment Plan, North Old Town plan, the HVS Century II study, and the WaterWalk Master Plan drawing. In addition, we considered specific developments throughout the area provided by the Wichita Downtown Development Corporation (WDDC). Each development scenario is first discussed and analyzed for its impact to parking demand and parking displacement. Following a review of the various scenarios, we detail the future parking adequacy, assuming that the projects come to fruition.

When specific land use data was available, we applied parking demand ratios based on the unique land use of each potential development using Urban Land Institute (ULI), the Institute of Transportation Engineers (ITE), and Walker’s own research. We analyzed these land-uses using Walker’s Shared Parking Model, which projects peak parking demand based on the overall peak time of day and year based on each of the land-uses sharing parking.

When specific land use data was not available, such as in the Arena Neighborhood Redevelopment Plan, we applied a blended parking demand ratio, assuming that shared parking strategies would be employed. In other areas, such as the Delano District, where no specific plan was available, we applied a general increase to the current parking demand, assuming the area would continue to grow.

WDDC DEVELOPMENT SCENARIO – 5 YEARS

The WDDC laid out a detailed list of potential projects being considered by various developers over the next five years, identified by location, land use, and size. This information allows a more direct approach to calculating parking demand as compared to broad based increases in parking demand. Parking demand is determined by using parking generation rates from the Urban Land Institute (ULI), Institute of Transportation Engineers (ITE), and Walker’s own research. The projects are summarized in Table 10 and detailed in the Appendix.

FUTURE CONDITIONS

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Table 10: WDDC List of Potential Projects

<i>Likelihood: High</i>		<i>Start - 2006-2009</i>	
Block	Name	Use	Sq. Ft.
132	Lighthouse	Hotel	150,000
117	Garvey Apartments	Residential	40,000
120	Exchange Place	Mixed	225,000
137	Donham	Mixed	110,000
151	WaterWalk	Mixed	600,000
142	Kauffman	Commercial	40,000
141	Carnegie/Fidelity	Commercial	15,000
145	Retail	Retail	15,000
Total Parking Demand			1,195,000
<i>Likelihood: Medium</i>		<i>Start - 2007-2009</i>	
Block	Name	Use	Sq. Ft.
154	Carlton	Retail	30,000
143	Allis Block	Mixed	50,000
135	Henry's Site	Mixed	75,000
131	Cox	TBD	60,000
133	Eaton Ballroom	Restaurant	10,000
Total Parking Demand			225,000
<i>Likelihood: Low</i>		<i>Start - 2010</i>	
Block	Name	Use	Sq. Ft.
108	Coleman A	TBD	175,000
164	Housing Site	Residential	60,000
139	Expand Brown Expo	Convention	100,000
135	Douglas Building	Residential	115,000
116	1st and Waco Site	Commercial	40,000
149	Slawson Garage	TBD	40,000
36	Watkins Steel	TBD	630,000
Total Parking Demand			1,160,000
Grand Total Square Feet:			2,580,000

Wichita Downtown Development Corporation (WDDC)

Those projects listed as TBD (To Be Determined) are listed as a reference to potential development sites. No particular demand is associated with them until a specific quantifiable land use is established.



PROJECTING PARKING DEMAND

Each development will generate its own unique parking demand, based on the variables of the land use. Factors that affect projections include the specific type of land use and the size of the project. Parking demand is expressed as a demand ratio per unit of measurement, typically in terms of spaces per 1,000 GLA SF¹, rooms, or seats.

The base parking demand ratios are adjusted to reflect the driving ratio of employees and visitors to the area, as well as a non-captive ratio to avoid double counting patrons that are already parked for a different land use. An example of this concept is someone who has parked at the office and walks to an adjacent restaurant for lunch. As they are already counted in the office parking demand, they therefore should not be counted as parking demand for the restaurant. Table 11 shows the base parking demand ratios used in our analysis.

Table 11: Base Parking Demand Ratios

Land Use	Weekday	Weekend	Unit	Source
Retail	3.60	4.00	/ksf GLA	1
Fine/Casual Dining	18.00	20.00	/ksf GLA	2
Family Restaurant	10.50	15.00	/ksf GLA	2
Fast Food	15.00	14.00	/ksf GLA	2
Nightclubs	16.50	19.00	/ksf GLA	3
Performing Arts Theater	0.37	0.40	/seat	2
Arena	0.30	0.33	/seat	3
Convention Center	6.00	6.00	/ksf GLA	3
Hotel (Business)	1.25	1.08	/room	2,4
Residential Shared	1.85	1.85	/unit	2,3
Office	3.80	0.38	/ksf GFA	2

Sources

1. *Parking Requirements for Shopping Centers*, Second Edition. Washington DC: ULI-The Urban Land Institute, 1990
2. *Parking Generation*, Third Edition. Washington DC: Institute of Transportation Engineers, 2004
3. Data collected by Team Members
4. Gerald Salzman, "Hotel Parking: How Much Is Enough?" *Urban Land*, January 1988.

¹ GLA SF – Gross Leasable Area Square Feet

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The potential developments are sorted by probability. Those that are listed with a high likelihood have all the needed information to calculate the added parking demand. Assumptions to the specific type of land use were made when a detailed accounting of the future land use was not available. This includes the Allis Hotel site and Henry's Block. The development plans only indicate commercial, office, and residential uses are likely, along with the total square feet of the potential project.

As we move to low likelihood, the data is lacking to calculate the added demand for all but a few projects. For this reason, we include only those projects with sufficient data necessary for projecting parking demand. As aforementioned, those projects with insufficient data are listed as TBD, or "to be determined." These projects should be monitored for activity. The WaterWalk development and convention center expansion are not included as these projects are covered in detail under their own sections.

Table 12 provides the list of projects and the calculated parking demand for a weekday and weekend. The base parking demand ratios were adjusted slightly to account for drive to work data from the U.S. Census Bureau for Wichita, Kansas, and our opinion of non-captive factors for each project.

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Table 12: Calculated Parking Demand by Project

Likelihood: High Start - 2006-2009

Block	Name	Use	Sq. Ft.	Weekday Parking Demand	Weekend Parking Demand
132	Lighthouse	Hotel	150,000	105	91
117	Garvey Apartments	Residential	40,000	65	65
120	Exchange Place	Mixed	225,000	230	238
137	Donham	Mixed	110,000	34	29
151	WaterWalk	Mixed	600,000	* Separate Section	
142	Kauffman	Commercial	40,000	135	46
141	Carnegie/Fidelity	Commercial	15,000	51	5
145	Retail	Retail	15,000	49	54
Total Parking Demand				669	528

Likelihood: Medium Start - 2007-2009

Block	Name	Use	Sq. Ft.	Weekday Parking Demand	Weekend Parking Demand
154	Carlton	Retail	30,000	92	103
143	Allis Block	Mixed	50,000	159	99
135	Henry's Site	Mixed	75,000	209	225
131	Cox	TBD	60,000	TBD	TBD
133	Eaton Ballroom	Restaurant	10,000	154	171
Total Parking Demand				614	598

Likelihood: Low Start - 2010

Block	Name	Use	Sq. Ft.	Weekday Parking Demand	Weekend Parking Demand
108	Coleman A	TBD	175,000	TBD	TBD
164	Housing Site	Residential	60,000	93	93
139	Expand Brown Expo	Convention	100,000	* Separate Section	
135	Douglas Building	Residential	115,000	437	44
116	1st and Waco Site	Commercial	40,000	TBD	TBD
149	Slawson Garage	TBD	40,000	TBD	TBD
36	Watkins Steel	TBD	630,000	TBD	TBD
Total Parking Demand				530	137

Grand Total Parking: 1,813 1,263

Walker Parking Consultants and WDDC

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The total potential added parking demand of the listed projects is roughly 1,813 parking spaces, which peaks during a weekday. All but 150 spaces of the demand are located within the Arena District.

CHANGES TO THE PARKING SUPPLY

Some of the new projects indicate the addition of parking or the displacement of parking. These factors are also considered when calculating future conditions. Table 13 shows the changes to the parking supply that are included in our analysis.

Table 13: Parking Supply Changes

Block	Name	Use	Displaced Parking	New Parking
120	Exchange Place	Mixed		240
137	Donham	Mixed		250
143	Allis Block	Mixed	(253)	
135	Henry's Site	Mixed	(115)	
Total Spaces			(368)	490

Walker Parking Consultants and WDDC

REDUCTION IN OFFICE VACANCY RATE

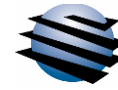
In addition to these specific developments, the WDDC believes that current building occupancy levels within the core of the CBD will likely increase over the next ten years as redevelopment increases interest in downtown. Current office vacancy is about 23 percent. Based on discussions with the WDDC, our projections assume office vacancy will be reduced to 15 percent within ten years. This amounts to 312,000 square feet of newly occupied office space.²

To quantify and distribute the newly occupied space, we assume half of the 312,000 square feet of space will be occupied within five years, and the remaining space will be occupied between years five and ten. Table 14 shows the added parking demand based on a decrease in office space vacancy rates over the next five and ten year periods.

² Per WDDC, May 2007

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Table 14: Potential Office Parking Demand Generation

Period	Occupied Office Space (SF)	Weekday Parking Demand	Weekend Parking Demand
Five Year	156,000	593	59
Ten Year	156,000	593	59
Total	312,000	1,186	118

Weekday Demand Ratio: 3.80 per 1,000 SF GLA

Weekend Demand Ratio: 0.38 per 1,000 SF GLA

Walker Parking Consultants and WDDC

The WDDC identified the area bordered by 2nd Street to the north, Topeka Street to the east, English Street to the south, and Main Street to the west as the area that will benefit from this reduction of vacant office space. The added parking demand was divided into each block based on the percentage of available office space.

POTENTIAL CASINO DEVELOPMENT

In addition to the listed projects in Table 10, there is the potential to develop a new casino in downtown Wichita. The public will vote on allowing gaming in Wichita in August. If it is approved, the state will select a gaming operator in April 2008, who may then select a site other than downtown. If a casino is approved, and its location is downtown Wichita, the impact includes displacement of existing supply and demand generators. We assume that the casino would likely build sufficient parking to satisfy their customer needs.

At this time the casino is an unknown factor. We do not have sufficient data to estimate the demand, or a specific site, other than some general potential areas. Past casino studies completed by Walker across the country, indicate peak hour parking demand is about 0.65 per gaming station during weekdays and 0.80 parking spaces per gaming station during weekends. A significant factor impacting parking demand is the modal split³ for arrivals/departures. For example, the modal split for a New Jersey casino was approximately 69.6 percent private vehicle, 27.3 percent charter bus, and 3.1 percent other. A component of the casino project should

³ Model split represents the mode of travel for individuals arriving at a particular venue.

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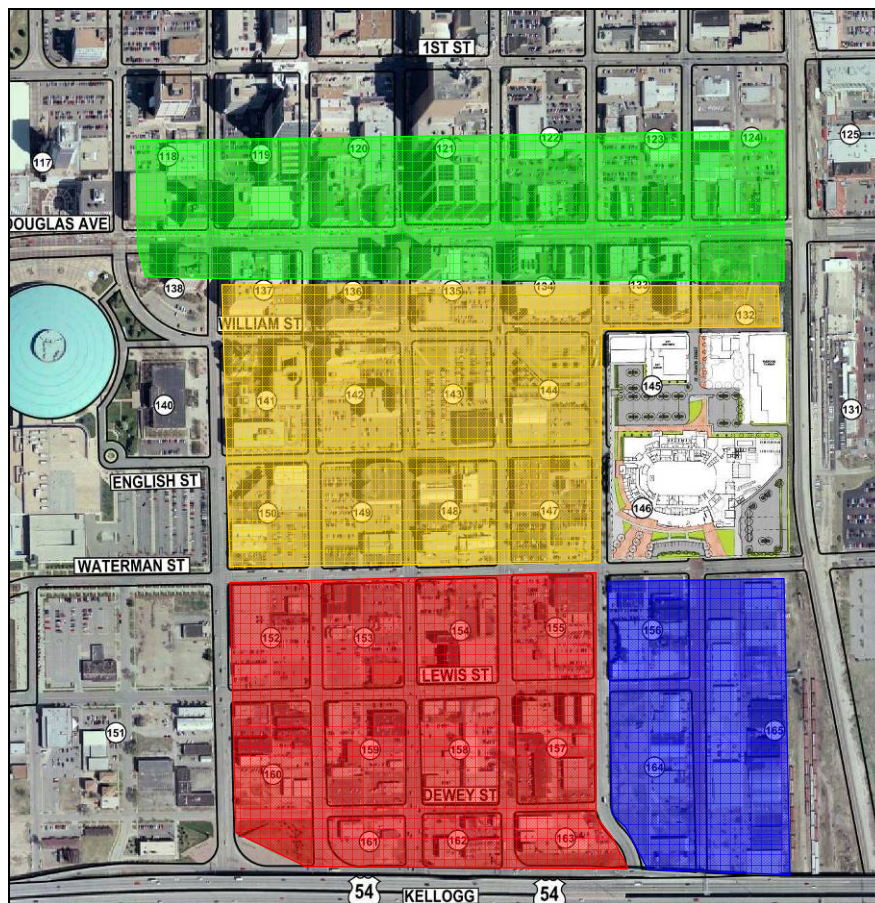
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include a complete master plan with a discussion of parking and the number of spaces to be provided.

ARENA NEIGHBORHOOD REDEVELOPMENT PLAN

We reviewed the Arena Neighborhood Redevelopment Plan⁴ (Arena Neighborhood) to determine the potential for redevelopment in the area surrounding the new arena. Bounded by Kellogg on the south, Main Street on the west, 1/2 block north of Douglas Street on the north and the central rail corridor on the east, the Arena Neighborhood is further organized into four unique districts. Those four districts are the Douglas Street Corridor District, the English / William Street District, the Broadway Neighborhood District and the Commerce Street Arts District. Figure 16 shows the location of each district and provides a description of how each district is envisioned for redevelopment.

Figure 16: Arena Neighborhood Districts



Source: Arena Neighborhood Redevelopment Plan, Draft, March 2007

District Descriptions and Legend

Douglas Street Corridor District

A high intensity corridor with primarily office and support commercial uses and some upper level residential opportunities.

English / William Street District

A walkable urban mixed-use district with primarily commercial uses and supporting public, residential, and office uses.

Broadway Neighborhood District

An urban residential environment with support commercial opportunities serving area residents and Kellogg users.

Commerce Street Arts District

A unique experiential arts area with live-work studio opportunities.

⁴ Draft Report, dated March 2007

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According to the Neighborhood Plan, there are potentially 2.19 million square feet⁵ are available for development located within the four districts. This assumes developing all available surface parking lots and vacant parcels within the defined area and building to desired densities, less a seven percent allotment for on-site public space.

Our methodology for calculating parking demand was to first identify the four districts, adjust the total potential square feet of space to the Gross Leasable Area Square Feet (GLA SF), and assign a blended shared parking ratio based on the total GLA SF.

Table 15 quantifies the total size of redevelopment for each district, the assumed reduction to reflect the GLA SF, and the overall parking demand based on 2.5 spaces per 1,000 square feet of GLA.

Table 15: Potential Size of Redevelopment - Arena Neighborhood

Arena Area	Development	to GLA SF ²	Demand ³
Douglas Street Corridor	166,270	149,600	374
English/William Street District	1,089,630	980,700	2,452
Broadway District	859,644	773,700	1,934
Commerce Street Arts District	73,788	66,400	166
Totals	2,189,332	1,970,400	4,926

¹ Potential Development based on potential total square feet

² We assume 10% of the total square feet will not be leasable

³ A general demand ratio of 2.5 spaces per square feet is used
This assumes parking will be shared within the development.

Source: Arena Neighborhood Redevelopment Plan, Draft, March 2007

The blended parking demand rate of 2.5 per 1,000 square feet GLA assumes that all parking will be shared. This parking demand assumes the total redevelopment of all areas outlined in the Arena Neighborhood Plan. To show how the potential development may occur over the next 5, 10, and 20 years, we developed three scenarios, Low, Medium, and High. Each scenario assumes varying redevelopment rates, as outlined in Table 16.

⁵ Does not include space used for developing parking.

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Table 16: Arena Neighborhood Plan Growth Scenarios

Growth Scenario	5 Years	10 Years	20 Years
Low	20%	30%	40%
Medium	40%	50%	60%
High	60%	80%	100%

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Using our growth scenario, redevelopment varies from 20% to 60% of the total potential redevelopment over the next five years. In 10 years redevelopment varies from 30% to 80% of the total potential redevelopment, and 40% to 100% over the next 20 years. Table 17 shows the potential parking demand generated within each of the districts over the next 5, 10, and 20 years using the potential redevelopment assumptions.

Table 17: Arena Neighborhood Parking Demand by Scenario

Scenario	Specific Area	Parking Demand Increase		
		5 Years	10 Years	20 Years
Low	Douglas Street Corridor	75	112	150
	English/William Street District	490	736	981
	Broadway District	387	580	774
	Commerce Street Arts District	33	50	66
	Total:	985	1,478	1,971
Medium	Douglas Street Corridor	150	187	224
	English/William Street District	981	1,226	1,471
	Broadway District	774	967	1,160
	Commerce Street Arts District	150	187	224
	Total:	2,055	2,567	3,079
High	Douglas Street Corridor	224	299	374
	English/William Street District	1,471	1,962	2,452
	Broadway District	1,160	1,547	1,934
	Commerce Street Arts District	100	133	166
	Total:	2,955	3,941	4,926

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Each scenario provides the potential growth in parking demand assuming various growth rates. This demand is divided within the various blocks that constitute each of the districts to estimate future parking conditions. We assume that within each development, any lost parking will be replaced with the new development.

Table 18 shows the estimated parking demand for each scenario over the next 5, 10, and 20 year periods. The current effective parking supply is adjusted to reflect the displaced parking following the construction of the Arena and the added effective parking supply around the arena.^o

^o The Arena plan indicates 263 spaces will be added to the Arena site. These are adjusted by the blended Effective Parking Supply Factor for this analysis.

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Table 18: Potential Future Parking Adequacy – No Event

Factor	Low	Medium	High
<i>Supply</i>			
Current E.S. ¹	5,812	5,812	5,812
- Lost for Arena	318	318	318
+ Added Arena Parking	242	242	242
Five Year Effective Supply	5,736	5,736	5,736
<i>5 Year Demand</i>			
Current Demand	2,772	2,772	2,772
+ 5 Year Demand Growth	985	2,055	2,955
5 Year Demand	3,757	4,827	5,727
<i>5 Year Adequacy</i>			
E.S. Minus Demand	1,979	909	9
<i>10 Year Demand</i>			
Current Demand	2,772	2,772	2,772
+ 10 Year Demand Growth	1,478	2,567	3,941
10 Year Demand	4,250	5,339	6,713
<i>10 Year Adequacy</i>			
E.S. Minus Demand	1,486	397	(977)
<i>20 Year Demand</i>			
Current Demand	2,772	2,772	2,772
+ 20 Year Demand Growth	1,971	3,079	4,926
20 Year Demand	4,743	5,851	7,698
<i>20 Year Adequacy</i>			
E.S. Minus Demand	993	(115)	(1,962)

¹ E.S. = Effective Parking Supply

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Taken as a whole, within five years, the parking adequacy of the Arena District is expected to be sufficient during non-event periods. The surplus of parking ranges from almost 2,000 spaces to about even. Within ten years, a deficit of almost 1,000 parking spaces is projected when using the aggressive scenario. Looking twenty years out, a deficit is projected for the moderate and aggressive scenarios for up to almost 2,000 spaces.



CENTURY II DISTRICT

Originally completed in 1969, the Century II Convention Center (Century II) was expanded in 1986, and in 1997 saw the addition of the Hyatt Regency to the south end of the facility. HVS Convention, Sports & Entertainment Facilities Consulting (HVS) completed a study for a potential new expansion to Century II in 2006. We used sections of this report to develop future conditions for our analysis. Based on discussions with representatives of the County and City, the potential expansion of the Century II would most likely occur within the next ten years.

Existing facilities at Century II consist of the Bob Brown Expo Hall, Carl Bell Convention Hall, Concert Hall, Exhibition Hall, Mary Jane Teall Theater, and meeting rooms. Table 19 details the existing facilities at Century II by either square footage or seating capacity. The flexibility of the space also allows for transformation of some of the seating areas to exhibit space, which allows for a total of up to 195,000 continuous square feet of exhibition space for larger shows such as the Garden Show or Home Show.

Table 19: Existing Century II Facilities

Building Space	SF	Seats
Bob Brown Expo Hall	93,000	
Carl Bell Convention Hall		5,012
Concert Hall		2,178
Exhibition Hall	45,000	
Mary Jane Teall Theater		646
Meeting Rooms	19,420	

Ed Martin, Wichita City Building Services & <http://www.century2.org>

The potential expansion considered in our analysis is detailed in Table 20 as taken from the HVS report. The potential expansion is assumed to extend to the east, displacing the 344 space surface lot and increasing the potential continuous square feet of exhibition space to 252,000.

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Table 20: Century II Expansion Plan

Building Space	Existing SF/Seats	Additional SF	New SF/Seats
Bob Brown Expo Hall	93,000	57,000	150,000
Carl Bell Convention Hall	5,012		5,012
Ballroom		30,000	30,000
Concert Hall	2,178		2,178
Mary Jane Teall Theater	646		646
Meeting Rooms	19,420	15,000	34,420
Combined Exhibition Space	195,000	57,000	252,000
Total SF:	112,420	102,000	214,420
Total Seats:	7,836		7,836

Wichita Century II Expansion & Modernization Report, HVS, 2006 (Phase I)

CONVENTION CENTER PARKING DEMAND

To estimate parking demand for the convention center, we used parking demand ratios based on Walker's research of convention centers and ITE's research for performing art centers. A parking demand ratio of 6.0 spaces per 1,000 SF/GLA⁷ was used for convention center space, on both a weekday and weekend. Ratios of 0.37 and 0.40 per seat were used for a weekday and weekend respectively for a performing arts center. Table 21 shows the calculated parking demand for each of the building areas. To convert the square feet to SF/GLA, we assumed an eight percent reduction to the total square feet.

Table 21: Parking Demand, Current Configuration

Building Space	SF/Seats	SF/GLA	Potential Demand
Bob Brown Expo Hall	93,000	85,560	513
Carl Bell Convention Hall	5,012		2,005
Concert Hall	2,178		871
Exhibition Hall	45,000	41,400	248
Mary Jane Teall Theater	646		258
Meeting Rooms	19,420	17,866	107
Combined Exhibition Space	195,000	179,400	1,076

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⁷ SF/GLA: Square Feet, Gross Leasable Area

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Parking demand will vary depending on the event and configuration of the space. For planning purposes, we assume peak parking demand of 2,000 spaces, which would accommodate a full Carl Bell Convention Hall. Based on a review of events, our opinion is a full house occurs about 15 times per year. A more common event is the use of the combined exhibition space and meeting rooms. We estimate this scenario generates parking demand of about 1,200 spaces, which occurs about 20 times per year.

Assuming the expansion takes place by year ten, the parking demand increases to about 1,600 spaces for the combined exhibition space and meeting rooms, as shown in Table 22. We do not anticipate an increase to the Carl Bell Convention Hall, as the number of seats will not change.

Table 22: Parking Demand, After Expansion

Building Space	Additional SF	New SF/Seats	SF/GLA	Potential Demand
Bob Brown Expo Hall	57,000	150,000	138,000	828
Carl Bell Convention Hall		5,012		2,005
Ballroom	30,000	30,000	27,600	166
Concert Hall		2,178		871
Mary Jane Teall Theater		646		258
Meeting Rooms	15,000	34,420	31,666	190
Combined Exhibition Space	57,000	252,000	231,840	1,391

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NORTH OLD TOWN PUBLIC INFRASTRUCTURE IMPROVEMENT PLAN

North Old Town is a continuation of Old Town, expanding north to Central Avenue. The vision is to provide similar land use types and density as the existing Old Town, as outlined in the North Old Town Public Infrastructure Improvement Strategy plan.

The plan identifies the potential available area for redevelopment and provides three potential growth scenarios based on the existing land use type and density in Old Town. The model projects redevelopment at 50 percent density, 75 percent density, and the same density as Old Town. For our analysis, we named these Low, Medium, and High. We then further divided the scenarios into 5, 10, and 20 year projections.

We completed a shared parking analysis on each of the potential scenarios to calculate the recommended parking supply. Base parking demand ratios for each land use category were used for both a typical weekday and weekend. These ratios are adjusted by factors including modal split and non-captive factor. Modal split (or driving ratio) reduces the overall parking demand for patrons arriving via mass transit, walking, or riding a bike. Our model reflects that all customers, with the exception of hotel guests, and 97 percent of employees will arrive at the destination in a private automobile. The remaining three percent of employees will either car pool, take the bus, or walk to the destination.

Table 23 shows the raw data used in the scenarios by land use and time frame for this analysis. Some of the data is grouped together or listed in square feet instead of units. In order to use the data in the shared parking model, we made some assumptions to perform the shared parking analysis. The assumptions include splitting the office and retail square feet into two land use groups, estimating the number of residential units, estimating the number of hotel rooms, and assuming the institutional land use is a museum. Our assumptions are detailed in Table 24.



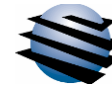
GATEWAY TO OLD TOWN



OLD TOWN PARKING STRUCTURE

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Table 23: Old Town Redevelopment Scenarios

Land Use	5 Year	10 Year	20 Year	5 Year	10 Year	20 Year	5 Year	10 Year	20 Year
	Low 50%			Medium 75%			High 100%		
Residential	8,362	37,615	111,700	12,543	56,423	167,551	16,724	75,230	223,401
Office/Retail	14,004	31,580	82,351	21,007	47,371	123,528	28,009	63,161	164,703
Restaurant	5,552	8,405	18,933	8,328	12,608	28,399	11,104	16,811	37,866
Night Club	0	1,115	3,716	0	1,672	5,574	0	2,230	7,432
Hotel	0	16,637	55,457	0	24,956	83,186	0	33,274	110,914
Warehouse	66,136	69,698	124,105	52,177	55,811	100,655	38,218	41,923	77,204
Institutional	0	3,924	13,080	0	5,886	19,620	0	7,848	26,160
Parking	0	81,331	271,102	0	113,018	376,727	0	144,705	482,351
Total	94,054	250,305	680,444	94,055	317,745	905,240	94,055	385,182	1,130,031

Source: North Old Town Public Infrastructure Improvement Strategy report

Table 24: North Old Town Land Use Assumptions

Land Use	5 Year	10 Year	20 Year	5 Year	10 Year	20 Year	5 Year	10 Year	20 Year
	Low 50%			Medium 75%			High 100%		
Residential	9	42	124	14	63	186	19	84	248
Office	11,203	25,264	65,881	16,806	37,897	98,822	22,407	50,529	131,762
Retail	2,801	6,316	16,470	4,201	9,474	24,706	5,602	12,632	32,941
Restaurant	5,552	8,405	18,933	8,328	12,608	28,399	11,104	16,811	37,866
Night Club	0	1,115	3,716	0	1,672	5,574	0	2,230	7,432
Hotel	0	24	79	0	36	119	0	48	158
Warehouse	66,136	69,698	124,105	52,177	55,811	100,655	38,218	41,923	77,204
Institutional	0	3,924	13,080	0	5,886	19,620	0	7,848	26,160
Parking	0	81,331	271,102	0	113,018	376,727	0	144,705	482,351

Assumptions: Residential – 900 sf/unit
 Office/Retail Spit – 80/20
 Hotel – 700 square feet per room
 Institutional land use is a museum

Source: North Old Town Public Infrastructure Improvement Strategy report and Walker Parking Consultants

After adjusting the residential and hotel land use data to units, and splitting the office and retail land uses, we ran the data through our shared parking model to determine the design demand parking levels. The base parking demand ratios used in our analysis are shown in Table 25.

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Table 25: Base Parking Demand Ratios

Land Use	Weekday		Weekend		Unit	Source	Total	
	Visitor	Employee	Visitor	Employee			Weekday	Weekend
Retail	2.90	0.70	3.20	0.80	/ksf GLA	1	3.60	4.00
Fine/Casual Dining	15.25	2.75	17.00	3.00	/ksf GLA	2	18.00	20.00
Nightclubs	15.25	1.25	17.50	1.50	/ksf GLA	3	16.50	19.00
Hotel-Business	1.00	0.25	0.90	0.18	/room	2,4	1.25	1.08
Residential Shared, Rental	0.15	1.5	0.15	1.5	/unit	2,3	1.65	1.65
Office <25,000sq ft	0.30	3.50	0.03	0.35	/ksf GFA	2	3.80	0.38
Warehouse	0.13	0.54	0.13	0.54	/ksf GLA	5	0.67	0.67
Museum	0.68	0.08	1.80	0.05	/ksf GLA	5	0.75	1.85

Sources

1. *Parking Requirements for Shopping Centers*, Second Edition. Washington DC: ULI, 1999
2. *Parking Generation*, Third Edition. Washington DC: Institute of Transportation Engineers, 2004
3. Data collected by Team Members
4. Gerald Salzman, "Hotel Parking: How Much Is Enough?" *Urban Land*, January 1988.
5. National Parking Association, Recommended Parking Generation Rates

Source: Walker Parking Consultants

The resulting design day parking demand is shown in Table 26. This represents the recommended number of parking spaces based on the development of the land uses. Changes to the assumptions and actual build-out program will have an impact on the actual parking demand generation.

Table 26: Recommended Design Day Demand

Land Use	5 Year	10 Year	20 Year	5 Year	10 Year	20 Year	5 Year	10 Year	20 Year
	Low 50%			Medium 75%			High 100%		
Design Day Demand	160	313	774	211	439	1,108	267	575	1,479

Source: Walker Parking Consultants

Based on the data analysis, 160 to 267 spaces should be developed within five years. Within ten years, this number increases to 313 to 575 spaces, and within twenty years, 774 to 1,479 spaces. This assumes redevelopment occurs as outlined.



DELANO GROWTH

The Delano area is located along Douglas Avenue just west of the Arkansas River. This unique area provides a concentration of retail, office, restaurants, and bars. Parking is primarily provided through on-street angled parking with no meters or time-limits. Although a few parking lots are located behind the businesses, they are fairly limited.

Only a few building sites are available for development, with no specific plans to consider at this time. To calculate the future parking demand, three potential growth scenarios are considered: Low, Medium, and High. The potential growth is further split over the 5, 10, and 20 year periods, as shown in Table 27 below.

Table 27: Delano Growth Scenarios

Growth Scenario	5 Years	10 Years	20 Years
Low	8%	10%	20%
Medium	12%	15%	40%
High	20%	40%	60%

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To calculate the potential future demand, we increased the observed peak demand by the growth scenario for each specific period. Assuming that the current parking supply remains constant, we subtracted the adjusted demand from the effective parking supply to determine the future parking adequacy. Table 28 shows the projected parking adequacy by scenario over the next 5, 10, and 20 years. Parking adequacy is projected to remain adequate for this area for all but the High growth projection at 20 years.

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Table 28: Projected Parking Adequacy - Delano District

Factor	Low	Medium	High
<i>Supply</i>			
Current E.S. ¹	738	738	738
<i>5 Year Demand</i>			
Current Demand	479	479	479
+ 5 Year Demand Growth	38	57	96
5 Year Demand	517	536	575
<i>5 Year Adequacy</i>			
E.S. Minus Demand	221	202	163
<i>10 Year Demand</i>			
Current Demand	479	479	479
+ 10 Year Demand Growth	48	72	192
10 Year Demand	527	551	671
<i>10 Year Adequacy</i>			
E.S. Minus Demand	211	187	67
<i>20 Year Demand</i>			
Current Demand	479	479	479
+ 20 Year Demand Growth	96	192	287
20 Year Demand	575	671	766
<i>20 Year Adequacy</i>			
E.S. Minus Demand	163	67	(28)

¹ E.S. = Effective Parking Supply

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Although parking is adequate for all but the High growth scenario, some blocks may occasionally experience high occupancy levels. During these times parking may encroach into the adjacent neighborhood streets. Should this situation become an issue, one option to protect neighborhoods is to establish a residential parking permit program. We discuss this option in the Alternatives Analysis section of this report.

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WATERWALK PROJECT

The WaterWalk project is a mixed use development located on about 25 acres along the Arkansas River, just south of Century II. Currently under construction, the project is planned for completion within the next few years. For our analysis, we assume the project will be complete at the five year planning stage. WaterWalk consists of retail, office, residential, and restaurant space, as well as, an open amphitheater with seating for up to 1,500. In addition, around 1,100 parking spaces are planned for development on-site in two parking structures, surface, and on-street parking.



WaterWalk Construction Site, March 2007.

Using a site map and discussions with the City as a guide, we have developed the list of land use assumptions in Table 29.

Table 29: WaterWalk Development Assumptions

Building Site	Retail	Restaurant	Office	Condo Units	Event Seating	Note
Gander Mt.	83,796					
B1	24,500	10,500				
B2			28,504			
C	25,900			48		1
D		7,278				
E	30,000	15,000				
F			71,518			2
G			27,644			2
H			77,881	78		1
I North	24,262		24,262			3
I South		13,386				
Amphitheater					1,500	
Total	188,458	46,164	229,809	138,600	1,500	

Grand Total: 603,031 SF plus 1,500 Seats

- Notes: #1 Assumes two spaces per condo; 1,000 sf per condo
 #2 Assumes two levels
 #3 Assumes one level retail, one level office

WaterWalk Site Plan, the City, and Walker Parking Consultants

Figure 17 on the following page shows the site plan and location of each building site.

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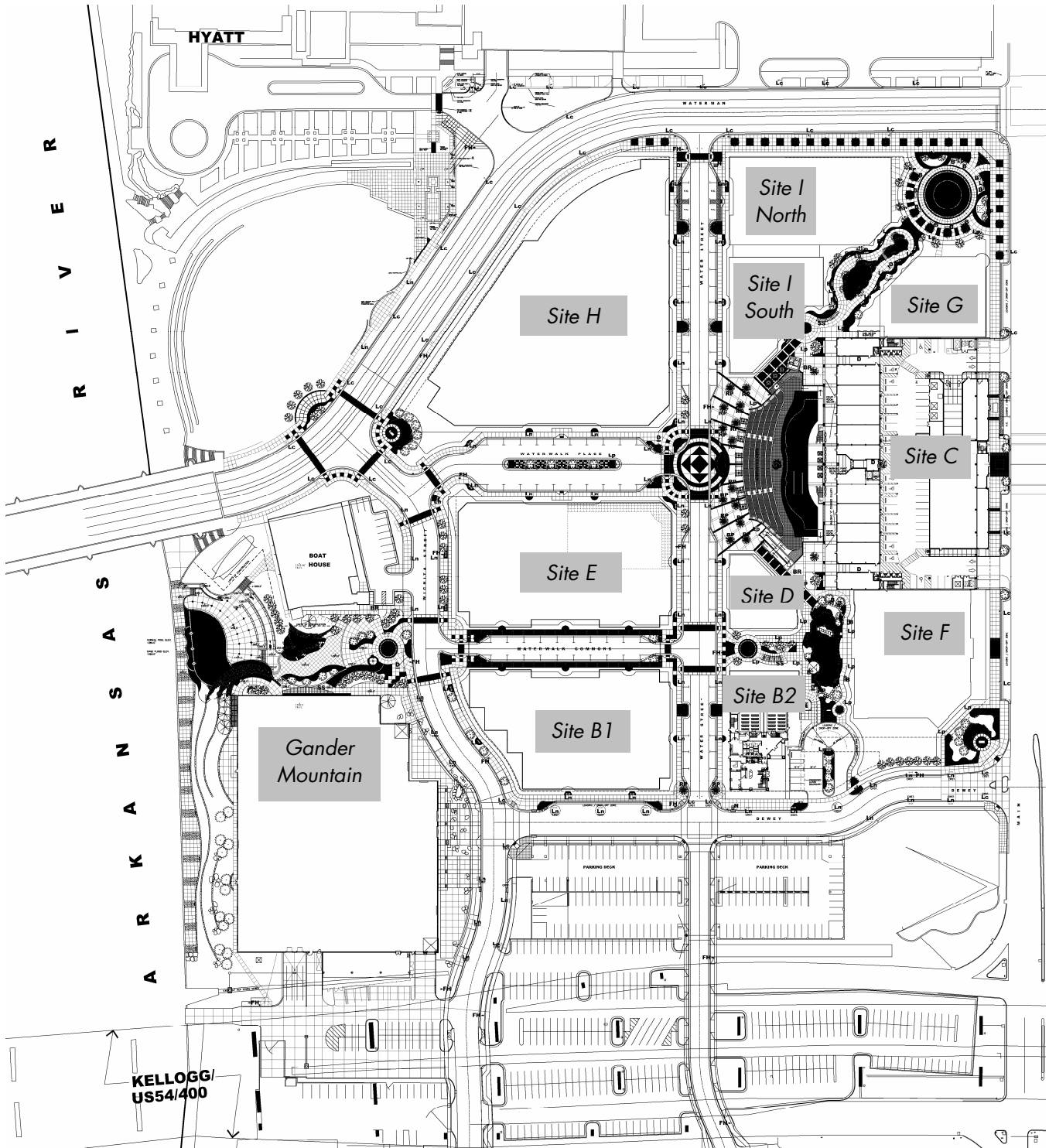


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Figure 17: WaterWalk Site Plan



WaterWalk Site Plan

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To calculate the parking demand, we utilized our shared parking model. The peak design day demand is projected to occur during a weekday in December around 2:00 p.m. Weekend design day demand is projected to occur during August, around 8:00 p.m. during an event at the amphitheater. We assume no event at the outdoor amphitheater in December.

Table 30: WaterWalk Design Day Demand

Land Use	Weekend	Weekday
	Demand Aug 8:00 PM	Demand December 2:00 PM
Community Shopping Center (<400 ksf)	257	492
Employee	88	128
Fine/Casual Dining	739	343
Employee	134	111
Amphitheater	446	-
Employee	92	-
Residential Guest	19	4
Residential Reserved	252	252
Office 100k to 500k sq ft	0	54
Employee	0	663
Subtotal Customer/Guest Spaces	1,442	889
Subtotal Employee Spaces	314	902
Subtotal Resident Spaces	271	256
Total Parking Spaces	2,027	2,047

Walker Parking Consultants Shared Parking Model

The current plans indicate about 1,100 spaces will be available for the project. Our assumptions do not include additional parking, even though long-term plans will include additional parking, as the building sites are further designed. Much of the calculated demand is based on our assumptions for potential development which had not been determined at the time of this report. Only Gander Mountain and building sites B2, C, D, part of E, and I were fairly certain.

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GOVERNMENT DISTRICT AND OTHER AREAS

The government district includes both City and County functions; home to both City Hall and the County Courthouse. Government functions are in place to support the citizens of the city and county. Census data and projections were reviewed to determine the potential increase (or decrease) to the population that the government district will support. Table 31 shows the County population and projection from 1995 to 2010.



Table 31: Sedgwick County Population Change

Year	Population	Change	Percent Change
1995	428.63	-	-
1996	432.77	4.14	0.97%
1997	439.25	6.48	1.50%
1998	447.97	8.72	1.98%
1999	451.81	3.84	0.86%
2000	453.49	1.68	0.37%
2001	456.09	2.60	0.57%
2002	460.15	4.06	0.89%
2003	461.84	1.68	0.37%
2004	463.38	1.55	0.34%
2005	466.06	2.68	0.58%
2006	470.40	4.34	0.93%
2007	473.61	3.21	0.68%
2008	476.82	3.21	0.68%
2009	479.98	3.16	0.66%
2010	483.16	3.18	0.66%

Population in 1,000's

Wichita State University, Center for Economic Development and Business Research, and Woods & Poole Economics

Based on the data, we assume the future population within the County will grow at an annual rate of 0.66% over the next twenty years. Considering the impact on parking generation, we applied a general growth to the current parking demand of 2.0 percent for the first five years, 4.0 percent over ten years, and 8.0 percent over twenty years. For areas outside a specific district or plan, we adopted a general increase based on the projected increases to the county population. This increase is equal to one half of the increase applied to the government district.



SUMMARY OF FUTURE CONDITIONS – NON-EVENT

Considering each of the potential development scenarios, we used the WDDC list of projects to project parking conditions for the first five years, with additions from Delano, North Old Town, WaterWalk and the Government District. Beyond the first five years, we added the Arena Neighborhood plan, as it provides a conceptual basis for redevelopment in the Arena District.

Table 32 shows how the various development pieces come together as a whole to impact parking adequacy. This analysis represents the moderate projections for each of the scenarios.

Table 32: Future Parking Adequacy - Moderate Assumptions

District/Area	Current Adequacy	5 Year Adequacy	10 Year Adequacy	20 Year Adequacy
Arena	3,040	970	483	58
Century II	1,518	1,356	951	857
Delano	259	205	189	70
Government	654	604	553	446
Old Town	292	67	(175)	(871)
Waterwalk	318	(370)	(752)	(752)
Remote	1,319	1,316	1,313	1,305
Residential	658	657	657	653
Industrial	135	155	154	152
Other	4,802	4,167	3,353	3,212
Totals	12,995	9,127	6,726	5,130

Table Assumptions:

1. Moderate Scenario used for each category.
2. WDDC list of projects used for first five year period.
3. WaterWalk demand based on our review of the parcels and discussion of conceptual ideas on land development.
4. WaterWalk does not include any added parking, but it is assumed parking will be added before parking reaches a deficit level.
5. Conditions represent a non-event, weekday.
6. No new parking added for North Old Town plan, but it is assumed parking will be added based on the development.

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The following maps show the projected 5, 10, and 20 year parking conditions by block for the study area.

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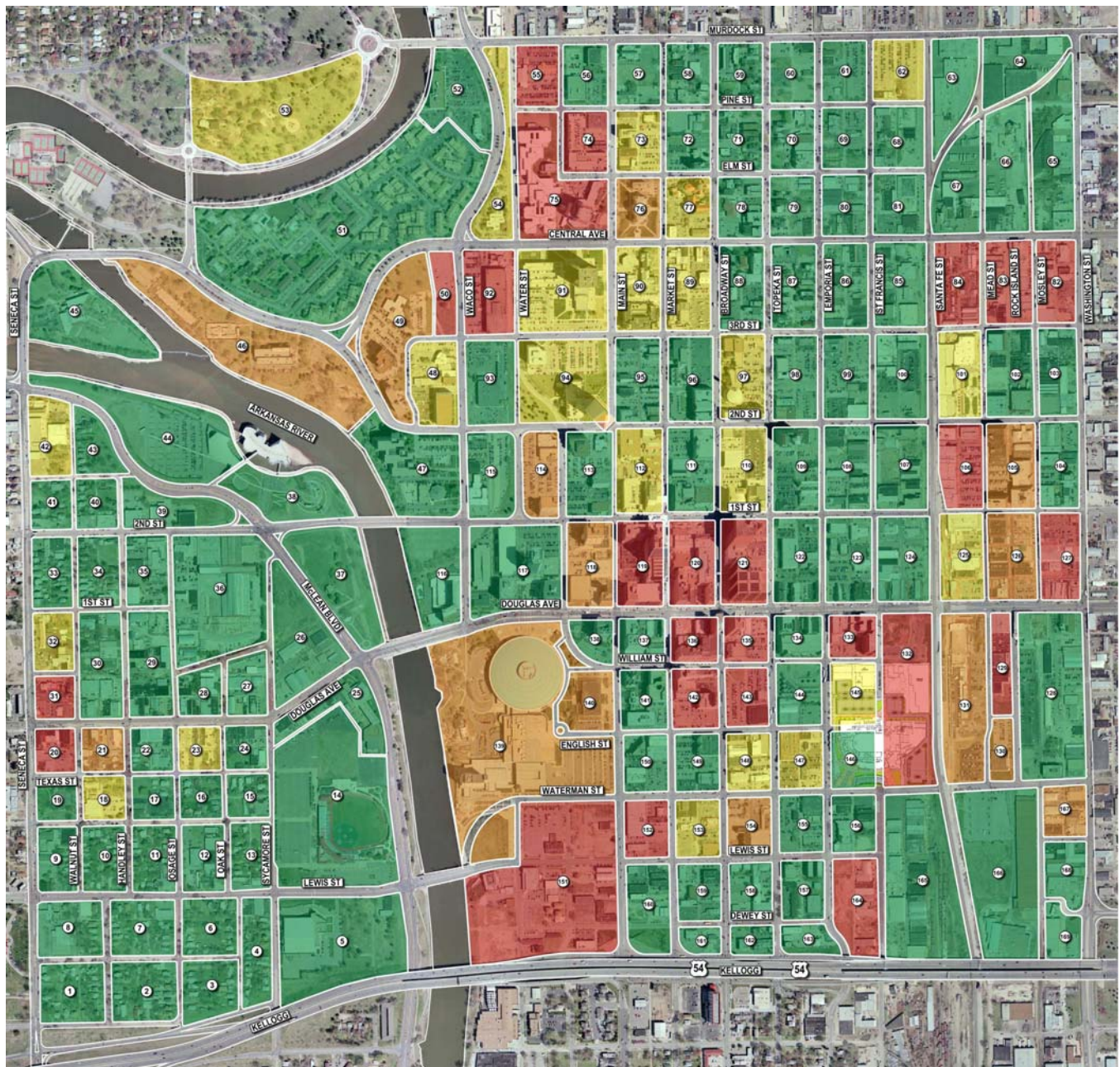


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Red blocks indicate parking occupancy above 85 percent, which indicates parking will be difficult to find. Orange indicates parking occupancy is growing, but less than 85 percent. Yellow indicates parking is being used, but occupancy is lower than 69 percent. Green indicates parking is not an issue, with occupancy levels at 59 percent or lower.

Figure 18: Five Year Projected Parking Conditions



- Occupancy 85% or Greater
- Occupancy 70% - 84%
- Occupancy 60% - 69%
- Occupancy 59% or Less

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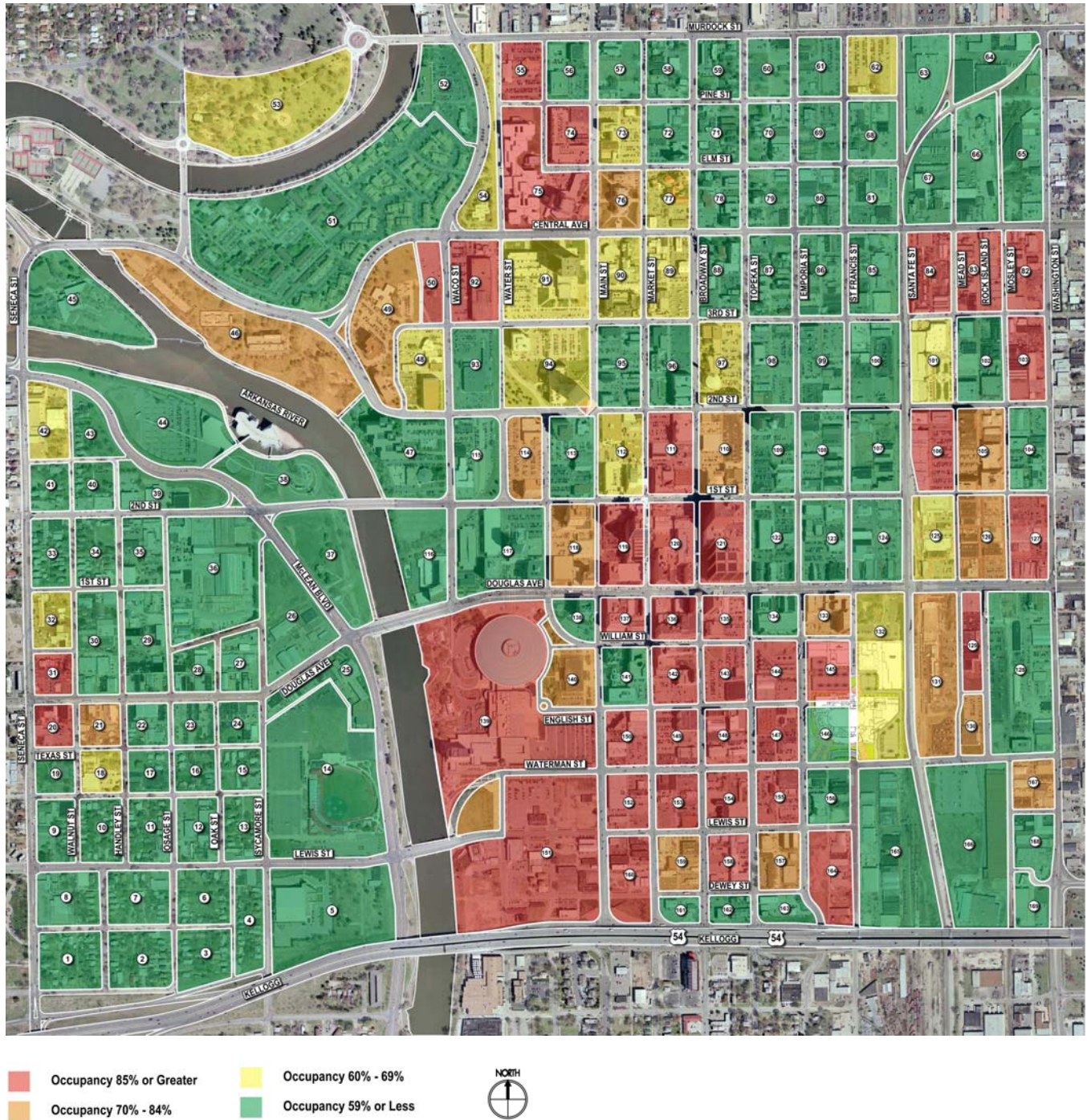


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Figure 19: Ten Year Projected Parking Conditions



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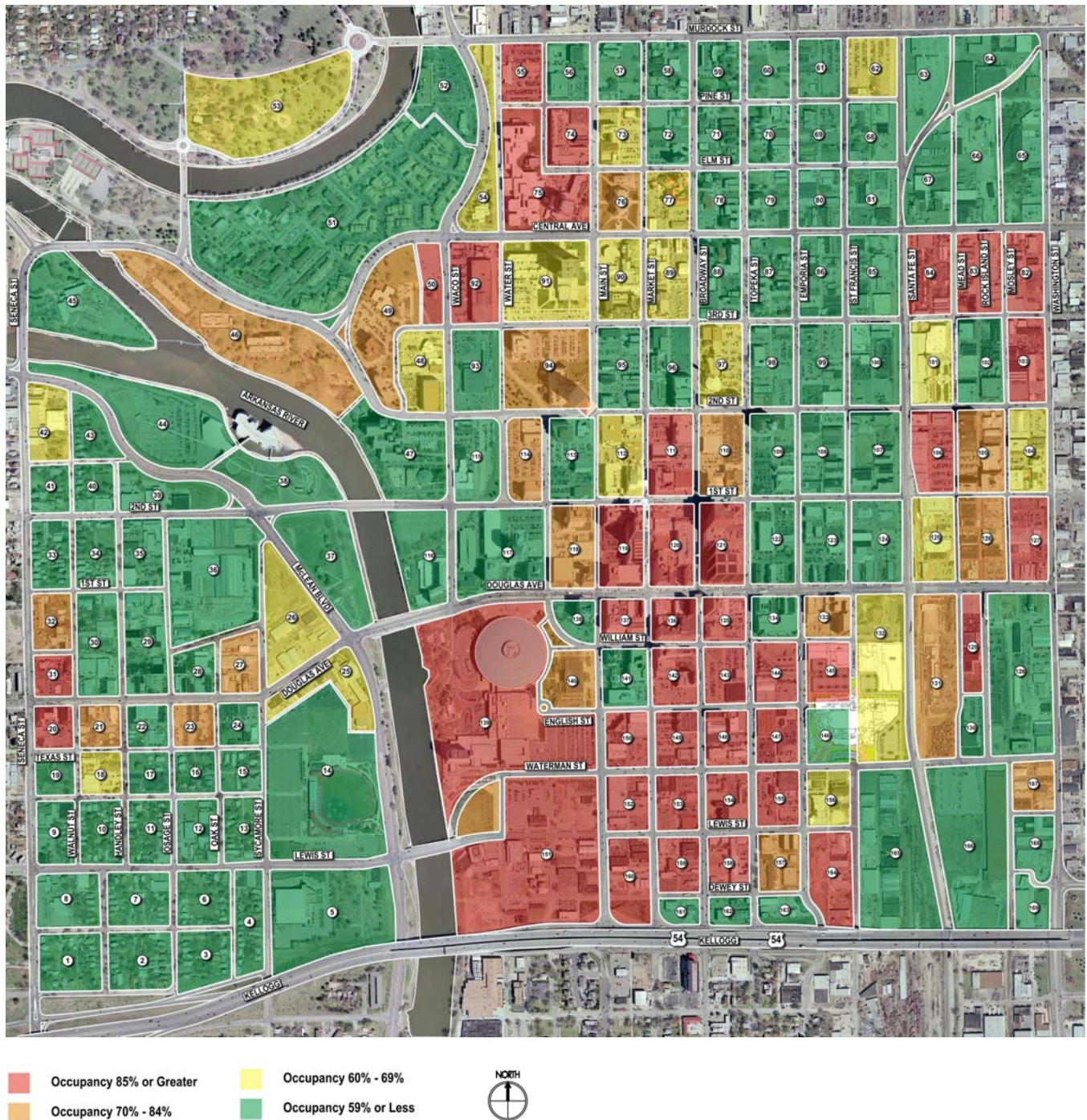


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Figure 20: Twenty Year Projected Parking Conditions



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Planning for events in the area is a major consideration for the County and City. The addition of the arena has many concerned about close, convenient parking, especially when there are simultaneous sellout events at multiple venues. This section of the report considers event parking demand for the new arena and convention center, as well as the parking supply that is located within a reasonable walking distance to both event venues.

WALKING DISTANCE

As a whole, the parking supply may be sufficient, but if the available parking supply is located too far from a destination, users will not accept it, resulting in frustration and complaints.

The “acceptable” walking distance will vary based on the user, event, and time of year. For example, attendees of a black tie event will be much less likely to be willing to walk more than a block or two, where as attendees to a sellout rock concert may be more willing to walk a few blocks to attend an event. In addition to the user group, several factors influence acceptable walking distance. These influences include the following:

- Climate
- Perceived security
- Signage
- Lighting
- Walking environment
- Terrain

To aid in estimating the appropriate walking distance, Walker utilizes a Level of Service (“LOS”) rating system for evaluating appropriate walking distances based on specific criteria. LOS “A” is considered the best or ideal, LOS “B” is good, LOS “C” is average, and LOS “D” is below average but minimally acceptable. A break down of the LOS conditions is provided in Table 33. Because a majority of the walking for this study area is outdoors, through a surface lot, that category is highlighted for easy reference.

EVENT PARKING CONSIDERATIONS

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Table 33: Level of Service Conditions

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

Source: "How Far Should Parkers Have to Walk?" by Mary S. Smith and Thomas A. Butcher, *Parking* September 1994

We recommend the City identify and communicate the parking options to the public in a variety of ways, including a website, maps, event signage, and event staffing. Where parking is tight, providing free or discounted parking to event staff may make sense, provided that such parking is located in LOS D areas. This approach leaves the best parking available to the public.

As we consider the available parking for the arena and convention center, we quantify the parking in terms of LOS A/B, C, and D. We also provide maps depicting the general area for each venue.

ARENA EVENT PARKING

A major change to the area will be the completion of the new arena in downtown. Parking demand is predicated on the attendance of each event. Our study considers three sizes of events – small, medium, and large, with the assumption of 3.0 average persons per vehicle. Using this assumption, Table 34 shows the estimated parking demand by event classification.

Table 34: Arena Event Parking Demand

Event Classification	Attendance	Persons Per Vehicle	Parking Demand
Small	4,000	3.0	1,334
Medium	8,000	3.0	2,667
Large	15,000	3.0	5,000

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Large events of 15,000 represent a sellout at the arena. Based on historical attendance figures from the Kansas Coliseum, these events are most often concerts, but may include some NCAA basketball games or other unique high profile sporting event. A sellout event is not anticipated to be the norm; rather a medium sized event, or around the 8,000 attendance level, is the most likely typical sized arena crowd.

ARENA EVENT AVAILABLE PARKING SUPPLY

Available parking around the new Arena will no doubt change between now and the projected opening, in the fall of 2009. To account for this change, we provide an opening day picture of what the parking supply may look like, assuming limited areas of growth around the Arena. We follow this up with our 5, 10, and 20 year projections assuming the redevelopment proceeds in the area according to the various development scenarios. To determine the available parking supply, we took the total parking, subtracted the "private" parking or parking that could not be determined as available for event parking, subtracted the cushion or effective parking supply factor for the remaining spaces, and, subtracted the spaces that were in use. The remaining spaces were considered "available" for parking.

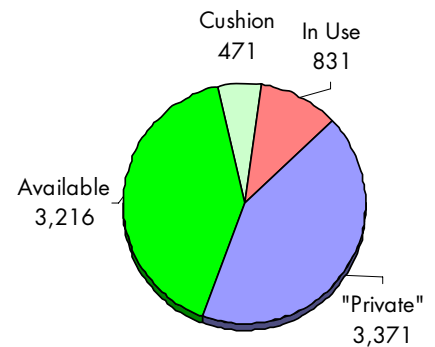
The available parking supply, broken down by walking distance LOS and time period of event, is provided in Table 35. LOS A & B are counted together, as the sheer size of the arena limits most LOS A parking. LOS C and D parking are shown separately, as is the remote parking capacity.

Table 35: Available Arena Parking Supply

Type of Parking	Weekday Day	Weekend &
	Parking	Evening
	Availability	Parking
		Availability
LOS A & B	824	1,179
LOS C	614	918
LOS D	601	1,119
Walking Total:	2,039	3,216
Remote Parking	1,319	1,319
Grand Total:	3,358	4,535

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Arena Parking Supply



Available parking is based only on those spaces deemed to be open for public event parking, less existing parking demand, and the effective parking supply cushion.

This figure represents weekend/ evening parking conditions.

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The remote parking capacity is based on using parking at the baseball stadium, ice rink, and Exploration Place as outlined in Table 36.

Table 36: Remote Parking Supply

Block	Name	Inventory	Assumed Available
5	Wichita Ice Center	296	240
14	Baseball Stadium	827	722
14	Metropolitan Baptist Church	200	121
44	Discovery Place	480	236
Totals		1,803	1,319

Walker Parking Consultants

The map in Figure 21 shows the arena walking distance LOS areas. The area highlighted in yellow indicates the blocks where available parking supply is counted. A few blocks in LOS D walking distances were not considered due to their location and surrounding area.

The available supply counts only those parking facilities that are either currently open to the public or have been identified as being receptive to providing their parking facility for event parking. We also adjusted the available supply to reflect the effective supply cushion and subtracted the existing parking demand from the supply.

It is safe to assume that additional parking areas will be available to the public during peak events as private lot owners see both a need and an opportunity to generate a profit during events.

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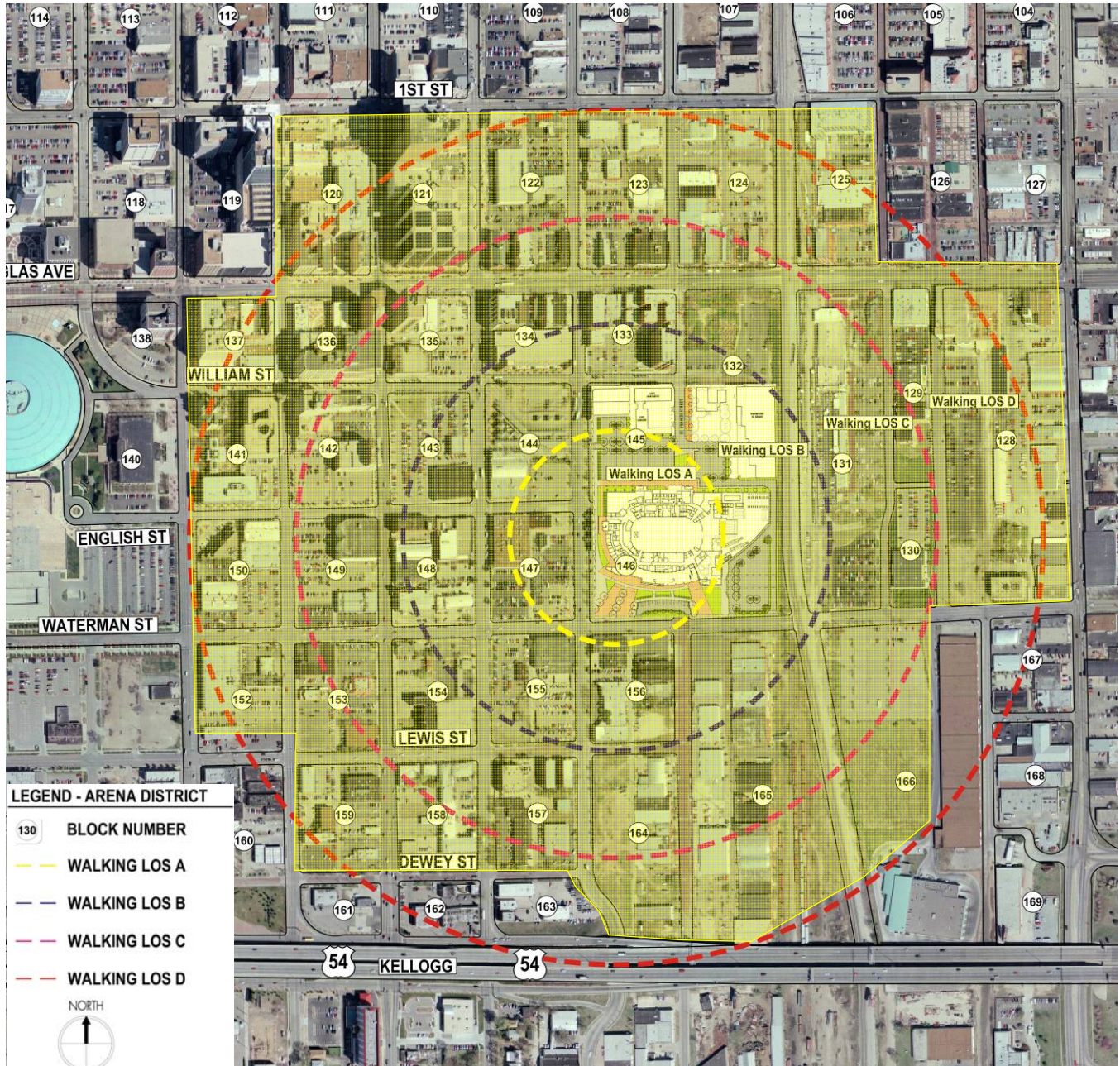


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Figure 21: Arena Walking Distance Map



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This map was used to identify parking within each of the LOS bands. It is generally centered on the assumed main entrance of the arena.

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ARENA PARKING ADEQUACY

The adequacy of event parking for the arena is determined by subtracting the projected demand from the available supply. Table 37 shows the parking adequacy of the system using only the parking located within LOS A - D walking distance of the arena.

Table 37: Arena Event Parking Adequacy – Walking Only

Event Size	Weekday Daytime Event	Weekend and Evening Event
Small	705	1,882
Medium	(628)	549
Large	(2,961)	(1,784)

Walker Parking Consultants

Table 38 shows the parking adequacy using the nearby remote parking previously identified.

Table 38: Arena Event Parking Adequacy - With Remote Parking

Event Size	Weekday Daytime Event	Weekend and Evening Event
Small	2,024	3,201
Medium	691	1,868
Large	(1,642)	(465)

Walker Parking Consultants

It is our opinion that a majority of events will occur during either an evening or weekend. Although parking is limited during a weekday day period, we assume that only a limited number of events will occur during this period. This leaves a typical sellout crowd short about 465 parking spaces. When this occurs, we suggest a combination of the effective supply cushion, increasing the walking distance, and the free market be used to meet the parking needs as opposed to building parking for just a few times per year.

Table 39 and Table 40 show the parking areas needed to meet the demand for each time period and event size. The check marks indicate the parking is needed; the dash indicates parking is not needed; and the surplus/(deficit) indicates the number of spaces remaining (or lacking).

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Table 39: Weekday Parking Supply/Demand

	LOS A&B	LOS C	LOS D	Remote Parking	Surplus/ (Deficit)
Small	✓	✓	-	-	2,024
Medium	✓	✓	✓	✓	691
Large	✓	✓	✓	✓	(1,642)

- ✓ = Will require this parking supply
- = Parking supply not needed

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Even with nearby remote parking operating to capacity, a large event during weekday business hours will cause a shortage of over 1,600 spaces. The good news is that this scenario occurs only on rare occasions. The type of event that causes this weekday daytime demand is a special business seminar, such as Zig Ziglar's *Get Motivated Success Seminar*, or NCAA basketball playoff game.

Table 40: Weekend Parking Supply/Demand

	LOS A&B	LOS C	LOS D	Remote Parking	Surplus/ (Deficit)
Small	✓	✓	-	-	3,201
Medium	✓	✓	✓	-	1,868
Large	✓	✓	✓	✓	(465)

- ✓ = Will require this parking supply
- = Parking supply not needed

Walker Parking Consultants

PRIVATE PARKING POTENTIAL

Many parking lots listed as not available for event parking may in fact become available in the future as individual entrepreneurs seize the opportunity to generate a profit by selling parking during events. Many times the private lot will be used without permission, so even if the owner has not committed to selling event parking, their lot will be used, and the parking demand will be satisfied.

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Over 2,000 spaces are located within walking distance of the arena site that have not been not counted as available to the public for event parking. Assuming only 15 percent of these spaces are made available by entrepreneurs, an additional 338 parking spaces could be added toward meeting the parking demand, as shown in Table 41. Raise this to 30 percent, and you have over 600 spaces added to a weekend/evening event period.

Table 41: Private Parking Potential

Walking Distance LOS	Not Available for Events (Weekend/Evenings)	If 15% Allow Special Event Parking
LOS A & B	391	59
LOS C	710	107
LOS D	1,144	172
Total Spaces:	2,245	338

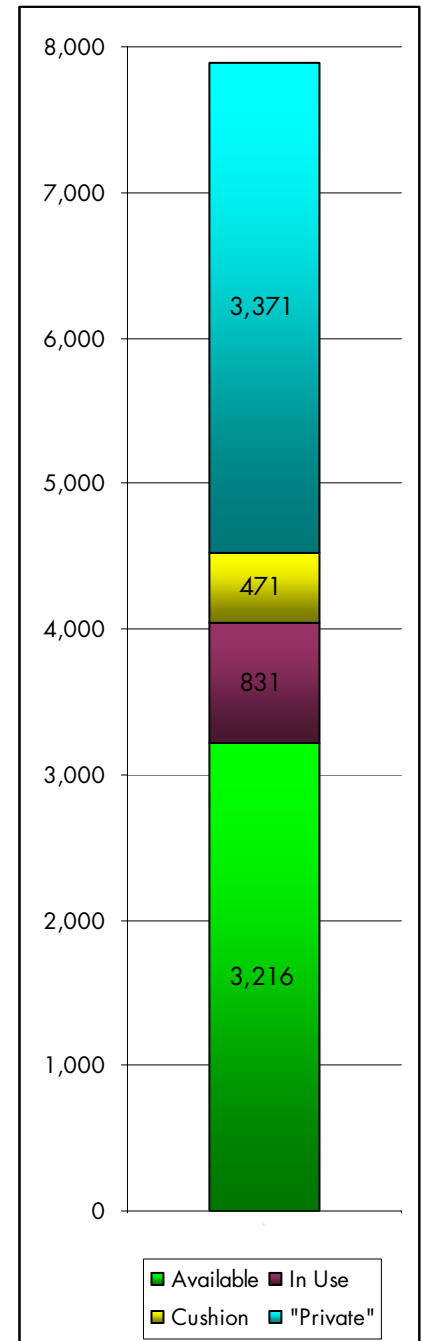
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An appointed City parking representative can initiate contact with many of the private lot owners that are not designated as being available for event parking. The City could make arrangements to lease the space directly from the owner for event parking, or provide a list of potential operators for the owner to contact.

FREQUENCY OF EVENTS

A key factor in evaluating parking conditions for the new arena is considering the frequency at which events are projected to occur. A review of historical events at the Kansas Coliseum, adjusted to reflect the interest of a larger new arena, was used as a guide in preparing our opinion of event frequency shown in Table 42. In addition, we consulted the ULI, *Developing Sports, Convention, and Performing Arts Centers*, Third Edition.

Weekend/Evening Parking Supply



During peak events a portion of the cushion will be used and a portion of the private spaces will be sold for public parking.

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Table 42: Opinion of Event Frequency

Event	Average Attendance	Persons Per Vehicle ¹	Parking Demand	Events Per Year
Concerts				
-Sellout	15,000 ÷	3.0 =	5,000	12
-Middle of the Road	8,000 ÷	3.0 =	2,667	8
-Other	4,000 ÷	3.0 =	1,333	6
Sporting				
-College Basketball	15,000 ÷	3.0 =	5,000	3
-H.S. Sports	8,000 ÷	3.0 =	2,667	4
-Hockey	8,000 ÷	3.0 =	2,667	28
-Wrestling	8,000 ÷	3.0 =	2,667	4
-Other	4,000 ÷	3.0 =	1,333	38
Family Shows				
-Ice Skating	8,000 ÷	3.0 =	2,667	14
-Circus	8,000 ÷	3.0 =	2,667	8
-Other	4,000 ÷	3.0 =	1,333	50

175

Assumptions Attendance rounded to small, medium, large
 Seats 15,000

¹ ULI - *Developing Sports, Convention, and Performing Arts Centers*, Third Edition

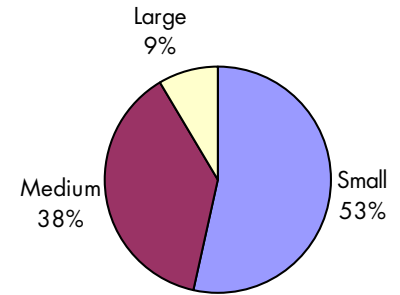
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Data supports the opinion that large events will occur only about 15 times per year, compared with medium events, projected to occur about 66 times, and small events, projected to occur about 94 times.

FUTURE ARENA PARKING CONDITIONS

The available parking supply around the arena will change over the next 5, 10, and 20 years, assuming redevelopment proceeds as outlined in the WDDC and Arena Neighborhood Development Plan. Redevelopment is projected to occur on open areas such as surface parking lots. To project the changes to the parking supply, we consulted the various development plans and made assumptions on when the blocks would be developed over the next 20 years. For planning purposes, we show the impact of displaced parking spaces only and do not include any new parking. This shows how much the redevelopment around the Arena impacts the available parking supply for event parking.

Frequency of Events



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Table 43 shows how the displaced parking impacts the adequacy of the parking supply over the next 20 years. This includes only the parking that is available within LOS A – D walking distance. Green indicates parking is adequate for event parking and red indicates parking will require remote parking or the use of private parking around the Arena. Also shown is the estimated number of times parking is projected to require additional resources.

Table 43: Future Arena Parking Adequacy

5 Year

	Arena Event Size		
	Small	Medium	Large
<i>Weekend/Evening</i>	1,465	132	(2,201)
<i>Frequency</i>	86	62	14
<i>Weekday/Day</i>	514	(819)	(3,152)
<i>Frequency</i>	8	4	1

Events with adequate parking: 156
 Events with deficit parking: 19

10 Year

	Arena Event Size		
	Small	Medium	Large
<i>Weekend/Evening</i>	1,116	(217)	(2,665)
<i>Frequency</i>	86	62	14
<i>Weekday/Day</i>	330	(1,003)	(3,336)
<i>Frequency</i>	8	4	1

Events with adequate parking: 94
 Events with deficit parking: 81

20 Year

	Arena Event Size		
	Small	Medium	Large
<i>Weekend/Evening</i>	1,001	(217)	(2,665)
<i>Frequency</i>	86	62	14
<i>Weekday/Day</i>	299	(1,034)	(3,367)
<i>Frequency</i>	8	4	1

Events with adequate parking: 94
 Events with deficit parking: 81

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Based on the assumptions, the frequency that parking will be short for event parking will increase from about 19 times per year to around 80 times per year within ten years.

As redevelopment occurs around the Arena, displaced public parking should be replaced and additional parking should be added to meet the demand generated by the new development. As projects are considered, we recommend completing a shared parking analysis to determine the appropriate number of parking spaces. This can be required by the City planning department before new developments are approved.



CENTURY II EVENT PARKING

Events at Century II vary widely in both type and attendance. In recent years, parking has been displaced with the addition of WaterWalk to the south. There is concern that during events at the Arena, parking will be further restricted in the area and result in a shortage of parking.

The available parking supply for the Century II is shown in Table 44.

Table 44: Century II Parking Supply

Walking Distance LOS	Supply	Effective Supply	Available Weekday	Available Weekend/ Evening
LOS A&B	2,184	1,999	855	1,089
LOS C	374	333	184	277
LOS D	964	864	419	760
Total Parking	3,522	3,196	1,458	2,126

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Figure 22 depicts the LOS walking distance for Century II. We did not consider the area across the Arkansas River or the WaterWalk area, and we limited counting the supply to the east. Only those blocks highlighted yellow contain available parking counted toward the Century II demand.

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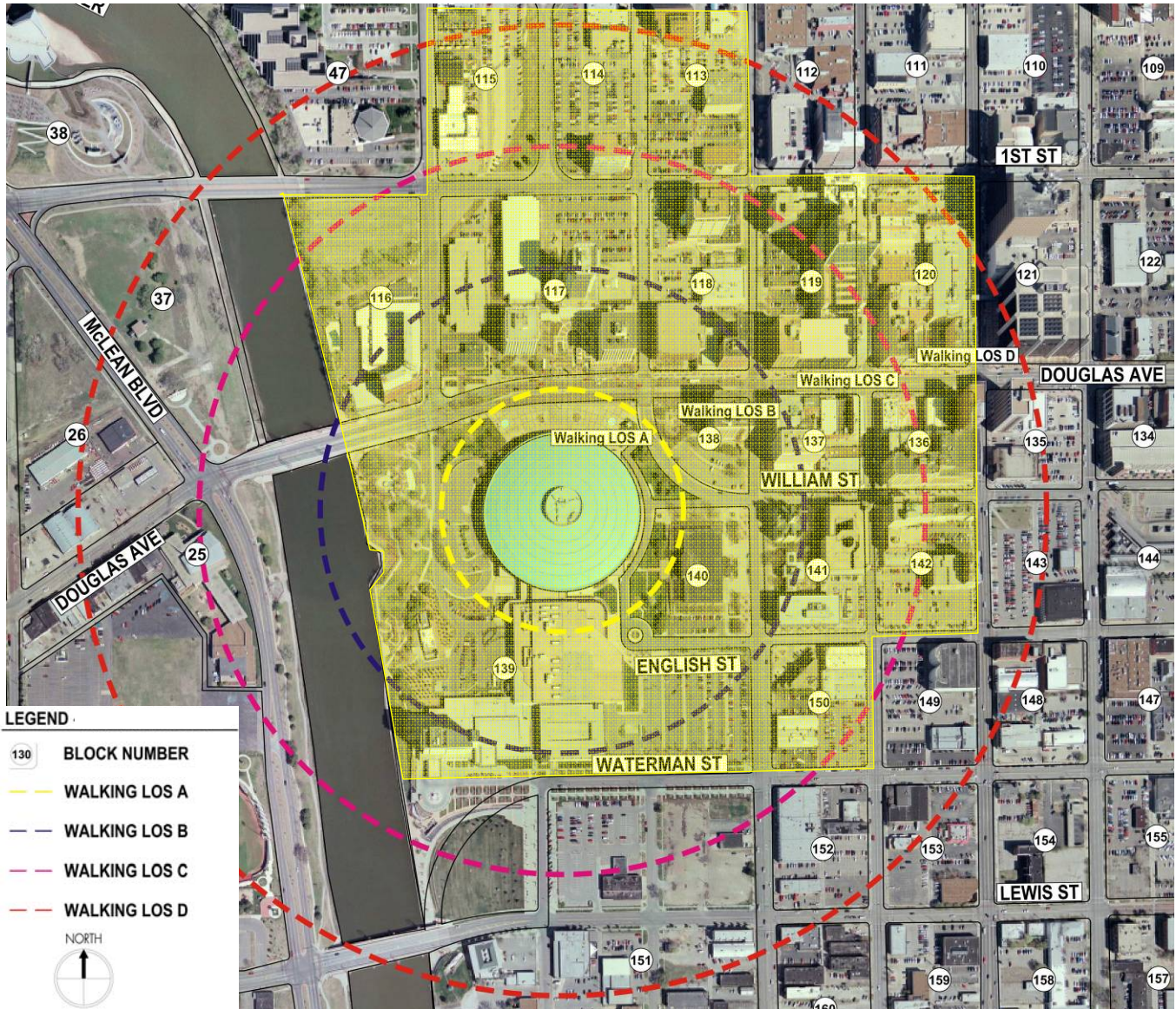


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Figure 22: LOS Walking Distance Map for Century II



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Parking demand at Century II is dependent upon the event and configuration of the space. As shown in Table 45, parking demand varies based on the type of activity and the configuration of the space.

Table 45: Parking Demand by Space Configuration

Building Space	SF/Seats	SF/GLA	Potential Demand
Bob Brown Expo Hall	93,000	85,560	513
Carl Bell Convention Hall	5,012		2,005
Concert Hall	2,178		871
Exhibition Hall	45,000	41,400	248
Mary Jane Teall Theater	646		258
Meeting Rooms	19,420	17,866	107
Combined Exhibition Space	195,000	179,400	1,076

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For planning purposes, we consider two types of events. The largest is a full Carl Bell Convention Hall with parking demand estimated at about 2,000 spaces. The second is a combined exhibition space and full meeting room space with parking demand estimated at about 1,200 spaces. For clarification, we have named the two scenarios large and Medium. Table 46 shows the current parking adequacy using the available supply for weekday day and weekend/evening times for large and medium events.

Table 46: Century II Parking Adequacy

Walking Distance LOS	Available		Available	
	Available Weekday	Weekend/Evening	Available Weekday	Weekend/Evening
LOS A&B	855	1,089	855	1,089
LOS C	184	277	184	277
LOS D	419	760	419	760
Total Parking	1,458	2,126	1,458	2,126
Demand - Large	2,000	2,000		
Demand - Medium			1,200	1,200
Surplus/(Deficit)	(542)	126	258	926

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SIMULTANEOUS EVENTS AT ARENA AND CENTURY II

A key consideration for this study effort is the impact of simultaneous events at both the Arena and Century II. The proximity of the two venues creates an area of overlapping parking supply that both venues may need, especially during peak events.

The overlapping area includes 466 available spaces during a weekday daytime period and 1,082 available spaces during a weekend or evening period. For planning purposes, we have calculated the impact of a large event at Century II and a small, medium, and large event at the arena for a weekday day time period. The data in Table 47 shows sufficient parking for a simultaneous small arena event and a large Century II event, with remote parking required. The data also indicates parking is insufficient during a medium and large arena event and a large Century II event, even with local remote parking made available, but this scenario is only expected to happen about once a year.

Table 47: Impact of Simultaneous Large Weekday Events at the Arena and Century II

Weekday Day	Arena Event Size		
	Small	Medium	Large
<i>Demand</i>			
Arena	1,334	2,667	5,000
Century II - Large	2,000	2,000	2,000
Total Demand	3,334	4,667	7,000
<i>Available Supply</i>			
Arena	2,039	2,039	2,039
Century II	1,458	1,458	1,458
Less Shared	466	466	466
Actual Supply	3,031	3,031	3,031
<i>Adequacy</i>			
Surplus/ (Deficit)	(303)	(1,636)	(3,969)
Less Remote	303	1,319	1,319
Parking Shortage	0	(317)	(2,650)
<i>Frequency</i>	2	1	0

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Our opinion, based on historical attendance at the Kansas Coliseum and ULI data, is that simultaneous large events during weekday business hours will be rare.

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Table 48 shows the impact of simultaneous large events at the Arena and Century II during a weekend or evening. By using nearby remote parking opportunities, all but a large arena event have adequate parking.

Table 48: Impact of Simultaneous Large Weekend/Evening Events at the Arena and Century II

Weekend/ Evening	Arena Event Size		
	Small	Medium	Large
<i>Demand</i>			
Arena	1,334	2,667	5,000
Century II - Large	2,000	2,000	2,000
Total Demand	3,334	4,667	7,000
<i>Available Supply</i>			
Arena	3,216	3,216	3,216
Century II	2,126	2,126	2,126
Less Shared	1,082	1,082	1,082
Actual Supply	4,260	4,260	4,260
<i>Adequacy</i>			
Surplus/ (Deficit)	926	(407)	(2,740)
Less Remote	n/a	407	1,319
Parking Shortage	0	0	(1,421)
<i>Frequency</i>	10	8	2

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The frequency of simultaneous large events is higher than daytime weekday periods, but the worst case scenario is still only projected to occur about twice a year.

Table 49 and Table 50 show the impact of a medium Century II event and small, medium, and large arena events. Only large arena events are projected to create a shortage of parking during simultaneous medium Century II events.

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Table 49: Impact of Simultaneous Medium Weekday Events at the Arena and Century II

Weekday Day	Arena Event Size		
	Small	Medium	Large
<i>Demand</i>			
Arena	1,334	2,667	5,000
Century II - Medium	1,200	1,200	1,200
Total Demand	2,534	3,867	6,200
<i>Available Supply</i>			
Arena	2,039	2,039	2,039
Century II	1,458	1,458	1,458
Less Shared	466	466	466
Actual Supply	3,031	3,031	3,031
<i>Adequacy</i>			
Surplus/ (Deficit)	497	(836)	(3,169)
Less Remote	n/a	836	1,319
Parking Shortage	0	0	(1,850)
<i>Frequency</i>			
	3	1	1

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Table 50: Impact of Simultaneous Medium Weekend/Evening Events at the Arena and Century II

Weekend/ Evening	Arena Event Size		
	Small	Medium	Large
<i>Demand</i>			
Arena	1,334	2,667	5,000
Century II - Medium	1,200	1,200	1,200
Total Demand	2,534	3,867	6,200
<i>Available Supply</i>			
Arena	3,216	3,216	3,216
Century II	2,126	2,126	2,126
Less Shared	1,082	1,082	1,082
Actual Supply	4,260	4,260	4,260
<i>Adequacy</i>			
Surplus/ (Deficit)	1,726	393	(1,940)
Less Remote	n/a	n/a	1,319
Parking Shortage	0	0	(621)
<i>Frequency</i>			
	45	40	4

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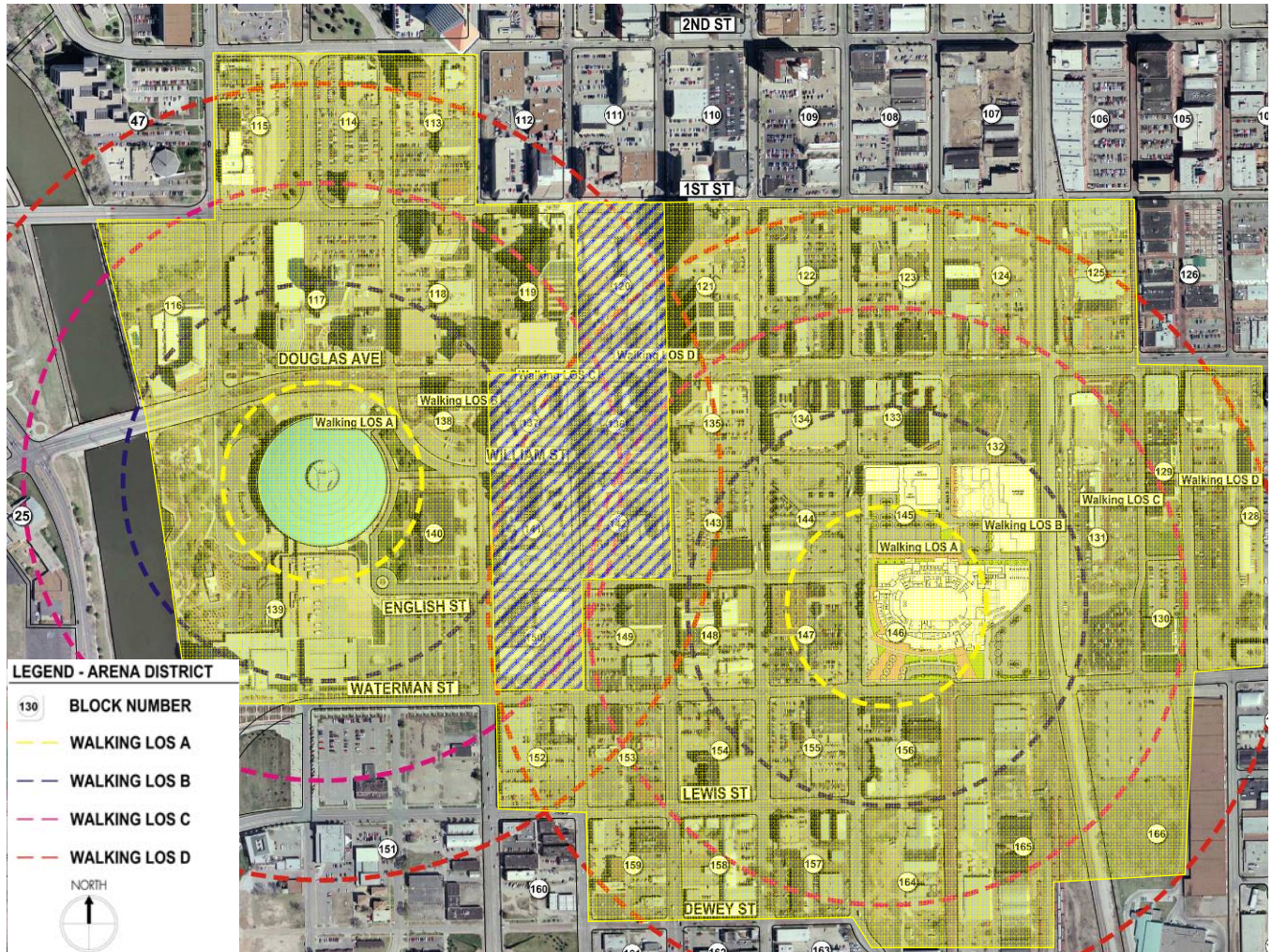


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Figure 23 shows how the Century II and Arena overlap potential parking supplies. The checkered area includes parking supply that overlaps the two event venues.

Figure 23: Arena and Century II LOS Walking Distances



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SUMMARY OF EVENT IMPACT

Considering stand alone arena events and simultaneous events with Century II, about 29 events require remote parking with shuttle operations. When the effective parking supply cushion is included, this drops to 19 instances that require shuttles. Events requiring remote parking with shuttle, drops to four times per year when the cushion and the available private supply is included in the walking distance supply. Figure 24 shows the adequacy and frequency for each event scenario. The supply is based on only the known available public supply within a reasonable walking distance.

Figure 24: Adequacy of Simultaneous Events

Century II Event	Arena Event Size		
	Small	Medium	Large
<i>Weekend/Evening</i>			
No Event	1,882	549	(1,784)
Frequency	31	14	8
Medium	1,726	393	(1,940)
Frequency	45	40	4
Large	926	(407)	(2,740)
Frequency	10	8	2
Events	86	62	14
<i>Weekday/Day</i>			
No Event	705	(628)	n/a
Frequency	3	2	0
Medium	497	(836)	(3,169)
Frequency	3	1	1
Large	(303)	(1,636)	n/a
Frequency	2	1	0
Events	8	4	1

Considering available parking within walking distance:

Events with adequate parking:	146
Events requiring remote shuttle:	29
Less Cushion	19
Less Cushion and Private	4

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CONCLUSION

Considering only the known public parking spaces available for event parking within a reasonable walking distance, remote shuttle parking is required 29 times per year. A more likely scenario is the use of the effective parking supply cushion and a portion of the more than 2,000 vacant private spaces within walking distance of the arena. We believe the combined use of the cushion and private spaces will eliminate the requirement to provide remote parking with shuttle service for all but a handful of large arena events.

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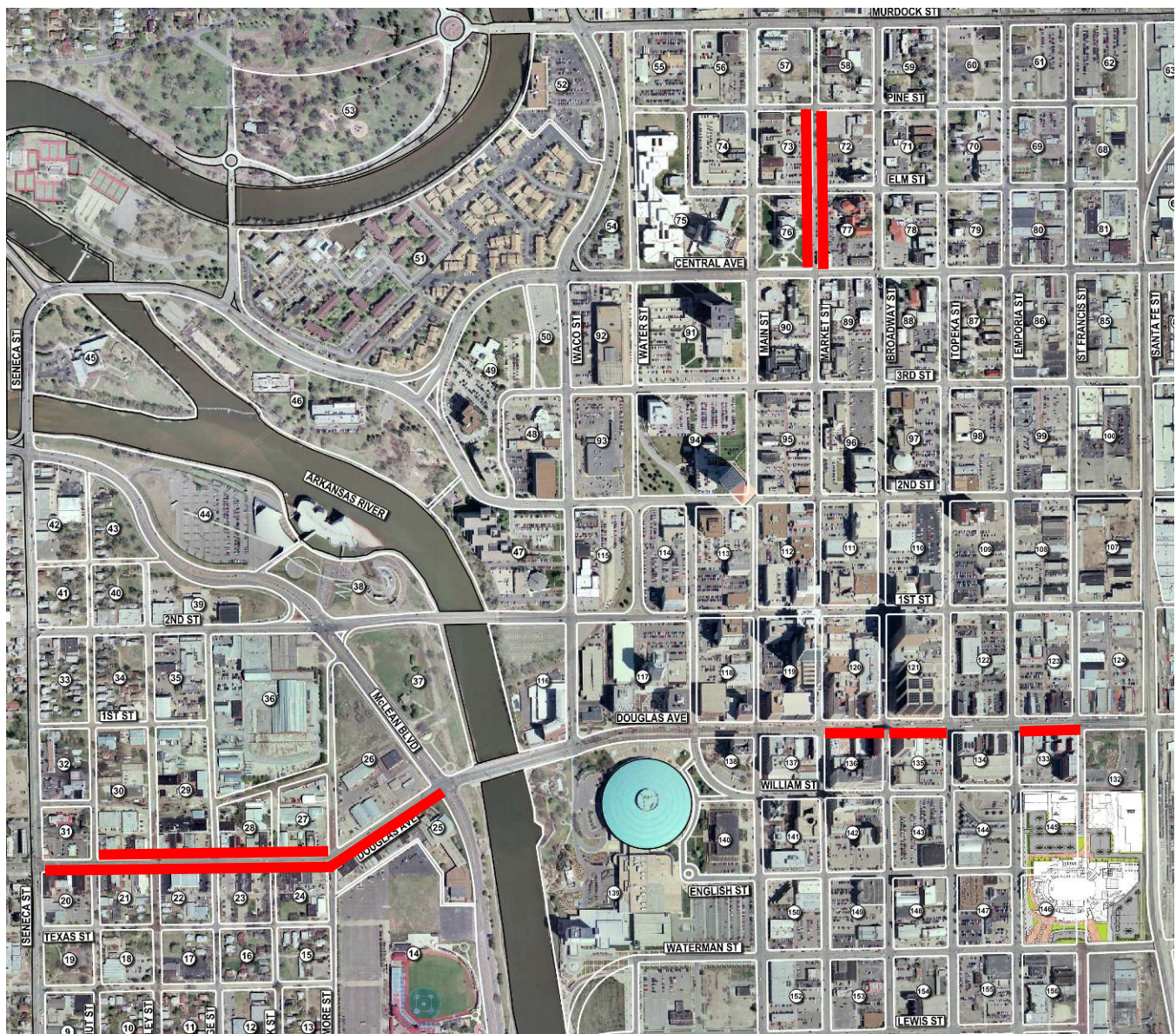
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LICENSE PLATE SURVEY

Walker was tasked with conducting a license plate survey for up to 12 block faces. Figure 25 identifies 17 block faces that were surveyed for this effort, which included most of Delano, a portion along Douglas Avenue, and an area adjacent to the Government District.

Figure 25: LPI Areas



Source: Walker Parking Consultants

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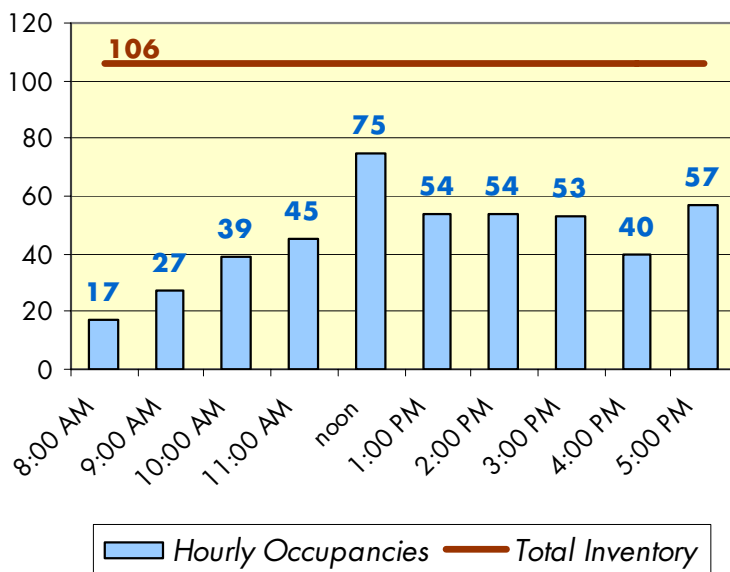
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DELANO

Ten block faces along the north and south sides of Douglas Avenue were surveyed from 8:00 a.m. to 5:00 p.m. on Wednesday, March 14, 2007. This area features angled street parking with no parking restrictions or fees for parking. Figure 26 shows that the peak parking occupancy occurred during the noon hour, with 75 out of 106 spaces being occupied.

Figure 26: Delano Parking Occupancy



Source: Walker Parking Consultants

Peak occupancy was observed around local restaurants in the area with a 71 percent occupancy rate.

Table 51, on the next page, details the peak occupancy by block. Four out of ten block faces experienced parking above 85 percent, which is the optimal parking utilization rate for on-street parking.

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Table 51: Occupancy by Block Face

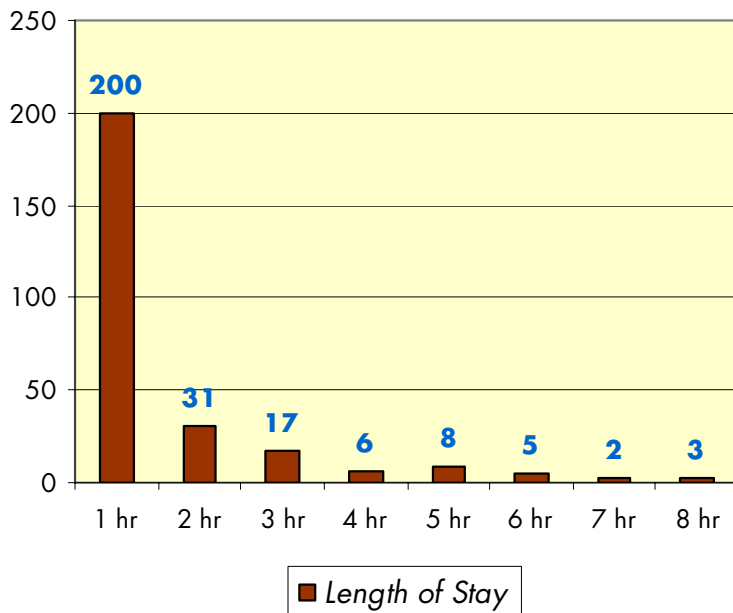
Street:	Side:	From:	To:	Total Inventory	Occupancy noon	% Occupied (at peak)
Douglas	South	Seneca	Walnut	13	12	92%
Douglas	South	Walnut	Handley	10	9	90%
Douglas	South	Handley	Osage	12	5	42%
Douglas	South	Osage	Oak	8	7	88%
Douglas	South	Oak	Sycamore	11	9	82%
Douglas	North	Sycamore	Oak	7	4	57%
Douglas	North	Oak	Osage	11	11	100%
Douglas	North	Osage	Handley	9	0	0%
Douglas	North	Handley	Walnut	10	7	70%
Douglas	North	Sycamore	McLean Rd	15	11	73%

Total Occupancies	106	75	71%
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Source: Walker Parking Consultants

Figure 27 shows that most vehicles parked for one hour or less in the Delano District.

Figure 27: Delano Length of Stay



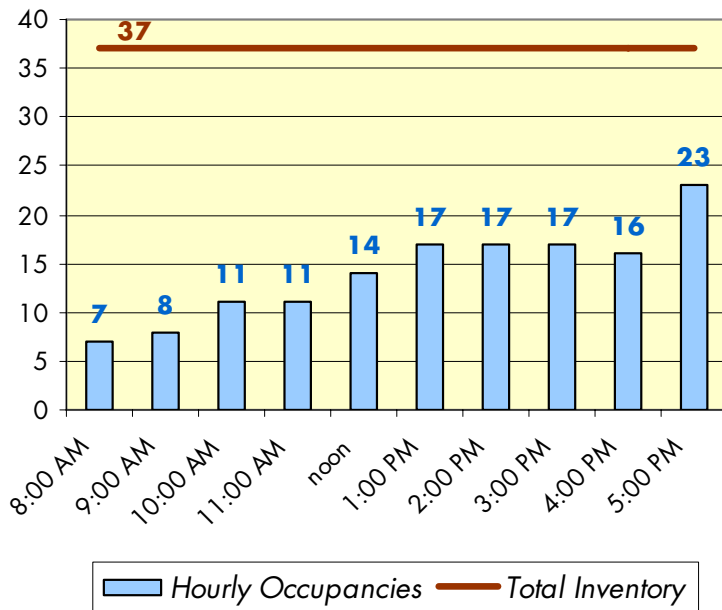
Source: Walker Parking Consultants

Figure 27 also suggests that imposing and enforcing a two hour time limit has the potential to free up about 40 spaces assuming everyone obeys the time-limit. We are not recommending a time-limit at this time, only interpreting the data.

DOUGLAS AVENUE

Douglas Avenue is one of the main gateways to the downtown core. On-street parking is mostly parallel, with one block face lined for angled parking. Parking is free along Douglas, but signed and enforced for 1 or 2 hours of parking depending on the block face. Figure 28 shows occupancy levels fairly low throughout the day with the peak occupancy observed at the end of the day. This trend is likely due to the relaxing of restrictions in the evening and nearby residential units.

Figure 28: Douglas Street Parking Occupancy



Source: Walker Parking Consultants

During our survey we did observe enforcement officers collecting data to monitor the length of stay along Douglas Street. Table 52 on the following page shows the peak occupancy for each block face during the peak hour. No areas had occupancy levels exceeding 78 percent.

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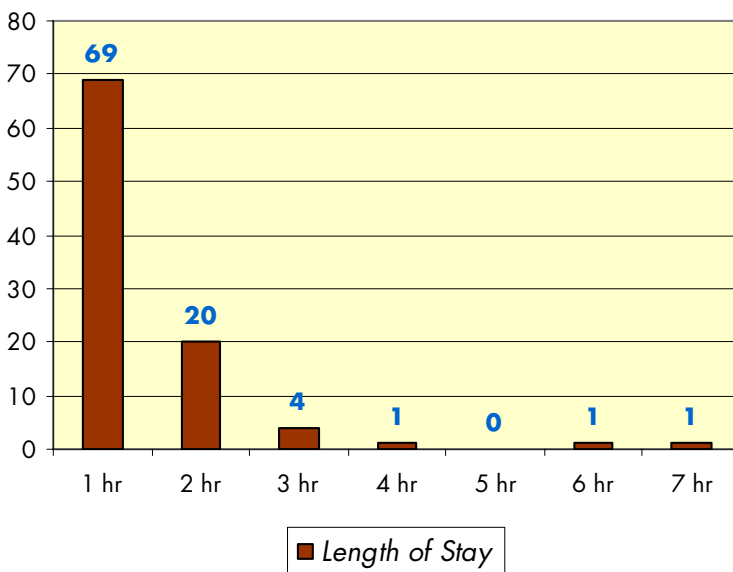
Table 52: Douglas Street Occupancy Details

Street:	Side:	From:	To:	Total Inventory	Peak Hour 5:00 PM	% Occupied (at peak)
Douglas	South	Market	Broadway	9	7	78%
Douglas	South	Broadway	Topeka	8	4	50%
Douglas	South	Emporia	St. Francis	20	12	60%
Total Occupancies				37	23	62%

Source: Walker Parking Consultants

Figure 29 shows that for the most part, vehicles were parked according to the posted time limits. Only three vehicles were observed as exceeding the posted time limits.

Figure 29: Douglas Street Length of Stay



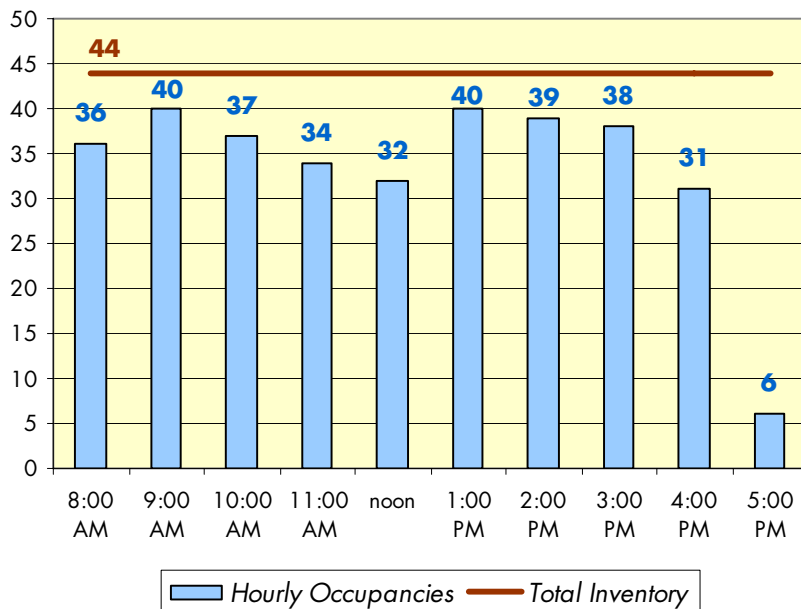
Source: Walker Parking Consultants



GOVERNMENT DISTRICT (MARKET STREET)

The area adjacent to the Government district along Market Street, just north of Central Avenue, was selected for its high occupancy and proximity to the government buildings. Parking was metered with 2 hour and 5 hours limits on two block faces, and had no restrictions on the remaining block faces. Figure 30 provides the hourly parking occupancy. Overall occupancy levels remained high throughout the day until the last count at 5:00 p.m., when occupancy levels dropped to only six vehicles.

Figure 30: Market Street Parking Occupancy



Source: Walker Parking Consultants

Table 53 shows the peak parking occupancy for each block face. The five hour metered spaces along Market and the unrestricted spaces had the highest recorded occupancy levels. Overall the peak occupancy occurred at 9:00 a.m. and 1:00 p.m. with 40 out of 44 spaces being occupied.

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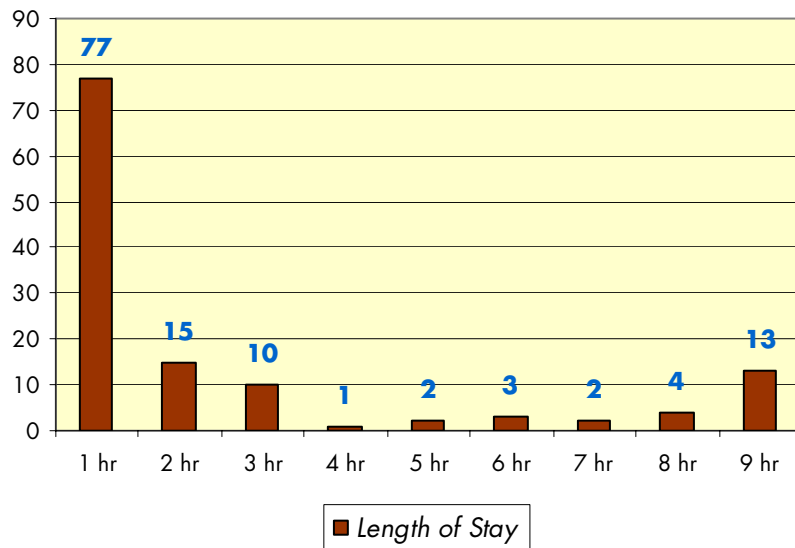
Table 53: Market Street Occupancy Details

Street:	Side:	From:	To:	Total Inventory	Peak Hour 9:00 AM	% Occupied (at peak)
Market	East	Central	Elm	14	14	100%
Market	West	Elm	Pine	8	8	100%
Market	West	Central	Elm	10	7	70%
Market	East	Elm	Pine	12	11	92%
Total Occupancies				44	40	91%

Source: Walker Parking Consultants

Figure 31 shows the average length of stay for the four blocks. We noted that for the most part, motorists followed the posted regulations.

Figure 31: Market Street Length of Stay



Source: Walker Parking Consultants



SECTION III

ALTERNATIVES ANALYSIS



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ALTERNATIVES ANALYSIS

This section of the report provides various alternatives for improving the usage of the existing parking supply, as well as options for increasing the supply through expanding existing facilities, reconfiguring on-street parking, and through new construction of both surface and structured parking. The alternatives provided cover a broad range of options and best practices for supplying, managing, and marketing the City's parking supply. Transit alternatives and recommendations are only briefly discussed in the section, as they are covered in detail in the next section, "Transit Assessment".

The following Scope of Services sets forth the goals and objectives of the Alternatives Analysis section of the report.

Our analysis of the parking supply and demand found that overall parking is adequate. Future development scenarios indicate the focal point of increasing parking need is the area around the new Arena. This demand is not so much due to the Arena, but rather, the redevelopment that is outlined in the Arena Neighborhood Development Plan. Considering just the impact of the Arena, parking is adequate for all but about 20 events or so per year. The high cost of structured parking, which is covered later in this section, is simply too high to justify building a parking structure to be used so few times per year. It makes much more sense to facilitate remote parking options and encourage the free market to provide parking.

Redevelopment around the Arena changes this condition, as outlined in the Arena Neighborhood Development Plan. Existing parking will be displaced as surface lots are transformed to commercial, office, and residential space. As this redevelopment occurs, parking will become an increasing issue for the area surrounding the arena site if it is not addressed. Other areas as well, such as North Old Town and WaterWalk, will need new parking if development proceeds as outlined in their development plans.

INCREASING THE PARKING SUPPLY

When we add the potential parking demand from redevelopment around the arena site, we can begin to see the need for parking during daytime hours. The Arena Neighborhood Redevelopment Plan identified a few key "catalyst" blocks for redevelopment around the new Arena. The added parking demand from redevelopment is constant in nature and helps to justify the addition of structured parking. With the right mix of land uses, the new parking can be shared for event patrons. In addition to structured parking, we looked for areas

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that could be developed into surface parking. The cost of surface parking is much lower when compared to structured parking (\$2,000 - \$3,500 per space), and can be used as a temporary land use until redevelopment opportunities come to fruition.

The number of parking spaces to add is a function of what the new development brings to the area and how much public parking is displaced. Surface parking is set by the dimensions of the site, while structured parking is set by the site and height restrictions. The potential sites we considered vary from three to five levels, and from 535 to 645 spaces.

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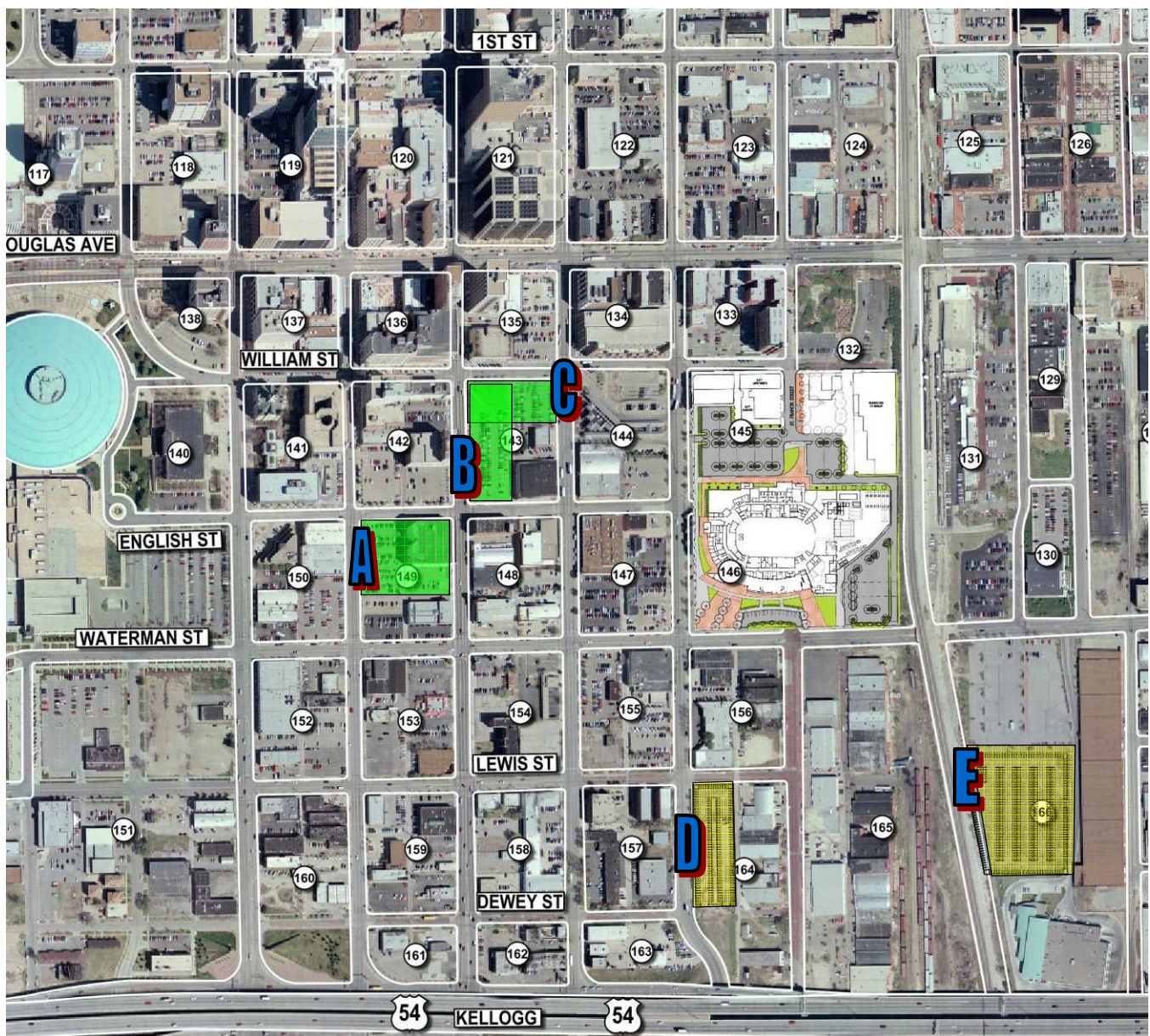


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A small structure built on a small site costs much more per space when compared to a mid-sized structure built on a large site with minimal restrictions. Figure 32 provides potential locations for a parking facility. The green areas represent potential parking structure sites and the yellow areas show potential surface parking sites. The garage sites are located to maximize use between the arena, convention center, and WaterWalk. The surface lot locations are located more toward the arena site and offer limited use beyond event parking, and can be used for parking on a temporary basis, until developed.

Figure 32: Conceptual Added Parking Options



Source: Walker Parking Consultants

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A parking garage located in this core area could easily have commercial space built at grade, which is in line with the Arena Neighborhood Plan. We made a conscious decision to limit the potential parking structures north of Waterman Street and south of Douglas Avenue. The logic behind this choice is to keep parking centrally located between the two largest event generators. Parking in this core area may also help spur redevelopment by allowing event parkers a block or two to walk past restaurants, bars, or retail space.

SITE ASSUMPTIONS

The following provides a description of each site and our assumptions. These options are conceptual in nature. Site dimensions are based on drawings and require field verification.

Site A: Parking structure on the site of block 149. This site offers a footprint of 300' x 250'. Based on this footprint, 215 spaces per typical level can be constructed, assuming 350' square feet per space. A three level structure with 645 spaces actually nets only 434 additional spaces due to the displaced surface spaces. At this time, the site contains a non-functioning parking structure (vehicles only park on the ground floor), and surface parking areas. The site offers central access to the arena, convention center, and WaterWalk.

Site B: Parking structure on site of State Employee surface parking lot, block 143 orientated north-south. Dimensions for this site are 396' x 125'. The typical level has 141 spaces assuming 350' square feet per space with two bays. A four level parking structure with 564 spaces adds an estimated 397 spaces to the inventory due to the displaced surface parking spaces. The current use is surface parking for State Employees. This site is located centrally, between the arena and convention center. A benefit to this site is that the land is owned by the City and is identified as a catalyst block for development in the Arena Neighborhood Plan.

Site C: Parking structure on site of State Employee surface parking lot, block 143 orientated east - west. Dimensions for this site are 300' x 125', with 107 spaces per typical level, assuming 350' square feet per space. A five level, 535 space parking structure adds 453 spaces to the supply, due to the displaced surface parking spaces. This site is also centrally located between the arena and convention center. Displaced surface parking is a little lower than the other sites and the land is owned by the City.



Site A: Existing parking structure and surface parking.

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Site D: New surface lot located on dirt lot in block 164. This option is based on site dimensions of 140' x 300'. This site has the potential to add 193 spaces one and half blocks to the south of the arena. We assume 9'- 0" space widths at 90-degree angles and two-way rows. The width of the site also leaves room for some landscaping. Because the site is currently vacant land, there are no displaced parking spaces. This should be considered a temporary use for the site until an acceptable redevelopment opportunity presents itself, as this block is identified as a potential site for a residential development and a catalyst block in the Arena Neighborhood Plan.

Site E: Expansion of existing city lot to the south, on adjacent grass Field on block 166. This site is likely to only be used for event parking at the arena. It is based on site dimensions of 395' to the north, 446' moving south, and 306' on the south end. Based on these dimensions, 468 spaces may be added. We assumed 9' – 0" space widths with 90-degree stalls with two-way rows. This site should be considered temporary, as the site is currently being considered to expand the transit facilities.

OPINION OF COST

Construction costs vary based on several factors, such as the site size, number of spaces, façade treatment, and whether the spaces are below grade or above grade. Parking structures generally cost \$12,000 to \$20,000 per space (or even higher).

Our analysis assumes a construction cost of \$15,500 per space for structured parking and \$3,000 per space for surface parking. Assumptions for structured parking include using a similar façade treatment as the Old Town parking garage, no below grade parking spaces, commercial space on a portion of the grade level, and a site that allows good functional layout of the parking spaces. Assumptions for surface lot construction are curbs, lighting, signage, and some basic landscaping. Table 54 shows our opinion of the basic construction costs for each site. This varies based on the size of each site and the type of facility.

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Table 54: Comparison of Costs

Site	Type	Size	Levels	Cost per Space	Construction Costs ¹
A	Garage	645	3	\$15,500	\$9,997,500
B	Garage	564	4	\$15,500	\$8,742,000
C	Garage	535	5	\$15,500	\$8,292,500
D	Surface	193	-	\$3,000	\$579,000
E	Surface	468	-	\$3,000	\$1,404,000

¹ Does not include soft costs , land or demolition

Source: Walker Parking Consultants

Construction costs do not include soft costs. Soft costs vary for each project, but generally run about 15 percent of construction costs. The cost is broken down as follows:

Architectural/Engineering Fees	5%
Client Administration	1%
Financing	3%
Survey & Geotechnical Report	1%
Testing (Soil, Concrete, etc,)	1%
Construction Contingency	4%

Table 55 provides the total cost for each site including construction and soft costs. The total cost per space for structured parking with soft costs is \$17,825, compared to surface parking of \$3,450 per space.

Table 55: Opinion of Cost including Soft Costs

Site	Type	Construction Costs	Soft Costs 15%	Cost per Space with Soft Costs ¹	Opinion of Cost
A	Garage	\$9,997,500	\$2,325	\$17,825	\$11,497,125
B	Garage	\$8,742,000	\$2,325	\$17,825	\$10,053,300
C	Garage	\$8,292,500	\$2,325	\$17,825	\$9,536,375
D	Surface	\$579,000	\$450	\$3,450	\$665,850
E	Surface	\$1,404,000	\$450	\$3,450	\$1,614,600

¹ 15% added for soft costs

² Does not include the cost of land or demolition of existing structures

Source: Walker Parking Consultants



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OPERATING COSTS

Walker maintains a database of operating revenue and expense statements for over 200 separate parking facilities. Based on this database and knowledge of the local market, we present a discussion of the typical costs associated with the operation of a parking structure.

Certain operating expenses are directly related to the type of operation of the facility. An example of this is revenue collection. Cashiered locations obviously have far greater payroll expenses as compared to "free" parking or contract only parking. Other expenses, such as maintenance, are fairly predictable, although even these are influenced by the location of the facility and type of construction.

The following are typical line item expenses for a parking facility:

- Labor (wages and benefits)
- Security
- Management Fee
- Supplies
- Liability Insurance & Claims
- Utilities
- Accounting/Banking
- Maintenance
- Other/Miscellaneous Expenses

Table 56 presents a summary of median operating cost data for parking structures in our database. This indicates that the annual cost per space to operate a parking structure is about \$584. The highest costs are associated with labor and security for the facility. Depending on the type of operation and staffing, a reasonable range for operating parking structures in Wichita is \$400 to \$600 per space on an annual basis. A preliminary financial analysis is needed to determine a more accurate level of detail. This includes specific staffing schedules, hours of operation, and wage rates for a specific site.

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Table 56: Median per Space Operating Expenses

<i>Expense Category</i>	<i>Median Per Space Cost</i>
Payroll & Benefits	\$ 267
Security	\$ 107
Management Fees	\$ 33
Supplies	\$ 19
Liability Insurance & Claims	\$ 18
Utilities	\$ 52
Accounting / Banking	\$ 4
Snow Removal	\$ 6
Maintenance	\$ 68
Miscellaneous / Other Expense	\$ 10
Total Cost Per Space	\$ 584

Source: Walker Parking Consultants, Revenue and Expense Database

Surface parking operating costs are much lower when compared to structured parking. This is especially true for event type parking lots, which would only be staffed during events by a one or two persons plus a supervisor that could monitor several lots. Generally staff would arrive at the lot a few hours before the event starts and leave once the lot is full. A skeletal crew could remain to watch over the area and police any trash after the event. Annual costs to maintain and operate surface parking lots should run from \$90 to \$160 per space, depending on the number of events and size of the parking lot.

BREAK-EVEN POINT

By applying the projected construction and operating cost per space, we can calculate the monthly revenue needed for the structure to be self-sufficient. Table 57 shows the monthly revenue needed for a range of cost options, assuming 25 year financing at 6.5 percent interest. As an example, we have highlighted the \$17,500 per space construction cost and \$500 per space operating expense. These factors intersect at \$161.00 monthly revenue per space needed to break-even. This monthly revenue requirement is much higher than current monthly revenue rates in Wichita.

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Table 57: Annual Breakeven Cost per Structured Parking Space

Project Cost Per Space	Annual Operating Cost Per Space					
	\$300	\$400	\$500	\$600	\$700	\$800
\$12,500	\$110	\$119	\$127	\$135	\$144	\$152
\$13,500	\$117	\$126	\$134	\$142	\$151	\$159
\$14,500	\$124	\$132	\$141	\$149	\$157	\$166
\$15,500	\$131	\$139	\$148	\$156	\$164	\$173
\$16,500	\$138	\$146	\$154	\$163	\$171	\$179
\$17,500	\$145	\$153	\$161	\$170	\$178	\$186
\$18,500	\$151	\$160	\$168	\$176	\$185	\$193
\$19,500	\$158	\$167	\$175	\$183	\$192	\$200
\$20,500	\$165	\$173	\$182	\$190	\$198	\$207
\$21,500	\$172	\$180	\$189	\$197	\$205	\$214
\$22,500	\$179	\$187	\$195	\$204	\$212	\$220
\$23,500	\$186	\$194	\$202	\$211	\$219	\$227
\$24,500	\$192	\$201	\$209	\$217	\$226	\$234
\$25,500	\$199	\$208	\$216	\$224	\$233	\$241
\$26,500	\$206	\$214	\$223	\$231	\$239	\$248
\$27,500	\$213	\$221	\$230	\$238	\$246	\$255
\$28,500	\$220	\$228	\$236	\$245	\$253	\$261

Annual Revenue Per Space Needed

A parking structure costing \$17,500 per space to build, with annual operating costs of \$500 per space, financed at 6.5% interest for 25 years, requires a monthly revenue stream of about \$161.00 per space to break even. This does not include land or demolition costs.

Rate: 6.5% Amortized Period: 25 Years

Source: Walker Parking Consultants

RIISING COST OF PARKING STRUCTURES

According to Walker’s research and data compiled by R.S. Means, one of North America’s leading supplier of construction cost information; the construction cost per square foot for a parking structure has steadily increased over the past five years. From 2003 to 2007, hard costs have increased by approximately 17 percent for above-grade and approximately 21 percent for below-grade parking construction. Concrete prices are expected to continue to increase spurred by the ongoing increases in cement, aggregate and the fuel necessary to mine or extract these components. The recent slowdown in the residential construction industry may moderate concrete price increases, but the impact of ongoing construction overseas may more than offset these influences.

The following figures show how construction costs for above grade and below grade parking structures have increased over the past five years.

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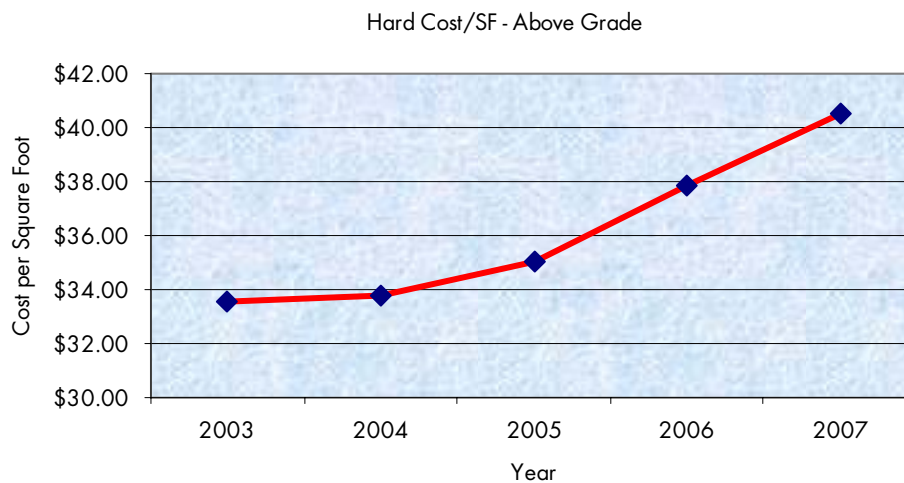
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Figure 33: Construction Costs for Above Grade Parking Structure

Hard Costs/SF	Parking Ramp (Above Grade)					Overall Trend Rate Annual, Compound
	2007	2006	2005	2004	2003	
Atlanta	\$ 35.85	\$ 33.48	\$ 31.16	\$ 30.00	\$ 29.79	4.7%
Baltimore	37.21	34.79	32.17	30.57	30.32	5.3%
Boston	46.28	43.29	40.04	38.47	38.24	4.9%
Chicago	45.43	41.83	38.73	37.78	37.77	4.7%
Cleveland	40.34	37.60	35.08	34.19	34.15	4.3%
Dallas	33.68	31.61	29.25	28.20	28.13	4.6%
Denver	38.14	35.88	33.24	32.05	31.89	4.6%
Detroit	42.11	40.18	37.13	35.86	35.78	4.2%
Houston	35.49	32.84	30.26	29.10	29.09	5.1%
Kansas City	41.34	38.76	35.88	34.12	33.82	5.1%
Los Angeles	42.91	40.00	37.06	36.23	35.74	4.7%
Miami	34.81	32.43	30.19	29.13	28.10	5.5%
Minneapolis	45.03	42.02	39.07	37.93	37.64	4.6%
New Orleans	34.73	32.36	29.98	28.85	28.83	4.8%
New York City	52.49	49.40	45.94	44.82	44.09	4.5%
Philadelphia	45.83	42.84	39.42	37.50	37.04	5.5%
Phoenix	35.81	32.81	30.43	29.40	29.36	5.1%
Pittsburg	39.66	37.52	34.67	33.62	33.32	4.5%
Portland, Or.	40.98	38.69	35.98	34.87	34.85	4.1%
St. Louis	41.66	38.31	35.43	34.19	34.01	5.2%
San Diego	41.82	38.95	36.23	35.10	35.08	4.5%
San Francisco	48.84	45.58	42.40	41.34	41.10	4.4%
Seattle	41.74	39.02	36.44	34.82	34.38	5.0%
Washington, D.C.	39.34	36.51	33.62	31.84	31.82	5.4%
Winston-Salem, NC	31.72	28.69	26.67	25.02	24.94	6.2%
Average	\$ 40.53	\$ 37.82	\$ 35.06	\$ 33.80	\$ 33.57	4.8%



Source: Walker research, R.S. Means 2003 - 2007

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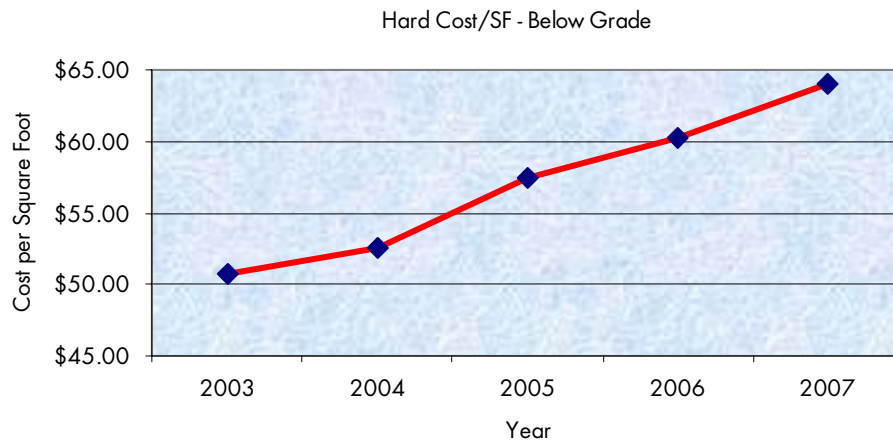
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Figure 34: Construction Costs for Below Grade Parking Garage

Hard Costs/SF	Underground Parking (Below Grade)					Overall Trend Rate Annual, Compound
	2007	2006	2005	2004	2003	
Atlanta	\$ 56.63	\$ 53.28	\$ 51.14	\$ 46.69	\$ 45.07	5.9%
Baltimore	58.79	55.37	52.79	47.57	45.87	6.4%
Boston	73.11	68.90	65.72	59.86	57.85	6.0%
Chicago	71.78	66.57	63.56	58.56	57.14	5.9%
Cleveland	63.73	59.84	57.58	53.20	51.66	5.4%
Dallas	53.21	50.30	48.01	43.88	42.55	5.7%
Denver	60.25	57.10	54.56	49.86	48.24	5.7%
Detroit	66.52	63.95	60.94	55.80	54.12	5.3%
Houston	56.06	52.27	49.66	45.28	44.01	6.2%
Kansas City	65.31	61.69	58.89	53.09	51.16	6.3%
Los Angeles	67.78	63.65	60.82	56.37	54.07	5.8%
Miami	54.99	51.61	49.55	45.34	42.50	6.7%
Minneapolis	71.14	66.87	64.13	59.02	56.94	5.7%
New Orleans	54.86	51.49	49.20	44.76	43.61	5.9%
New York City	82.93	78.61	75.40	69.75	66.70	5.6%
Philadelphia	72.41	68.18	64.70	58.35	56.03	6.6%
Phoenix	56.57	52.21	49.95	45.75	44.41	6.2%
Pittsburg	62.65	59.72	56.89	52.31	50.40	5.6%
Portland, Or.	64.74	61.57	59.06	54.13	52.71	5.3%
St. Louis	65.82	60.97	58.15	53.20	51.46	6.3%
San Diego	66.07	61.98	59.46	54.50	53.07	5.6%
San Francisco	77.16	72.53	69.59	64.33	62.17	5.5%
Seattle	65.95	62.10	59.80	54.18	52.01	6.1%
Washington, D.C.	62.15	58.11	55.18	49.55	48.14	6.6%
Winston-Salem, NC	50.11	45.65	43.11	38.93	37.73	7.4%
Average	\$ 64.03	\$ 60.18	\$ 57.51	\$ 52.57	\$ 50.78	6.0%

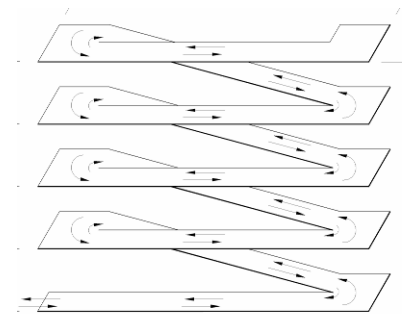


Source: Walker research, R.S. Means 2003 - 2007

MINIMUM PARKING STRUCTURE DIMENSIONS⁸

One effective way to concentrate a parking supply is through a parking structure. There are several variables and options to consider when selecting the type of structure, including the desired traffic flow (one way or two way), additional use within the structure (such as retail on the bottom level), the Level of Service (LOS), and height restrictions.

Generally, the larger the potential site, the greater the options for the design of the structure. Table 58 provides the minimum dimensions for two types of structures, as well as a variation on the level of service (LOS). Characteristics of a single-threaded helix include two-bays⁹, two-way traffic flow, and 90-degree parking, with the motorist ascending one floor for every 360-degree revolution. By contrast, a double-threaded helix features angled parking and one-way traffic flow, providing a continuous travel path up and then down through the structure. In a double-threaded helix, the motorist climbs two levels for every 360-degree revolution, thus requiring a longer site than a single-threaded helix. These are examples only and do not represent a specific site or design. The dimensions do not include required set-backs or green space; therefore, each site would likely need to be five to ten feet wider.



ISOMETRIC

SINGLE THREADED HELIX

Table 58: Minimum Parking Structure Dimensions

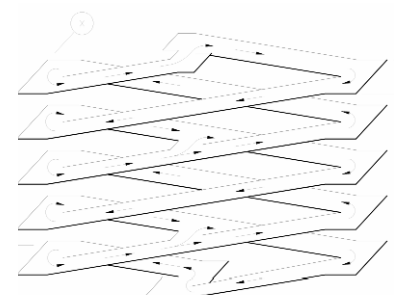
Garage Type	Traffic	Space	LOS D Dimensions	LOS A Dimensions
Single Threaded Helix	Two Way	90°	120' x 135'	120' x 187'
Double Helix	One Way	75°	112' x 188'	112' x 282'

Walker Parking Consultants

The minimum parking structure dimensions may be useful when considering sites for adding a parking structure. We recommend building a structure with at least 300 spaces in order to hold down the overall cost per added space. Smaller garages result in fewer spaces per square foot and higher construction costs per space.

⁸ Parking structures could be built on smaller footprints. However, implied in this discussion is the desirability to achieve a relatively efficient parking structure design, as measured by square footage of floor area per space.

⁹ A "parking bay" consists of a drive aisle and usually parking on both sides of that drive aisle. A double-loaded aisle means parking is located on both sides of the drive aisle, whereas a single-loaded aisle means that parking is only provided on one side of the drive aisle.



ISOMETRIC

DOUBLE THREADED HELIX



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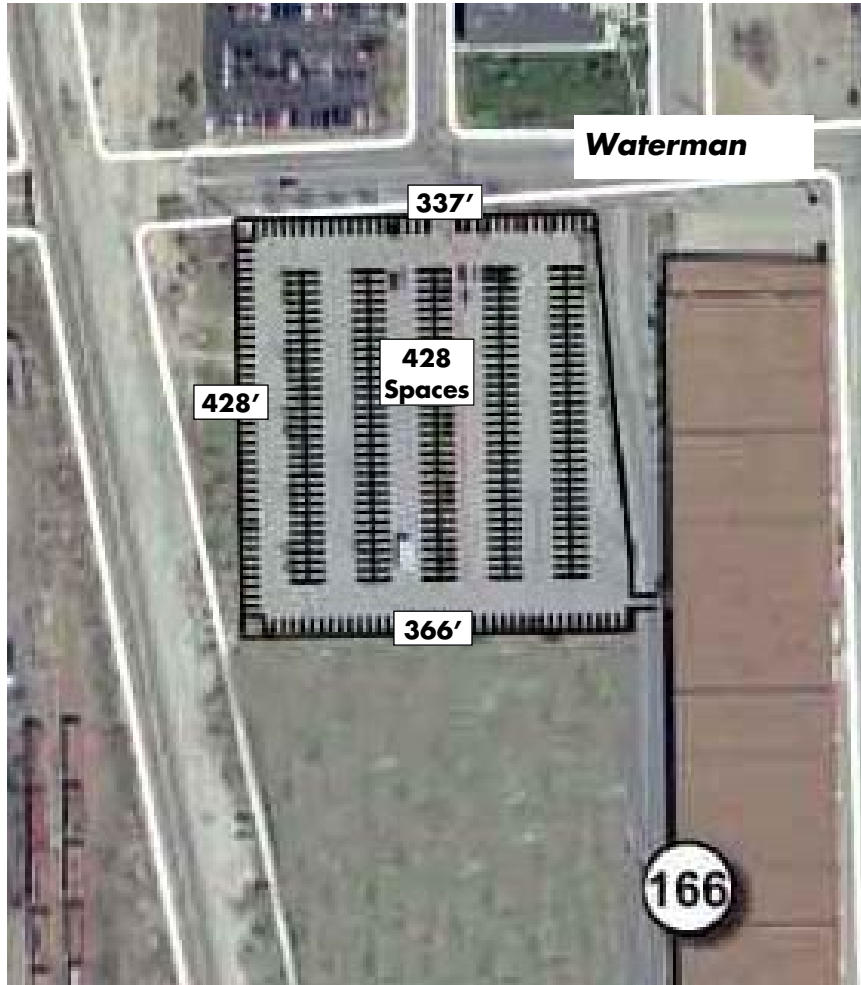
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RESTRIPING/IMPROVED LAYOUT OPPORTUNITIES

Typically, the quickest and least expensive way to increase parking supply is by maximizing the existing space through restriping. Construction costs for parking structures can run anywhere from \$12,000 to \$20,000, or more, per space. Surface parking lot construction costs typically range from \$2,000 to \$3,500 per space (not including land). By comparison, simple line restriping costs for an asphalt parking lot range from \$21 to \$35 per space depending on several variables including the number of coats of sealer used. Therefore, restriping a parking facility to increase capacity represents a substantial savings over building new parking facilities.

A review of the city-owned surface lots found limited areas for measurable improvements to effectively gain parking supply through new layouts. One potential lot that would benefit from a new layout is the City lot located at Waterman and Mead. This lot currently has 347 spaces. Based on measurements of 337' to the north, 392' moving to the south, and 366' on the south, we estimate 428 spaces could fit on the site. This estimate is based on 9' – 0" stall widths; 90-degree stalls; two-way traffic; the reorientation of the bays north – south; and the removal of the islands. This change represents an increase of 81 parking spaces on this site. Figure 35 shows the conceptual new layout.

Figure 35: Conceptual Layout Change



Source: Walker Parking Consultants

We noticed many parking lots would benefit from seal coating and new striping. Some of these lots were in such poor condition that it was not clear how the spaces were outlined or how many spaces were on the lot. This made it impractical to check for the functionality of the space layout to make suggestions on improvements. Some of the worst parking lots had low occupancy and low parking rates, indicating low demand in the area. Maintenance has most likely been deferred in these cases, and funding major work to gain a few spaces through a new layout is unnecessary and impractical. We recommend surface parking lots be maintained to avoid liability issues, such as trip and fall cases that are more likely to occur on parking lots that are not maintained.

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ON-STREET PARKING GEOMETRIC REQUIREMENTS

On-street parking is available on most streets in the study area. A majority of the parking is parallel parking, although there are some angled parking spaces. Advantages to on-street parking are the convenience of parking at the “front door” and its relatively low cost when compared to off-street parking solutions. Considerations in planning on-street parking include impact to the traffic flow, available street width, and possible conflicts with other curb uses such as bus stops or loading zones. Table 59 provides the recommended street widths for parallel parking on a two-way and one-way street.

Table 59: Recommended On-Street Street Widths for Parallel Parking

Traffic Pattern	Parking on One Side	Parking on Both Sides
Two-way	26' - 32'	36' - 40'
One-way	18' - 22'	26' - 30'

Source: Walker Parking Consultants, (see appendix)

Table 60 details the recommended parking dimensions for on-street parking spaces by angle of the space. As the angle increases, the required right of way increases. This area is needed to maneuver the vehicle out of the angled space.

Limited angled parking is available along Douglas Avenue between Emporia Street and Saint Francis Street. Angled parking can dramatically increase the parking supply when compared to parallel parking. We suggest considering implementing additional angled parking along Douglas as an option to increase the parking supply while also calming traffic.

According to estimates by the City Traffic Engineering Department, angled parking along Douglas from Main Street to Topeka Street adds about 34 spaces to the current inventory; and Topeka Street to the rail road tracks adds about 25 additional spaces. This totals to about 59 new spaces along Douglas that could be used for public parking.



Example of on-street angled parking.

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Table 60: On-street Parking Dimensions

Type of Space	Curb Width	Into Street	Curb to Center Line	Space Width
Parallel	22' - 0"	8' - 0"	18' - 0"	8' - 0"
30° Angle	17' - 0"	16' - 4"	26' - 0"	8' - 6"
45° Angle	12' - 0"	18' - 9"	30' - 0"	8' - 6"
60° Angle	9' - 10"	19' - 10"	37' - 0"	8' - 6"

Source: Walker Parking Consultants

Note: The angled parking spaces are traditional front-in parking, and not reverse angle parking. Reverse angle parking is discussed in the next section. Drawings detailing the recommended on-street parking layouts for parallel and angled parking are located in the Appendix of this report.

REVERSE ANGLE PARKING

Reverse angle parking is receiving growing attention and acceptance by municipalities. Reverse angle parking requires the parker to back into the space rather than pull forward into the space. This type of parking is similar to parallel parking, which requires backing into the space, but at an angle. Benefits of this method are that when the vehicle enters traffic, it basically turns into the traffic, thus requiring little to no extra room for the right of way. In addition, drivers experience a reduced risk of an accident because they are not backing into traffic. There is also the argument that it is safer to back into the space after just passing the space and seeing that no one is behind the vehicle.

Disadvantages to this type of parking are that it is foreign to most drivers; it may require a wider space to allow easier parking; and it requires stopping in traffic to get to the space. Therefore, so it should not be used in high traffic volume areas.

Ideally, reverse angle parking is employed on non-thoroughfare streets with lower traffic volume and slower traffic speeds. This condition is due to the time it takes to find the space, stop and back into the space, as well as the fact that most drivers are not familiar with this type of parking.

An example of reverse angle parking can be found in downtown Indianapolis, Indiana, adjacent to the federal courthouse on New York



Example of Reverse Angle Parking in Washington D.C.

Cities with Reverse Angle Parking

- Borough of Pottstown, PA
- Indianapolis, IN
- Salt Lake City, UT
- Seattle, WA
- Village of Shorewood, WI
- Washington, DC
- Wilmington, DE



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Street, where this parking is reserved for employees. This location works well, because the same people use the spaces every day.

Our opinion of reverse angle parking is that it can work, but it has limitations. The fact that it is so unfamiliar with drivers creates its own set of negative perceptions. If it is used, we recommend starting in limited low traffic areas with a public relations drive to get the word out. Advance notice and plenty of good signage advising motorists of the new parking procedures, as well as directions posted on the parking website are also recommended.

WAYFINDING / SIGNAGE

We recommend implementing a comprehensive signage program to maximize visitor awareness to public parking locations. The signage improvements should be prepared in conjunction with any enhancements to the parking resources, in addition to any streetscape improvements in the study area. As is true with any good communications medium, signs should be brief, precise, and appropriate, such as "Public Parking" or "Free Public Parking." Further, the signage should guide the driver from Douglas Avenue and Main Street to the public parking areas surrounding Century II and the Arena.

At present, no consistent parking signage seems to exist for off-street parking areas or along the primary thoroughfares. While many business owners have private parking signs posted on the sides of buildings, sign posts, and fences, they all vary in content and visual appearance.

Each parking area has its own set of wayfinding/signage requirements. These requirements present specific questions concerning the needs and concerns of the users to be answered during the design of the signs, including:

- What are the points at which information is needed?
- What information is needed?
- How should this information be presented?
- Will there be a high percentage of first time visitors, or is the parking supply used by the same people every day?



Portable "Sidewalk" sign for event parking.

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- Are there special sign requirements for accessible parking or bilingual patrons?
- Are there choices in traffic patterns that must be presented to drivers such as directions to parking near the entrance to an anchor tenant or exits to different streets?

It is also important that general rules for sign design and placement should be followed when planning the streetscape improvements.

- All signage should have a general organizing principle consistently evident in the system.
- Direction signage for both pedestrians and vehicles must be continuous (i.e., repeated at each point of choice) until the destination is reached.
- Signs should be placed in consistent and therefore predictable locations.

FIRST IMPRESSIONS

During our observations we noted some parking areas that were not very well illuminated after hours. These areas included surface lots and parking structures. One structure in particular had lights visible on only one upper level, with all the levels below and above in the dark (this is a privately owned structure that offers daily and monthly parking and has at least six levels). Many of the facilities with poor lighting are located in the area that will soon offer parking to the new arena.

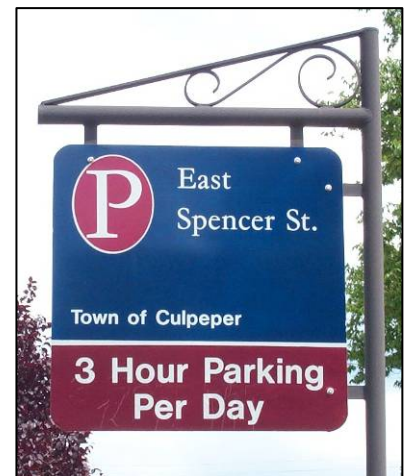
We recommended that special attention be given to the lighting requirements in each lot and garage. In addition, a security presence during peak hour conditions, conduct frequent collection and removal of trash, and eliminate physical pedestrian barriers. All of these mentioned factors have the ability to influence the perception that an individual may have on parking in the study area.

Lighting can be measured in terms of Level of Service (LOS), just as it is for walking distance. Table 61 provides the LOS rating for surface parking lighting.

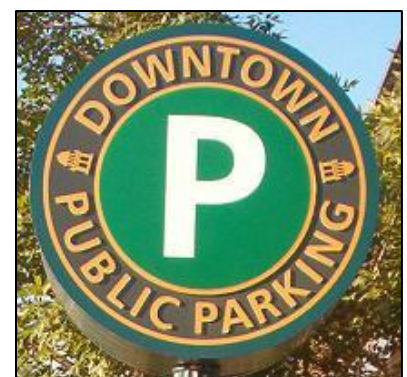
Examples of Parking Signs Unique to Each Town



Greenville, NC



Culpeper, VA



Colorado Springs, CO

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Table 61: Level of Service Luminance Ratings

LOS	Minimum Illuminance ¹	Average Illuminance ¹
A	4	10
B	3	8
C	2	6
D	1	4

¹ Measured in Foot Candles

Parking Structures, Third Edition, Walker Parking Consultants, 2001

Good lighting not only helps identify the off-street parking areas, but also is more inviting to patrons, reduces the risk of liability claims due to slip and fall type injuries, and increases the security level.

PROMOTE PARKING

Promoting parking includes establishing a public relations and communications plan to provide information on key events impacting downtown parking access issues, and should be responsible for increasing public awareness of downtown parking through events, activities, publications, press releases, maps and other literature.

Results from our search for information on parking in Wichita via the internet offered limited success. The best resource we found on downtown parking via the internet is on the WDDC website, at www.downtownwichita.org/parking.htm. This site offers some general information and a basic map showing parking options. Many municipal websites allow the payment of parking violations and monthly parking, and a few show how many spaces are available to the public in real-time.¹⁰

We recommend either enhancing the current website and linking it directly to the City’s website or developing a new website under the City’s website. The site should be comprehensive in nature, inform potential visitors where and how to park in downtown, including hours of operation, rates, and how to purchase a monthly parking pass. We recommend that the City include “Parking” under the list of departments and establish several web pages to educate the public on downtown parking. This site should be linked to other sites that need

Figure III-36: Examples of Parking Web Pages

www.downtownlincoln.org
Lincoln, NE

<http://www.parkitdowntown.com/parking/directions.html>
Nashville, TN

www.city.pittsburgh.pa.us/pghparkingauthority/
Pittsburgh, PA

www.miamiparking.com
Miami, FL

www.parkspa.com
Springfield, MA

www.ci.baltimore.md.us/government/parking
Baltimore, MD

www.hartfordparking.com
Hartford, CT

www.norfolk.va.us/parking
Norfolk, VA

www.crbus-parking.org/
Cedar Rapids, IO

http://www.cityofboise.org/customer_and_support_services/parking_control/
Boise, ID

www.central-city.net/parking.php
Kalamazoo, MI

<http://www.houstontx.gov/parking/index.htm>
Houston, TX

¹⁰ <http://parkingspacenow.smgov.net/> shows real time parking occupancy for the City of Santa Monica, CA

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to promote parking to visitors, such as the WDDC, Century II, and the Convention and Visitors Bureau.

We recommend the Public Relations and Communications program do the following:

- Include a comprehensive "Downtown Parking" city web site.
- Respond to questions and requests from the general public for locations of parking facilities, pricing and availability.
- Maintain the integrity of downtown parking promotional materials, and provide parking maps, business development packets, and fact sheets.
- Provide day-to-day media relations, and generate press releases as needed.
- Provide public relations assistance to other downtown events as needed.

This information should be disseminated by means of

- (1) A more comprehensive "Downtown Parking" city web site.
- (2) A quarterly newsletter for the downtown parking community with news of economic developments in parking, development and construction projects, upcoming downtown events, and profiles of downtown newsmakers.
- (3) Newspaper items or articles and media releases.
- (4) Brochures and maps, both distributed and posted.
- (5) Direct mailings when needed.
- (6) Downtown meetings and presentations by the city parking manager about downtown parking to city business and civic groups upon request.



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PARKING PARTNERSHIP

Another option worth exploring is the general coordinating effort used in Indianapolis, Indiana. The City of Indianapolis owns virtually no parking assets other than the on-street metered spaces. Indianapolis Downtown Inc. (IDI) promotes “plenty of parking” in downtown, coordinated through their “Downtown Parking Partnership” program. The program provides leadership and organization to the parking puzzle for event coordinators and potential employers considering relocation to downtown.

IDI is a non-profit organization established in 1993, formed to develop, manage, and market downtown Indianapolis. The Downtown Parking Partnership facilitates the collaboration of public and private parking owners and operators by identifying and addressing key issues related to downtown parking. The overall goal of the partnership is to manage parking as an amenity and enhance visitor’s perceptions of a convenient downtown.

Some specific accomplishments of the Parking Partnership include:

- Promoting “Best Bargains Parking” program for Conseco Fieldhouse events (home of the Indiana Pacers);
- Conducting annual facility inspections for members;
- Parking coordination for major events;
- Assisting new business with finding parking downtown;
- Coordinating uniform parking signage program;
- Developing and publishing parking map;
- Promoting parking available promotions;
- Creating the “EZ Parking” logo;
- Developing and promoting parking website; and
- Conducting bi-monthly meetings to discuss events, crime, and other issues with building owners and operators.

The IDI Downtown Parking Partnership is staffed with one full time employee to manage and facilitate parking issues in downtown. Their website is: www.indydt.com.

A sample copy of the Best Bargains map provided from the IDI website is found on the following page. In addition to the website, thousands of 5 x 8 hard stock flyers have been distributed to local businesses.



IDI’s EZ Parking Logo

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Figure 37: Best Bargains Parking Flyer



Indoor arena site, home to the Indiana Pacers

Source: IDI Parking Partnership Best Bargains Flyer (from website)

The Best Bargains program was started when the new arena opened in Indianapolis in response to concerns that parking rates would drive business from the area due to special event parking. The old arena was also located downtown, but was considered outdated.

Now is the time to develop and refine the marketing materials to promote parking in downtown Wichita, before the new arena opens. A coordinated effort could be made to contact area lot owners to develop a similar marketing strategy in Wichita.

MORE PROMOTION EXAMPLES

1. **Parking Guide:** Update the WDDC downtown parking guide, including a downtown parking map and brochure describing the locations and availability of parking, simplicity of access, rules and fees for parking for errand, short-term, and employee parking patrons.

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2. **Use of "Free Spin" Meters:** Kalamazoo and Cincinnati use meters that allow a programmable amount of free time at parking meters in key locations throughout the CBD. They have installed "**free spin meters**" that allow a person to park and activate the meter (button or spin) for a set amount of free time. Free-time meters allow those errand parkers that are picking up a package, paying a bill, or dropping off something at a store (like a shoe store, for example) to obtain a limited amount of free parking. This application requires the installation of programmable electronic parking meters, available from several meter manufacturers for approximately \$500 to \$600 each, installed. One use per customer is allowed by ordinance. Enforcement is required to issue citations to repeat abusers.
3. **Sticker Programs:** Sticker programs offer effective techniques to add flexibility to the off-street parking system for particular users. These users include those who park for less than five days a week or for less than 4 hours a day; convenience parkers visiting CBD retailers who compete with free suburban parking; and students. For example, the City Parking Office of Lincoln, Nebraska administers the following four sticker parking programs, which can provide parking solutions to customers, employers, employees, and students – Park Smart, Park & Shop, Park & Learn, and Star Park.
4. **Token Programs:** As an alternative to a stamp, the City can create a parking validation program with tokens that are accepted at public and private garages. One-dollar tokens may be sold to merchants for 50 cents, and the City can subsidize the price difference.

The Cedar Rapids Easy Park/Easy Ride token program allows businesses to offer customers an incentive to shop downtown by giving them tokens usable for either parking meters or City bus fare boxes.

Star Park - Star Park allows businesses to validate their customer's parking for between 1-8 hours and receive a 50% discount off the first hour of parking. Each additional hour of parking is charged at the regular rate. The cost to a business to establish this validation program is \$60.00. Merchants are invoiced for the total dollar amount of all redeemed tickets bearing their stamp, less a 50% discount on the first hour of parking on each ticket. Star Park stamps are valid at all City-owned garages during regular business hours.

Kalamazoo, Cincinnati, and other cities have recently installed "**free time meters**" at selected spaces. This meter upgrade allows errand parkers to obtain a preprogrammed amount of free parking (usually 10 to 15 minutes). This meter upgrade may be a reasonable alternative to the existing time-restricted on-street parking spaces.

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RESIDENTIAL PARKING PROGRAM

Residential parking programs have been established in various cities across the U.S. The goal of these programs is to make more parking spaces available to residents and to discourage long-term parking by people who do not live in the respective neighborhoods. Residential parking programs are needed to restrict access by non-residents to street parking. The presence of non-resident vehicles parked in neighborhoods may increase noise and air pollution and create unsafe traffic conditions. Residential parking zones seem to be most commonly found in university communities, tourist and resort communities such as beach and ski towns, locations near major transit hubs - such as ferries or other mass transit stops, and residential areas near major employers, including businesses or major institutions¹¹. A review of the residential areas did not indicate a need to recommend instituting a residential parking program at this time. We do want to provide some additional information that may be beneficial in the future. Toward this end, we have provided some case study summaries of different communities that have implemented said programs in the Appendix.



Residential parking programs limit on-street parking by non-residents.

INTELLIGENT INFORMATION SIGNAGE

Public relations and customer communications may be enhanced by the use of automated parking availability displays (APED). Most parking facility management systems have occupancy counting capabilities. These capabilities can inform patrons of the number of available parking spaces in a particular parking facility, and may even direct patrons to those areas with the most vacant spaces. Rather than have a patron search through a large facility with only a few spaces available, dynamic sign(s) indicate the number of spaces available. Most systems rely on loop counting systems, which activate a "full" sign when there are only a set number of vacant parking spaces remaining.



Signs can display a message or an actual space count.

Similar technology may provide automated parking guidance systems for the downtown. Strategically placed signs on the street with changeable messages automatically direct less-familiar users to the nearest parking facility with available spaces. Although more common in Europe, several U.S. cities either already have them or are in the process of installing them.



¹¹ <http://www.mrsc.org/askmrsc/parking.aspx>
Section III – Alternatives Analysis

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Figure 38: Example of Intelligent Signage



Source: BWI Airport

These systems promote parking space availability, reduce pollution and congestion, and give advance warning to parkers prior to arrival. Intelligent information parking signage has the potential to help maximize occupancy by facility, level, zone or individual parking space.



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As downtown Wichita moves forward with the completion of WaterWalk, the new arena, and the expansion of Old Town and the convention center, concerns about the adequacy of parking have moved to the forefront. This parking master plan provides a review of the current conditions and an analysis of the redevelopment plans being considered for the area. The biggest impact to parking adequacy will be event parking during large events at the new arena. While adding parking supply is one answer, many additional measures may also be taken to avoid over-building parking. In the end, people don't come downtown to park. The attractions must be there to generate parking demand.

The goal of these recommendations is to improve the current system to increase the level of satisfaction the public receives as well as to begin the process of adding value to the parking supply. To improve the overall parking operations of the city, we make the following recommendations:

1. Develop and implement a comprehensive signage program to lead visitors to the parking. This suggestion is especially true for Century II events and the Broadview Garage.
2. Staff the Broadview Garage during large events and advertise that the parking is available to the public. The signage should include wording such as "Event Parking", "Public", with an arrow and the rate, even if the rate is free. We suggest charging a small rate and using it to staff the garage during events.
3. Increase the available event parking supply around the arena by about 600 spaces. This solution reduces the number of events projected to have inadequate parking from 22 to about 15. It also reduces the number of potential "long-distance" remote parking requirements. This should first be done by meeting with private lot owners that are not counted as being available for event parking.
4. Increase the number of angled parking spaces along Douglas Avenue as a way of increasing the parking supply and calming traffic.
5. Consider a new parking layout for the City lot at Waterman and Mead. By changing the parking bays from east/west to north/south and removing the islands, there is a potential to add about 75 parking spaces to the lot.

RECOMMENDATIONS

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6. Develop a new comprehensive website just for parking, or as part of the city website. This website should include an interactive parking map, rates, hours of operation, etc.
7. Require each new development to provide a parking plan. Where possible and beneficial, the City or County may want to adjust the plan to ensure a portion of parking is available to the general public.
8. Establish a policy to return parking revenues back to parking improvements. Funds should be used to improve existing facilities through maintenance and to add parking supply where needed.
9. Add parking as planned for North Old Town and WaterWalk. The added parking should be based on the projected land use before or as each area is developed.
10. Establish a parking partnership program with local property owners, business owners, and parking operators. This community can become a launching pad for discussing ideas and being proactive in planning for event parking.
11. Maintain the city-owned parking structures and require private owners to provide safe parking. A few privately owned structures in the downtown area are in very poor repair. This situation has the potential to turn people's attitudes against structured parking and leave the public with a bad impression of the safety of parking in downtown Wichita.



SECTION IV

STUDY AREA TRANSIT OPTIONS ASSESSMENT

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The proposed arena and other development projects including Old Town, Center II Center, and WaterWalk will require the support of an integrated transit and pedestrian access plan that will link existing and proposed parking assets to the new arena and thus increase mobility and connectivity throughout the downtown.

This report section presents a comprehensive examination of local transportation options that allow patrons to park and visit multiple downtown attractions and destinations. The primary focus of this analysis are (1) to understand the existing resources and recommend future transit and shuttle services in downtown Wichita to provide day-to-day circulator shuttle services; and (2) to recommend specific solutions to meet the peak parking demands of the Sedgwick County Arena, WaterWalk, an expansion of Century II, a possible casino, and other downtown generators when parking demand cannot be met within their immediate walking areas.

Mobility is recognized as an important factor in supporting the downtown and as a result, efficient and effective local transportation is a critical element for the support of new developments as they spur the resurgence of downtown Wichita.

INTRODUCTION TO SECTION IV – STUDY AREA TRANSIT OPTIONS ASSESSMENT

TRANSIT METRICS

Level of Service: Transit and shuttle services are measured by various metrics that can be summarized by level of service (LOS). The concept of level of service uses quantitative and qualitative measures that characterize operational conditions within a traffic stream and their perception to motorists and passengers. The descriptions of individual levels of service characterize these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience.

Traffic engineers define six levels of service from "A" to "F," with LOS A representing the best operating conditions, and LOS E as the minimum acceptable standard. For most design or planning purposes, however, LOS D or C may be used for traffic issues because they ensure an acceptable minimum quality of service to users.

Level of Service for Shuttle/Transit: From the transit user's perspective, transit service frequency determines LOS, which is defined as the number of times per hour a user has access to the shuttle, assuming that the transit service is provided within acceptable walking distance and at the times the user wishes to travel. Service frequency also is a measure of the convenience of transit service to choice riders and is one component of overall transit trip time. Because of the different characteristics of urban scheduled transit service, frequency LOS can vary by time of day or week (i.e., LOS B during peak hours, LOS D at midday, LOS F at night or on weekends when no service is offered. (Source: Highway Capacity Manual 2000, Chapter 27)

The service frequency LOS measure for transit service is *headway*. Headway is the time between consecutive transit vehicles. The following table describes the LOS ranges for scheduled service.

Table 62: Service Frequency LOS for Scheduled Transit Service

LOS	Headway (minutes)	Veh./hr.	Comments
A	< 10	> 6	Passengers don't need schedules
B	10 – 14	5 – 6	Frequent service, passengers consult schedules
C	14 – 20	3 – 4	Maximum desirable time to wait if bus missed
D	21 – 30	2	Service unattractive to choice riders
E	31 – 60	1	Service available during hour
F	> 60	< 1	Service unattractive to all riders

Source: (Highway Capacity Manual 2000, page 27-3)

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Service frequency LOS is determined by destination for a given transit stop. Some judgment must be applied for stops located near timed transfer centers. There is a considerable difference in service from a passenger's perspective between a bus that arrives every 10 minutes and 3 buses that arrive in sequence from one point every 30 minutes, even though both result in 6 buses per hour serving the stop.

Thus, the primary advantage of the LOS A is that passengers do not need schedules as service is frequent enough to promote adequate confidence that the next bus will be available very shortly.

Level of service within a transit system is also judged by other factors such as ADA accessibility at transit stops and comfort and convenience measures, such as passenger loads at transit stops, route segment hours of service, and route segment reliability. Amenities such as a shelter or bench, landing pad conditions (grass, mud, walls), information signs, and trash receptacles also impact LOS. Transit systems use several measures of route segment reliability, including the following most common measures:

- On-time performance;
- Headway adherence (consistency of the interval between buses);
- Missed trips; and
- Distance traveled between mechanical breakdowns.

On-time performance is a widely used measure in the transit industry. Most transit systems define a fixed-route vehicle as late when vehicles arrive more than five minutes behind schedule. Furthermore, early departures are not considered on time. When vehicles run at frequent intervals, headway adherence becomes important to passengers, as vehicles arriving in bunches cause overcrowding on the lead vehicle and longer waits than expected.

The following table lists reliability LOS grades for transit operating with frequencies of less than six (6) buses per hour scheduled. This is based on performance reported by 83 transit systems.

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Table 63: Reliability LOS for On-Time Performance

LOS	On-Time Percentage	Comments
A	97.5 – 100.0	1 late bus per month
B	95.0 – 97.4	2 late buses per month
C	90.0 – 94.9	1 late bus per week
D	85.0 – 89.9	
E	80.0 – 84.9	1 late bus per direction per week
F	< 80.0	

Source: (Highway Capacity Manual 2000, page 27-8)

For transit services operating at scheduled frequencies of six buses/hour or more, headway adherence (coefficient of variation) is used to determine reliability.

Travel time (or trip duration) also is a useful route segment performance measure because it reflects how long a trip may take without depending on how long a route segment might be. Transit priority measures, improvements to fare collection procedures, use of low-floor buses, and other similar actions implemented along a route segment will usually be reflected as improvements in travel time (or trip duration).

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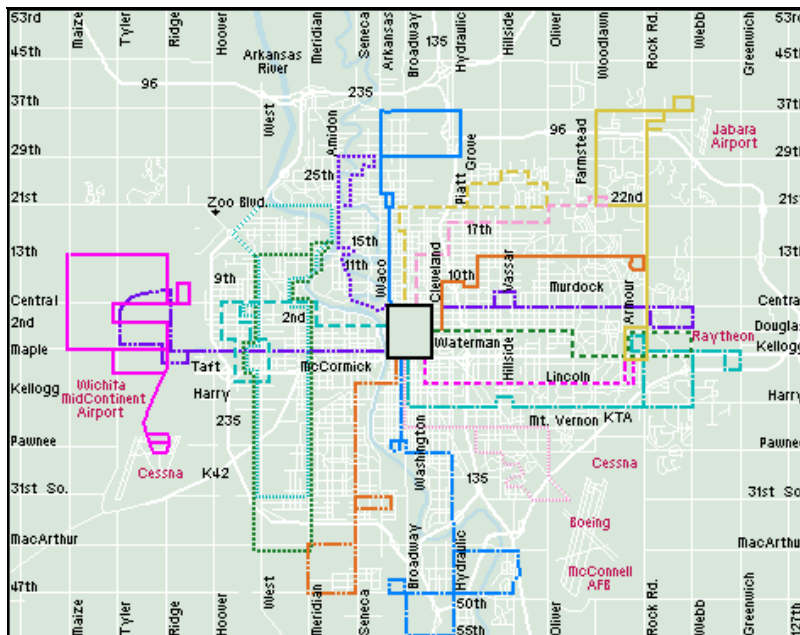
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WICHITA TRANSIT BUS SERVICE

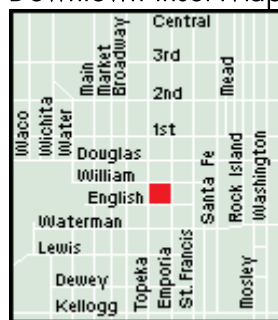
Transit Services is a municipal division of the City of Wichita. Transit Services supervises Wichita Transit, the local bus service. A current route map is shown in the following figure. Executive management is provided through a contract with First Transit, Inc.

EXISTING DOWNTOWN TRANSIT PROGRAMS

Figure 39: Wichita Transit Route Map



Downtown Inset Map



■ = Transit Center

Wichita Route Key		
No.	Route	Key
1.	Rock Rd. Shuttle	—
2.	E. Harry	—
3.	E. Lincoln	—
4.	S. Broadway	—
5.	S. Seneca	—
6.	S. Main	—
7.	S. Meridian/West St. Loop	—
8.	N. Meridian/West St. Loop	—
9.	W. Maple	—
10.	W. Central	—
11.	N. Waco	—
12.	Riverside	—
13.	N. Broadway	—
14.	E. Central	—
15.	E. 13th	—
16.	College Hill	—
17.	E. 17th	—
18.	Westside Connector	—

Transit Services also manages the Q-Line downtown circulator trolley and provides buses and drivers for the Final Friday Gallery Crawl. The bus system and Q-Line are supported by rider fees, federal transportation grants and funds, and state and local taxes. The Final Friday Gallery Crawl is supported by the WDDC.

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The transit system currently operates 51 buses (all ADA compliant) and 26 wheelchair lift vans on 18 fixed routes, 17 demand-response paratransit routes operated by the department, and rides purchased under contract from 6 social services agencies. Annually, Wichita Transit Services carries over two million passengers on the fixed route bus service, and over 320,800 disabled passengers on paratransit vans. Wichita Transit's administrative office is located about two blocks southeast of the new Sedgwick County Arena.

Wichita Transit collects single-ride cash fares and multi-ride pass fares. Table 3 summarizes the current single and multi-ride pass fares, ranging from 60 cents to \$115.00.

Table 64: Wichita Transit Bus Fares

SINGLE-RIDE CASH FARES	
Fare	Cost
Adult	\$1.25
Special Citizen, 65 years and older Medicare recipients, or disabled, with proper ID	\$0.60
Youth, under 18 years, with proper ID	\$1.00

Transfers are free.

MULTI-RIDE PASS FARES	
Fare	Cost
20-Ride Adult Pass	\$24.00
20-Ride Special Citizen Pass	\$12.00
20-Ride Youth Pass	\$20.00
1-Day Pass	\$3.00
3-Day Pass	\$9.00
7-Day Pass	\$15.00
30-Day Pass	\$60.00
College Semester (120-day) Pass	\$115.00

Wichita Transit is a spoke and hub system focused on the downtown Transit Center at William and Topeka Streets, adjacent to the site of the new Sedgwick County Arena; however, these routes do not provide effective downtown service. While some bus routes could be used, headway is typically LOS C to E. This fact generates the need for a downtown circulator, the Q-Line.

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THE Q-LINE TROLLEY

The downtown Wichita lunch-time circulator trolley service, known as the Q-Line, was launched during summer 2004. The intended goal for the Q-Line trolley is to make downtown more accessible for lunchtime and meetings not only for citizens but also for visitors. The Q-Line trolley line is operating for its fourth season this summer (2007).

Reportedly, more than 21,000 people work downtown. During lunchtime, workers want to leave and get back to the office within their allotted lunch hour. The Q-line trolley service makes it easier for downtown workers and visitors to go to lunch or shop within the mid-day (11 am to 2 pm) without having to re-park.

Riders board a trolley by hailing the driver from the sidewalk or by waiting near the "Q" stencils painted on roadways. The trolley will stop anywhere along the route that the driver regards as safe.

The service is funded for four years through 2007 by an \$80,000 federal transportation grant and by the Downtown Development Corp., which provides a \$20,000 match.

Close to 3,000 riders took the trolley during the summer of 2004. Trolley service was expanded in 2005 with an additional trolley and five extra weeks of service. The unstated goal was to try to increase ridership to 6,000 riders over the season. The service actually attracted 4,220 riders in 2005 and 3,420 riders in 2006.

The service is designed to maintain 10 to 20 minute headways (time between pickups) on weekdays and a 30 minute headway on Saturday. The weekday route was extended across the Arkansas River to the Delano district. The initial fee for a lunchtime ride was 25 cents.

City and transit officials hope the service will become self-sufficient. However, almost no municipal transit operations make money. Wichita Transit has sold advertising on the trolley and has tried to form promotional partnerships with downtown businesses. The 2007 Q-Line poster identifies 66 restaurants, hotels, and destinations along the route.

The 2006 route poster is shown in the figure on the following page. Additional information can be found at www.theqline.com.



Historic trolley crossing the Murdock Street Bridge.

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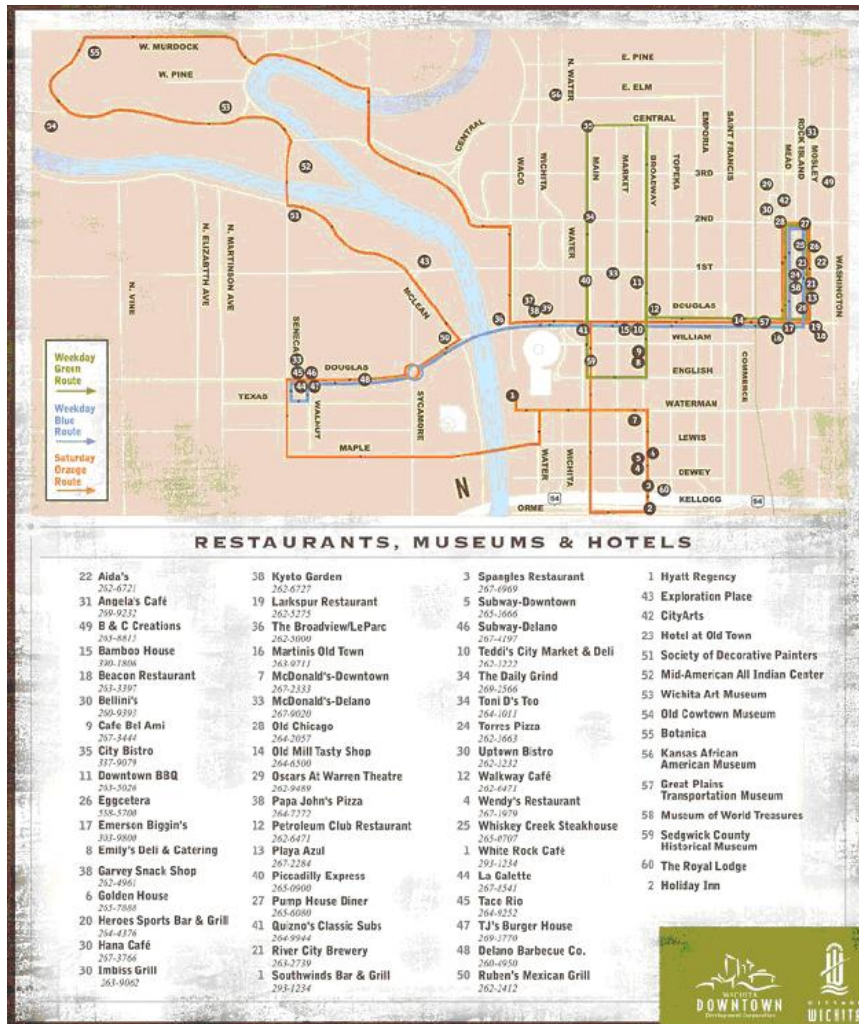


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Figure-40: Q-Line Route Poster (2006)



Source: Q-Line Route Poster at www.theqline.com

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Table 65: 2006 Q-Line Schedules

Weekday Downtown Green Route

Two (2) shuttles run from 11:00 am to 2:00 pm, Monday thru Friday.
Headway = 10 minutes. (LOS B)

Weekday Delano/Old Town Blue Route

One (1) trolley runs from 11:00 am to 2:00 pm Monday thru Friday
Headway = 20 minutes. (LOS C)

Saturday Museum Loop Orange Route

Two trolleys run from 10:00 am to 4:00 pm on Saturdays.
Headway = 30 minutes. (LOS D)

Source: Q-Line Route Poster at www.theqline.com

The following table contains operating cost data provided by Mr. Jay Banasiak, general manager of Wichita Transit. Based on the information, the 2008 cost of a circulator shuttle operation in Wichita is estimated at \$75.00± per revenue hour.

Table 66: Average 2006 Wichita Transit Operating Cost per Hour

Estimated from 2005 costs

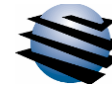
2005 Expenses and Rev. Hours	
Administration	\$1,155,887
Operations	\$3,884,411
Maintenance	\$1,604,406
Total Expenses	\$6,644,704
2005 Revenue Hours	95,616 Hours
2005 Expenses divided by Rev.	\$69.49 per Hour
x 5% for 2006	\$72.97 per Hour
Rounded to:	\$73.00 per Hour

Source: Wichita Transit

Table IV-6, on the following page, describes how total operating expenses for the Q-Line are estimated for 2006.

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Table 67: 2006 Q-Line Operating Cost

Summer Operating Season:	May 22 thru Sept. 2nd, 2006	
Weeks:	2	May
	4	June Weeks
	4	July Weeks
	5	Aug Weeks
Total Operating Period	<u>15 Weeks</u>	
	times	5 Days/Week (Mon.- Fri.)
Weekday Run Total Days	<u>75 Days</u>	
	times	3 Hours per Day
Total Days x Hours/Day =	<u>225 Hours per Trolley</u>	
	times	3 Trolleys
Total Weekday Operating Hours	<u>675 Weekday Hours per Season</u>	
Saturday Run Total Days	15 Saturdays	
	times	6 Hours per Day
Total Days x Hours/Day =	<u>90 Saturday Hours</u>	
	times	2 Trolleys
Total Saturday Operating Hours	<u>180 Saturday Hours per Season</u>	
Total Q-Line Operating Hours	855 Revenue Hours per Season	
x Avg. Wichita Transit Cost/Hr.	<u>\$73.00</u>	per Hour
Total Operating Cost	<u>\$62,415</u>	
Plus: Q-Line Marketing	<u>\$20,000</u>	
Total 2006 Q-Line Cost Estimate	<u>\$82,415</u>	

Source: Wichita Transit

Advantages:

- Provides north-south and east-west service with 2 routes.
- Provides good LOS to downtown by overlapping Weekday Downtown Green Route and Weekday Delano/Old Town Blue Route along Douglas and in Old Town.
- Museum Loop Orange Route links most hotels with Delano, Old Town, and museum destinations on Saturday.

Disadvantages:

- Lower ridership than desired.
- LOS C service to Delano Street neighborhood.
- Lower than desired LOS on Saturday Museum Loop Orange Route due to length of route.
- No linkage to Kellogg. Does not serve some hotels.
- Long routes due to one-way circulation.

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2007 Q-LINE SERVICE CHANGES

The Q-Line Trolley began the summer 2007 season on May 29th. The goal of most of the changes this year is to improve connections to shops, restaurants, hotels, salons and other businesses by decreasing headways and adding service on weekend evenings from 6:00 p.m. to midnight to better serve events, clubs and the performing arts.

Currently, the Trolley runs two routes. The Downtown route connects the Hyatt, Douglas Street, Old Town and the Government District with 10 minute headways between trolleys (LOS B). The Old Town-Delano route connects these two districts with a 20 minute wait between rides (LOS C). Trolleys operate their lunchtime service on weekdays from 11 a.m. to 2 p.m., and a Friday and Saturday night route now runs from 6 p.m. to 12 a.m.

The following figures illustrate these routes.

Figure 41: 2007 Weekday Q-Line Routes



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Figure 42: 2007 Friday and Saturday and Nighttime Q-Line Route



Advantages:

- Green and Blue daytime routes remain relatively unchanged.
- Daytime routes provide north-south and east-west weekday service with 2 routes.
- Overlapping Weekday Downtown Green Route and Weekday Delano/Old Town Blue Route along Douglas provide good LOS to downtown and in Old Town.
- Friday/Saturday night route adds service from 6:00 p.m. to midnight to better serve events, clubs, and the performing arts. Friday Gallery Crawl follows a similar route.
- The Friday/Saturday route promotes use of the Transit's Waterman St. Bus Barn lot as a parking reservoir.

Disadvantages:

- LOS C weekday service to Delano neighborhood.
- Delano not served on Friday/Saturday nights.
- Museum Loop Orange Route is eliminated. No Saturday daytime service remains.
- No Broadway to Kellogg Street linkage.
- Long routes due to one-way circulation.

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FINAL FRIDAY GALLERY CRAWL

The Final Friday Gallery Crawl is funded by the Wichita Downtown Development Corporation (WDDC) to promote the recurring local art event. Trolley service is provided by Wichita Transit. Art galleries across Sedgwick County often participate in this event on the last Friday of each month.

Most galleries use Final Friday to unveil and debut new shows. The event is free and open to the public. Hours vary among different galleries. Some galleries are open from 5:00 p.m. to 10:00 p.m., but all are open during the core hours of 7:00 p.m. to 9:00 p.m.

To facilitate this event, a free shuttle circulates through Downtown to make it easier for people to get from one center city gallery to the next. The trolley also drives by restaurants and shops. Shuttle service is provided from 6:30 to 10:30 p.m. Patrons flag the trolley by stepping to the curb and waving to the approaching trolley driver.

Funding for the free shuttle is provided by the Wichita Downtown Development Corporation. The WDDC works in partnership with participating venues and other sponsors. A complete listing of local arts participants is published at www.wichitaarts.com.

Figure 43: Feb. 23, 2007 Final Friday Gallery Crawl (30 Minute Route)



Source: WDDC: <http://www.downtownwichita.org>

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The February route shown in the previous figure took approximately 30 minutes. To improve service, the May route was reduced to 20 minutes by dropping the link to Delano, as shown in the following figure. Also, Delano was cut because the WDDC became the sole funding source, and WDDC funds should not be spent to provide services for businesses outside of its service area.

Figure 44: May 25, 2007 Final Friday Gallery Crawl (20 Minute Route)



Source: WDDC; <http://www.downtownwichita.org>.

Advantages:

- Simple route.
- North-south and east-west service.
- Service is close to Kellogg.
- Similar to the normal Q-Line Friday + Saturday night route.

Disadvantages:

- LOS D headway. Long routes due to one-way circulation.
- Delano, Century II and WaterWalk areas are not served.



CONCLUSIONS DRAWN FROM EXISTING TRANSIT SERVICES

The following issues have been revealed through our examination of the existing shuttle bus transportation system:

- There is a need to deploy two different shuttle systems – one that addresses downtown circulation, and a second system that addresses events such as Final Friday Gallery Crawl, Arena events, and/or multiple simultaneous events.
- Headways exceeding 10 to 30 minutes or more on some shuttle routes are too long to encourage some parkers to use this service. The most successful systems achieve almost continuous service by maintaining headways of less than six to nine minutes. This frequency is sufficient to not require the use of published schedules.
- One-way transit routes may result in too long a trip length. Even ten-minute headways with two vehicles on a route imply complete route length of 20 minutes or more for a round trip.
- Overlapping of routes increases the frequency of buses along these corridors, if not headway. However, more ridership may be gained if some routes were modified to reduce redundancy and two-way circulation was added to provide better service.
- Routes that include Old Town, the Delano Neighborhood, and also extend to north and south downtown may be too long to provide acceptable service.
- There is insufficient demand to maintain routes that encompass the downtown and include the Museum District.
- The most recent Friday and Saturday and Nighttime Q-Line Route can be marketed as a replacement for the Final Friday Gallery Crawl.
- Sufficient parking capacity exists within the downtown and immediately west of the Arkansas River to supply the necessary shuttle parking reservoir for all but the largest events.
- Parking permit fees are too low to adequately motivate a greater number of parkers to use a remote parking shuttle system. Therefore, only parking shortages, gas prices, and/or convenience will tend to increase shuttle demand.

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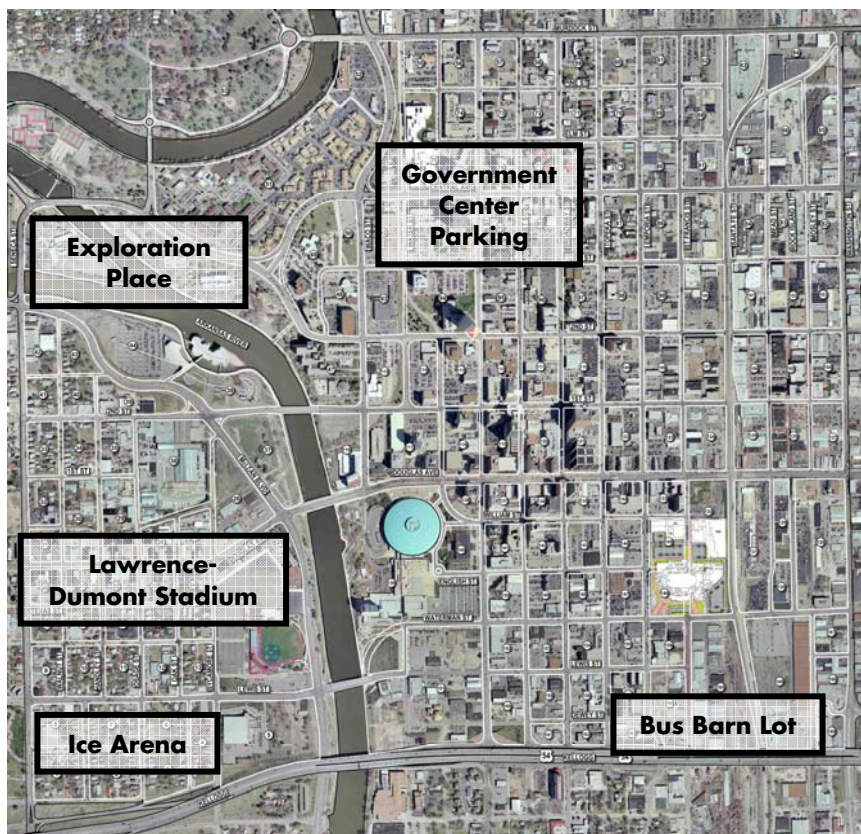
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- Trolley buses are operated on all existing shuttle routes. While the use of smaller vehicles on some routes may be more cost efficient, it may also increase the need for more vehicles and drivers, reduce recognition, and decrease the effectiveness of branding to some patrons.

REMOTE PARKING OPTIONS

A downtown circulator trolley can use existing surplus parking as a reservoir, such as the Bus Barn lot, other unused capacity at the Broadview/Chamber parking garage or in Government Center facilities. An event driven shuttle will need larger parking reservoirs that may exist within the CBD or within reasonable distance. The following figure identifies some CBD remote parking options:

Figure 45: Remote Parking Options within the Study Area



The Bus Barn Lot is within walking distance of the Arena. While it is considered a reservoir lot for the Q-Line and Final Friday Gallery Crawl, it is not considered part of the remote parking supply.

It is of concern that simultaneous events at two or more venues or during the River Festival have the potential to overwhelm the parking system. A sincere, coordinated scheduling effort should be made to

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avoid such conflicts that can generate a combined parking demand that exceeds the parking supply.

The remote parking options were expanded to include more distant remote parking possibilities in the Museum District, at Friends University, Kansas Newman College, Dillon's Supermarkets, Town West Square Mall and Town East Square Mall. Possible capacities are listing in the following table.

Table 68: Potential Remote Parking

<i>Government District Parking</i>	Type	Inventory	Weekday Occupancy
Sedgwick Co. Garage	Private Garage	453	420
Sedgwick Co. Garage	Public Garage	453	356
City Hall Surface Lot	Private Surface	217	89
City Hall Garage	Public Garage	450	322
City Hall 2 Hr Meter Lot	Public Surface	71	52
Monthly Lot - Gov Employees	Private Surface	168	149
Daily-Monthly Lot	Public Surface	190	136
Total		2,002	1,524
Assumed Available			478-

<i>Lawrence Dumont Stadium</i>	Type	Inventory	Assumed Available
Baseball Stadium	Public Surface	827	722
Metropolitan Baptist Ch	Private Surface	200	121
Wichita Ice Center	Public Surface	296	240
Total		1,323	1,083

<i>Exploration Place</i>	Public Surface	480	236
<i>Museum District</i>	Public Surface		1,000+
<i>Towne East Square Mall</i>	Private Surface		1,000+
<i>Towne West Square Mall</i>	Private Surface		1,000+
<i>Friends University</i>	Private Surface	1,200+	600±
<i>Kansas Newman University</i>	Private Surface	900+	500±
<i>Dillon Supermarkets</i>	Private Surface	1,000+	?

Dillon Supermarket operates a number of supermarkets in the vicinity of downtown Wichita. While no one store is judged to have sufficient capacity to serve as a parking reservoir for a shuttle operation, it might

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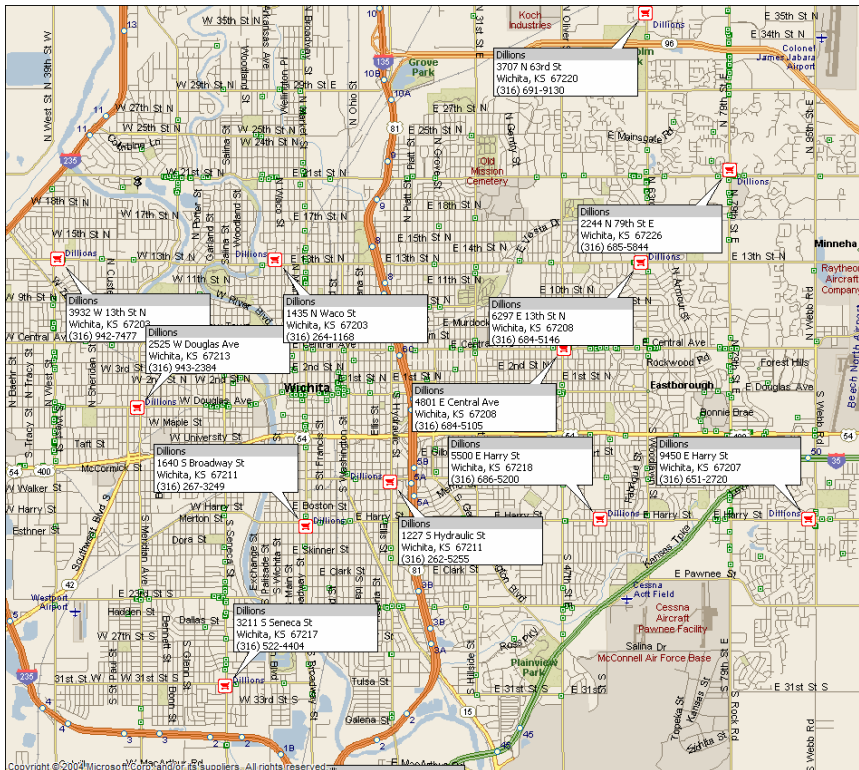
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be possible to ask parkers to frequent and park at any local Dillon store and ride regularly scheduled or specially scheduled Wichita Transit city buses to the Downtown. The Dillon Supermarket stores most proximate to downtown are mapped in the following figure.

Figure 46: Map of Dillon Stores in the Center City



These remote parking options have the capacity to meet some or all of the parking demand of a circulator system or event shuttle system with different constraints to each. The suitability and the assumed availability of each remote parking option are considered, as follows:

Government District parking is not expected to be available during weekdays; however, this parking could be available at night or on weekends.

Lawrence Dumont Stadium and surrounding properties would be available during most days and nights. Conflicts could occur on Sunday mornings with the Metropolitan Baptist Church, and during some ice hockey competitions.

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Exploration Place unused parking would be available during most weekdays and evenings. Conflicts could occur during special exhibits, school programs, and during weekend daytime (the peak museum demand period).



Museum District (Sims Park Drive/West Museum Boulevard) parking lots would be available during most weekdays and evenings. Conflicts could occur during weekend daytime (the peak museum demand period). This district has proven to be too distant to be effectively integrated into the existing downtown Q-Line circulator.



Towne East and Town West Square Malls have been effectively used in the past by Wichita Transit as remote parking for large events. Walker has not contacted Simon Property Group or local management to determine availability or interest.



Friends University and/or Newman University might be receptive for use on weekends, summer break, or vacation periods as a remote parking option during large events. However, a general surplus of parking during weekdays is probably not available. Level of service provided by the use of either is assumed to be better than that of Towne West Square Mall. Walker has not contacted these institutions to determine availability or interest.



Dillon Supermarkets operates a number of grocery stores in the vicinity of downtown Wichita. While no one store is judged to have sufficient capacity to serve as a parking reservoir for a shuttle operation, it might be possible to direct parkers to frequent and park at any local Dillon store and ride regularly or specially scheduled Wichita Transit buses to the Downtown. However, conflicts will arise during holiday peak demand periods for grocery stores, which includes Thanksgiving, Christmas, Easter, July 4th, Memorial Day, Labor Day, etc. Walker has not contacted Dillon Companies, Inc., parent company Kroger, or local management to determine availability or interest in participating in a mobility plan.



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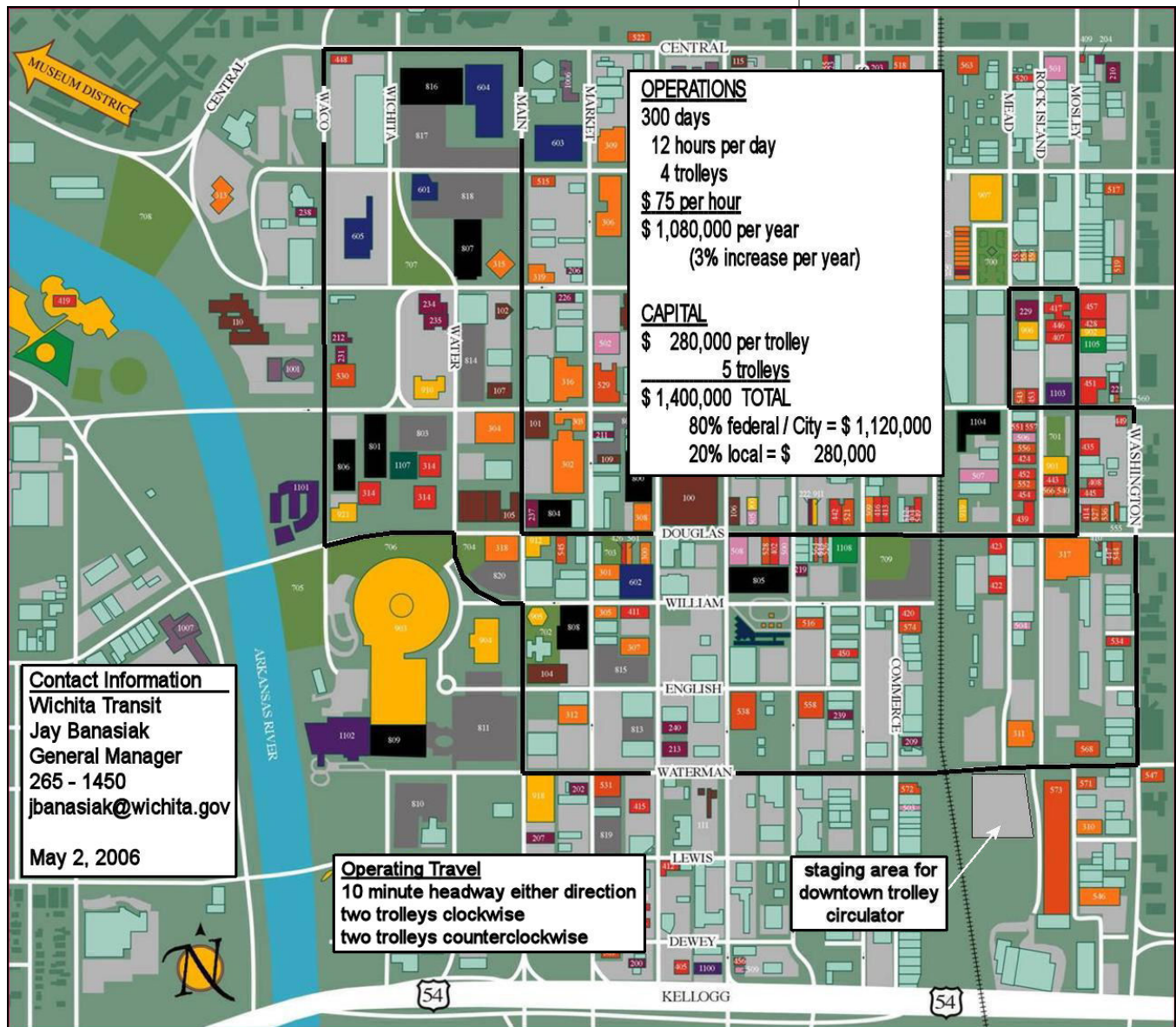
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WICHITA TRANSIT'S CONCEPTUAL FUTURE DAYTIME TROLLEY

Wichita Transit has presented an upgraded option for the Q-Line Trolley, which is presented in the following graphic figure.

DOWNTOWN TRANSIT OPTIONS

Figure 47: Wichita Transit Proposed Future Daytime Shuttle



Source: Wichita Transit

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Proposed Wichita Transit program assumptions:

- The proposed new route links the Government Center, Century II, Old Town, and Arena Site with a north-south leg that continues with an east-west loop.
- This route promotes the uses of the Bus Barn lot and Government Center parking as the parking storage reservoir, but other parking reservoirs, such as the Broadview/Chamber parking garage and Government Center parking facilities lay along the route.
- Fielding 4 trolleys along the route results in 10-minute headways between trolleys in each direction.
- Operating this simplified route for 12-hours/day, at \$75/hour, 300 days/yr. (Mon.-Sat.) results in an annual budget of approximately \$1.1 million. This amount can be expected to increase in cost about 3% per year, based on past experience.
- As shown in Figure 9 on the previous page, Capital startup costs are estimated at \$1,400,000 to provide 5 trolleys (4 operating + 1 spare). It is assumed that the capital cost can be 80% funded by Federal sources such as FTA grants, with a 20% match of City funds or other local funds (\$280,000).

The following problems with Wichita Transit's Proposed Future Daytime Shuttle are noted:

- The route does not serve the Delano neighborhood.
- It does not take advantage of significantly underutilized parking at or near Lawrence-Dumont Stadium and Exploration Place.
- It will not serve Waterwalk or link hotels in the south quadrant of the downtown.
- It will not adequately serve North Old Town.

CONCEPTUAL CIRCULATOR OPTIONS

Walker has examined the various options to continue and enhance the circulator trolley operation. To meet budgetary constraints and to build ridership, Walker proposes three levels of service:

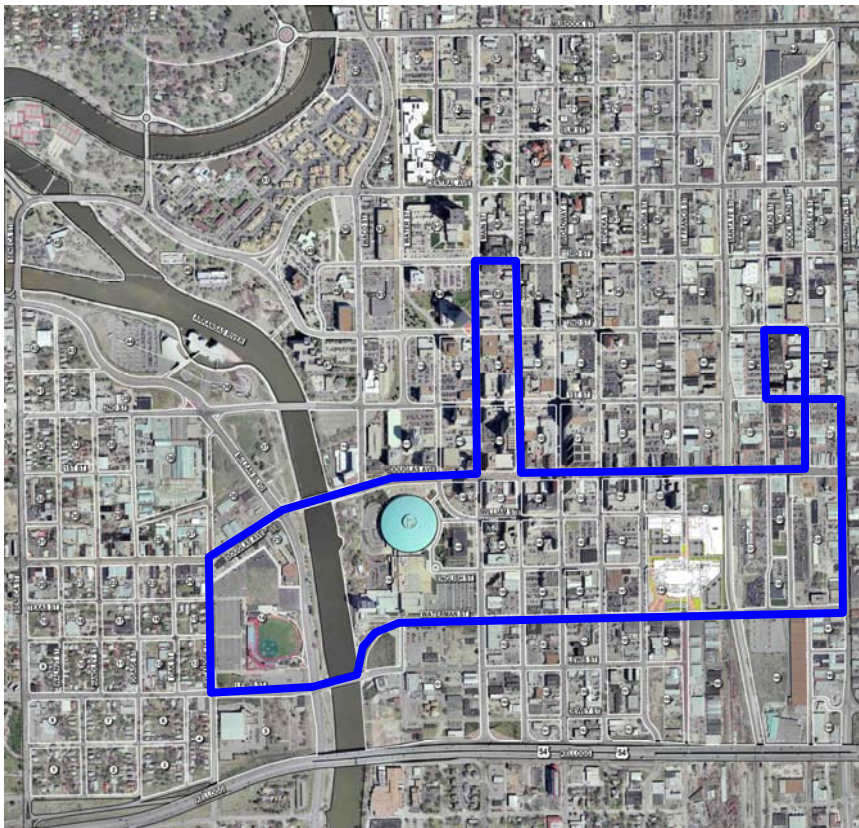
- 1. Limited Service
- 2. Expanded Service
- 3. Full Service

Each level is presented sequentially below.

LIMITED SERVICE

The Limited Service route shown in the following figure is comprised of a single loop.

Figure 48: Limited Service Trolley Route



Source: Walker Parking Consultants

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Conceptual Limited-Service Circulator Trolley Program:

- One route is proposed.
- Loop links the Delano neighborhood, Government Center, Old Town, New Area, and Century II.
- Uses Lawrence-Dumont parking, Government Center parking, other existing downtown parking structures such as the Broadview garage, and the Bus Barn lot for parking reservoirs and staging area.
- The estimated circuit time is 15 minutes.
- Fielding three (3) trolleys results in a five minute headway.
- Operating this configuration for 5-hours/day Monday-Thursday (10 a.m. to 3 p.m. + 12 hours/day Friday (11 a.m. to 11 p.m.) + 13 hours/day Saturday (11 a.m. to 12 a.m.) = 45 hours/wk. x 52 weeks at \$75/hour, results in an annual budget of approximately \$526,500.
- Capital startup costs are estimated at \$1,120,000 to provide 4 trolleys @ \$280,000 ea. (3 operating + 1 spare). It is assumed that the capital cost can be 80% funded by Federal sources such as FTA grants, with a 20% match of City funds or other local funds (approximately \$224,000).

The following issues are noted:

- It will not link hotels near Kellogg Street.
- It will not link Exploration Place.
- It will require future modification to serve North Old Town.

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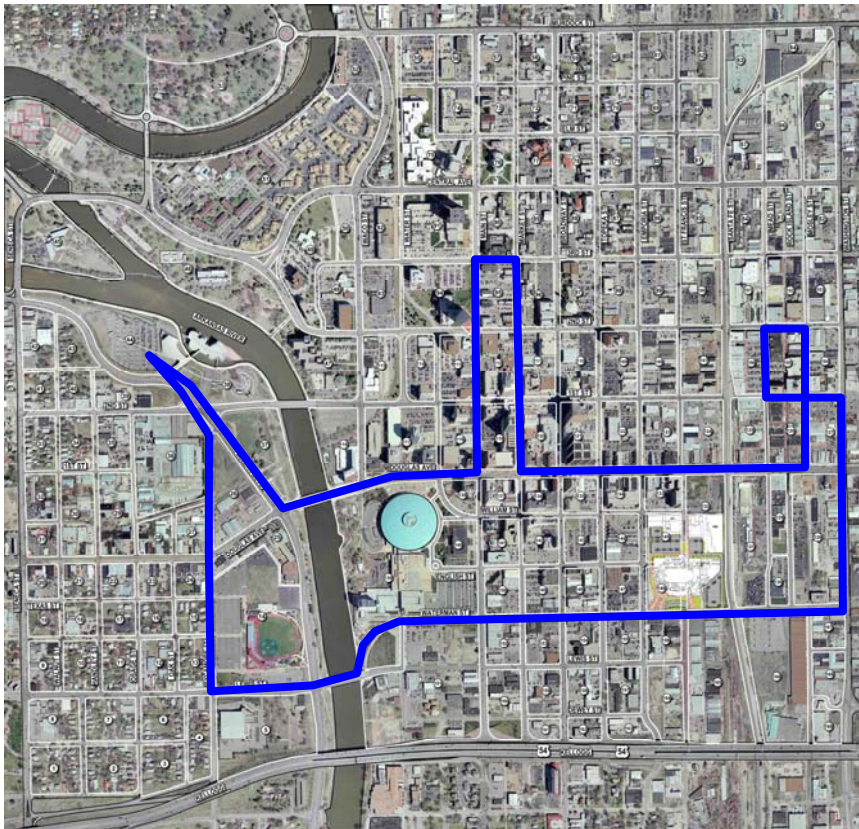
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EXPANDED SERVICE

The Expanded Service route shown in the following figure is comprised of a single loop based on the previous Limited Service route, but is extended to include Exploration Place.

Figure 49: Expanded Service Trolley Route



Source: Walker Parking Consultants

Conceptual Expanded-Service Circulator Trolley Program:

- One route is proposed.
- Loop links the Delano neighborhood, Exploration Place, Government Center, Old Town, New Area, and, Century II.
- Uses Lawrence-Dumont parking, Exploration Place parking, Government Center parking, other existing downtown parking structures, and the Bus Barn lot for parking reservoirs and staging area.

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- The estimated circuit time is 20 minutes.
- Fielding three (3) trolleys results in a seven minute headway.
- Operating this configuration for 7-hours/day Monday-Thursday (10 a.m. to 5 p.m. + 13 hours/day Friday (11 a.m. to 12 a.m.) + 13 hours/day Saturday (11 a.m. to 12 a.m.) = 54 hours/wk x 52 weeks at \$75/hour, results in an annual budget of approximately \$631,800.
- Capital startup costs are estimated at \$1,120,000 to provide 4 trolleys @ \$280,000 ea. (3 operating + 1 spare). It is assumed that the capital cost can be 80% funded by Federal sources such as FTA grants, with a 20% match of City funds or other local funds (approximately \$224,000).

The following issues are noted:

- It will not link hotels near Kellogg Street.
- It will require future modification to serve North Old Town.

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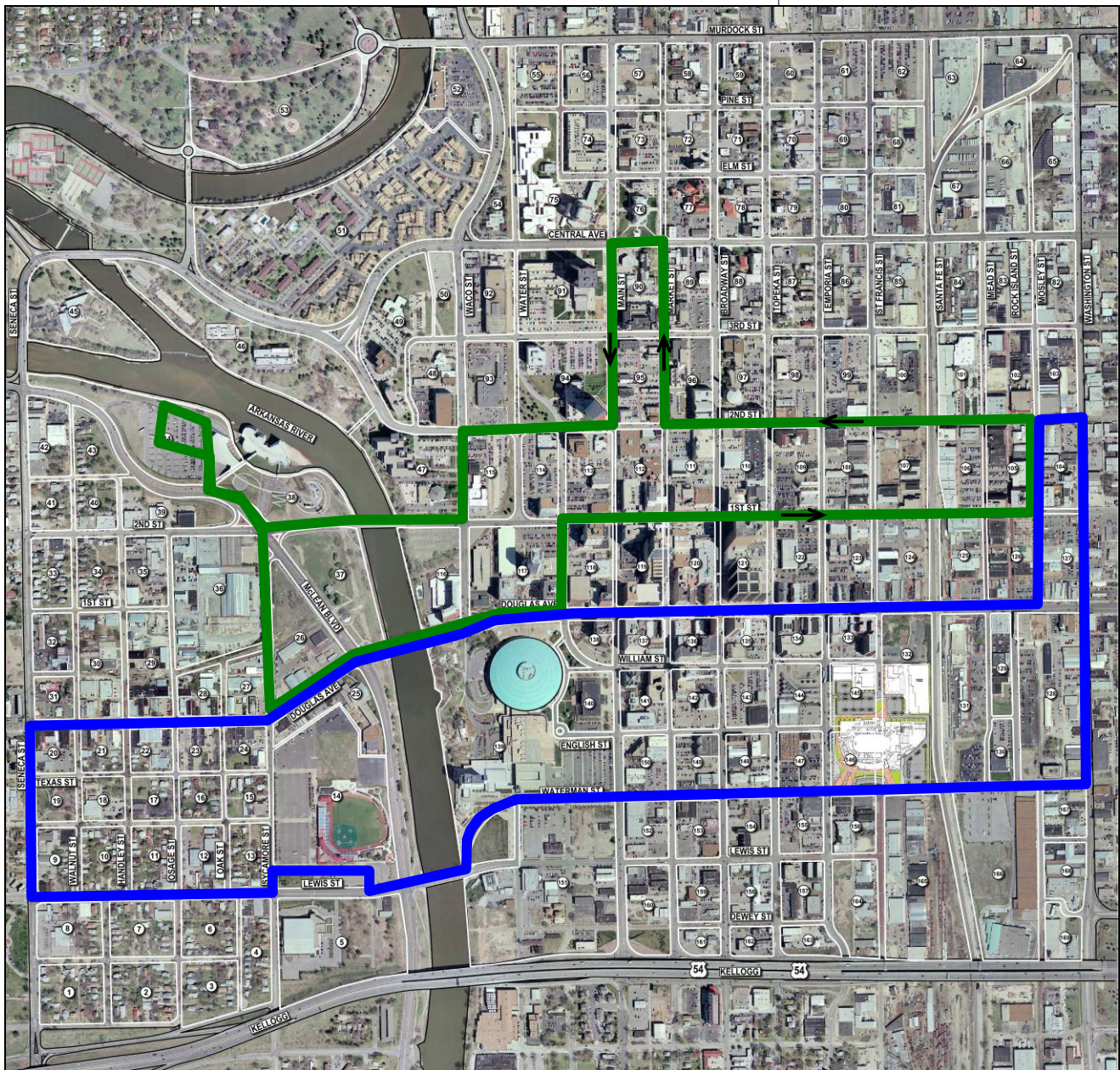
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FULL-SERVICE CIRCULATOR TROLLEY

In the Full-Service scenario, Walker proposes a circulator trolley operation comprised of two loops – one to north and one to the south of downtown as shown in the following figure.

Figure 50: Proposed Full-Service Circulator Shuttle



Source: Walker Parking Consultants

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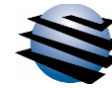
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Conceptual Full-Service Circulator Trolley Program:

- Two routes are proposed a north loop and a south loop.
- North loop links Exploration Place, Government Center, Old Town, Century II, and the Delano neighborhood.
- North loop uses Lawrence-Dumont parking and existing downtown parking structures for parking reservoir. It could be modified easily to use Exploration Place for parking reservoir.
- North loop driving distance is 3.4 miles.
The estimated circuit time is 14 minutes.
- South loop links Delano, Century II, Hotels, Waterwalk, Old Town, and Arena Site.
- South Loop uses Lawrence-Dumont and Bus Barn lot as parking storage reservoirs.
- South loop driving distance is 4.0 miles.
The estimated circuit time is 15 minutes.
- Fielding two (2) trolleys along the north route and four (4) trolleys along the south route (2 clockwise and 2 counterclockwise) results in 7 to 8 minute headways on each route.
- Operating this configuration for 10-hours/day Monday-Thursday (8 a.m. to 6 p.m. + 16 hours/day Friday (8 a.m. to 12 a.m.) + 13 hours/day Saturday (11 a.m. to 12 a.m.) = 69 hours/wk x 52 weeks at \$75/hour, results in an annual budget of approximately \$1.62 million.
- Capital startup costs are estimated at \$1,680,000 to provide 6 trolleys (6 operating + 0 spare). It is assumed that the capital cost can be 80% funded by Federal sources such as FTA grants, with a 20% match of City funds or other local funds (approximately \$336,000).

The following issues are noted:

- It will not link hotels near Kellogg Street.
- It will require future modification to serve North Old Town.
- An inoperable trolley would reduce south loop to 3 vehicles.
No spare is considered necessary, but service would decline.



CONCEPTUAL DOWNTOWN EVENT SHUTTLE OPTIONS

As developed in the Section I of this report, prospective Arena events are categorized as small, medium and large. The following table shows the estimated parking demand ranging from 1,334 to 5,000 spaces.

Table 69: Anticipated Arena Parking Demand

Event Classification	Attendance	Persons	
		Per Vehicle	Parking Demand
Small	4,000	3.0	1,334
Medium	8,000	3.0	2,667
Large	15,000	3.0	5,000

Walker Parking Consultants

Our analysis of parking adequacy previously presented is of critical interest to event shuttle operations. Our findings are summarized in the table below, which shows our analysis of the current parking adequacy of the system within a reasonable walking distance, as well as the frequency of these events.

Table 70: Projected Arena Event Parking Adequacy and Frequency

	Arena Event Size		
	Small	Medium	Large
<i>Weekend/Evening</i>	1,882	549	(1,784)
<i>Frequency</i>	86	62	14
<i>Weekday/Day</i>	705	(628)	(2,961)
<i>Frequency</i>	8	4	1

Walker Parking Consultants

Most large events will probably occur during a weekend or evening. The worst case is a large sellout event during a weekday, though only a few events create this type of parking demand during a weekday daytime. One example is the "Get Motivated Success Seminar" by Zig Ziglar, or a major religious figure speaking at the arena.

This analysis also considers the impact of a large or medium event occurring simultaneously. Our calculations provide a similar comparison of parking adequacy based on the time period and size of each event. The following table displays the projected impact of the simultaneous events at the two venues.

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Table 71: Impact of simultaneous Events at Century II and the Arena

		Arena Event Size		
		Small	Medium	Large
Century II Event Size	<i>Weekend/Evening</i>			
	Medium	1,726	393	(1,940)
	Frequency	45	40	4
	Large	926	(407)	(2,740)
	Frequency	10	8	2
	<i>Weekday/Day</i>			
	Medium	497	(836)	(3,169)
	Frequency	3	1	1
Large	(303)	(1,636)	(3,969)	
Frequency	2	1	0	

Walker Parking Consultants

Our opinion is that of 175 potential annual events at the new arena, approximately 29 will experience parking adequacy issues (deficits) based on the current available parking supply within an acceptable walking distance after parking. A shuttle operation must be provided with the capacity to park these deficits remotely and convey those patrons to the event in a timely manner. The combinations of simultaneous events that generate parking space deficits that must be accommodated are further summarized in the following table.

Table 72: Event Deficit Summary

Weekend/Evening	# of Events	Deficit
Medium Arena Event + Large Century II Event	8	407
Large Arena Event, Only	8	1,784
Large Arena Event + Medium Century II Event	4	1,940
Large Arena Event + Large Century II Event	2	2,740
<i>Weekday</i>		
Small Arena Event + Large Century II Event	2	303
Medium Arena Event, Only	2	628
Medium Arena Event + Medium Century II Event	1	836
Medium Arena Event + Large Century II Event	1	1,636
Large Arena Event, Only	0	2,961
Large Arena Event + Medium Century II Event	1	3,169
Large Arena Event + Large Century II Event *	0	3,969

* This schedule assumes that a large arena event will not be held simultaneously with a large Century II event on a weekday daytime.

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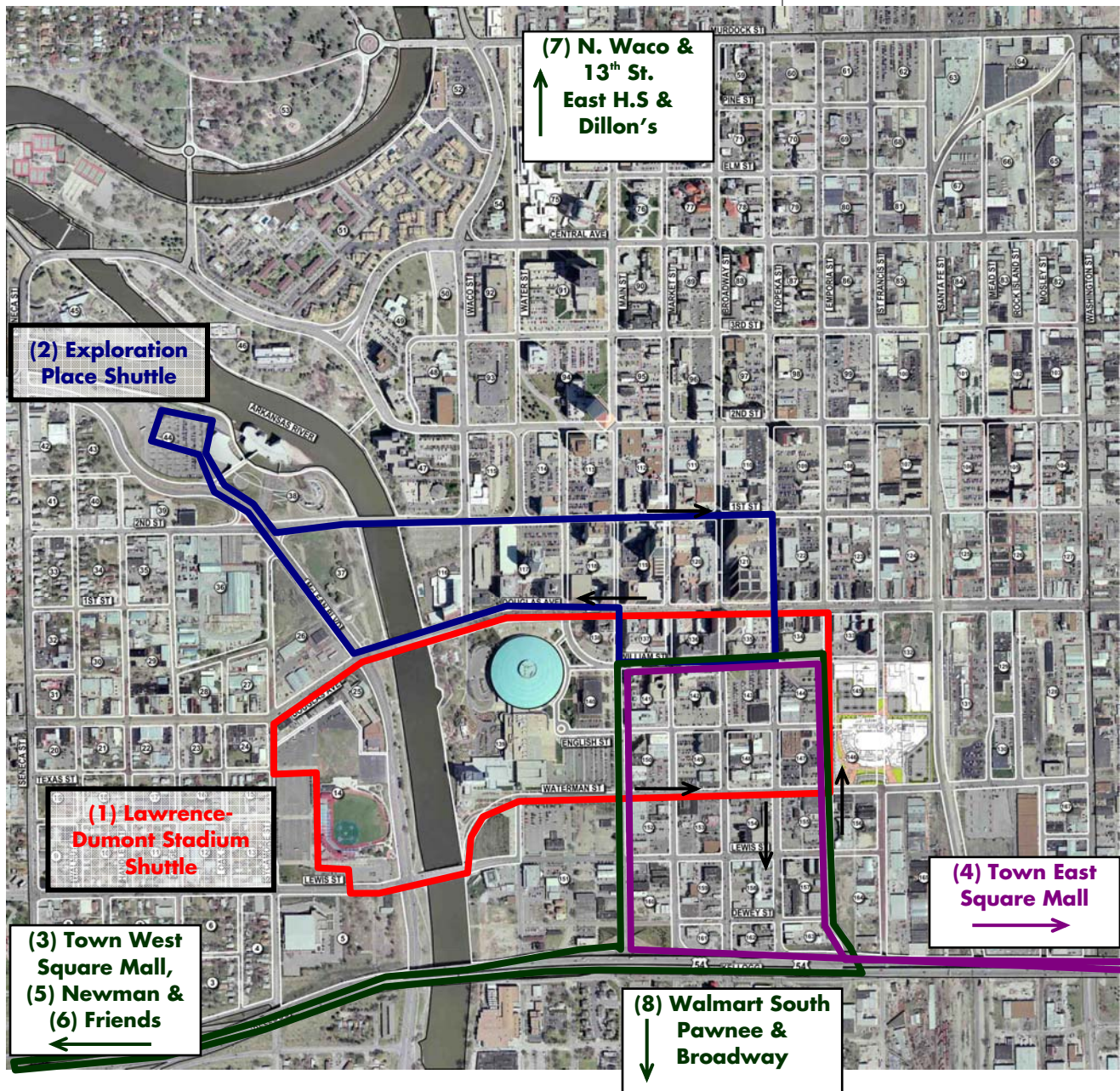
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These events can be accommodated through the use of one or a combination of the four proposed Event Shuttle routes shown in the following figure.

Figure 51: Proposed Arena Event Shuttle Routes



The cost of operating each shuttle route at peak capacity is calculated in the tables on the following pages.

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Table 73: (Event Route 1) Lawrence-Dumont Stadium Shuttle Cost

Event Route #1	Inventory	Assumed Available
Baseball Stadium	827	722
Metropolitan Baptist Church	200	121
Wichita Ice Center	296	240
Totals	1,323	1,083

Input Data:

Parking Capacity		1,000 Vehicles
Peak Hour Arrival	85%	850 Vehicles
Event Patrons	3.0 per vehicle	2,550 People
Passenger Peak Hour =		2,550 Passengers
Peak Hour Ridership Factor (PHRF) =		0.95
Passenger Capacity Requirement =		2,684 Passengers
With Equal Round Trip Return		5,368 Passengers
Round Trip Route Length =	2.1 Miles	11,090 Feet
Average Vehicle Speed for Route =		12 MPH
Trip Travel Time =		10.5 Minutes
Load/Unload/Dwell =		5.0 Minutes
Bus Capacity =		50 Passengers
Buses Required		6 Vehicles

Arena Event Route #1 - Lawrence-Dumont Stadium

Time From	Time To	R'dtrip Travel Time Avg.	Load/Unload Time	Shuttle Bus Capacity Passengers	Round Trips/Hour/Bus	Number of Buses Scheduled	Actual Average Headway Minutes	Hourly Ridership Capacity at 0.95 PHRF
7:00 AM	8:00 AM	10.5	5.0	50	3.9	6	2.6	1,112
8:00 AM	9:00 AM	15.8	5.0	50	2.9	6	3.4	827
9:00 AM	10:00 AM	10.5	5.0	50	3.9	6	2.6	1,112
10:00 AM	11:00 AM	10.5	5.0	50	3.9	6	2.6	1,112
11:00 AM	12:00 PM	10.5	5.0	50	3.9	6	2.6	1,112
12:00 PM	1:00 PM	10.5	5.0	50	3.9	6	2.6	1,112
1:00 PM	2:00 PM	10.5	5.0	50	3.9	6	2.6	1,112
2:00 PM	3:00 PM	10.5	5.0	50	3.9	6	2.6	1,112
3:00 PM	4:00 PM	15.8	5.0	50	2.9	6	3.4	827
4:00 PM	5:00 PM	15.8	5.0	50	2.9	6	3.4	827
5:00 PM	6:00 PM	10.5	5.0	50	3.9	6	2.6	1,112
6:00 PM	7:00 PM	10.5	5.0	50	3.9	6	2.6	1,112
7:00 PM	8:00 PM	10.5	5.0	50	3.9	6	2.6	1,112
8:00 PM	9:00 PM	10.5	5.0	50	3.9	6	2.6	1,112
9:00 PM	10:00 PM	10.5	5.0	50	3.9	6	2.6	1,112
10:00 PM	11:00 PM	10.5	5.0	50	3.9	6	2.6	1,112

Results:	Shuttle Buses Required		6 Vehicles
	Number of Hours of Operation	6:00 PM to 11:00 PM	5 Hours
			30 Bus Hours
	Shuttle-Bus Cost =		\$75 per Hour
	Event Shuttle Cost from this Parking Location =		\$2,250

Source: Walker Parking Consultants

To accommodate up to 2,684 passenger round trips between 6 p.m. and 11 p.m. will require up to 6 buses. Assuming 5 hours of service per bus equals 30 bus hours at \$75 per hour = \$2,250 per event.

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Table 74: (Event Route 2) Discovery Place Shuttle Cost

Event Route #2	Inventory	Assumed Available
Discovery Place	480	236

Input Data:

Parking Capacity		200 Vehicles
Peak Hour Arrival	85%	170 Vehicles
Event Patrons	3.0 per vehicle	510 People
Passenger Peak Hour =		510 Passengers
Peak Hour Ridership Factor (PHRF) =		0.95
Passenger Capacity Requirement =		537 Passengers
With Equal Round Trip Return		1,074 Passengers
Round Trip Route Length =	2.9 Miles	15,320 Feet
Average Vehicle Speed for Route =		12 MPH
Trip Travel Time =		16.0 Minutes
Load/Unload/Dwell =		5.0 Minutes
Bus Capacity =		50 Passengers
Buses Required		2 Vehicles

Arena Event Route #2 - Exploration Place

Time From	Time To	R'dtrip Travel Time Avg.	Load/Unload Time	Shuttle Bus Capacity Passengers	Round Trips/Hour/Bus	Number of Buses Scheduled	Actual Average Headway Min.	Hourly Ridership Capacity at 0.95 PHRF
7:00 AM	8:00 AM	16.0	5.0	50	2.9	2	10.3	276
8:00 AM	9:00 AM	24.0	5.0	50	2.1	2	14.3	200
9:00 AM	10:00 AM	16.0	5.0	50	2.9	2	10.3	276
10:00 AM	11:00 AM	16.0	5.0	50	2.9	2	10.3	276
11:00 AM	12:00 PM	16.0	5.0	50	2.9	2	10.3	276
12:00 PM	1:00 PM	16.0	5.0	50	2.9	2	10.3	276
1:00 PM	2:00 PM	16.0	5.0	50	2.9	2	10.3	276
2:00 PM	3:00 PM	16.0	5.0	50	2.9	2	10.3	276
3:00 PM	4:00 PM	24.0	5.0	50	2.1	2	14.3	200
4:00 PM	5:00 PM	24.0	5.0	50	2.1	2	14.3	200
5:00 PM	6:00 PM	16.0	5.0	50	2.9	2	10.3	276
6:00 PM	7:00 PM	16.0	5.0	50	2.9	2	10.3	276
7:00 PM	8:00 PM	16.0	5.0	50	2.9	2	10.3	276
8:00 PM	9:00 PM	16.0	5.0	50	2.9	2	10.3	276
9:00 PM	10:00 PM	16.0	5.0	50	2.9	2	10.3	276
10:00 PM	11:00 PM	16.0	5.0	50	2.9	2	10.3	276

Results:	Shuttle Buses Required		2 Vehicles
	Number of Hours of Operation	6:00 PM to 11:00 PM	5 Hours
			10 Bus Hours
	Shuttle-Bus Cost =		\$75 per Hour
	Event Shuttle Cost to this Parking Location =		\$750

Source: Walker Parking Consultants

To accommodate up to 537 passenger round trips between 6 p.m. and 11 p.m. will require 2 buses. Assuming 5 hours of service per bus equals 10 bus hours at \$75 per hour = \$750 per event.

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Table 75: (Event Route 3) Towne West Square Mall Shuttle Cost

Event Route #3	Assumed Available
Towne West Square Mall	1,000+
Input Data:	
Parking Capacity	1,000 Vehicles
Peak Hour Arrival	85% 850 Vehicles
Event Patrons	3.0 per vehicle 2,550 People
Passenger Peak Hour =	2,550 Passengers
Peak Hour Ridership Factor (PHRF) =	0.95
Passenger Capacity Requirement =	2,684 Passengers
With Equal Round Trip Return	5,368 Passengers
Round Trip Route Length =	10.4 Miles 54,920 Feet
Average Vehicle Speed for Route =	30 MPH
Trip Travel Time =	21 Minutes
Load/Unload/Dwell =	5 Minutes
Bus Capacity =	50 Passengers
Buses Required	10 Vehicles

Arena Event Route #3 - Towne West Square Mall

Time From	Time To	R'dtrip Travel Time Avg.	Load/Unload Time	Shuttle Bus Capacity Passengers	Round Trips/Hour/Bus	Number of Buses Scheduled	Actual Average Headway Min.	Hourly Ridership Capacity at 0.95 PHRF
7:00 AM	8:00 AM	21	5	50	2.3	10	2.6	1,093
8:00 AM	9:00 AM	32	5	50	1.6	10	3.8	760
9:00 AM	10:00 AM	21	5	50	2.3	10	2.6	1,093
10:00 AM	11:00 AM	21	5	50	2.3	10	2.6	1,093
11:00 AM	12:00 PM	21	5	50	2.3	10	2.6	1,093
12:00 PM	1:00 PM	21	5	50	2.3	10	2.6	1,093
1:00 PM	2:00 PM	21	5	50	2.3	10	2.6	1,093
2:00 PM	3:00 PM	21	5	50	2.3	10	2.6	1,093
3:00 PM	4:00 PM	32	5	50	1.6	10	3.8	760
4:00 PM	5:00 PM	32	5	50	1.6	10	3.8	760
5:00 PM	6:00 PM	21	5	50	2.3	10	2.6	1,093
6:00 PM	7:00 PM	21	5	50	2.3	10	2.6	1,093
7:00 PM	8:00 PM	21	5	50	2.3	10	2.6	1,093
8:00 PM	9:00 PM	21	5	50	2.3	10	2.6	1,093
9:00 PM	10:00 PM	21	5	50	2.3	10	2.6	1,093
10:00 PM	11:00 PM	21	5	50	2.3	10	2.6	1,093

Results:	Shuttle Buses Required	10 Vehicles
	Number of Hours of Operation	6:00 PM to 11:00 PM 5 Hours
		50 Bus Hours
	Shuttle-Bus Cost =	\$75 per Hour
	Event Shuttle Cost to this Parking Location =	\$3,750

Source: Walker Parking Consultants

To accommodate up to 2,684 passenger round trips between 6 p.m. and 11 p.m. will require 10 buses. Assuming 5 hours of service per bus equals 50 bus hours at \$75 per hour = \$3,750 per event.

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Table 76: (Event Route 4) Towne East Square Mall Shuttle Cost

Event Route #4	Assumed Available
Towne East Square Mall	1,000+
 Input Data:	
Parking Capacity	1,000 Vehicles
Peak Hour Arrival	85% 850 Vehicles
Event Patrons	3.0 per vehicle 2,550 People
Passenger Peak Hour =	2,550 Passengers
Peak Hour Ridership Factor (PHRF) =	0.95
Passenger Capacity Requirement =	2,684 Passengers
With Equal Round Trip Return	5,368 Passengers
Round Trip Route Length =	9.6 Miles 50,690 Feet
Average Vehicle Speed for Route =	30 MPH
Trip Travel Time =	19 Minutes
Load/Unload/Dwell =	5 Minutes
Bus Capacity =	50 Passengers
Buses Required	9 Vehicles

Arena Event Route #4 - Towne East Square Mall

Time From	Time To	R'dtrip Travel Time Avg.	Load/Unload Time	Shuttle Bus Capacity Passengers	Round Trips/Hour/Bus	Number of Buses Scheduled	Actual Average Headway Min.	Hourly Ridership Capacity at 0.95 PHRF
7:00 AM	8:00 AM	19	5	50	2.5	9	2.7	1,069
8:00 AM	9:00 AM	29	5	50	1.8	9	3.7	770
9:00 AM	10:00 AM	19	5	50	2.5	9	2.7	1,069
10:00 AM	11:00 AM	19	5	50	2.5	9	2.7	1,069
11:00 AM	12:00 PM	19	5	50	2.5	9	2.7	1,069
12:00 PM	1:00 PM	19	5	50	2.5	9	2.7	1,069
1:00 PM	2:00 PM	19	5	50	2.5	9	2.7	1,069
2:00 PM	3:00 PM	19	5	50	2.5	9	2.7	1,069
3:00 PM	4:00 PM	29	5	50	1.8	9	3.7	770
4:00 PM	5:00 PM	29	5	50	1.8	9	3.7	770
5:00 PM	6:00 PM	19	5	50	2.5	9	2.7	1,069
6:00 PM	7:00 PM	19	5	50	2.5	9	2.7	1,069
7:00 PM	8:00 PM	19	5	50	2.5	9	2.7	1,069
8:00 PM	9:00 PM	19	5	50	2.5	9	2.7	1,069
9:00 PM	10:00 PM	19	5	50	2.5	9	2.7	1,069
10:00 PM	11:00 PM	19	5	50	2.5	9	2.7	1,069

Results:	Shuttle Buses Required	9 Vehicles
	Number of Hours of Operation	6:00 PM to 11:00 PM 5 Hours
	Shuttle-Bus Cost =	45 Bus Hours \$75 per Hour
	Event Shuttle Cost to this Parking Location =	\$3,375

Source: Walker Parking Consultants

To accommodate up to 2,684 passenger round trips between 6 p.m. and 11 p.m. will require 9 buses. Assuming 5 hours of service per bus equals 45 bus hours at \$75 per hour = \$3,375 per event.

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Table 77: (Event Route 5) Newman University Shuttle Cost

Event Route #5	Assumed Available	
Newman University	500+	
Input Data:		
Parking Capacity		500 Vehicles
Peak Hour Arrival	85%	425 Vehicles
Event Patrons	3.0 per vehicle	1,275 People
Passenger Peak Hour =		1,275 Passengers
Peak Hour Ridership Factor (PHRF) =		0.95
Passenger Capacity Requirement =		1,342 Passengers
With Equal Round Trip Return		2,684 Passengers
Round Trip Route Length =	6.4 Miles	33,800 Feet
Average Vehicle Speed for Route =		30 MPH
Trip Travel Time =		13 Minutes
Load/Unload/Dwell =		5 Minutes
Bus Capacity =		50 Passengers
Buses Required		4 Vehicles

Arena Event Route #5 - Newman University

Time From	Time To	R'dtrip Travel Time Avg.	Load/Unload Time	Shuttle Bus Capacity Passengers	Round Trips/Hour/Bus	Number of Buses Scheduled	Actual Average Headway Min.	Hourly Ridership Capacity at 0.95 PHRF
7:00 AM	8:00 AM	13	5	50	3.4	4	4.4	646
8:00 AM	9:00 AM	19	5	50	2.5	4	6.0	475
9:00 AM	10:00 AM	13	5	50	3.4	4	4.4	646
10:00 AM	11:00 AM	13	5	50	3.4	4	4.4	646
11:00 AM	12:00 PM	13	5	50	3.4	4	4.4	646
12:00 PM	1:00 PM	13	5	50	3.4	4	4.4	646
1:00 PM	2:00 PM	13	5	50	3.4	4	4.4	646
2:00 PM	3:00 PM	13	5	50	3.4	4	4.4	646
3:00 PM	4:00 PM	19	5	50	2.5	4	6.0	475
4:00 PM	5:00 PM	19	5	50	2.5	4	6.0	475
5:00 PM	6:00 PM	13	5	50	3.4	4	4.4	646
6:00 PM	7:00 PM	13	5	50	3.4	4	4.4	646
7:00 PM	8:00 PM	13	5	50	3.4	4	4.4	646
8:00 PM	9:00 PM	13	5	50	3.4	4	4.4	646
9:00 PM	10:00 PM	13	5	50	3.4	4	4.4	646
10:00 PM	11:00 PM	13	5	50	3.4	4	4.4	646

Results:	Shuttle Buses Required		4 Vehicles
	Number of Hours of Operation	6:00 PM to 11:00 PM	5 Hours
			20 Bus Hours
	Shuttle-Bus Cost =		\$75 per Hour
	Event Shuttle Cost to this Parking Location =		\$1,500

Source: Walker Parking Consultants

To accommodate up to 1,342 passenger round trips between 6 p.m. and 11 p.m. will require 4 buses. Assuming 5 hours of service per bus equals 20 bus hours at \$75 per hour = \$1,500 per event.

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Table 78: (Event Route 6) Friends University Shuttle Cost

Event Route #6	Assumed Available
Friends University	600+
Input Data:	
Parking Capacity	600 Vehicles
Peak Hour Arrival	85% 510 Vehicles
Event Patrons	3.0 per vehicle 1,530 People
Passenger Peak Hour =	1,530 Passengers
Peak Hour Ridership Factor (PHRF) =	0.95
Passenger Capacity Requirement =	1,611 Passengers
With Equal Round Trip Return	3,222 Passengers
Round Trip Route Length =	4.6 Miles 24,290 Feet
Average Vehicle Speed for Route =	25 MPH
Trip Travel Time =	11 Minutes
Load/Unload/Dwell =	5 Minutes
Bus Capacity =	50 Passengers
Buses Required	4 Vehicles

Arena Event Route #6 - Friends University

Time From	Time To	R'dtrip Travel Time Avg.	Load/Unload Time	Shuttle Bus Capacity Passengers	Round Trips/Hour/Bus	Number of Buses Scheduled	Actual Average Headway Min.	Hourly Ridership Capacity at 0.95 PHRF
7:00 AM	8:00 AM	11	5	50	3.8	4	3.9	722
8:00 AM	9:00 AM	17	5	50	2.8	4	5.4	532
9:00 AM	10:00 AM	11	5	50	3.8	4	3.9	722
10:00 AM	11:00 AM	11	5	50	3.8	4	3.9	722
11:00 AM	12:00 PM	11	5	50	3.8	4	3.9	722
12:00 PM	1:00 PM	11	5	50	3.8	4	3.9	722
1:00 PM	2:00 PM	11	5	50	3.8	4	3.9	722
2:00 PM	3:00 PM	11	5	50	3.8	4	3.9	722
3:00 PM	4:00 PM	17	5	50	2.8	4	5.4	532
4:00 PM	5:00 PM	17	5	50	2.8	4	5.4	532
5:00 PM	6:00 PM	11	5	50	3.8	4	3.9	722
6:00 PM	7:00 PM	11	5	50	3.8	4	3.9	722
7:00 PM	8:00 PM	11	5	50	3.8	4	3.9	722
8:00 PM	9:00 PM	11	5	50	3.8	4	3.9	722
9:00 PM	10:00 PM	11	5	50	3.8	4	3.9	722
10:00 PM	11:00 PM	11	5	50	3.8	4	3.9	722

Results:	Shuttle Buses Required	4 Vehicles
	Number of Hours of Operation	6:00 PM to 11:00 PM 5 Hours
	Shuttle-Bus Cost =	20 Bus Hours \$75 per Hour
	Event Shuttle Cost to this Parking Location =	\$1,500

Source: Walker Parking Consultants

To accommodate up to 1,611 passenger round trips between 6 p.m. and 11 p.m. will require 4 buses. Assuming 5 hours of service per bus equals 20 bus hours at \$75 per hour = \$1,500 per event.

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Table 79: (Event Route 7) N. Waco & 13th St. Shuttle Cost

Event Route #7 **Assumed Available**
East H.S & Dillon's **600+**

Input Data:

Parking Capacity		600 Vehicles
Peak Hour Arrival	85%	510 Vehicles
Event Patrons	3.0 per vehicle	1,530 People
Passenger Peak Hour =		1,530 Passengers
Peak Hour Ridership Factor (PHRF) =		0.95
Passenger Capacity Requirement =		1,611 Passengers
With Equal Round Trip Return		3,222 Passengers
Round Trip Route Length =	3.8 Miles	20,070 Feet
Average Vehicle Speed for Route =		20 MPH
Trip Travel Time =		11 Minutes
Load/Unload/Dwell =		5 Minutes
Bus Capacity =		50 Passengers
Buses Required		4 Vehicles

Arena Event Route #7 - N. Waco & 13st Street (East High School & Dillon's Store)

Time From	Time To	R'dtrip Travel Time Avg.	Load/Unload Time	Shuttle Bus Capacity Passengers	Round Trips/Hour/Bus	Number of Buses Scheduled	Actual Average Headway Min.	Hourly Ridership Capacity at 0.95 PHRF
7:00 AM	8:00 AM	11	5	50	3.7	4	4.1	703
8:00 AM	9:00 AM	17	5	50	2.7	4	5.6	513
9:00 AM	10:00 AM	11	5	50	3.7	4	4.1	703
10:00 AM	11:00 AM	11	5	50	3.7	4	4.1	703
11:00 AM	12:00 PM	11	5	50	3.7	4	4.1	703
12:00 PM	1:00 PM	11	5	50	3.7	4	4.1	703
1:00 PM	2:00 PM	11	5	50	3.7	4	4.1	703
2:00 PM	3:00 PM	11	5	50	3.7	4	4.1	703
3:00 PM	4:00 PM	17	5	50	2.7	4	5.6	513
4:00 PM	5:00 PM	17	5	50	2.7	4	5.6	513
5:00 PM	6:00 PM	11	5	50	3.7	4	4.1	703
6:00 PM	7:00 PM	11	5	50	3.7	4	4.1	703
7:00 PM	8:00 PM	11	5	50	3.7	4	4.1	703
8:00 PM	9:00 PM	11	5	50	3.7	4	4.1	703
9:00 PM	10:00 PM	11	5	50	3.7	4	4.1	703
10:00 PM	11:00 PM	11	5	50	3.7	4	4.1	703

Results:	Shuttle Buses Required		4 Vehicles
	Number of Hours of Operation	6:00 PM to 11:00 PM	5 Hours
			20 Bus Hours
	Shuttle-Bus Cost =		\$75 per Hour
	Event Shuttle Cost to this Parking Location =		\$1,500

Source: Walker Parking Consultants

To accommodate up to 1,611 passenger round trips between 6 p.m. and 11 p.m. will require 4 buses. Assuming 5 hours of service per bus equals 20 bus hours at \$75 per hour = \$1,500 per event.

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Table 80: (Event Route 8) Broadway & Pawnee Shuttle Cost

Event Route #8	Assumed Available
Walmart South	500+
 Input Data:	
Parking Capacity	500 Vehicles
Peak Hour Arrival	85% 425 Vehicles
Event Patrons	3.0 per vehicle 1,275 People
Passenger Peak Hour =	1,275 Passengers
Peak Hour Ridership Factor (PHRF) =	0.95
Passenger Capacity Requirement =	1,342 Passengers
With Equal Round Trip Return	2,684 Passengers
Round Trip Route Length =	6.2 Miles 32,740 Feet
Average Vehicle Speed for Route =	15 MPH
Trip Travel Time =	25 Minutes
Load/Unload/Dwell =	5 Minutes
Bus Capacity =	50 Passengers
Buses Required	6 Vehicles

Arena Event Route #8 - Broadway & Pawnee (Walmart South)

Time From	Time To	R'dtrip Travel Time Avg.	Load/Unload Time	Shuttle Bus Capacity Passengers	Round Trips/Hour/Bus	Number of Buses Scheduled	Actual Average Headway Min.	Hourly Ridership Capacity at 0.95 PHRF
7:00 AM	8:00 AM	25	5	50	2.0	6	5.0	570
8:00 AM	9:00 AM	37	5	50	1.4	6	7.1	399
9:00 AM	10:00 AM	25	5	50	2.0	6	5.0	570
10:00 AM	11:00 AM	25	5	50	2.0	6	5.0	570
11:00 AM	12:00 PM	25	5	50	2.0	6	5.0	570
12:00 PM	1:00 PM	25	5	50	2.0	6	5.0	570
1:00 PM	2:00 PM	25	5	50	2.0	6	5.0	570
2:00 PM	3:00 PM	25	5	50	2.0	6	5.0	570
3:00 PM	4:00 PM	37	5	50	1.4	6	7.1	399
4:00 PM	5:00 PM	37	5	50	1.4	6	7.1	399
5:00 PM	6:00 PM	25	5	50	2.0	6	5.0	570
6:00 PM	7:00 PM	25	5	50	2.0	6	5.0	570
7:00 PM	8:00 PM	25	5	50	2.0	6	5.0	570
8:00 PM	9:00 PM	25	5	50	2.0	6	5.0	570
9:00 PM	10:00 PM	25	5	50	2.0	6	5.0	570
10:00 PM	11:00 PM	25	5	50	2.0	6	5.0	570

Results:	Shuttle Buses Required	6 Vehicles
	Number of Hours of Operation	6:00 PM to 11:00 PM 5 Hours
		30 Bus Hours
	Shuttle-Bus Cost =	\$75 per Hour
	Event Shuttle Cost to this Parking Location =	\$2,250

Source: Walker Parking Consultants

To accommodate up to 1,342 passenger round trips between 6 p.m. and 11 p.m. will require 6 buses. Assuming 5 hours of service per bus equals 30 bus hours at \$75 per hour = \$2,250 per event.

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Mr. Jay Banasiak, general manager of Wichita Transit, provided significant assistance in evaluating potential event parking shuttle routes. His comments are summarized in the following points.

1. It is recognized that many private owners will take entrepreneurial advantage of events to make significant private parking available for a fee.
2. The circulator shuttle does not have the capacity to significantly address peak event driven parking demand.
3. Some people will continue to use Old Town parking or park downtown and arrive by a circulator shuttle, and will walk back to their parked vehicle after an event.
4. Routes #1 and #2 are usable and reasonable.
5. Routes #3 and #4 (Towne West and Towne East Square Malls) are too long and would not be as acceptable to Wichita Transit or customers.
6. Newman University (#5) and Friends University (#6) routes are significantly closer and more efficient than routes #3 and #4.
7. The N. Waco & 13th Street (East High School & Dillon's Store) Route #7 has been used successfully used for prior events. This is a convenient and short route that is acceptable to customers.
8. The Broadway & Pawnee (Walmart South) Route #8 also has been successfully used for events. This is a somewhat longer route than #7, but is also acceptable to customers.
9. Most of the transit bus fleet is comprised of 35 foot vehicles. Standing capacity is judged to be 50 persons, which is used in the previous analysis of each route. Newly purchased buses would be 40 foot vehicles with a standing capacity of 60 to 65 persons.
10. In order to maintain normal route schedules and commitments, Wichita Transit estimates that approximately 10 new buses will be needed to service these new shuttle commitments. The current cost of a new bus is approximately \$310,000. Thus, 10 buses would cost \$3,100,000. Federal 80/20 matching funds are available, which would require a capital investment of approximately \$620,000.

PARKING AND MOBILITY MASTER PLAN

DOWNTOWN WICHITA, KANSAS



WALKER
PARKING CONSULTANTS

AUGUST 3, 2007

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11. Pickup points need to be supported by automated signage tied to a GPS system that displays the time until the next bus arrives.

Appropriate signage technology is termed:

AVL – Automated Vehicle Location (what customer sees),

MDT – Mobile Data Terminal (what the driver sees).

Based on our best projection of a schedule of likely events, Walker has applied reasonable assumptions to arrive at an estimate of annual costs for event shuttle

Table 81: Event Cost Summary

Weekend/Evening	# of Events/ Unit Cost	Deficit	Cost
Medium Arena Event +Large Century II	8	407	
Route 1 (Lawrence Dumont)	\$2,250		\$18,000
Large Arena Event, Only	8	1,784	
Route 1 (Lawrence Dumont)	\$2,250		\$18,000
Route 6 Friends	\$1,500		\$12,000
Large Arena Event + Medium Century II	4	1,940	
Route 1 (Lawrence Dumont)	\$2,250		\$9,000
Route 5 (Newman)	\$1,500		\$6,000
Route 6 (Friends)	\$1,500		\$6,000
Large Arena Event + Large Century II	2	2,740	
Route 1 (Lawrence Dumont)	\$2,250		\$4,500
Route 5 (Newman)	\$1,500		\$3,000
Route 6 (Friends)	\$1,500		\$3,000
Route 7 (Waco & 13 th St.)	\$1,500		\$3,000
Weekday	# of Events/ Unit Cost	Deficit	Cost
Small Arena Event +Large Century II	2	303	
Route 2 (Exploration Place)	\$750		\$1,500
Medium Arena Event, Only	2	628	
Route 1 (Lawrence Dumont)	\$2,250		\$4,500
Medium Arena Event + Medium Century II	1	836	
Route 1 (Lawrence Dumont)	\$2,250		\$2,250
Medium Arena Event + Large Century II	1	1,636	
Route 1 (Lawrence Dumont)	\$2,250		\$2,250
Route 6 (Friends)	\$1,500		\$1,500
Large Arena Event + Medium Century II	1	3,169	
Route 1 (Lawrence Dumont)	\$2,250		\$2,250
Route 5 (Newman)	\$1,500		\$1,500
Route 6 (Friends)	\$1,500		\$1,500
Route 7 (Waco & 13 th St.)	\$1,500		\$1,500
Route 8 (Broadway & Pawnee)	\$2,250		\$2,250
Large Arena Event, Only	0	2,961	n/a
Large Arena Event + Large Century II *	0	3,969	n/a
Total Annual Cost			\$103,500

* This schedule assumes that a large arena event will not be held simultaneously with a large Century II event on a weekday daytime.

SHUTTLE ANALYSIS CONCLUSIONS

The cost of operating remote shuttles to shuttle the peak passenger capacity required by the overflow parking demand of the Arena and the simultaneous Arena + Century II events is estimated at approximately \$103,500 per year at 2008 costs. This cost is estimated to increase at 3% to 5% per year. It also assumes that no additional land rent associated with the use of the identified remote parking sites will occur.

The cost of an above grade, efficiently-designed parking structure on a spacious site, with minimal architectural treatments, is currently estimated at \$15,000 to \$18,000 per space, excluding land costs. Thus, a 1,000-space parking structure would cost approximately \$15,000,000 to \$18,000,000. The debt coverage alone would exceed \$1,200,000 per year.¹² The cost of the shuttle operation is about one tenth of debt service for a 1,000-space parking structure. Under similar assumptions, the operating budget for shuttle parking would amortize only about 88 parking structure spaces.

Considering only the available public parking supply within a reasonable walking distance, we project 29 instances of remote parking with shuttle required. When the effective parking supply cushion is used, just over 450 spaces, this drops to 19 instances that require remote parking with shuttle. When the cushion and available private supply is used, all within a reasonable walking distance of the arena, the number of instances remote parking with shuttle parking is needed drops to 4 instances.

As for the Circulator Trolley, Walker recommends that the current, existing Q-Line routes and hours of operation remain in place and be extended year around as the model of operation. Based on the 2006 operating cost of \$82,000 for 15 weeks of operation, 2008 year around operating cost is projected at \$270,000 to \$287,000 and is trended to increase at 3% to 5% per year. The Circulator Trolley should implement special event hours to facilitate remote parking for Arena and Century II events, and accommodate before and after event dining and entertainment at Old Town.

1,000 Space Parking Structure

Total Cost:	\$ 15,000,000
Rate:	7%
Term (yrs):	25
 Debt Service:	 \$1,287,158
(Annual)	

Remote Parking with Shuttle

As Listed (29)	\$103,500
- Cushion (19)	\$84,000
- Cushion & Private (4)	\$13,500

¹² Assuming 7% interest rate for 25 years.
Section IV – Transit Options Assessment



APPENDIX A

Scope of Services

TASK 1 – PARKING SUPPLY/DEMAND ANALYSIS AND NEEDS ASSESSMENT

1. Meet with representatives of the County and City to further clarify study's objectives, review the work plan, set work session dates, and finalize the project schedule. At this meeting, the lines of communication and a schedule of deliverables will also be established.
2. Obtain the following information from the City of Wichita:
 - Building occupancy – The occupancy of major buildings in the study area and the City's best estimate for other buildings, or a list of building owners to contact to attain such data.
 - Employment – The most recent and accurate data the County and City can provide for the study area.
 - Future developments – This includes type of land use, square footage, seating capacity, or number of rooms, expected completion data, location, and whether any existing parking spaces will be displaced.
 - Copies of any previous parking studies, community master plans or downtown market studies.
 - Copy of the Unified Zoning Code covering the study area. This may be provided as a weblink.
 - Aerial photographs and AutoCAD drawings of the proposed study area.
3. Data from the Walker 2005 Arena Parking Study and City parking inventories are available for a portion of the study area and therefore are to be used for this analysis. The primary focus study area is defined as that portion of the city bounded by Central Avenue to the north, Kellogg Street to the south, Washington Street to the east, and Seneca the west.
4. Confirm the inventory of on- and off-street parking spaces in the study area. Inventory will be tabulated and summarized on a block-by-block basis. Tabulation will include block identification, capacity, public vs. private, parking rates, and time restrictions.
5. Perform a parking occupancy study to establish accurate estimates of peak occupancy. Counts will be performed on a typical weekday during the period of 9:00 a.m. to 5:00 p.m. as appropriate for this effort.
6. Compare the calculated parking demand to the existing parking supply to determine the existing parking surplus or deficit on a block-by-block basis in the study area.
7. Determine future parking surpluses and deficits by block (through the agreed study horizon of 5, 10, and 20 years) within the study area based on inventory and occupancy analysis, available local data, projections of future growth and development, the Arena Neighborhood Redevelopment Plan, shared use methodology and Walker Parking Consultants' experience. By developing this information block by block, sources of parking demand and concentrations of surpluses and deficits can be more readily identified.
8. Conduct a license plate survey of selected time restricted spaces (up to 12 block faces) to determine the user turnover and duration characteristics.



TASK 2 – STUDY AREA TRANSIT OPTIONS ASSESSMENT

1. Identify and analyze the existing shuttle services in the study area, such as the “Final Friday Art Crawl.” Examine the successes and failures of these ventures.
2. Present and analyze a mobility system using public/private agreements, shared parking, and shuttles to more efficiently utilize public and private CBD parking assets, such as using the Lawrence-Dumont baseball stadium parking lots, Exploration Place, Town East and Town West shopping malls, or other areas of interest, to provide Arena event parking.
3. Present and examine other options for the integration of transit and shuttle services with parking, such as the feasibility of a dual line shuttle system with a north/south route and an east/west route. Include options during small, large, and sell out events.
4. Present alternative trolley routes to increase mobility between the CBD, Old Town, WaterWalk, Century II, the Art District and the new Arena.
5. Provide conceptual shuttle routes, schedules, headways, cost estimates, etc. to enable an objective comparison of the alternatives.
6. Identify a preferred system of routine daytime shuttle operations and a preferred system of event transit/shuttle and parking operations for small and large events.

TASK 3 – PARKING POLICY AND SYSTEM REVIEW

1. Identify and analyze the existing parking management system with the intent to provide a detailed comprehension of current resources, policies, procedures and personnel.
2. Identify and recommend specific parking management options and strategies appropriate to the study area that will improve operations, specifically focusing on ways to better utilize the parking supply and manage parking demand. This includes but is not limited to the analysis of parking system and facility management, financial oversight, parking enforcement, parking rates, and hours of operation.
3. Provide a plan for how a City parking entity, operated to oversee the City’s parking assets, could partner with local parking lot owners to ensure parking availability for downtown visitors during events. Also include a discussion of how a City parking entity could partner with the private sector to develop new parking in the downtown area.
4. Review sections of the Unified Parking Code as provided by Sedgwick County that pertain to parking in downtown. Provide comments and suggestions to better promote shared parking where possible.
5. Based on discussions with County and City representatives, provide an action plan to transition to a new type of parking management system, such as a parking authority or other oversight entity.



TASK 4 – FACILITATION OF WORKSHOP MEETINGS

1. Attend and/or facilitate three (3) steering committee meetings scheduled by Sedgwick County. Present a summary of the data collected to date and a summary of the options under consideration. Lead a discussion regarding CBD parking and transit issues, perceptions vs. reality, and suggestions of possible solutions, etc. with downtown stakeholders and other concerned citizens.
2. Incorporate meeting minutes and summaries of issues and discussions within the final report. Consider the satisfaction of these concerns within the alternatives analysis task that follows.

TASK 5 – ALTERNATIVES ANALYSIS

1. Review existing vehicular and pedestrian access and circulation patterns for their relationship to existing and proposed parking generators and the parking supply.
2. Examine whether the opportunity for restriping and/or making efficiency improvements exists to increase the effective (usable) parking supply. Provide potential improvements for up to five lots if applicable.
3. Provide geometric requirements for on-street parallel and angled parking, including recommended street widths and space widths based on the angle of the parking stall. This will include a discussion and comparison of reverse angle on-street parking.
4. Identify areas of parking deficits and provide alternatives, both on- and off-street to meet the needs of the area within reasonable walking distance exist.
5. Determine any possibilities of expanding existing parking facilities to meet area parking needs identified in Task 1.
6. Develop options for expanding the parking supply through new structured parking. Identify alternative locations for such a parking structure, if desired.
7. Recommend the integration of preferred transit and shuttle improvements, such as daytime circulator shuttles, to distribute parking demand and reduce the need for future parking improvements considering pedestrian and access issues.
8. Recommend transit alternatives and public/private partnerships to address the peak parking needs of daytime and high attendance evening arena events.
9. Project conceptual construction and project costs for each of the alternatives including estimated operational expenses to enable a comparison of the costs of each alternative. Examine and present recommendations for funding options and a funding framework that will maintain flexibility as the City grows.



APPENDIX B

Workshop Meeting Minutes

MEETING MINUTES WORKSHOP MEETING I

SEDGWICK COUNTY MASTER PARKING PLAN



PROJECT NO. 23-7104.00

6602 East 75th Street Suite 210
Indianapolis, IN 46250

DATE OF MEETING: February 27, 2007

Voice: 317.842.6890

MINUTES BY: Jon Martens, Walker

Fax: 317.577.6500

PARTICIPANTS: See Attached

www.walkerparking.com

The attached meeting minutes represent the meeting activity from three separate groups to kickoff the Wichita Master Parking Plan study. Participants to the meetings were asked to sign-in at the start of each meeting. Some individuals signed in once, but participated in multiple meetings.

Meeting I: Project Steering Committee
Location: Sedgwick County Court House, 3rd Floor
Time: 10:30 a.m. – Noon

Stephanie Knebel, with Sedgwick County, opened the meeting with a brief introduction of the purpose of the meeting and introducing Walker Parking Consultants (Walker). Representatives from Walker provided a brief introduction on who Walker is and an overview of the study. The group was then asked to provide input to the parking issues and goals for the study.

Highlights from Walker's introduction: The Walker Team for this project includes John Dorsett, Senior Vice President, Consulting Resources Group; Jon Martens, Project Manager, Jon Efroymsen, Parking Consultant, and support staff. The study area is bordered by Murdock Street to the north, Washington Street to the east, Kellogg Street to the south, and Seneca Street to the west. Project tasks include: 1) Supply/Demand by zones or sub-areas, 2) Transit Options, 3) Parking System Review, 4) Facilitate Workshop Meetings, and 5) Alternatives.

Jon Efroymsen: Introduced some initial points of concern for the study to engage the group in discussing the issues. These topics included:

- o Current Parking Supply, demand and adequacy;
- o Projected Parking adequacy;
- o Integrating Transit and Parking;
- o What are the options for remote parking and transit during events;
- o What is the preferred management structure for Wichita's parking assets;
- o How should special event parking be managed;
- o What are the options to improving downtown parking; and,
- o Options for maximizing on-street parking.

Ron Holt: Asked about the sub-areas and the purpose of the workshop meetings. He also raised the possibility of having one of the workshop meetings open to the public.

Jon Martens: Reviewed the workshop meeting schedule: 2/27 kickoff meeting and workshop meetings to receive input; 4/10 workshop meeting to provide initial data and some ideas for solutions as well as to receive feedback; 5/15 workshop meeting to present a clear picture of findings and recommendations, receive feedback and recommendations. Issue a draft report on or about 6/8.

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Stephanie Knebel: Stated the agreement includes three planning meetings for the parking study. The thought at the time of the agreement was that the County and City would handle any public meetings.

John Dorsett: Wanted to know the goal and purpose of the public meeting.

Ron Holt: Would like a public meeting to communicate with the public and to receive their input on parking. It may be beneficial to include a City, County Community workshop meeting, which will be discussed further with Walker.

Jay Banasik: Jay provided an overview of the transit parking assets available and some history of past services. His concern was how to fund additional long-term service and how to develop partnerships to provide adequate funding to maintain the desired service levels. Jay also explained some of the assets of transit department, which include bus, vans, and trolleys.

Jon Efroymsen: Discussed how the costs for structured parking are much higher than a shuttle system, but shuttle costs will need to be budgeted.

Allen Bell: The public says parking is a serious problem and the City recognizes parking will need to be added [for the Arena]. Parking may be a more critical issue in Wichita than in other parts of the country. Wichita emptied out during the 1960's and 1970's. Wichita may be a little on the extreme side in terms of people avoiding walking. Therefore, community education will be critical.

Ed Martin: The garage closest to the Arena site has major obligations with the State. These obligations include reserved parking areas in the garage for State employees. The balance between surface and structured parking is a necessity. The fact that downtown parking facilities have multiple owners complicates matters.

Jon Efroymsen: Parking supply will open up as demand increases with the arena opening. There are multiple levels of ownership in the parking system, public, private, government. With demand, owners will make their lots available for parking (for a profit).

George Kolb: Developers have recently brought proposals to the City to build parking decks and lease back to the City. These have not been accepted by the City. Parking will be needed as the transit option won't necessarily work to meet the future parking needs. There is a perception that more parking is needed; parking will only get worse. People will not readily change to alternative modes of transportation.

Ed Wolverton: Future parking will be different from today. Downtown Wichita currently has a 22 percent occupancy rate. Future development indicates adding 300,000 sf of commercial space, and 2,000 residential units. Currently there are about 1,100 residential units. Another area of development is called "North Old Town". This area is being reviewed now and a plan will be forthcoming. The challenge is to figure out how to bridge the gap between existing conditions and future conditions which include the desire to occupy vacant space. Vacant space cannot be filled without the appropriate parking capacity.

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Allen Bell: Funding for projects has been done through a GAP analysis, with the government picking up the difference. TIF money has also been used frequently in the past to fund projects in Wichita and Kansas.

Wes Darnell: It has been his experience that people in Wichita do not like parking garages. This can be seen in the Old Town Garages, which are never full. The preferred choice for parking is 1) curb, 2) surface parking within line of sight, and 3) parking garage.

John Dorsett: There are many things that can be done to a parking structure to improve the experience of the patron and make the environment more attractive. Lighting, painting the ceiling of the facility white, open sides, staffing, etc., go a long way to improve the overall experience of the patron.

Mark Borst: Most residents are not well-traveled and therefore, they do not understand how small Wichita is compared to other large cities. Many haven't been to very large cities such as Chicago or Houston. Emptying a parking garage after special events is an issue. How are we going to handle simultaneous events held at the arena/Dumont/Century II? Will pedestrian safety be an issue? How should it be handled?

Maureen Hofrenning: What are the best practices for this type of parking situation? How do we communicate with visitors where to park, and how do we make it a positive experience?

Paul Gunzelman: Event attendees are infrequent parkers who don't know where they are going. He agreed that folks from Wichita want front door parking. He stated that 60 percent of the event attendees at the Kansas Coliseum arrive in the last 30 minutes before a show starts. When this happens downtown, how do we get them all into the show on-time? What about multiple events? What about pedestrian safety issues? What happens to Waterwalk parking areas?

Allen Bell: Asked about GPS and whether it had any applications in terms of helping people find somewhere to park.

Jon Efroymson: Stated that GPS was still developing and that he was unaware of how this had been used to help people find parking.

Ed Martin: The University of Nebraska stadium seats 90,000 with no dedicated event parking. People have gotten accustomed to parking patterns during events. People in Wichita will develop similar patterns in Wichita.

John Rolfe: People need parking attendants on site at each parking lot to direct traffic, show the public where to park, make them feel secure, and to clean up the lot. That could be a key factor in success.

Allan Bell: How about a parking pass tied to the event ticket?

Jon Efroymson: Yes, this is possible. Jon shared his personal experience with purchasing Pacer season tickets.

Ed Martin: If transit service is available from Old Town to events, there may be an issue as parking in Old Town is free. Also, Waterwalk may become an issue, as parking is also free at Waterwalk. If it costs money

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to park everywhere but these sites, and we offer a shuttle to these areas, the parking supply may be displaced in Old Town and Waterwalk. The study should consider these issues.

Jon Efroymsen: We are looking at other sites for remote parking as well, such as the baseball stadium and Discovery Park.

Ed Wolverton: Brought up potential parking availability North of Douglas at 1st and Waco. There is a surface lot with 214 spaces.

Ed Martin: Asked if Intrust Bank was open for events, as they have a fair amount of parking. He also brought up the future expansion of the Century II Center. This could take away much of the current parking for the Century II Center.

John Schlegel: The plan should be adaptable as things change within the City. Key components to manage parking include the management and budgeting of parking. Also, linking or providing connectivity between Century II, Old Town, and Waterwalk are important. Another feature that may be more important in the future is the Keeper of the Plains area, which is undergoing development.

Ron Holt: The report should provide a list of what to do if this or that happens. This way the report would provide a working solution to a variety of potential scenarios. The report should list out assumptions and then give alternatives for new development, including:

- Century II expansion
- Influx of residential units
- North Old Town Expansion

Maureen Hofrenning: Concerned that transit alone will not be an adequate solution as Century II Center expands and area is developed.

Ed Wolverton: Another issue is how we bridge the pedestrian experience.

Jon Efroymsen: What about linking the government areas to Old Town?

Jay Banasiak: The Q-line is operated during the summer, but ridership is not very high. There is a nominal fee to use the Q-line.

Unknown: "That's because the seats are too hard"

The recent Rolling Stones concert was discussed. This concert had an attendance of 30,000 at the WSU campus. Little to no parking on site was available. Remote parking was required and provided by the transit system.

Mark Borst: People need to know where and when to park in advance.

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Jon Efroymsen: Wayfinding/signage, color coded parking schemes, and real time parking availability are used in other cities.

Ron Holt: The expectation of this study is very, very, very, high. Success requires a 90% satisfaction rate. The public is very concerned with this study and the results.

Walker: We understand and are sensitive to the issue. The Parking Master Plan covers a broad area beyond event parking. The planning sessions will help us to provide the detail that is needed to address the issues at hand and what solutions are acceptable.

Closing comments of the meeting reiterated the desire to receive input from the group and provided an opportunity of attendees to exchange business cards. Attendees were also reminded of the upcoming workshop meetings later in the day.

Meeting II: Focus Group – Visitor & Convention Bureau, Century II, Old Town
Location: Century II
Time: 1:00 p.m. – 3:00 p.m.

The second planning meeting was held in a similar fashion to the first. Some of the individuals attended both meetings and did not sign in for the second meeting.

Stephanie Knebel: Opened the meeting and introduced Walker.

Walker: Provided an overview of their team and an outline of the study before opening the floor to discussion.

Larry Weber: Larry has 1,200 parking spaces near the Century II Center. Larry asked about the previous work Walker had done in Wichita and what recommendations were implemented that were included in the previous work.

Ed Wolverton: Parking brochures and have been developed as suggested in the study he received, as well as developing a detailed inventory of the area. Many of the questions poised in the first study related to background information which has also been used. The study also recommended developing a Parking Master Plan, which is what Walker is doing now.

Stephanie Knebel: The Arena Study was used to assist in selecting the site for the new arena. It was used more to quantify the parking demand and supply for the arena as opposed to a specific recommendation to implement.

Jon Efroymsen asked Larry to comment on transit issues and the Q-line.

Larry Weber: Shuttle systems can be an effective marketing tool even if they appear to be underutilized.

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Ed Wolverton: The Q-line has been used to attract convention business and visitors, but not as successful in generating ridership from local citizens. The Friday Night Crawl is very successful. It operates the final Friday of each month. The shuttle is paid for by the Downtown Development Corporation through the downtown business improvement district.

Larry Weber: The time of day and event may dictate sub-areas.

Brenda Medlam: Other areas of interest include the Delano District. The Delano Business Association is working on making this a destination place. The District recently instituted on-street diagonal parking and added a round-about with a tower monument in the center. A discussion by others indicates this is an up and coming area. There is a need for a 2-hour parking limit in this area. Another big event in downtown is the annual River Festival. People park their vehicles all day. This can create problems with turnover for retail and restaurants.

John Rolfe: There needs to connect Old Town, Delano, Century II, etc.

Brenda Medlam: One successful event has been the Holiday Walkabout on November 17th. This event required shoppers to find answers to various questions in the retail shops to win prizes. Shuttles transported participants between Old Town and Delano to visit 28 specific shops. The hours were from 10:00 a.m. to 6:00 p.m. This event was considered a success and will be done again.

Dave Burke: [Marketplace Properties] A Parking District is needed; funding needs to come from the public sector; Old Town funded parking structures; first surface lots then structures; wants recommendation to fund parking infrastructure such as TIF or Star Bonds to add parking for development. In Old Town parking is free, but vendors pay a monthly fee for the parking. The parking is located at a maximum of three blocks walking distance. It is difficult for private sector to provide parking in downtown because of competition from the suburbs. Shuttling is hard to do with any success except with special events.

Dave Burke: Public / Private Partnerships are important.

Bob Hanson: Have studies been able to change attitudes in the past? Walking distance should be no more than two blocks from the site. A good P.R. program is necessary to change attitude concerning walking distance and parking adequacy.

Debbie Williams: Century II Center events impact the downtown area. The Garden Show is anticipated to have 50,000 over this weekend. There is not enough parking at the Century II to supply that parking during events. There is some parking to the north of Douglas, but people think it is too far away. What happens when the arena opens and there are simultaneous events? How do we handle?

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Bob Hanson: Events can't all be handled with a shuttle, as there will be conflicts at the other venues. Also, publicity is a key point. So far the publicity has been handled by a news release and a story in the news. The Garden show brings in 10% from out of state and more from around the state. These visitors may not see the news. What happens when there is an event at the ice arena and Lawrence Dumont stadium and their parking can't be used? Also, parking is available in the City owned Broadview Garage, but people don't use it.

Wes Darnell: People don't like to park in garages. That is one reason they don't use the Broadview Garage.

Ed Martin: The City issues a press release and thinks it has communicated with the public. It's key to be redundant with messages regarding parking availability. People don't receive every message.

Maureen Hofrenning: It's also important to communicate with different segments.

Debbie Williams: People won't use parking north of Broadway when attending Century II Center events. Some garages provide free parking, but it is not being used.

Tami Barker: [Hyatt] The Gander Mountain garage was full last weekend.

Ed Martin: The Broadview Garage [North of Douglas] has been open to the public and offers free parking for events at Century II Center; but the lighting is poor and there is no attendant. The recent KME convention brought a large number of attendees to the Century II Center. As a result, the Gander Mountain parking garage was full over much of the weekend. This created a problem when customers of Gander Mountain could not find a place to park.

Larry Weber: Vendor parking is an issue. Can we get these people to park in designated areas? There is parking in a surface lot and garage at 1st and Water.

Jon Martens: Asked who attended the Rolling Stones concert? To this, more than half the meeting raised their hands. A discussion of the parking followed. At this event, most all attendees parked remotely and used a shuttle.

Tom Johnson: [Waterwalk] Brought up surface vs. garage parking. City tends to shy away from garages. Thinks it is important to address what makes garages more favorable. Also, from a mixed use perspective in the CBD, how does it work and what about during large events? Waterwalk will be adding 500 more spaces, but is concerned about the future. Many spaces are lost during big events at Century II. Waterwalk parking is primarily for the tenants, not for event parking. Yes, perhaps there are enough parking spaces for special events, but what existing business needs are compromised?

Larry Weber: Would like to know how many non-hotel events take place from 8:00 a.m. to 5:00 p.m. (such as the garden show) at the convention center.

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Debbie Williams: Events are very slow Monday – Tuesday, but pick up later in the week and weekends. Also, the meter spaces in the current Century II lot are used on a daily basis by up to 30 local employees in the downtown area. These are patrons that use Century II parking, but are not using the Century II building. Do other places control vendor parking?

Ed Martin: Are parking rates part of the study?

Jon Efroymsen: Yes.

Debbie Williams: Century II recommends vendors use remote parking, but it is not mandated.

Ed Wolverton: Is it common in other facilities to require vendors to park remotely?

Tom Johnson: Waterwalk is parking ground zero. This will be the first place to fill-up. Parking north of Douglas is dormant. How can parking be assigned north of Douglas to free up parking elsewhere? How can vendor parking be controlled? Can it be assigned?

Dave Burke: Majority of local people would rather walk three blocks than pay \$5.00 for parking. People will identify free parking areas and seek out those areas. Waterwalk and Old Town are mixed-use developments that people are already paying for parking. How do we provide parking for those already paid up?

Paul: What about Live, Work, Play – some people can't pay. Meters have been increased to 10 hours in many areas. There is interest in what other areas do with residential parking and it is becoming an issue in downtown.

John Rolfe: Main Street at Waterwalk is the gateway to the City. This would be the first parking taken.

Larry Weber: The more downtown events there are, the better people like downtown.

Dave Burke: Many residential projects are coming on line in downtown.

Ed Wolverton: How about a validation program to discount parking provided a minimum purchase is made in the area.

Dave Burke: Recommendations re: funding mechanisms: City considering formation of TIF district. There are already TIF districts for Old Town, Waterwalk and the Hyatt area.

John Rolfe: Any recommendations yet?

Jon Efroymsen: No, not at this time. We want to understand the issues and not just come out shooting answers. It is important to get all the facts and understand the issues as one size does not always fit everybody.

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Debbie Williams: We may want to discuss the parking study with the "Group of 80". These individuals are active event coordinators and may have input.

Walker: Perhaps an electronic survey would be possible.

Following the meeting an invitation was extended to exchange business cards with Walker.

Meeting III: Focus Group – Parking Operators and Stakeholders
Location: Century II
Time: 3:00 p.m. – 5:00 p.m.

This meeting was held following the second meeting. The size of the new group was considerably smaller, with only two new participants, and only a few left from the previous meetings.

Walker started the meeting with a very brief introduction for the benefit of the two new meeting attendees. The focus of the meeting was on parking locations and operations.

Mike Retzkoff: Mike operates 12 lots and 5 garages for in Wichita, mostly owned by the City, for AMPCO Parking.

Doug Winkley: Doug is responsible for 919 covered spaces in two garages and 120 surface lot spaces owned by Invest Bank.

Ed Martin: The parking garage closest to the new arena site is used primarily by state employees. After 20 years the State can buy the building and parking.

Doug Winkley: Invest parking is open for events that they support, such as the symphony or other music events. They provide their own security in the garages. There is no charge for parking during the days, as it is for their customers.

Jon Efrogmson: What about pre-pay parking during events? There has been some discussion of charging for parking with the purchase of the event ticket.

Mike Retzkoff: AMPCO would be open to this. The City owned parking assets would need their approval.

Ed Martin: In the past parking was going to be free. Things seem to be changing.

Ron Holt: SMG, out of Okalahoma City, will likely be the operator for the arena. They will probably have some thoughts on event parking and pre-selling parking.

Doug Winkley: What about a shuttle for events?

MEETING MINUTES WORKSHOP MEETING I

SEDGWICK COUNTY MASTER PARKING PLAN



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Ron Holt: The shuttle must run throughout the day so people get use to it and know it will be available on a reliable and consistent basis.

Ed Martin: First Transit actually manages the transit system, not city employees. The two garages in Old Town are owned by the City.

Mike Retzkoff: Parking enforcement is pretty much limited to writing tickets.

Walker: Who are the other operators in town?

Ed Martin: Tom Blake owns Parking Inc. and Phil Ruffin operates his own parking (BOA).

Walker: What about the Macy's garage?

Ed Martin: The City owns the land but not the garage. This garage is in poor condition.

Ron Holt: The Kansas Coliseum will begin charging a small fee to park. This will take place in May or June of 2007.

Business cards were exchanged following the meeting.

MEETING MINUTES WORKSHOP MEETING I

SEDGWICK COUNTY MASTER PARKING PLAN



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Meeting	First Name	Last Name	Representing
1	Jay	Banasiak	Wichita Transit
1	Dave	Barber	MAPD
1	Allen	Bell	City Econ Dev
1	Mark	Borst	SG Co. PW - Traffic Engr
1	Terry	Cassady	City Mgr's Office
1	Wes	Darnell	ADC
1	Scott	Dunakey	City Hall/MAPD/WAMPO
1	Paul	Gunzelman	C of W - Traffic Engineering
1	Nancy	Harvieux	City Hall/MAPD/WAMPO
1	Maureen	Hofrenning	GWCVB
1	Ron	Holt	Sedg Cty Mgr's off
1	Stephane	Knebel	Sedg County/Project Svcs
1	George	Kolb	City of Wichita
1	Doug	Kupper	COW - Park & Rec (CII)
1	Ed	Martin	City - Building Services Mgr
1	John	Philbrick	COW - Property Management
1	John	Rolfe	GWCVB
1	John	Schlegel	County
1	Ed	Wolverton	WDDC
1	Jim	Woods	Sedg. Co. Sheriff's off.
2	Tami	Barker	
2	Clay	Bastian	
2	Wes	Darnell	ADC
2	Bob	Hanson	
2	Maureen	Hofrenning	
2	Tom	Johnson	
2	Stephanie	Knebel	County
2	Ed	Martin	City
2	Brenda	Medlam	Delano District
2	Scott	Moore	City of Wichita
2	John	Rolfe	GWCVB
2	Larry	Weber	Garvey Center
2	Debbie	Williams	Century II
2	Ed	Wolverton	WDDC
3	Ron	Holt	County
3	Michael	Retzkoff	AMPCO Parking
3	Doug	Winkley	Invest Bank
3	Ed	Martin	City - Building Services Mgr

Note: Some participants signed in once but attended multiple meetings.

MEETING MINUTES WORKSHOP MEETING II, A&B

SEDGWICK COUNTY MASTER PARKING PLAN



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PROJECT NO. 23-7104.00

6602 East 75th Street Suite 210
Indianapolis, IN 46250

DATE OF MEETING: April 10, 2007

Voice: 317.842.6890

MINUTES BY: Jon Martens, Walker

Fax: 317.577.6500

PARTICIPANTS: See Attached

www.walkerparking.com

The attached meeting minutes represent the discussion and comments from two separate groups to facilitate the Master Parking Study for Sedgwick County. The focus of the meeting was a presentation by Walker to both groups to share our initial observations and request direction from the group.

Meeting: Project Steering Committee Meeting II

Location: Sedgwick County Human Resources Conference Room

Time: 10:30 a.m. – 1:00 p.m. (session I) and 1:00 p.m. - 3:00 p.m. (session II)

After a brief introduction by Stephanie Knebel, Jon Martens presented an overview of the presentation and goals for the meeting.

PRESENTATION OUTLINE

Jon Martens (Jack)

- Provide and overview of parking observations and occupancies
- Discuss and receive input on district boundaries
- Show the results of the on-street parking turn-over study
- Discuss assumptions and methodology that will be used to calculate future parking demand

Jon Efroymsen

- Present the pros and cons of each parking organizational option
- Facilitate a group discussion on the management options and receive direction from the group
- Discuss transit and remote parking options

STUDY AREA

The area as a whole is broken into 169 blocks. To obtain meaningful parking data for an area this large, we split the area into six unique districts and identified some areas that are strictly residential or light industrial in nature that have no meaningful impact on the overall parking strategy for the study area. The districts identified by Walker include:

- Arena
- Century II
- Delano
- Government Center
- Old Town
- Waterwalk

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Ron Holt suggested we clarify our reasoning for selecting what makes up each district as we move forward with the study.

Additional comments from the group included concern for overlapping parking demand being used by both Old Town and the Arena, especially on weekends during events.

Arena District:

It was recommended that the western boundary of the Arena District move from Main Street to Market Street, move north one block from Douglas to 1st Street, and move the eastern boundary from Rock Island to Mead.

Century II District:

It was recommended we move the western boundary one block to the east to Market Street.

Delano District:

It was noted that individuals do park in the baseball stadium parking lot off of Sycamore behind the shops in block 25.

Government District:

Add blocks 92, 94, 55, and 56 to this district.

Old Town District:

Some of the parking will occur in blocks 133, 132, and 131 during events.

Waterwalk District:

There will be sharing of parking between Waterwalk and Century II events. Also, the future will include events at an amphitheater that seats 1,500 – 2,000.

On-Street Occupancy and Turnover Analysis:

- Delano – 10 Block faces along Douglas from Seneca to McLean
- Douglas – 3 Block faces along the south side of Douglas between Market and St Francis
- Government – 4 Block faces from Central to Pine along Market Street

It was suggested that we show the specific areas that were evaluated along with any current parking restrictions.

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FUTURE CONDITIONS ASSUMPTIONS

This was broken down by each known major development. Data for each major development plan was collected from a variety of sources. The following outlines each district.

Arena District

We plan on using the Arena Neighborhood Redevelopment Plan as a guide to potential redevelopment and consolidate the future demand using three scenarios; Conservative, Moderate, and Aggressive. The overall total non-parking development has been quantified as 2.19 million square feet of new development. We will distribute the parking demand into the following scenarios for consideration.

Scenario	5 Year	10 Year	20 Year
Low	20%	30%	40%
Medium	40%	50%	60%
High	60%	80%	100%

We will use a blended parking demand ratio for this analysis, as the specific land uses have not been determined.

Century II

We make the assumption that Century II will expand to the east within the next 10 years. The expansion will displace existing parking and increase parking demand. The timeframe of the expansion was discussed and determined that 10 years is still a good figure to use.

North Old Town

We will follow the same scenarios presented in the North Old Town study that was provided. This assumes building density based on existing Old Town. The land use will be adjusted to reflect 50%, 70% and 100% of the existing Old Town density. The plan provides building types and size. We will utilize our shared parking model to project peak parking demand by scenario.

Delano

We will assume Delano parking demand will grow as the area undergoes further redevelopment. We propose to present three scenarios showing parking demand increase of 20%, 40% and 60% over the next 5, 10 and 20 year periods.

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Waterwalk

We propose to incorporate the build-out program into our shared parking model to show the parking demand as the site is developed. The data will be based on current site plans. This development is assumed to be complete within five years.

The calculation of future parking demand was acceptable to the group. Following the meeting we were asked to also consider an overall increase in the parking demand based on current building occupancy levels at 23%. It was suggested we consider a building occupancy level of 8% within 10 years.

PARKING ORGANIZATIONAL OPTIONS

This topic was discussed by Jon Efroymsen in detail. The major organizational options include:

- Enterprise Fund
- Parking Tax District
- Non-Profit Organization
- Parking Authority
- Parking Department

Each option was discussed in detail with examples of each given. Recommendations from the group indicated a desire to utilize an existing entity to oversee the parking. One suggestion was perhaps utilizing Wichita Transit to oversee the parking.

Jon Efroymsen is leaning toward recommending an enterprise fund with a parking department to oversee the parking management of all the parking related assets.

Ed Wolverton suggested putting everything under a parking district like Old Town. Captain Speer's pointed out that businesses in Old Town currently pay a tax to provide parking for their patrons at no charge.

It was generally agreed that further study on each option by the group was needed. A request for a copy of the presentation was also made. This will be provided to Stephanie Knebel for distribution to the group.

Another comment was a request for hands-on examples of each parking organizational structure. Jon Efroymsen indicated he would do this in the full report.

Jon Efroymsen will provide additional details and a matrix showing the pros and cons of each option for Wichita.

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TRANSIT DISCUSSION

The remote parking options identified and quantified by Walker include:

- Lawrence-Dumont Stadium
- Ice Arena
- Exploration Place
- Bus Barn Lot
- Towne East and West Shopping Malls

Projections for two types of shuttles were provided. These include an on-going circulator shuttle and an event shuttle.

EVENT SHUTTLES

Event shuttle operations were broken into specific routes and estimates of costs for depending on the route. Route costs included:

- Lawrence-Dumont Stadium - \$3,000 per event
- Exploration Place - \$1,500 per event
- Towne West Mall - \$7,125 per event
- Towne East Mall - \$7,500 per event

Parking demand generation will vary based on each event. The recommended shuttle option will depend on the event. Ron Holt suggested considering simultaneous events at the Arena and Century II for consideration of implementing the shuttle program. Another issue was the length of operation during events. It was suggested that at least one hour be added to the overall duration of the shuttle operation during events.

Another thought was to use both the circulator and special event shuttles during events.

CIRCULAR SHUTTLE

The circulator shuttle system suggested by Walker was a "Blue" and "Red" line, which would cover Delano, Old Town, Waterwalk, Government, and the Arena Districts. The total annual cost to operate this system is about \$1.5 million.

Ideas from the group included:

- Move the red line south by one block
- Perhaps going to Exploration Place on a regular schedule would be good
- What about weekends?
- It would be good to use Douglas both to and from Delano
- Lewis Street no longer goes through due to Waterwalk

MEETING MINUTES WORKSHOP MEETING II, A&B

SEDGWICK COUNTY MASTER PARKING PLAN



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This concludes our meeting minutes. Feel free to review and comment as needed so these notes can be amended accordingly.

Thank you.

Session	First Name	Last Name	Representing
1	Dave	Barber	MAPD
1	Allen	Bell	City Econ Dev
1	Mark	Borst	SG Co. PW - Traffic Engr
1	Bill	Buchanan	Sedgwick County
1	Wes	Darnell	ADC
1	Scott	Dunakey	City Hall/MAPD/WAMPO
1	Paul	Gunzelman	C of W - Traffic Engineering
1	Maureen	Hofrenning	GWCVB
1	Ron	Holt	Sedgwick County
1	Scott	Knebel	MAPD
1	Stephane	Knebel	Sedg County/Project Svcs
1	Ed	Martin	City - Building Services Mgr
1	Larry	Pecenka	Sedgwick County
1	Don	Phelps	Wichita Police
1	John	Philbrick	COW - Property Management
1	Brent	Remsberg	PEC
1	John	Rolfe	GWCVB
1	John	Speer	Wichita Police
1	Charlene	Stevens	Sedgwick County
1	Chad	Von Ahnen	Sedgwick County
1	Ed	Wolverton	WDDC
1	Jim	Woods	Sedg. Co. Sheriff's off.
1	Kristi	Zukovich	Sedgwick County
2	Dave	Barber	MAPD
2	Dave	Burk	Marketplace Prop.
2	Wes	Darnell	Wilson Darnell
2	Paul	Gunzelman	C of W - Traffic Engineering
2	Jerry	Jones	Slawson Development
2	Scott	Knebel	MAPD
2	John	Schlegel	MAPD
2	Larry	Weber	Garvey Center
2	Debbie	Williams	City of Wichita, Century II
2	Ed	Wolverton	WDDC



APPENDIX C

Parking Inventory and
Occupancy

Walker Parking Consultants
Appendix C: Parking Inventory

Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
1	Residential	16	4		On-Street			14
2	Residential	16	3		On-Street			14
3	Residential	14	5		On-Street			12
4	Residential	36	14	Private Business	Private	Surface		34
4	Residential	15	2		On-Street			13
5	Remote	296	26	Wichita Ice Center	Public	Surface		266
6	Residential	22	4		On-Street			19
7	Residential	4	0	Small Office (Old House)	Private	Surface		4
7	Residential	22	3	Small Retail	Public	Surface		20
7	Residential	22	2		On-Street			19
8	Residential	24	0		On-Street			20
9	Residential	22	4		On-Street			19
10	Residential	36	8		On-Street			31
11	Residential	32	6		On-Street			27
12		10	5	Oak	On-Street	E		9
12		5	3	Burton	On-Street	N		4
12		0	0	Maple n/p 4-6pm	On-Street	S		0
12		12	1	Osage	On-Street	W		10
12		42	22	Tri Mark Sign Shop	Private	Surface		40
13		0	0	Syamore	On-Street	E		0
13		9	0	Burton	On-Street	N		8
13		0	0	Maple	On-Street	S		0
13		13	3	Oak	On-Street	W		11
13		20	9	Stadium Bar	Private	Surface		19
14	Remote	827	22	B-Ball Stadium	Public	Surface		744
14	Remote	200	69	Met Bapt Church	Private	Surface		190
15	Residential	0	0	Syamore	On-Street	E		0
15	Residential	8	6	Texas	On-Street	N		7
15	Residential	8	0	Burton	On-Street	S		7
15	Residential	9	0	Oak	On-Street	W		8
16	Residential	9	0	Oak	On-Street	E		8
16	Residential	9	3	Texas	On-Street	N		8
16	Residential	8	3	Burton	On-Street	S		7
16	Residential	9	1	Osage	On-Street	W		8
17	Residential	8	0	Osage	On-Street	E		7
17	Residential	8	1	Texas	On-Street	N		7
17	Residential	8	0	Burton	On-Street	S		7
17	Residential	8	0	Handley	On-Street	W		7
17	Residential	68	22	Calvary Bible Church	Private	Surface		65
18	Residential	9	0	Handley	On-Street	E		8
18	Residential	9	1	Texas	On-Street	N		8
18	Residential	8	2	Burton	On-Street	S		7
18	Residential	9	0	Walnut St	On-Street	W		8
18	Residential	73	62	Senior Services Inc	Private	Surface		69
19	Residential	8	0	Walnut St	On-Street	E		7
19	Residential	8	0		On-Street	N		7
19	Residential	8	0	Burton	On-Street	S		7
19	Residential	0	0	Seneca St	On-Street	W		0
19	Residential			(Seneca Park)				0

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Appendix C: Parking Inventory

Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
20	Delano	10	8	Walnut St	On-Street	E		9
20	Delano	12	12	Douglas	On-Street	N		10
20	Delano	7	7	Texas	On-Street	S		6
20	Delano	0	0		On-Street	W		0
20	Delano	14	8	Retail on S.	Private	Surface		13
20	Delano	55	46	Retail on S.	Public	Surface		50
21	Delano	9	5	Handley	On-Street	E		8
21	Delano	10	6		On-Street	N		9
21	Delano	6	0	Texas	On-Street	S		5
21	Delano	6	5	Walnut St	On-Street	W		5
21	Delano	20	15	Lot	Public	Surface		18
22	Delano	6	1	Osage	On-Street	E		5
22	Delano	12	1	Douglas	On-Street	N		10
22	Delano	9	1	Texas	On-Street	S		8
22	Delano	8	2	Handley	On-Street	W		7
22	Delano	33	10	Bell Carpets	private	Surface		31
22	Delano	18	12	KS Fire Equipment	private	Surface		17
23	Delano	8	5	Oak	on-street	E		7
23	Delano	8	0	Douglas	on-street	N		7
23	Delano	4	3	Texas	on-street	S		3
23	Delano	9	6	Osage	on-street	W		8
23	Delano	86	56	C.U. of America	private	Surface		82
24	Delano	9	4	Sycamore	on-street	E		8
24	Delano	11	4	Douglas	on-street	N		9
24	Delano	6	2	Texas	on-street	S		5
24	Delano	8	2	Oak	On-Street	W		7
25	Delano	0	0	McLean	On-Street	E		0
25	Delano	15	0	Douglas	on-street	N		13
25	Delano	0	0	Sycamore	On-Street	W		0
25	Delano	26	20	Metropolitan Baptist Church	private	Surface		25
26	Delano	0	0	McLean	On-Street	E		0
26	Delano	17	0	Douglas	On-Street	S		14
26	Delano	0	0	Sycamore	On-Street	W		0
26	Delano	27	20	Mexican Rest.	private	Surface		26
27	Delano	0	0	Sycamore	On-Street	E		0
27	Delano	7	7	Douglas	On-Street	S		6
27	Delano	7	1	Oak	On-Street	W		6
27	Delano	20	9	T.S. Tech Sol.	Private	Surface		19
28	Delano	10	4	Oak	On-Street	E		9
28	Delano	11	2	Douglas	On-Street	S		9
28	Delano	4	1	Osage	On-Street	W		3
29	Delano	4	1	Osage	On-Street	E		3
29	Delano	9	1	Douglas	On-Street	S		8
29	Delano	6	1	Handley	On-Street	W		5
29	Delano	24	11	Cert. En Design	private	Surface		23
30	Delano	10	5	Handley	On-Street	E		9
30	Delano	9	0	1st	On-Street	N		8
30	Delano	10	3	Douglas	On-Street	S		9
30	Delano	9	8	Walnut St	On-Street	W		8

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Appendix C: Parking Inventory

Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
31	Delano	5	0		On-Street	E		4
31	Delano	0	0		On-Street	S		0
31	Delano	0	0		On-Street	W		0
31	Delano	26	22	Subway	Private	Surface		25
31	Delano	46	57	McDonald's	Private	Surface		44
31	Delano	22	20	Taco Rio	Private	Surface		21
31	Delano	20	18	Dirt Lot	Private	Surface		19
32	Delano	7	2		On-Street	E		6
32	Delano	6	1		On-Street	N		5
32	Delano	0	0	No Street	On-Street	S		0
32	Delano	0	0	Seneca St	On-Street	W		0
32	Delano	62	42	Joe's Lube & Oil	Private	Surface		59
32	Delano	5	2	DPN	Private	Surface		5
33	Residential	14	0		On-Street			12
34	Residential	20	2		On-Street			17
35	Industrial	12	0		On-Street			10
36	Industrial	18	7	Key Construction	Private	Surface		17
37		0	0					0
38		0	0	Exploration Park				0
39	Industrial	9	0	2nd St	On-Street	S		8
39	Industrial	20	14	Private Lennox Lot	Private	Surface		19
39	Industrial	56	26	Postal Mail	Private	Surface		53
40	Residential	5	3	Handley	on-street	E		4
40	Residential	8	5	Dirt road	On-Street	N		7
40	Residential	7	0	2nd St. No P 4-6pm	On-Street	S		6
40	Residential	9	5	Walnut St	On-Street	W		8
40	Residential	6	2	Car Color	Private	Surface		6
40	Residential	15	7	Ty's Diner	Private	Surface		14
41	Residential	6	2	Walnut St	On-Street	E		5
41	Residential	6	0	Kiowa	On-Street	N		5
41	Residential	0	0	2nd Street	On-Street	S		0
41	Residential	0	0	Seneca St	On-Street	W		0
42		0	0	Dirt road	On-Street	E		0
42		0	0		On-Street	N		0
42		4	0	Dirt road	On-Street	S		3
42		0	0	Seneca St	On-Street	W		0
42		53	36	Merle's Food/Bar	Private	Surface		50
43	Residential				Private	Surface		0
44	Remote	480	220	Discovery Place	Private	Surface		456
45		43	8	Indian Center	Private	Surface		41
46		28	35	Westar EN	Private	Surface		27
46		18	1	Veterans Memorial Park	Private	Surface		17
47		7	4	Meters -10 hr	On-Street	E		6
47		0	0		On-Street	N		0
47		0	0		On-Street	S		0
47		120	72	Private	Private	Surface		114
47		191	54	Church	Private	Surface		181
48		0	0		On-Street	E		0
48		0	0		On-Street	N		0

Walker Parking Consultants
Appendix C: Parking Inventory

Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
48		0	0		On-Street	S		0
48		13	11		On-Street	W		11
48		450	360	Farm Credit Bank est	Private	Garage		428
48		73	24	Private	Private	Surface		69
48		23	9	Private	Private	Surface		22
48		3	0	Customer	Private	Surface		3
48		12	4		Private	Surface		11
48		28	7		Private	Surface		27
48		128	28	Monthly	Public	Surface		115
49		14	13	Greenway Manor	Private	Surface		13
49		305	232	Riverview Office Building	Private	Surface		290
49		78	63	WPS	Private	Surface		74
50		0	0		On-Street	E		0
50		0	0		On-Street	N		0
50		0	0		On-Street	S		0
50		0	0		On-Street	W		0
50		7	6	Day Care	Private	Surface		7
50		96	95	WIBO	Private	Surface		91
51	Residential	0	0		Private	Surface		0
52		0	0	Waco St	On-Street	E		0
52		0	0	Murdock St	On-Street	N		0
52		300	138	IBM	Private	Surface		285
52		49	15	IBM Side	Private	Surface		47
52		112	25	Retail	Private	Surface		106
53		23	14		On-Street	N		20
54		0	0	Alley	On-Street	E		0
54		0	0	Murdock St	On-Street	N		0
54		0	0	Central	On-Street	S		0
54		0	0	Waco St	On-Street	W		0
54		42	28	Retail	Private	Surface		40
54		92	53	The Quarters	Private	Surface		87
55	Government	0	0	Water	On-Street	E		0
55	Government	0	0	Murdock St	On-Street	N		0
55	Government	12	12		On-Street	S		10
55	Government	5	5	Dirt Street (Water St)	On-Street	W		4
56	Government	6	2	Meters - 10 hr	On-Street	E		5
56	Government	0	0	Murdock St	On-Street	N		0
56	Government	8	8	Pine St	On-Street	S		7
56	Government	0	0	Water	On-Street	W		0
56	Government	72	25	Red Cross	Private	Surface		68
57		14	0		On-Street	E		12
57		0	0	Murdock St	On-Street	N		0
57		8	5	Along Pine 2 hr 9-4	On-Street	S		7
57		0	0		On-Street	W		0
57		60	5	Under Construction	Private	Surface		57
57		75	56	Builders 730 N. Main	Private	Surface		71
58	Residential	0	0	Broadway	On-Street	E		0
58	Residential	0	0	Murdock St	On-Street	N		0
58	Residential	8	5	Along Pine	On-Street	S		7

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Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
58	Residential			Market	On-Street	W		0
58	Residential	6	2	Cleaners	Private	Surface		6
58	Residential	41	7	O'Reilly Auto Parts	Private	Surface		39
58	Residential	14	12	Gray Building	Private	Surface		13
58	Residential	12	7	Family Dentistry	Private	Surface		11
58	Residential	10	3	Alley - Private	Private	Surface		10
58	Residential	12	0	Vacant Building	Private	Surface		11
59	Residential	10	4	Topeka St	On-Street	E		9
59	Residential	0	0	Murdock St	On-Street	N		0
59	Residential	9	5	Apartments	On-Street	S		8
59	Residential	0	0	No parking on Broadway	On-Street	W		0
59	Residential	32	19	Quick Trip Gas Station	Private	Surface		30
60		6	0	Emporia	On-Street	E		5
60		0	0	Murdock St	On-Street	N		0
60		10	0	Pine St	On-Street	S		9
60		9	6	Topeka St	On-Street	W		8
60		356	165	Hospital Parking	Private	Surface		338
61		6	0	St Francis	On-Street	E		5
61		0	0	Murdock St	On-Street	N		0
61		0	0	Pine St	On-Street	S		0
61		5	0	Emporia	On-Street	W		4
61		236	130	Hospital Parking	Private	Surface		224
62		12	0	Santa Fe St	On-Street	E		10
62		0	0	Murdock St	On-Street	N		0
62		5	0	Pine St	On-Street	S		4
62		12	5	St Francis	On-Street	W		10
62		149	105	Hospital Parking	Private	Surface		142
63	Industrial							0
64	Industrial							0
65	Industrial							0
66	Industrial							0
67	Industrial							0
68		0	0	Santa Fe St	On-Street	E		0
68		6	0	Pine St	On-Street	N		5
68		8	5	Elm Street	On-Street	S		7
68		8	1	St Francis	On-Street	W		7
68		19	6	630 N. St Francis	Private	Surface		18
68		13	12	White Building	Private	Surface		12
69		6	0	St Francis	On-Street	E		5
69		9	1		On-Street	N		8
69		10	0	Elm Street	On-Street	S		9
69		10	0	Emporia	On-Street	W		9
69		50	39	Behind old school	Private	Surface		48
69		20	10		Private	Surface		19
70	Residential	10	0	Emporia	On-Street	E		9
70	Residential	12	1	Pine St	On-Street	N		10
70	Residential	6	0	Elm Street	On-Street	S		5
70	Residential	11	1	Topeka St	On-Street	W		9
70	Residential	25	1	Vacant Lot	Private	Surface		24

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Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
70	Residential	40	0	Vacant Lot	Private	Surface		38
70	Residential	17	0	Vacant Lot	Private	Surface		16
71	Residential	12	5	Along Topeka	On-Street	E		10
71	Residential	8	7	Pine St	On-Street	N		7
71	Residential	0	0	Elm Street	On-Street	S		0
71	Residential	0	0	No Parking Ex. Sunday	On-Street	W		0
71	Residential	42	5	Private lot	Private	Surface		40
71	Residential	28	12	SSI Security	Private	Surface		27
72		0	0	Broadway	On-Street	E		0
72		8	7	Along Pine	On-Street	N		7
72		10	10	Elm Street	On-Street	S		9
72		12	12	Market	On-Street	W		10
72		40	7	Kootz Flowers	Private	Surface		38
72		12	8	609 Law Offices	Private	Surface		11
72		42	16		Private	Surface		40
72		38	28		Private	Surface		36
72		6	4	Behind Law Offices	Private	Surface		6
72		68	3	316-268-3500	Private	Surface		65
73	Government	12	12	Market	On-Street	E		10
73	Government	10	9	Pine St	On-Street	N		9
73	Government	10	5	Elm Street	On-Street	S		9
73	Government	13	10	Main	On-Street	W		11
73	Government	25	6	EBY	Private	Surface		24
73	Government	148	94	EBY	Private	Surface		141
74	Government	7	7	Meters - 10 hr	On-Street	E		6
74	Government	6	5	Pine St	On-Street	N		5
74	Government	10	10	Police Vehicles Only	On-Street	S		9
74	Government	24	24	Meters 4 hr	On-Street	W		20
74	Government	453	420	Sedgwick Co. - Private	Private	Garage		430
74	Government	25	6	EBY Construction	Private	Surface		24
74	Government	148	149		Private	Surface		141
74	Government	92	92	Utility Contractors	Private	Surface		87
74	Government	453	356	Sedgwick Co. Garage	Public	Garage		408
75	Government	7	7	Handicap	On-Street	E		6
75	Government	9	9	HC Only	On-Street	N		8
75	Government	12	12	Along Pine	On-Street	N		10
75	Government	0	0	Central	On-Street	S		0
75	Government	0	0	Alley - Private	On-Street	W		0
76	Government	14	14	Market	On-Street	E		12
76	Government	10	4	Elm Street	On-Street	N		9
76	Government	0	0	Central	On-Street	S		0
76	Government	0	0	Main	On-Street	W		0
77		0	0	No Parking Ex. Sunday	On-Street	E		0
77		9	8	Elm Street	On-Street	N		8
77		0	0	Central	On-Street	S		0
77		10	9	Market	On-Street	W		9
77		42	22	Church	Private	Surface		40
77		8	1	Church	Private	Surface		8
77		18	8	Church	Private	Surface		17

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Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
77		70	57	1st Presby Church	Private	Surface		67
77		12	7	Private	Private	Surface		11
78		12	4	Topeka St	On-Street	E		10
78		10	5	Along Elm 2hr 9-4	On-Street	N		9
78		0	0	Central	On-Street	S		0
78		0	0	Broadway	On-Street	W		0
78		60	17	Lord's Diner	Private	Surface		57
78		43	22	Private lots	Private	Surface		41
79		14	5	Emporia St	On-Street	E		12
79		12	1	Elm Street	On-Street	N		10
79		0	0	Central	On-Street	S		0
79		12	1	Topeka St	On-Street	W		10
80		6	0	St Francis	On-Street	E		5
80		10	1	2 hr 9-4	On-Street	N		9
80		0	0	Central	On-Street	S		0
80		8	2	Emporia St	On-Street	W		7
81		14	2	Santa Fe St	On-Street	E		12
81		10	4	Elm Street	On-Street	N		9
81		0	0	Central	On-Street	S		0
81		6	0	St Francis	On-Street	W		5
81		15	5	SC Corrections (fenced)	Private	surface		14
81		20	14	522 address	Private	surface		19
81		66	32	SC Private lot	Private	Surface		63
82	Industrial							0
83	Industrial	100	20	Marriott Valet Lot	Private	Surface		95
84	Industrial							0
85		0	0	Santa Fe St	On-Street	E		0
85		0	0	Central	On-Street	N		0
85		6	3	3rd	On-Street	S		5
85		12	5	Along St Francis	On-Street	W		10
85		12	6	Private	Private	Surface		11
85		31	3	Private	Private	Surface		29
85		21	7	Private	Private	Surface		20
85		9	4	Private	Private	Surface		9
85		14	0	Private	Public	Surface		13
85				Private	Public	Surface		0
86		8	0	Along St Francis	On-Street	E		7
86		0	0	Central	On-Street	N		0
86		8	2	3rd	On-Street	S		7
86		8	1	Along Emporia St	On-Street	W		7
86		40	0	Private	Private	Surface		38
86		63	8	Private	Private	Surface		60
86		15	4	Private	Private	Surface		14
86		15	0	Private	Private	Surface		14
86		20	15	Private	Private	Surface		19
86		8	2	Private	public	Surface		7
86		20	10	Private	public	Surface		18
86		25	18	Private	public	Surface		23
86		12	4	Private	public	Surface		11

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Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
87		12	3	Along Emporia St	On-Street	E		10
87		0	0	Central	On-Street	N		0
87		11	0	Green Meter	On-Street	S		9
87		7	1	Topeka St	On-Street	W		6
87		17	10	Private	Private	Surface		16
87		13	5	Private	Private	Surface		12
87		15	5	Private	Private	Surface		14
87		25	2	Private	Private	Surface		24
88		12	2	Meters	On-Street	E		10
88		0	0	Central	On-Street	N		0
88		10	0	Meter 10 hr	On-Street	S		9
88		15	1	No Meters 2 hr 9-4	On-Street	W		13
88		68	23	Private	Private	Surface		65
88		21	13	Private	Private	Surface		20
88		60	20	Private	Private	Surface		57
88		50	20	Monthly	public	Surface		45
89		13	9	Broadway	On-Street	E		11
89		0	0	Central	On-Street	N		0
89		10	8	Meters- Green 5 hour	On-Street	S		9
89		9	3	Meters 2 hr	On-Street	W		8
89		80	43	Private	Private	Surface		76
89		12	8	Private	Private	Surface		11
89		18	6	Private	Private	Surface		17
89		100	78	YMCA	Private	Surface		95
89		15	11	Private	Private	Surface		14
89		4	4	Private	Private	Surface		4
90	Government	16	12	Market	On-Street	E		14
90	Government	0	0	Central	On-Street	N		0
90	Government	12	3	Meters 2 hr	On-Street	S		10
90	Government	0	0	Main	On-Street	W		0
90	Government	54	40	Private	Private	Surface		51
90	Government	14	4	Customer	Public	Surface		13
91	Government	0	0	Main	On-Street	E		0
91	Government	0	0	Central	On-Street	N		0
91	Government	0	0	3rd	On-Street	S		0
91	Government	0	0	Water	On-Street	W		0
91	Government	217	89	City Hall Surface Lot	Private	Surface		206
91	Government	450	322	City Hall Garage	Public	Garage		405
91	Government	71	52	City Hall Meter Lot 2 Hr	Public	Surface		64
92	Government	0	0	Water	On-Street	E		0
92	Government	0	0	Central	On-Street	N		0
92	Government	0	0	3rd	On-Street	S		0
92	Government	0	0	Waco	On-Street	W		0
92	Government	168	149	Private	Private	Surface		160
92	Government	34	31	Private	Private	Surface		32
93		0	0	No Park	On-Street	E		0
93		0	0	3rd	On-Street	N		0
93		0	0	2nd Street	On-Street	S		0
93		0	0	Waco St	On-Street	W		0

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Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
93		72	25	USPO	Private	Surface		68
94	Government	9	5	Main St.	On-Street	E		8
94	Government	0	0	3rd Street	On-Street	N		0
94	Government	0	0	2nd Street	On-Street	S		0
94	Government	0	0	Water Street	On-Street	W		0
94	Government	84	42	Private	Private	Surface		80
94	Government	659	438	Epic Center Garage	Public	Garage		593
94	Government	190	136	Daily-Monthly	Public	Surface		171
95		18	10	Market	On-Street	E		15
95		9	3	Meters 2 hr	On-Street	N		8
95		8	3	Meters 2 hr	On-Street	S		7
95		0	0	Main	On-Street	W		0
95		41	35	Customer	Private	Surface		39
95		32	18	Customer	Private	Surface		30
95		8	1	Private	Private	Surface		8
95		27	9	Private	Private	Surface		26
95		45	45	Private	Private	Surface		43
95		44	9	Private	Private	Surface		42
95		41	24	Private	Private	Surface		39
95		15	7	Private	Private	Surface		14
96		14	0	No Meters 2 hr	On-Street	E		12
96		10	3	Meters 5 hrs	On-Street	N		9
96		11	1	Meters 2 hr	On-Street	S		9
96		23	1	Meters 2 hr	On-Street	W		20
96		52	22	Private	Private	Surface		49
96		10	9	Private	Private	Surface		10
96		84	75	Monthly	Public	Surface		76
97		17	0	Meters 5 hr	On-Street	E		14
97		10	0	Meters 2 hr	On-Street	N		9
97		11	1	Meters 2 hr 9-6	On-Street	S		9
97		20	15	No Meters 2 hr 9-4	On-Street	W		17
97		200	155		Private	Surface	No	190
97		9	2	Big Brothers & Sisters	Private	Surface		9
97		44	20		Private	Surface	No	42
98		15	0	Meters	On-Street	E		13
98		11	0	Green	On-Street	N		9
98		8	1	2 meters rest no meters	On-Street	S		7
98		16	3	Meters 5 hr	On-Street	W		14
98		40	31	Between 3rd & 2nd	Private	Surface	No	38
98		60	30	Between 3rd & 2nd	Private	Surface	No	57
98		77	52		Private	Surface	No	73
98		45	11	Between 2nd & 3rd	Private	Surface	No	43
98		98	83	Student Parking	Private	Surface	No	93
99		16	3	Along St Francis	On-Street	E		14
99		9	1	3rd	On-Street	N		8
99		6	2	2nd	On-Street	S		5
99		16	12	Emporia St	On-Street	W		14
99		74	1	Private	Private	Surface		70
99		14	0	Private	Private	Surface		13

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Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
99		37	2	Private	Private	Surface		35
99		122	67	Private	Private	Surface		116
99		36	9	Private	Private	Surface		34
99		18	5	Private	Private	Surface		17
100		0	0	Santa Fe St	On-Street	E		0
100		14	8	Angled	On-Street	N		12
100		0	0	2nd Street	On-Street	S		0
100		12	0	Along St Francis	On-Street	W		10
100		122	22		Private	Surface	No	116
100		95	1		Private	Surface	No	90
101	Old Town	11	11	3rd Street	On-Street	N		9
101	Old Town	444	227	2nd Street	Public	Garage	Yes	400
101	Old Town	26	25	Public Parking	Public	Surface		23
101	Old Town	96	94	Public Parking	Public	Surface		86
102	Old Town	4	4		On-Street	N		3
102	Old Town	3	3		On-Street	S		3
102	Old Town	8	6	Alley	On-Street	W		7
102	Old Town	33	8	Mariott Valet Lot	Private	Surface		31
103	Old Town	20	4	Washington	On-Street	E		
103	Old Town	4	2	3rd Street	On-Street	N		3
103	Old Town	0	0	3rd Street	On-Street	S		
103	Old Town	0	0	2nd Street	On-Street	W		
103	Old Town	4	0	Daily	Private	Surface		4
103	Old Town	12	18	Muffler Shop	Private	Surface		11
103	Old Town	15	15	Daily	Private	Surface		14
103	Old Town	48	48	Courtyard Marriot	Private	Surface		46
104	Old Town	4	4	2nd Street	On-Street	N		
104	Old Town	13	7	1st Street	On-Street	S		
104	Old Town	20	15	Expanded Area	On-Street			17
104	Old Town	18	5	Customer	Private	Surface		17
104	Old Town	11	6	Customer	Private	Surface		10
104	Old Town	59	55	Between 1st & 2nd	Public	Surface	Yes	53
104	Old Town	69	22	Between 1st & 2nd	Public	Surface	Yes	62
105	Old Town	0	0		On-Street	E		0
105	Old Town	7	6		On-Street	N		6
105	Old Town	7	6	1st Street	On-Street	S		
105	Old Town	0	0		On-Street	W		0
105	Old Town	7	6	Private	Private	Surface		7
105	Old Town	236	200	Mosley	Public	Garage	Yes	212
105	Old Town	89	65	Between 1st & 2nd	Public	Surface	Yes	80
106	Old Town	8	7	2nd Street NP 7-9am 3hr 9-4p	On-Street	N		7
106	Old Town	14	12	1st Street	On-Street	S		12
106	Old Town	8	6	Private	Private	Surface		8
106	Old Town	8	8	Private	Private	Surface		8
106	Old Town	218	196	Public Parking	Public	Surface	Yes	196
107		0	0	Santa Fe St	On-Street	E		0
107		0	0	2nd Street	On-Street	N		0
107		9	2	1st Street	On-Street	S		8
107		22	16	Along St Francis	On-Street	W		19

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Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
107		12	5	Private	Private	Surface		11
108		18	8	Along St Francis	On-Street	E		15
108		0	0	2nd Street	On-Street	N		0
108		3	0	1st	On-Street	S		3
108		16	0	Along Emporia	On-Street	W		14
108		13	3	Customer	Private	Surface		12
108		10	0	Customer	Private	Surface		10
108		34	4	Private	Private	Surface		32
108		21	6	Private	Private	Surface		20
108		4	4	Private	Private	Surface		4
108		6	0	Private	Private	Surface		6
108		44	1	Coleman Monthly Lot	Public	Surface		40
108		84	39	Monthly- Ampco	Public	Surface		76
109		11	4	Along Emporia	On-Street	E		9
109		0	0	2nd Street	On-Street	N		0
109		9	2	1st	On-Street	S		8
109		19	3	Meters	On-Street	W		16
109		67	12	Between 1st & 2nd	Private	Surface	No	64
109		104	94	Between 2nd & 1st	Public	Surface	Yes	94
110		20	12	Meters	On-Street	E		17
110		0	0	2nd Street	On-Street	N		0
110		11	8	1st	On-Street	S		9
110		9	7	Broadway	On-Street	W		8
110		63	36	Between 1st & 2nd	Private	Surface	No	60
110		89	70	Between 1st & 2nd	Private	Surface	No	85
110		125	100	Old Garage est count	Public	Garage	No	113
110		195	83	Monthly Parking	Public	Surface	Yes	176
111		15	7	No Meters 1 or 2 hr 8-5	On-Street	E		13
111		9	5	Meters	On-Street	S		8
111		16	10	Meters 2 hr	On-Street	W		14
111		63	35	Between 1st & 2nd	Private	Surface	No	60
112		18	8	No Meters 2 hr 9-4	On-Street	E		15
112		0	0	2nd Street	On-Street	N		0
112		5	5	Meters- 1 hr	On-Street	S		4
112		26	21	Covered	Private	Garage		25
112		38	10	Customer	Private	Surface		36
112		7	4	Alley - Private	Private	Surface		7
112		36	6	Private	Private	Surface		34
112		26	21	Private	Private	Surface		25
112		670	410	Market Centre Garage	Public	Garage		603
112		48	20	Daily	Public	Surface		43
113		9	6		On-Street	S		8
113		2	0	Meters - 2 hr	On-Street	W		2
113		12	1	Meters - 1 hr	On-Street	W		10
113		68	25	Private	Private	Surface		65
113		89	51	Private	Private	Surface		85
113		21	18	Customer	Private	Surface		20
113		35	22	private	Private	Surface		33
113		66	46	Daily-Monthly	Public	Surface		59

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Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
113		50	31	Daily	Public	Surface		45
113		25	5	Monthly	Public	Surface		23
114		17	1	Water	On-Street	E		14
114		0	0	2nd Street	On-Street	N		0
114		15	1	Meters 2 hr	On-Street	S		13
114		0	0	Water	On-Street	W		0
114		14	6	Public Schools	Private	Garage		13
114		102	88	Private	Private	Surface		97
114		108	92	Private	Private	Surface		103
114		51	38	Private	Private	Surface		48
114		9	7	Private	Private	Surface		9
115		0	0	Water	On-Street	E		0
115		0	0	2nd Street	On-Street	N		0
115		0	0	1st	On-Street	S		0
115		5	1	Meters 2 hr	On-Street	W		4
115		12	9	Customer	Private	Surface		11
115		9	1	Customer	Private	Surface		9
115		11	3	Private	Private	Surface		10
115		21	13	Private	Private	Surface		20
115		21	6	Private	Private	Surface		20
115		35	4	Monthly	Public	Surface		32
115		243	10	Monthly	Public	Surface		219
116	Century II	12	2	No Meters	On-Street	E		10
116	Century II	0	0	1st	On-Street	N		0
116	Century II	0	0	Douglas	On-Street	S		0
116	Century II	0	0	(River)	On-Street	W		0
116	Century II	214	44	Daily	Public	Surface		193
117	Century II	9	3	1 hr	On-Street	E		8
117	Century II	0	0	Douglas	On-Street	N		0
117	Century II	8	8	Along Douglas	On-Street	S		7
117	Century II	17	1	No Meters	On-Street	W		14
117	Century II	560	415	Garvey Center	Private	Garage		532
117	Century II	23	12	Private	Private	Surface		22
117	Century II	23	3	Customer	Private	Surface		22
117	Century II	169	112	Garvey Center	Private	Surface		161
117	Century II	7	3	Private	Private	Surface		7
117	Century II	500	127		Public	Garage		450
117	Century II	23	1	Monthly	Public	Surface		21
118	Century II	0	0		On-Street	E		0
118	Century II	9	2		On-Street	N		8
118	Century II	9	6	Along Douglas 2 hr 8-5	On-Street	S		8
118	Century II	5	3	1 hr 8-5	On-Street	W		4
118	Century II	14	1	Customer	Private	Surface		13
118	Century II	10	1		Private	Surface		10
118	Century II	67	54		Private	Surface		64
118	Century II	30	20	Customer	Private	Surface		29
118	Century II	295	226	Intrust Bank	Public	Garage		266
119	Century II	15	8	Market St	On-Street	E		13
119	Century II	5	2	Meters - 1hr	On-Street	N		4

Walker Parking Consultants
Appendix C: Parking Inventory

Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
119	Century II	6	4	Douglas	On-Street	S		5
119	Century II	0	0	Main St	On-Street	W		0
119	Century II	629	600	Douglas Garage Est.	Private	Garage		598
119	Century II	135	63	Private	Private	Garage		128
119	Century II	350	320	Key Management	Private	Garage		333
119	Century II	20	10	Customer	Private	Surface		19
119	Century II	25	20	Private	Private	Surface		24
120	Arena	10	5	No Meters- 2hr	On-Street	E		9
120	Arena	9	4	Meters	On-Street	N		8
120	Arena	5	2		On-Street	S		4
120	Arena	0	0		On-Street	W		0
120	Arena	440	314	Self	Public	Garage	Yes	396
120	Arena	70	22		Public	Surface	Yes	63
121	Arena	19	16	Meters - 2hr	On-Street	E		16
121	Arena	0	0		On-Street	N		0
121	Arena	11	5		On-Street	S		9
121	Arena	22	10	No Meters- 2hr	On-Street	W		19
121	Arena			Private	Private	Surface		0
122	Arena	11	3	Meters	On-Street	E		9
122	Arena	0	0		On-Street	N		0
122	Arena	3	2		On-Street	S		3
122	Arena	15	15	Meters - 2 hr	On-Street	W		13
122	Arena	41	21	North of Shriners	Private	Surface	No	39
122	Arena	44	26	Between Shriners & Bank	Private	Surface	No	42
122	Arena	26	0	Between 1st & Douglas	Private	Surface	No	25
122	Arena	28	12	Between 1st & Douglas	Private	Surface	No	27
122	Arena	26	0	Between 1st & Douglas	Private	Surface	No	25
122	Arena	35	0	Between Broadway & Topeka	Public	Surface	Yes	32
123	Arena	12	7	Along St Francis	On-Street	E		10
123	Arena	0	0		On-Street	N		0
123	Arena	6	1	Douglas	On-Street	S		5
123	Arena	17	2	Angled 4 are 30 min	On-Street	W		14
123	Arena	21	17	Private	Private	Surface		20
123	Arena	35	16	Private	Private	Surface		33
123	Arena	65	12	Private	Private	Surface		62
123	Arena	28	18	Private	Private	Surface		27
123	Arena	22	2	Private	Private	Surface		21
123	Arena	8	18	Tire Store	Private	Surface		8
123	Arena	79	3	Between Douglas & 1st	Private	Surface	No	75
123	Arena	24	16		Private	Surface	No	23
123	Arena	24	12	Monthly	Public	Surface		22
123	Arena	28	6	Ampco System Parking	Public	Surface	Yes	25
124	Arena	0	0		On-Street	E		0
124	Arena	4	0	1st Street	On-Street	N		3
124	Arena	10	6	Douglas Street	On-Street	S		9
124	Arena	30	17	Along St Francis - 3 15min	On-Street	W		26
124	Arena	5	7	Customer	Private	Surface		5
124	Arena	16	16	Private	Private	Surface		15
124	Arena	121	32	Private	Private	Surface		115

Walker Parking Consultants
Appendix C: Parking Inventory

Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
124	Arena	4	4	Private	Private	Surface		4
125	Old Town	6	4	1st	On-Street	N		5
125	Old Town	0	0		On-Street	S		0
125	Old Town	0	0		On-Street	W		0
125	Old Town	63	31		Public	Surface	Yes	57
125	Old Town	33	32	Mead	Public	Surface	Yes	30
126	Old Town	2	0		On-Street	N		2
126	Old Town	19	17	Rock Island	On-Street	W		16
126	Old Town	17	12	Mosley	On-Street	W		14
126	Old Town	30	12	Mead	On-Street	W		26
126	Old Town	57	51		Public	Surface	Yes	51
127	Old Town	13	11	Douglas	On-Street	S		11
127	Old Town	65	59		Public	Surface	Yes	59
127	Old Town	61	55	Between 1st & Douglas	Public	Surface	Yes	55
127	Old Town	113	102	Between Douglas & 1st	Public	Surface	Yes	102
127	Old Town	44	34		Public	Surface	Yes	40
128		0	0	Washington	On-Street	E		0
128		14	10	Douglas St.	On-Street	N		12
128		0	0	Waterman	On-Street	S		0
128		7	5	Mead	On-Street	W		6
128		26	3	Customer	Private	Surface		25
128		274	145	Private	Private	Surface		260
128		20	12	Customer	Private	Surface		19
128		15	11	Customer	Private	Surface		14
128		12	2	Customer	Private	Surface		11
128		51	21	Private	Private	Surface		48
128		108	40	Private	Private	Surface		103
128		7	5	Private	Private	Surface		7
128		12	7	Customer	Private	Surface		11
128		14	0	Private	Private	Surface		13
128		12	0	Private	Private	Surface		11
128		17	12	Customer	Private	Surface		16
129		28	20	Mead	On-Street	E		24
129		4	3	Douglas St.	On-Street	N		3
129		0	0		On-Street	S		0
129		0	0		On-Street	W		0
129		53	52		Private	Surface		50
130		0	0	Mead	On-Street	W		0
130		14	11		On-Street	E		12
130		0	0	Waterman	On-Street	S		0
130		75	62	Private	Private	Surface		71
131	Arena	2	1	Douglas	On-Street	N		2
131	Arena	0	0	Mead	On-Street	E		0
131	Arena	115	110	Protection One	Private	Surface	No	109
131	Arena	52	28	Cox Communications	Private	Surface	No	49
131	Arena	73	44	Restaurant	Private	Surface	No	69
131	Arena	18	16	Cox - Customer	Private	Surface	No	17
132	Arena	16	14	E. 600 Douglas	On-Street			14
132	Arena	11	2	E. 600 William	On-Street			9

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Appendix C: Parking Inventory

Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
132	Arena	15	13	S. 100 St. Francis	On-Street			13
132	Arena	19	7	S. 200 St. Francis	On-Street			16
132	Arena	14	5	S. 300 St. Francis	On-Street			12
132	Arena	122	9	Spaghetti Works Lot	Public	Surface	No	110
132	Arena	30	27		Public	Surface	Yes	27
133	Arena	28	24	E. 500 Douglas	On-Street			24
133	Arena	20	12	S. 100 Emporia	On-Street			17
133	Arena	50	50	Apartment	Private	Garage	No	48
133	Arena	42	11	Apartment	Private	Surface	No	40
133	Arena	43	41	Apartment	Private	Surface	No	41
134	Arena	12	5	E. 400 Douglas	On-Street			10
134	Arena	15	5	S. 100 Topeka	On-Street			13
134	Arena	22	10	Dr.'s / Lawrence Photo	Private	Surface	No	21
134	Arena	637	259	State Garage	Public	Garage	Yes	573
135	Arena	0	0		On-Street	E		0
135	Arena	10	8	E. 300 Douglas	On-Street	N		9
135	Arena	9	9		On-Street	S		8
135	Arena	0	0	No Parking	On-Street	W		0
135	Arena	30	17	KS Health Foundation	Private	Surface	No	29
135	Arena	85	34		Public	Surface	Yes	77
135	Arena	25	12		Public	Surface	Yes	23
136	Arena	0	0	No Parking	On-Street	E		0
136	Arena	15	9	E. 200 Douglas	On-Street	N		13
136	Arena	0	0	S. 100 Market	On-Street			0
137	Century II	16	7	E. 100 Douglas	On-Street			14
137	Century II	0	0	S. 100 Main	On-Street			0
138	Century II				On-Street			0
138	Century II	10	10	Private	Private	Surface		10
138	Century II	56	17	Meters- Daily (1hr limit)	Public	Surface		50
139	Century II				On-Street			0
139	Century II	61	48	Private est	Private	Surface		58
139	Century II	500	300	Hyatt est	Public	Garage		450
139	Century II	344	306	Meters - Daily	Public	Surface		310
139	Century II	50	30	Meters- Daily (5hr limit)	Public	Surface		45
140	Century II				On-Street			0
140	Century II	32	25	Library	Public	Surface	Yes	29
141	Century II	24	20	E. 100 William	On-Street			20
141	Century II	0	0	S. 200 Main	On-Street			0
141	Century II	47	30	Fidelity Garage	Private	Garage	Yes	45
141	Century II	550	207	Macy's Garage	Public	Garage	Yes	495
142	Arena	0	0	No Parking	On-Street	On-Street		0
142	Arena	13	11	E. 200 William	On-Street			11
142	Arena	6	5	S. 200 Market	On-Street			5
142	Arena	28	18	Client Parking	Private	Surface	No	27
142	Arena	76	49	Fidelity	Private	Surface	No	72
142	Arena	34	17		Public	Surface	Yes	31
142	Arena	57	52	231 S. Broadway	Public	Surface	Yes	51
143	Arena	0	0	No Parking	On-Street	On-Street		0
143	Arena	17	16	E. 300 William	On-Street			14

Walker Parking Consultants
Appendix C: Parking Inventory

Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
143	Arena	8	6	S. 200 Broadway	On-Street			7
143	Arena	12	9		Private	Surface	No	11
143	Arena	23	6		Private	Surface	No	22
143	Arena	3	0		Private	Surface	No	3
143	Arena	86	80	St. Office Building Visitors	Public	Surface	Yes	77
143	Arena	167	112	Ampco System Parking	Public	Surface	Yes	150
144	Arena	3	0	E. 400 William	On-Street			3
144	Arena	26	1	S. 200 Topeka	On-Street			22
144	Arena	68	22	Cowie Electric & Snelling Staff	Private	Surface	Yes	65
144	Arena	7	2	MTA Staff	Private	Surface	No	7
144	Arena	32	4	Transit Center	Public	Surface	Yes	29
145	Arena	17	5	E. 500 William	On-Street			14
145	Arena	22	3	S. 200 Emporia	On-Street			19
145	Arena	20	0		Private	Surface	No	19
145	Arena	130	6		Public	Surface	Yes	117
146	Arena	16	9	E. 500 English	On-Street			14
146	Arena	19	7	S. 300 Emporia	On-Street			16
146	Arena	38	10	Power Associates, LLC	Private	Surface	No	36
146	Arena	36	15	Boucher Ins. Agency	Private	Surface	No	34
147	Arena	15	5	E. 400 English	On-Street			13
147	Arena	19	5	S. 300 Topeka	On-Street			16
147	Arena	23	12	AFL-CIO?	Private	Surface	No	22
147	Arena	90	74	Professional Eng Consultants	Private	Surface	Yes	86
148	Arena	0	0	No Parking	On-Street			0
148	Arena	10	6	E. 300 English	On-Street			9
148	Arena	8	6	S. 300 Broadway	On-Street			7
148	Arena	25	12		Private	Surface	No	24
148	Arena	25	15		Private	Surface	No	24
148	Arena	17	11	In front of NRP Group	Private	Surface	No	16
148	Arena	17	13		Private	Surface	No	16
149	Arena	0	0	No Parking	On-Street	On-Street		0
149	Arena	18	2	E. 200 English	On-Street			15
149	Arena	19	2	S. 300 Market	On-Street			16
149	Arena	15	7	333 Building	Private	Surface	No	14
149	Arena	114	53	Fidelity Building	Private	Surface	Yes	108
149	Arena	50	35		Public	Garage	Yes	45
149	Arena	47	22		Public	Surface	Yes	42
149	Arena	48	15		Public	Surface	Yes	43
149	Arena	48	6		Public	Surface	Yes	43
150	Century II	13	3	E. 100 English	On-Street			11
150	Century II	0	0	S. 300 Main	On-Street			0
150	Century II	100	42	Harry Hines Hospice	Private	Surface	No	95
150	Century II	25	15	Places Arch.	Private	Surface	No	24
150	Century II	30	13		Private	Surface	No	29
150	Century II	10	6	Edwards	Private	Surface	No	10
151	Waterwalk	260	77	Garage	Public	Garage		234
151	Waterwalk	34	12	Lot 1	Public	Surface		31
151	Waterwalk	149	55	Lot 2	Public	Surface		134

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Appendix C: Parking Inventory

Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
151	Waterwalk	79	23	Lot 3	Public	Surface		71
151	Waterwalk	30	25	Under Gander Mountain	Public	Surface		27
151	Waterwalk	59	40	Under Bridge	Public	Surface		53
152		18	15	E. 100 Waterman	On-Street	On-Street		15
152		0	0	S. 400 Main	On-Street	On-Street		0
152		14	8	Goodyear	Private	Surface	No	13
152		64	64		Private	Surface	No	61
152		32	24	Firestone	Private	Surface	No	30
152		29	28		Private	Surface	No	28
152		9	7	Firestone	Private	Surface	No	9
153	Arena	19	15	E. 200 Waterman	On-Street	On-Street		16
153	Arena	21	18	S. 400 Market	On-Street	On-Street		18
153	Arena	44	19		Private	Surface	No	42
153	Arena	12	8		Private	Surface	No	11
153	Arena	35	9		Private	Surface	No	33
153	Arena	96	76		Public	surface	Yes	86
154	Arena	18	8	E. 300 Waterman	On-Street			15
154	Arena	11	1	S. 400 Broadway	On-Street			9
154	Arena	6	2	Bank of America	Private	Surface	No	6
154	Arena	70	0		Private	Surface	No	67
154	Arena	42	0		Private	Surface	No	40
154	Arena	27	26	Tax & Financial Center	Private	Surface	No	26
154	Arena	12	2	Customer Parking	Private	Surface	No	11
155	Arena	13	4	E. 400 Waterman	On-Street			11
155	Arena	16	0	S. 400 Topeka	On-Street			14
155	Arena	32	2	Across from Gossen	Private	Surface	No	30
155	Arena	39	23	Dept. of Corrections	Private	Surface	No	37
156	Arena	13	0	E. 500 Waterman	On-Street			11
156	Arena	13	5	S. 400 Emporia	On-Street			11
156	Arena	40	14	Behind Gossen	Private	Gravel	No	38
156	Arena	8	7	Epic Soccer?	Private	Surface	No	8
156	Arena	31	16		Private	Surface	Yes	29
157	Arena	15	0	E. 400 Lewis	On-Street			13
157	Arena	0	0	S. 500 Topeka	On-Street			0
157	Arena	27	15	Savoy Co./Johnson, Duncan, H	Private	Surface	No	26
157	Arena	5	4	Behind Building	Private	Surface	No	5
157	Arena	12	3		Private	Surface	No	11
157	Arena	43	14		Private	Surface	No	41
157	Arena	23	4		Private	Surface	No	22
158	Arena	15	0	E. 300 Lewis	On-Street	On-Street		13
158	Arena	4	0	S. 500 Broadway	On-Street	On-Street		3
158	Arena	58	45	Kelly Manuf. Co.	Private	Surface	No	55
158	Arena	24	11		Private	Surface	No	23
158	Arena	24	7		Private	Surface	No	23
158	Arena	26	4	Golden House	Private	Surface	No	25
158	Arena	21	14		Private	Surface	No	20
159	Arena	16	0	E. 200 Lewis	On-Street			14
159	Arena	0	0	S. 500 Market	On-Street			0
159	Arena	58	11		Private	Surface	No	55

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Appendix C: Parking Inventory

Block Number	Zone	Number of Spaces	Occupancy	Name/Location	Public/ Private/ On-Street	Parking Facility Type	Event Parking	Total Effective Supply
159	Arena	12	5	Wendy's	Private	Surface	No	11
159	Arena	31	3	Wendy's	Private	Surface	No	29
159	Arena	31	8		Private	Surface	No	29
159	Arena	35	6	Behind Special T's	Private	Surface	No	33
159	Arena	24	14		Private	Surface	No	23
160		13	11	E. 100 Lewis	On-Street	On-Street		11
160		15	0	E. 100 Dewey	On-Street	On-Street		13
160		0	0	S. 500 Main	On-Street	On-Street		0
160		22	15		Private	Gravel	No	21
160		4	1	Prof. Auto Detail	Private	Surface	No	4
160		20	1	Conoco	Private	Surface	No	19
160		20	9		Private	Surface	No	19
161	Arena	15	1	E. 200 Dewey	On-Street	On-Street		13
161	Arena	0	0	S. 600 Market	On-Street	On-Street		0
161	Arena	9	7		Private	Surface	No	9
161	Arena	40	6	Best TV Service	Private	Surface	No	38
162	Arena	12	0	E. 300 Dewey	On-Street	On-Street		10
162	Arena	0	0	S. 600 Broadway	On-Street	On-Street		0
162	Arena	22	6		Private	Surface	No	21
162	Arena	22	7		Private	Surface	No	21
162	Arena	27	12	Restaurant	Private	Surface	No	26
163	Arena	15	1	E. 400 Dewey	On-Street	On-Street		13
163	Arena	7	9	Behind Building	Private	Surface	No	7
163	Arena	8	3	Behind Building	Private	Surface	No	8
164	Arena	10	2	E. 500 Lewis	On-Street	On-Street		9
164	Arena	12	0	S. 500 Emporia	On-Street	On-Street		10
165	Arena	0	0	E. 600 Waterman	On-Street	On-Street		0
165	Arena	25	6	S. 400 St. Francis	On-Street	On-Street		21
165	Arena	23	15	S. 500 St. Francis	On-Street	On-Street		20
165	Arena	46	0	Loft at 420	Private	Surface	Yes	44
165	Arena	12	0	Protection One?	Private	Surface	No	11
165	Arena	20	8	Automotive Ind. Finishes	Private	Surface	No	19
165	Arena	9	2	Empty Building	Private	Surface	No	9
165	Arena	28	19		Private	Surface	No	27
166	Arena	21	10	Customer	Private	Surface		20
166	Arena	13	6	Wichita Transit	Private	Surface		12
166	Arena	347	12		Public	Surface	Yes	312
167		68	52	Private	Private	Surface		65
168		14	2	Customer	Private	Surface		13
168		25	18	Private	Private	Surface		24
168		4	1	Private	Private	Surface		4
168		30	6	Private	Private	Surface		29
169		28	8	Private business lot	Private	Surface		27



APPENDIX D

WDDC List of Potential Projects

PARKING AND MOBILITY MASTER PLAN

SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



APPENDIX D: WDDC LIST OF POTENTIAL PROJECTS

<i>Likelihood: High</i>		<i>Start - 2006-2009</i>		
Block	Name	Use	Sq. Ft.	Notes
132	Lighthouse	Hotel	150,000	120 room hotel is planned for construction at the former Spaghetti Works site.
117	Garvey Apartments	Residential	40,000	Currently 95 apartments with construction underway on another 35 new units. Parking is available on-site.
120	Exchange Place	Mixed	225,000	92 condos, 20K ground floor commercial, 90 private parking and 150 public garage. City considering TIF to pay for public garage.
137	Donham	Mixed	110,000	30 room boutique hotel, 250 space garage. Construction should start in October.
151	WaterWalk	Mixed	600,000	25 acre site with retail, residential and office. Existing/announced tenants Gander Mtn., Realtors Assn., Saddle Ranch. 750 garage parking spaces
142	Kauffman	Commercial	40,000	30K office, 10K ground floor retail. Dep't of Corrections is anchor tenant. Set to open summer 2007.
141	Carnegie/Fidelity	Commercial	15,000	Fidelity Bank renovating for expansion.
145	Retail	Retail	15,000	15,000 square foot building being totally renovated for antique store.
<i>Likelihood: Medium</i>		<i>Start - 2007-2009</i>		
Block	Name	Use	Sq. Ft.	Notes
154	Carlton	Retail	30,000	Under consideration by a developer.
118	Garage (Cargill)	Parking	100,000	Surrounding businesses need parking garage as a nearby garage is being converted to owner use only.
143	Allis Block	Mixed	50,000	City owns most of the site and considering RFP to developers.
135	Henry's Site	Mixed	75,000	Developer considering retail and residential project. Could lose surface lot on east side of parcel if project happens.
131	Cox	TBD	60,000	Cox relocating to another building and expects to be out in Fall 2007. Will likely sell existing structure and surface lot.
133	Eaton Ballroom	Restaurant	10,000	Long term vacant space on major corner leading to the arena.
<i>Likelihood: Low</i>		<i>Start - 2010</i>		
Block	Name	Use	Sq. Ft.	Notes
108	Coleman A	Mixed	175,000	Environmental issues at Coleman Plan A site but proximity to Old Town and Arena is excellent.
164	Housing Site	Residential	60,000	City owned lot between Kellogg and Arena. Could RFP to developers. Location currently weak for housing.
139	Expand Brown Expo	Convention	100,000	Very expensive project to expand convention center and Century II. Public support is unknown. Library relocation may also occur and more parking needed.
135	Douglas Building	Residential	115,000	Building is totally vacant and has been for 5+ years. Ruffin owns.
116	1st and Waco Site	Commercial	40,000	Prime location owned by the City and facing the River. Currently no plans to develop or RFP the site.
149	Slawson Garage	TBD	40,000	Currently a 550 space garage that is in poor condition.
36	Watkins Steel	TBD	630,000	Approximate 15 acre site that is privately owned. City owns an adjacent parcel that could be purchased and combined to make larger parcel.



APPENDIX E

On-Street Parking Geometrics

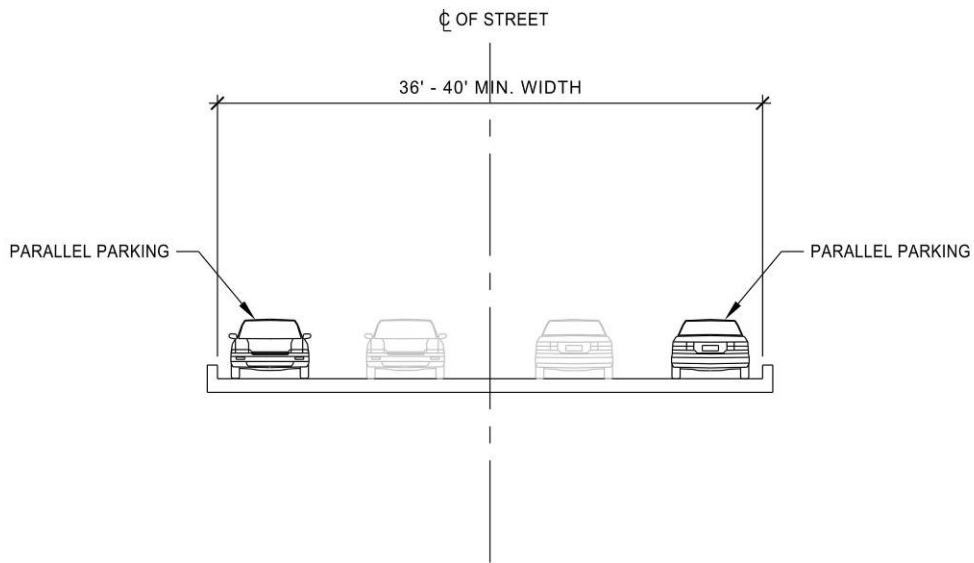
PARKING AND MOBILITY MASTER PLAN

SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



WALKER
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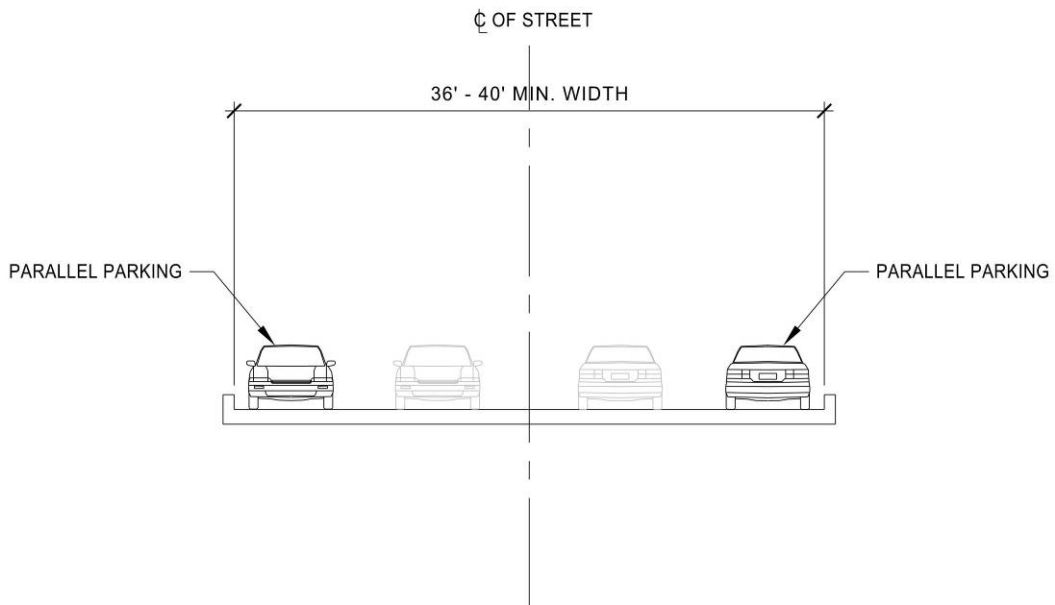
APPENDIX E: ON-STREET PARKING GEOMETRICS



ON-STREET PARALLEL PARKING

SCALE: N.T.S.

TWO-WAY TRAFFIC



ON-STREET PARALLEL PARKING

SCALE: N.T.S.

TWO-WAY TRAFFIC



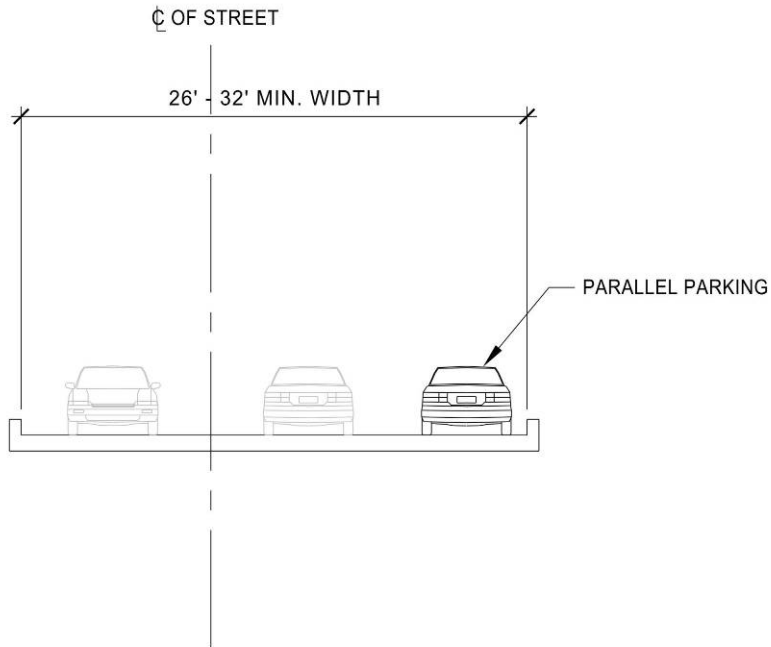
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SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



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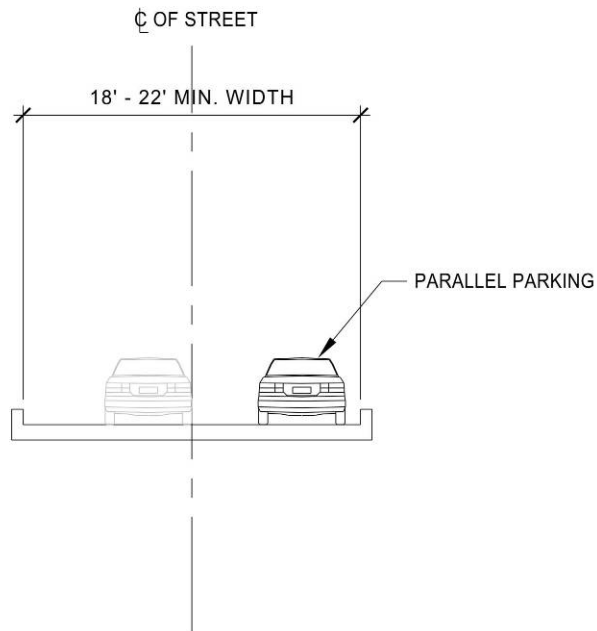
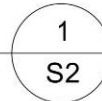
APPENDIX E: ON-STREET PARKING GEOMETRICS



ON-STREET PARALLEL PARKING

SCALE: N.T.S.

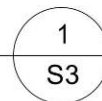
TWO-WAY TRAFFIC



ON-STREET PARALLEL PARKING

SCALE: N.T.S.

ONE-WAY TRAFFIC



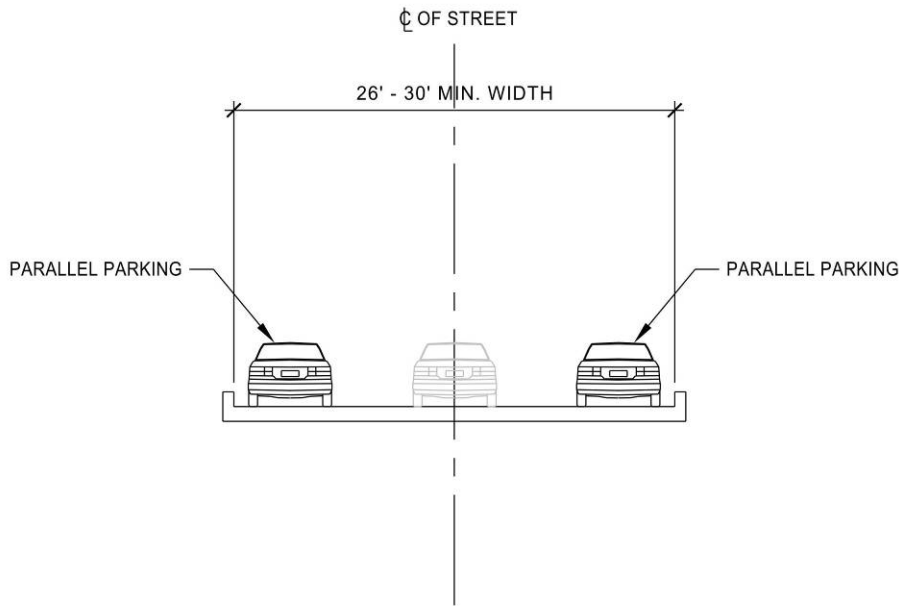
PARKING AND MOBILITY MASTER PLAN

SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



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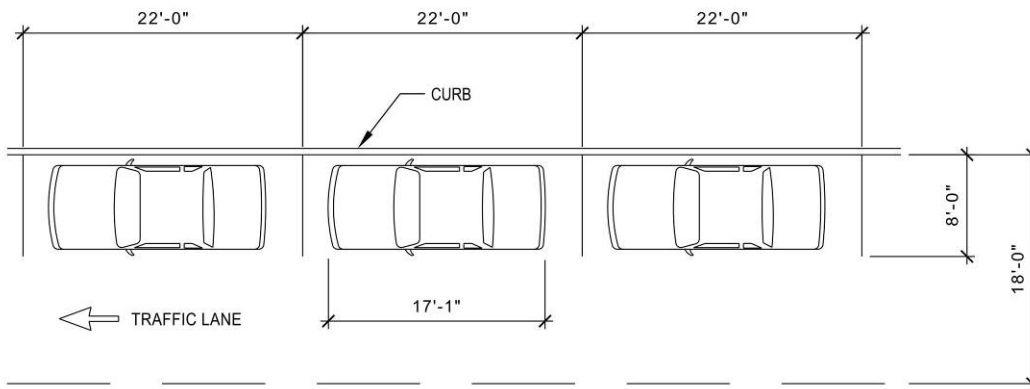
APPENDIX E: ON-STREET PARKING GEOMETRICS



ON-STREET PARALLEL PARKING

SCALE: N.T.S.

ONE-WAY TRAFFIC



ON-STREET PARALLEL PARKING PLAN

SCALE: N.T.S.



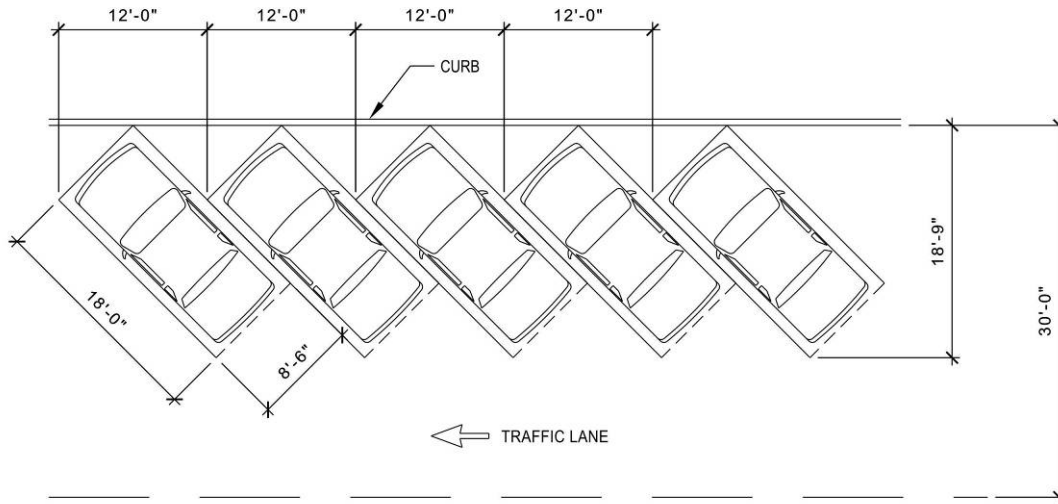
PARKING AND MOBILITY MASTER PLAN

SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



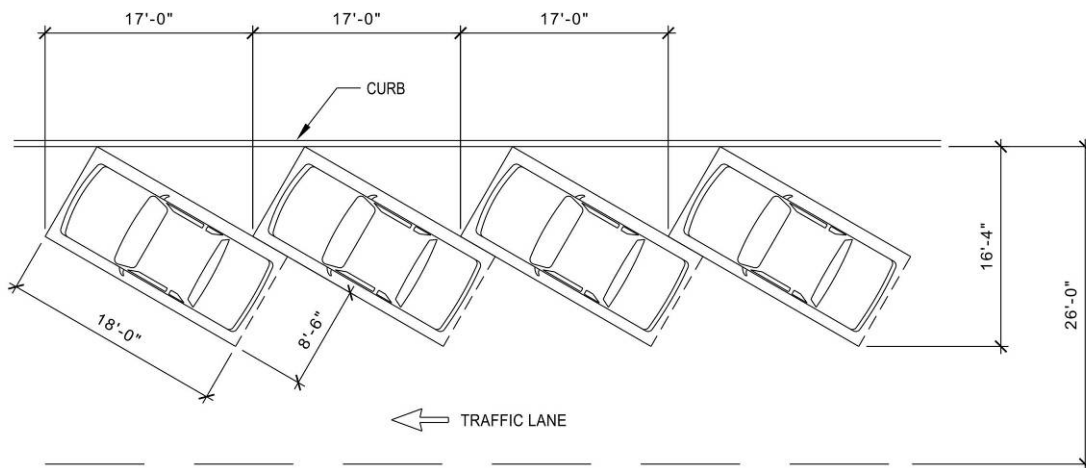
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APPENDIX E: ON-STREET PARKING GEOMETRICS



ON-STREET 45° ANGLE PARKING PLAN

SCALE: N.T.S.



ON-STREET 30° ANGLE PARKING PLAN

SCALE: N.T.S.



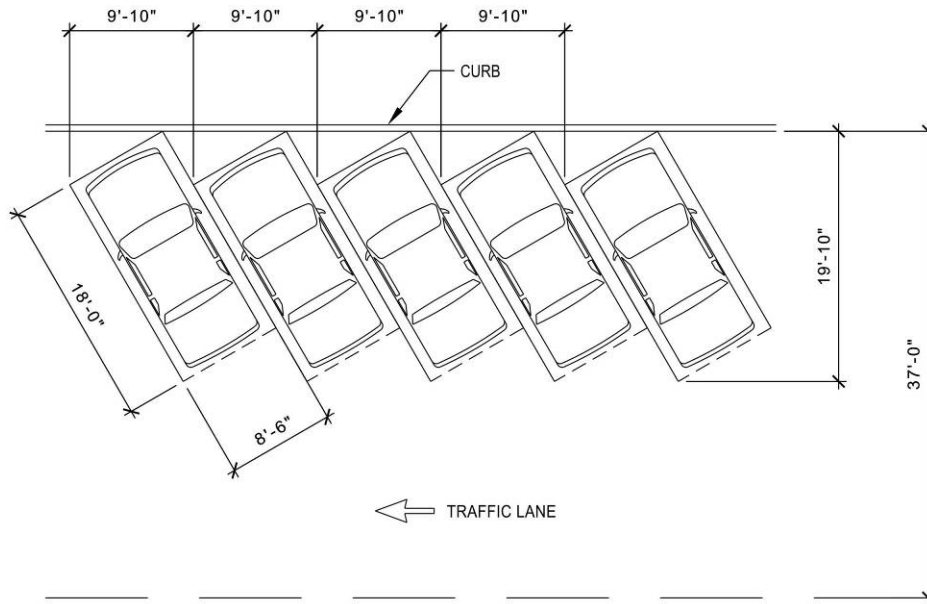
PARKING AND MOBILITY MASTER PLAN

SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



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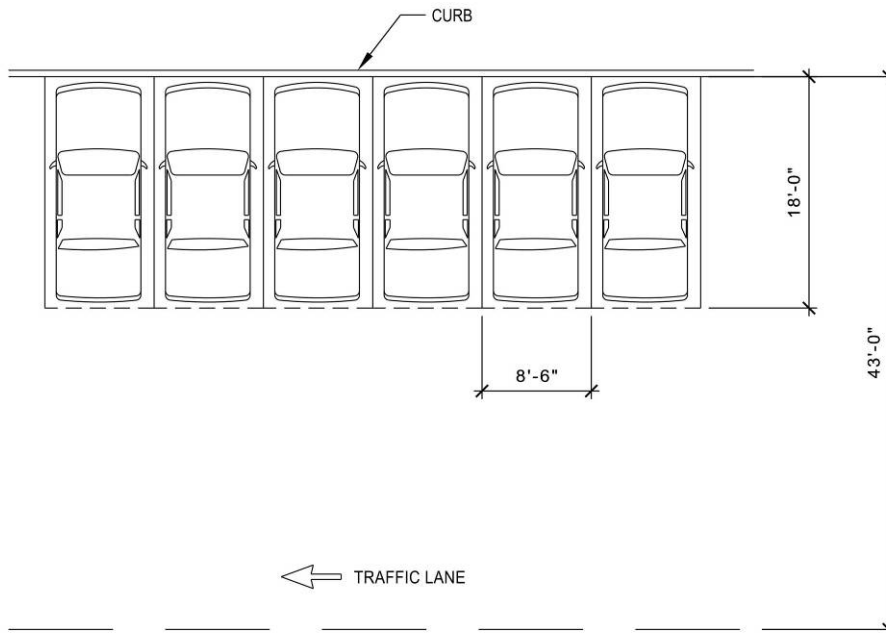
APPENDIX E: ON-STREET PARKING GEOMETRICS



ON-STREET 60° ANGLE PARKING PLAN

SCALE: N.T.S.

1
S8



ON-STREET 90° ANGLE PARKING PLAN

SCALE: N.T.S.

1
S9



APPENDIX F

Residential Parking Permit
Programs

APPENDIX F: RESIDENTIAL PARKING PERMIT PROGRAMS

BOSTON, MA

POPULATION:
569,165¹

PROGRAM DESCRIPTION:

Boston residents may participate in a Resident Permit Parking Program (RPP) and request the restrictions that they feel will accommodate the parking needs of their respective neighborhoods. Residents must submit a notification to City Hall requesting that the Commissioner of the Boston Transportation Department (BTD) participate in an informational community meeting consisting of residents of the surrounding streets in the RPP area. After evaluating advantages and disadvantages of the RPP program explained in the meeting, residents are then asked to make an informed decision regarding the applicability of the RPP program to their needs. If the community decides to move forward with the action, each street within the RPP area must submit at least 50% of residents' signatures to be considered for the RPP program. After the petitions are collected, a BTD representative may perform a license plate inventory to determine if vehicles parked in the proposed area are registered from outside of the neighborhood. If deemed appropriate, the BTD will implement the RPP program in the designated area and will inform residents of the appropriate time limitations for parking. (Note: Submission of petitions does not guarantee RPP approval).

ADMINISTRATIVE BODY:

A representative of the BTD manages and administers the process.

PROOF OF RESIDENCY REQUIREMENTS:

A resident must provide vehicle registration and a second proof of residency. Previous parking tickets must be paid in order to receive a residential parking permit.

OTHER FEATURES:

Parking is banned on alternating sides of the street during street cleaning. All vehicles in violation of street cleaning regulations will be towed.

¹ 2004 U.S. Census Bureau Population Estimates

PARKING AND MOBILITY MASTER PLAN

SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



APPENDIX F: RESIDENTIAL PARKING PERMIT PROGRAMS

CHICAGO, IL

POPULATION:

2,862,244²

PROGRAM DESCRIPTION:

A community must be classified by specific conditions in order to receive a Residential Permit Parking (RPP) designation. The street(s) under consideration must be zoned within R1 and R5. A traffic survey must be conducted to confirm that 45% of existing vehicles on the proposed street are not owned by the residents. If an ordinance is passed, the Chicago Department of Transportation posts signs restricting use to residential vehicles during specific dates and times.



The RPP program in Chicago is designed to ensure that residents in densely populated areas have access to parking near their residences.

ADMINISTRATIVE BODY:

The Chicago City Council manages and administers the process.

PROOF OF RESIDENCY REQUIREMENTS:

A resident must provide vehicle registration and a second proof of residency, i.e. driver's license, utility bill, voter registration, etc. Previous parking tickets must be paid in order to receive a residential parking permit.

OTHER FEATURES:

Licensed, not-for-profit organizations qualify to acquire visitor parking permits to park in the adjacent Residential Permit Parking Zone if the organization is located within the Residential Permit Parking Zone or on either side of a business or commercial block immediately adjacent to the zone. This provision applies only in those wards where the Alderman has introduced and passed a not-for-profit Permit Parking Ordinance.

² 2004 U.S. Census Bureau Population Estimates

PARKING AND MOBILITY MASTER PLAN

SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



APPENDIX F: RESIDENTIAL PARKING PERMIT PROGRAMS

DENVER, CO

POPULATION:

556,835³

PROGRAM DESCRIPTION:

A residential parking permit exempts the resident's vehicle from posted on-street parking time limit restrictions at the street of residence. The limit on vehicles for any household is one vehicle for each licensed driver of the household, plus one vehicle for household use. Permits are valid for three years and do not allow you to park in violation of parking meters, loading zones, no parking anytime zones, 72-hour parking rules, street sweeping restrictions, or any other restrictive parking ordinances.



Residential permit parking is an integral part of the Denver Municipal Zoning Plan.

ADMINISTRATIVE BODY:

The Parking Cashiers Office for the City of Denver administers the process.

PROOF OF RESIDENCY REQUIREMENTS:

In order to be eligible for the permit, the applicant's name and address should match the information of the current vehicle registration and utility, phone or cable bill.

³ 2004 U.S. Census Bureau Population Estimates

PARKING AND MOBILITY MASTER PLAN

SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



APPENDIX F: RESIDENTIAL PARKING PERMIT PROGRAMS

SAN JOSE, CA

POPULATION:

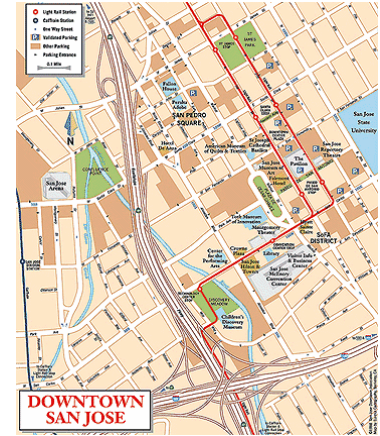
904,522⁴

PROGRAM DESCRIPTION:

The City of San Jose has established the following guidelines for evaluation of a potential residential permit parking (RPP) program:

- The area is primarily residential
- Majority of residences are owner occupied
- Permit area is sufficient in size to eliminate rather than relocate the problem
- Peak on-street occupancy is at least 75%
- At least 50% of peak occupancy are non-resident parkers

There are five types of parking permits: resident, employee, and guest, single – use, and special use. One residential permit is issued per currently registered vehicle. A maximum of 2 guest permits per address can be issued. A single – use permit may only be used for a maximum of 14 days and a special use permit is only valid for a maximum of 90 days.



The Downtown Residential Parking Program provides a discounted monthly rate of \$50 for qualified residents.

ADMINISTRATIVE BODY:

The San Jose Department of Transportation administers the applications.

PROOF OF RESIDENCY REQUIREMENTS:

Vehicle registration and either a telephone bill, property tax bill or rental contract are needed.

OTHER FEATURES:

Discounted parking spaces are available to downtown residents at specific parking garages. The Downtown Residential Parking Program provides a discounted monthly rate of \$50 for qualified downtown residents.

⁴ 2004 U.S. Census Bureau Population Estimates



APPENDIX G

Parking Inventory by Block

PARKING AND MOBILITY MASTER PLAN

SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



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APPENDIX G: PARKING SUPPLY BY BLOCK

Block	Inventory			Total	Occupancy			Total
	On-Street	Private	Public		On-Street	Private	Public	
1	16	0	0	16	4	0	0	4
2	16	0	0	16	3	0	0	3
3	14	0	0	14	5	0	0	5
4	15	36	0	51	2	14	0	16
5	0	0	296	296	0	0	26	26
6	22	0	0	22	4	0	0	4
7	22	4	22	48	2	0	3	5
8	24	0	0	24	0	0	0	0
9	22	0	0	22	4	0	0	4
10	36	0	0	36	8	0	0	8
11	32	0	0	32	6	0	0	6
12	27	42	0	69	9	22	0	31
13	22	20	0	42	3	9	0	12
14	0	200	827	1,027	0	69	22	91
15	25	0	0	25	6	0	0	6
16	35	0	0	35	7	0	0	7
17	32	68	0	100	1	22	0	23
18	35	73	0	108	3	62	0	65
19	24	0	0	24	0	0	0	0
20	29	14	55	98	27	8	46	81
21	31	0	20	51	16	0	15	31
22	35	51	0	86	5	22	0	27
23	29	86	0	115	14	56	0	70
24	34	0	0	34	12	0	0	12
25	15	26	0	41	0	20	0	20
26	17	27	0	44	0	20	0	20
27	14	20	0	34	8	9	0	17
28	25	0	0	25	7	0	0	7
29	19	24	0	43	3	11	0	14
30	38	0	0	38	16	0	0	16
31	5	114	0	119	0	117	0	117
32	13	67	0	80	3	44	0	47
33	14	0	0	14	0	0	0	0
34	20	0	0	20	2	0	0	2
35	12	0	0	12	0	0	0	0
36	0	18	0	18	0	7	0	7
37	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0
39	9	76	0	85	0	40	0	40
40	29	21	0	50	13	9	0	22
41	12	0	0	12	2	0	0	2
42	4	53	0	57	0	36	0	36
43	0	0	0	0	0	0	0	0
44	0	480	0	480	0	220	0	220
45	0	43	0	43	0	8	0	8
46	0	46	0	46	0	36	0	36
47	7	311	0	318	4	126	0	130

PARKING AND MOBILITY MASTER PLAN

SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



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APPENDIX G: PARKING SUPPLY BY BLOCK

Block	Inventory			Total	Occupancy			Total
	On-Street	Private	Public		On-Street	Private	Public	
48	13	589	128	730	11	404	28	443
49	0	397	0	397	0	308	0	308
50	0	103	0	103	0	101	0	101
51	0	0	0	0	0	0	0	0
52	0	461	0	461	0	178	0	178
53	23	0	0	23	14	0	0	14
54	0	134	0	134	0	81	0	81
55	17	0	0	17	17	0	0	17
56	14	72	0	86	10	25	0	35
57	22	135	0	157	5	61	0	66
58	8	95	0	103	5	31	0	36
59	19	32	0	51	9	19	0	28
60	25	356	0	381	6	165	0	171
61	11	236	0	247	0	130	0	130
62	29	149	0	178	5	105	0	110
63	0	0	0	0	0	0	0	0
64	0	0	0	0	0	0	0	0
65	0	0	0	0	0	0	0	0
66	0	0	0	0	0	0	0	0
67	0	0	0	0	0	0	0	0
68	22	32	0	54	6	18	0	24
69	35	70	0	105	1	49	0	50
70	39	82	0	121	2	1	0	3
71	20	70	0	90	12	17	0	29
72	30	206	0	236	29	66	0	95
73	45	173	0	218	36	100	0	136
74	47	718	453	1,218	46	667	356	1,069
75	28	0	0	28	28	0	0	28
76	24	0	0	24	18	0	0	18
77	19	150	0	169	17	95	0	112
78	22	103	0	125	9	39	0	48
79	38	0	0	38	7	0	0	7
80	24	0	0	24	3	0	0	3
81	30	101	0	131	6	51	0	57
82	0	0	0	0	0	0	0	0
83	0	100	0	100	0	20	0	20
84	0	0	0	0	0	0	0	0
85	18	73	14	105	8	20	0	28
86	24	153	65	242	3	27	34	64
87	30	70	0	100	4	22	0	26
88	37	149	50	236	3	56	20	79
89	32	229	0	261	20	150	0	170
90	28	54	14	96	15	40	4	59
91	0	217	521	738	0	89	374	463
92	0	202	0	202	0	180	0	180
93	0	72	0	72	0	25	0	25
94	9	84	849	942	5	42	574	621

PARKING AND MOBILITY MASTER PLAN

SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



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APPENDIX G: PARKING SUPPLY BY BLOCK

Block	Inventory			Total	Occupancy			Total
	On-Street	Private	Public		On-Street	Private	Public	
95	35	253	0	288	16	148	0	164
96	58	62	84	204	5	31	75	111
97	58	253	0	311	16	177	0	193
98	50	320	0	370	4	207	0	211
99	47	301	0	348	18	84	0	102
100	26	217	0	243	8	23	0	31
101	11	0	566	577	11	0	346	357
102	15	33	0	48	13	8	0	21
103	24	79	0	103	6	81	0	87
104	37	29	128	194	26	11	77	114
105	14	7	325	346	12	6	265	283
106	22	16	218	256	19	14	196	229
107	31	12	0	43	18	5	0	23
108	37	88	128	253	8	17	40	65
109	39	67	104	210	9	12	94	115
110	40	152	320	512	27	106	183	316
111	40	63	0	103	22	35	0	57
112	23	133	718	874	13	62	430	505
113	23	213	141	377	7	116	82	205
114	32	284	0	316	2	231	0	233
115	5	74	278	357	1	32	14	47
116	12	0	214	226	2	0	44	46
117	34	782	523	1,339	12	545	128	685
118	23	121	295	439	11	76	226	313
119	26	1,159	0	1,185	14	1,013	0	1,027
120	24	0	510	534	11	0	336	347
121	52	0	0	52	31	0	0	31
122	29	165	35	229	20	59	0	79
123	35	282	52	369	10	102	18	130
124	44	146	0	190	23	59	0	82
125	6	0	96	102	4	0	63	67
126	68	0	57	125	41	0	51	92
127	13	0	283	296	11	0	250	261
128	21	568	0	589	15	258	0	273
129	32	53	0	85	23	52	0	75
130	14	75	0	89	11	62	0	73
131	2	258	0	260	1	198	0	199
132	75	0	152	227	41	0	36	77
133	48	135	0	183	36	102	0	138
134	27	22	637	686	10	10	259	279
135	19	30	110	159	17	17	46	80
136	15	0	0	15	9	0	0	9
137	16	0	0	16	7	0	0	7
138	0	10	56	66	0	10	17	27
139	0	61	894	955	0	48	636	684
140	0	0	32	32	0	0	25	25

PARKING AND MOBILITY MASTER PLAN

SUPPLY, DEMAND, TRANSPORTATION, AND ALTERNATIVES ANALYSIS



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APPENDIX G: PARKING SUPPLY BY BLOCK

Block	Inventory			Total	Occupancy			Total
	On-Street	Private	Public		On-Street	Private	Public	
141	24	47	550	621	20	30	207	257
142	19	104	91	214	16	67	69	152
143	25	38	253	316	22	15	192	229
144	29	75	32	136	1	24	4	29
145	39	20	130	189	8	0	6	14
146	35	74	0	109	16	25	0	41
147	34	113	0	147	10	86	0	96
148	18	84	0	102	12	51	0	63
149	37	129	193	359	4	60	78	142
150	13	165	0	178	3	76	0	79
151	0	0	611	611	0	0	232	232
152	18	148	0	166	15	131	0	146
153	40	91	96	227	33	36	76	145
154	29	157	0	186	9	30	0	39
155	29	71	0	100	4	25	0	29
156	26	79	0	105	5	37	0	42
157	15	110	0	125	0	40	0	40
158	19	153	0	172	0	81	0	81
159	16	191	0	207	0	47	0	47
160	28	66	0	94	11	26	0	37
161	15	49	0	64	1	13	0	14
162	12	71	0	83	0	25	0	25
163	15	15	0	30	1	12	0	13
164	22	0	0	22	2	0	0	2
165	48	115	0	163	21	29	0	50
166	0	34	347	381	0	16	12	28
167	0	68	0	68	0	52	0	52
168	0	73	0	73	0	27	0	27
169	0	28	0	28	0	8	0	8
Totals	3,519	16,678	12,573	32,770	1,394	9,455	6,315	17,164