

Campus Corner Parking Management Business Plan

City of Norman

Department of Public Works

Traffic Control Division

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I. INTRODUCTION

Campus Corner was developed during the early 1900s to serve the needs of the faculty and students working at and living near the University of Oklahoma. Nearly all student housing was located in the Campus Corner area and at the time students were not permitted to drive. This caused the area to grow rapidly, becoming a thriving business district by 1920. Restaurants, clothing stores, laundry facilities, pharmacies, and beauty salons soon opened for business. One of the early developers in Campus Corner was the Whistler Family, responsible for additions to the area such as the 575 University building which ultimately housed a bookstore, supply shop, restaurant, and a dance floor. In 1929 a tragic fire destroyed most of the then-existing Campus Corner; however, within a few years the area was rebuilt and the fire ultimately led to further expansion.



Throughout the 1930s the area continued to grow with the addition of new restaurants, cleaners, and a department store. In 1947 the Boomer Theater was constructed at 765 Asp Avenue. Originally a movie theater, in its later years the Boomer Theater became a concert venue before finally being remodeled for use as a department store/office space during the 1980s.

During the 1950s enrollment at the university was swelling and, as a result, Campus Corner was booming. With the close proximity between merchants and students, a unique relationship was formed. Many activities were held in Campus Corner. Some of those included Ruf/Neks (a university pep-squad) ceremonies, the public shaving of beards to signal the end of Engineering Week, tobacco spitting contests, and numerous bonfires celebrating football games.

By the early 1960s enrollment was growing greater than the university's ability to house its students and, as a result, the decision was made to build new housing on the south end of campus. With the new residence towers completed in the mid-1960s, the popularity of Campus Corner waned. More students were living farther from campus as dorms and Greek houses changed locations and more students began to drive. In the 1970s retailers began to build malls and strip centers farther west of campus with better access to Norman's primary highway, Interstate 35.

As a result of civic improvements and private funding, the area began to re-emerge as a shopping and social destination in the early-2000s. In recent years, the city has improved the infrastructure in the area including new utility lines, lights, landscaping, parking meters with one-hour limits, curbs, sidewalks, and new ornamental traffic signals. Campus Corner property owners have also consolidated their properties and organized with one another to deal with long-standing challenges in the area. Owners and tenants have renovated the century-old buildings, having demolished interior walls, re-wired, and re-plumbed much of the area to meet modern city codes. In 2003, former OU head football coach Bob Stoops became part owner of a new sports bar in Campus Corner that started a wave

of new restaurant openings. Since that time many new businesses have been established in the area, its growth continuing into the 2010s. Today, Campus Corner is home to many businesses including bars, restaurants, banks, computer/technology retail, coffee shops, a newspaper, hair salons, gift shops, accessories boutiques, churches, professional organizations, a bridal shop, and several professional offices.

In 2003, the Norman City Council approved a contract with Carter & Burgess, Inc. to develop a blueprint for future parking improvements and expenditures for the area. The study included a detailed inventory of on-street and off-street parking spaces that shows a total of 1,836 total spaces in the area. Of these, 1,597 are off-street spaces in surface lots and informal parking areas (87 percent of the total supply) and 239 are on-street spaces (13 percent). Off street parking includes 33 accessible spaces reserved for use by disabled persons.

Metered parking spaces include a variety of options with most being one-hour meters charging \$1.00 per hour. There are five accessible on-street spaces designated for use by disabled persons and three commercial loading zones.

Of the total vehicle Campus Corner parking supply, 61.7 percent (1,133 spaces) are private-use parking spaces reserved for use only by certain individuals or classes of individuals, such as reserved parking for employees or customers of a particular business establishment. The remaining 38.3 percent (703) are public-use spaces available for hourly or daily use, either free or on a fee-paid basis.

On street parking space demand is extremely high during most hours of the day throughout the week and weekends. Parking occupancy peaks between noon and 1:00 p.m. on typical weekdays. The area experiences added



parking demand due to spillover of demands generated by the OU Campus, making the use of parking meters critical for adequate turnover.

In the long term, the Campus Corner Parking Study recommends development of a multilevel parking garage. Two alternative sites were investigated with a preferred location identified just north of the OU President house along the west side of University Boulevard.

In order to provide adequate and convenient parking for Campus Corner customers, the Campus Corner Merchants Association requested that the City of Norman consider implementing a parking management system that includes a modern system of “smart” meters capable of supporting various payment options, variable hourly rates and monitoring of parking space demand. The specific recommendations made by the association serve as the backbone of this Business Plan.

In 2018, the City of Norman acquired property located at 710 Asp Avenue. The property featured a paved parking lot on the eastern half of the property and vacant land on the western half of the property that became available when an existing building was razed. The City redeveloped this property to create its second Municipal Lot featuring 64 parking spaces including three, van-accessible disabled spaces. The lot was opened to the public on February 25, 2019.

This business plan details the strategies and payment options available to customers and visitors who park in the 154 non-disabled spaces along Boyd Street, Asp Avenue, Buchanan Avenue, University Boulevard and White Street, as well as the 61 non-disabled spaces in the new Asp Avenue Parking Lot. The plan is designed to maximize both the level of convenience experienced by all users as well as the efficient use of public parking spaces. Figure 1 depicts the location of each of the public parking spaces included in the plan. Figure 2 depicts the layout of the parking spaces within the Asp Avenue Parking Lot.



Figure 1 - Campus Corner Public Parking Areas

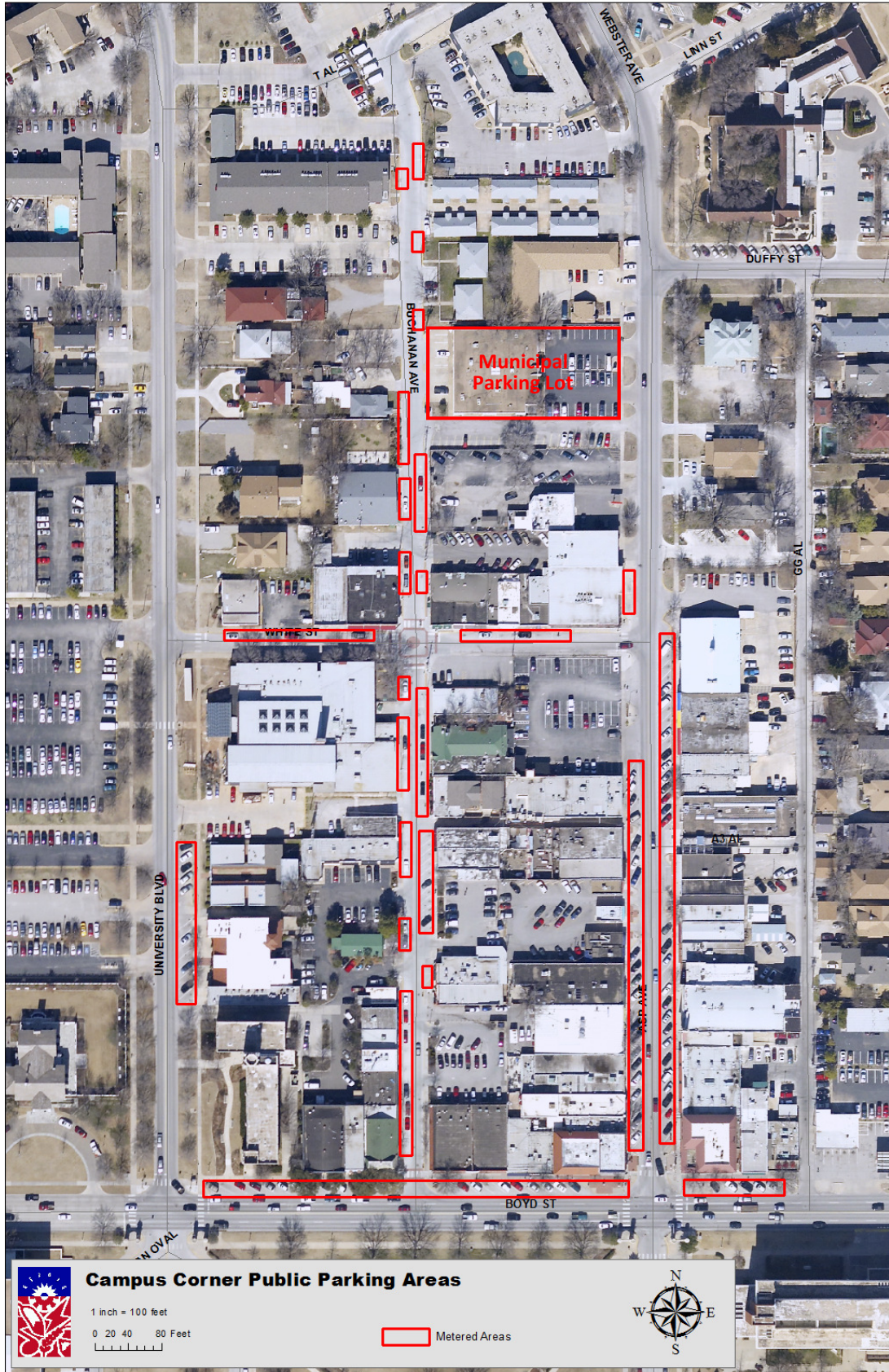
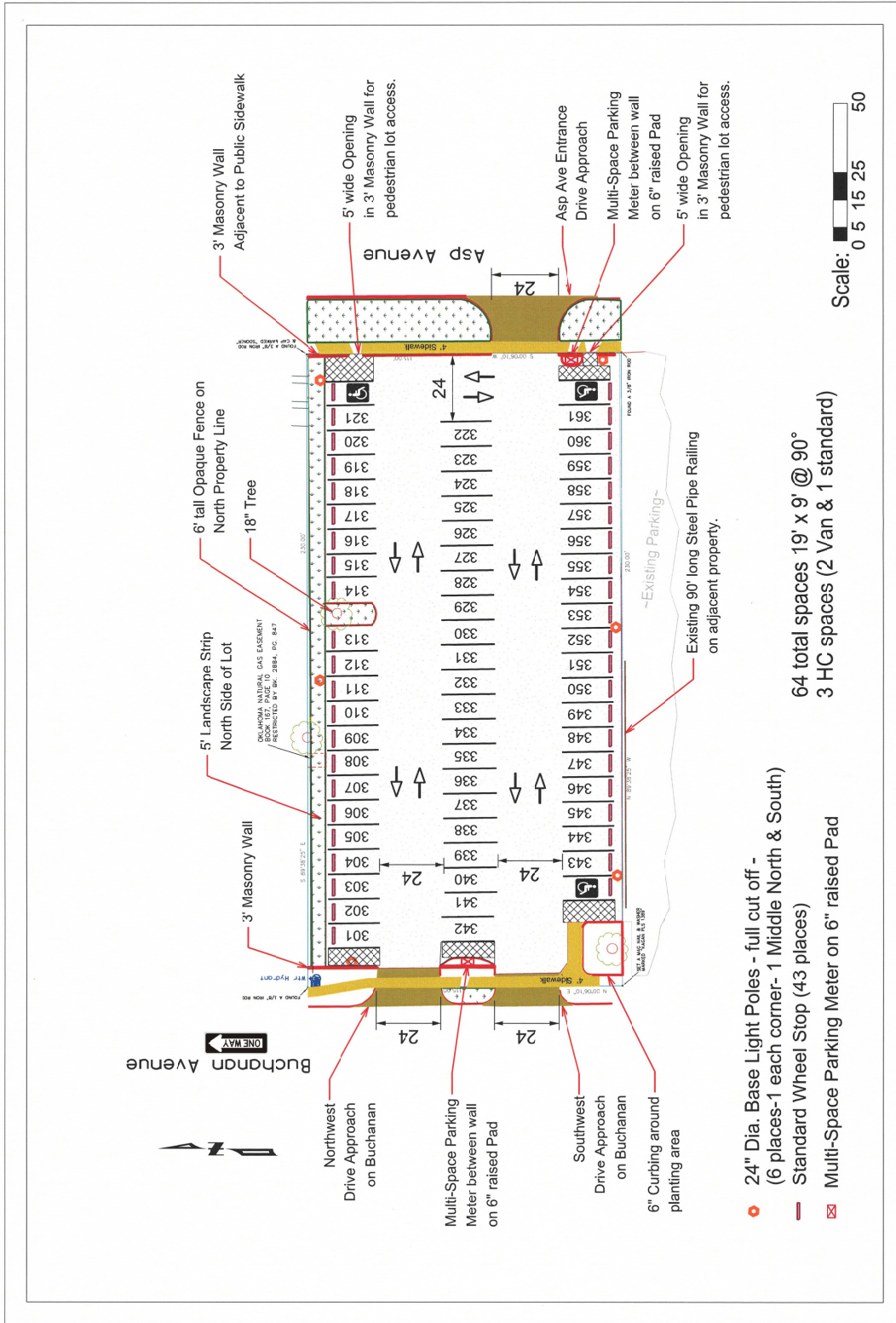


Figure 2 - Asp Avenue Parking Lot



II. PARKING MANAGEMENT SYSTEM

The majority of the public on-street parking spaces have digital parking meters that accommodate a wide range of users visiting or doing business in the Campus Corner area. The public off-street parking spaces have digital pay stations to accommodate visitors to the area who wish to park off-street. Different payment options are offered to meet the specific needs of individuals. For the short-term user visiting Campus Corner, there are 154 metered spaces along Boyd Street, University Boulevard, Buchanan Avenue, Asp Avenue and White Street that can be used to pay for up to two hours of parking before 6:00 p.m. and up to three hours after 6:00 p.m. The two pay stations in the Asp Avenue Lot can be used during the same hours. For long-term users, the area offers numerous privately-owned spaces for customers. For individuals with disabilities, there are a number of accessible parking spaces reserved for their use at no cost. No matter the situation, the Parking Management System for the Campus Corner area is flexible, versatile and convenient for all users.

A. Parking for the Disabled

Campus Corner on-street parking spaces include a number of accessible spaces for physically disabled users (hereinafter referred to as Accessible parking). There are a total of five Accessible parking spaces reserved for qualified drivers, including one that is van-accessible. The Americans with Disabilities Act recommends six spaces, including one that is van accessible, which is one more than currently provided. The Asp Avenue Parking Lot includes three van-accessible spaces for qualified users.

The on-street and off-street spaces are clearly signed and marked. They are conveniently located and offer accessible routes that connect the parking space aisle to the adjacent sidewalk system. The specific locations are as follows:

1. Asp Avenue - Two spaces along the east side of the roadway in front of 747 Asp Avenue. The northernmost space is van-accessible.
2. Buchanan Avenue - Two spaces along the east side of the roadway (one north of Boyd Street and one north of White Street).
3. Boyd Street - Two spaces along the north side of the roadway (one immediately west of Buchanan Avenue and one immediately west of Asp Avenue).
4. The Asp Avenue Parking Lot has three Accessible parking spaces (northeast, southwest, and southeast corners of the lot).

Figure 3 depicts the location of each of the public parking Accessible spaces. Customers using any of these spaces are exempted from any of the hourly fees. Parking time limitations are clearly marked.



Figure 3 - Campus Corner Public Parking for the Disabled



B. Commercial Loading Zones



The limited number of alleys and the high demand for on-street parking opportunities make the Campus Corner area challenging when it comes to the establishment of commercial loading zones. At the present time, there are three zones reserved for commercial loading and off-loading. Figure 4 depicts these locations.

The largest, and only zone capable of handling large vehicle deliveries, is along the east side of Asp Avenue north of Boyd Street. The first fifteen metered spaces north of Boyd Street are reserved for commercial loading between the hours of 3:00 a.m. and 10 a.m.. After 10:00 a.m., these spaces become regular on-street metered spaces available to the general public. Large delivery trucks loading and off-loading between the hours of 10 a.m. and 3:00 am must be prohibit-

ed. Enforcement of this prohibition currently falls on the business owners. Violations are commonplace and difficult to manage by the City's Parking Enforcement Officers.



Legally parked commercial delivery truck

The other two zones are along the west side of Buchanan Avenue. These two zones are significantly smaller and only accommodate single-unit trucks. The first one is located half way between Boyd Street and White Street, includes two parallel parking spaces, and is in force between the hours of 3:00 a.m. and 10:00 a.m.. The second one is immediately south of White Street, includes a single parallel parking space, and is in full force throughout the day.



Illegally parked commercial delivery truck



Figure 4 - Campus Corner On-Street Commercial Loading Zones



C. Single-Space Parking Meters / Pay Stations



In 2013, the city purchased a sensor-based system from San Diego, CA - based IPS Group using Campus Corner Tax Increment Finance District funds.

The meters provide customers and their patrons with a simple and consistent parking user experience - which is more cost effective, customer friendly, and reliable. The patented IPS solution uniquely provides a credit card enabled single-space meter mechanism which was retrofitted into each of the existing on-street parking meter housings. In addition, the IPS meter offers multiple payment options (coins and credit / debit cards), access to real-time data, solar-power technology, and a comprehensive web-based management system.

In the future, the meters will be wirelessly connected to individual parking space sensors that monitor parking space occupancy as it relates to the amount of time purchased by the user. The meters and sensors, working in tandem with the web-based management system, will generate expired meter notifications visible to the parking enforcement officers. This feature will be implemented at a future date once the technology is fully developed and tested in the field.

The new meters became operational in late July, 2013.



The city purchased a parking management system from New Jersey - based Parkeon/Flowbird similar to those used in the existing Gray Street Parking Lot.

The system includes two multi-space parking meter pay stations located on either end of the Asp Avenue Parking Lot. The system can tell Parking Enforcement Officers which spaces have been paid and which are either expired or not paid. The meters are state-of-the-art, digital, ticketless multi-space meters which are designed specifically to deliver exceptional performance while concurrently delivering a low cost of ownership over the life of the product.

The meter has superior capabilities and incorporates 'best in breed' parking technology, making it easy to maintain and highly reliable. The hardware solution for pay-by-space parking operations, supports pay-at-any-space, credit/debit card, pay-by-cell, and coin transactions. The units are PCI-compliant and feature a secure intelligent cash box system, ensuring the highest levels of funds and data security.

a) Signing

The individual parking meters and the Asp Avenue Parking Lot pay stations contain all the instructions necessary to complete a transaction. Menu options are easily accessible through a key pad in the meter head that will guide the user through the payment process. To supplement the on-screen instructions, stickers were affixed to each on-street parking meter in August, 2015, to provide users with specific and detailed information regarding enforcement hours, etc.

b) Operation

Campus Corner Parking Meters

- Patented meter mechanism accepts payment by coins and credit / debit cards
- Wirelessly networked to a web-based management system – no additional communications infrastructure required
- Retrofits into existing meter housings/poles and maintains all current meter enforcement and collection processes
- Solar powered with rechargeable battery pack
- PA-DSS and Level 1 PCI-DSS Certified

Asp Avenue Parking Lot

- Unit will operate with solar panels to allow solar charging regardless of meter location relative to the sun. So, unpredictable interruptions in service are not a concern.
- The display allows payment prompts guiding the user through the payment process
- The display and keypad support a dedicated information key and screen for on-screen help and instructions
- The display backlight and contrast automatically adjust to ambient light and temperature conditions
- The coin entry slot accepts all US coins
- The unit does not accept bills
- The unit will accept Visa and MasterCard
- The meter supports real-time credit card processing, with authentication within fifteen seconds in most situations
- Display messages are customizable



c) Data Management System

The meter system Data Management System is a secure, web-based application that allows the City to manage the entire parking meter network with ease, at the click of a mouse. A comprehensive set of financial, technical, and administrative reporting features and remote meter configuration make this system both intuitive and powerful. The system seamlessly integrates all of the applications of the parking system into a single system. Features include:

- No need for local software or new hardware installation
- Comprehensive set of financial and technical reports as well as administrative management tools
- Always uses the latest in encryption and internet security
- Real-time data available 24 / 7 / 365

d) Vehicle Detection System (Future)

When paired with the IPS credit card enabled single-space parking meters in the Campus Corner area, customers benefit from:

- Measurable data---sensors enable the City to track true parking demand over time
- Improved efficiency in law enforcement
- Increased revenue from the meter resetting after vehicle departs
- Customer convenience – push parking availability to future web applications and maps

City staff continues to work with IPS with the development of a Vehicle Detection System that delivers the level of performance reliability necessary for use.

The Vehicle Detection System will have the following capabilities:

- Calculate paid vs. actual occupancy trends to improve enforcement efficiency
- Provide real-time directed enforcement to Parking Enforcement Officers
- Reset meter when vehicle leaves space (generally results in increased revenues of 20-40%)
- Push parking availability to the public via future on-line maps

e) Payment Options

The Parking Meters accept the following as a means of payment:

- Coins
- Credit Cards
- Debit Cards



Coins

Hourly parking can be purchased using coins. The meters accept nickels, dimes and quarters. Customers can purchase up to a maximum of two hours (between 8:00 am and 6:00 pm) or three hours (between 6:00 pm and 9:00 pm) at a rate of \$1 per hour.

Credit Cards

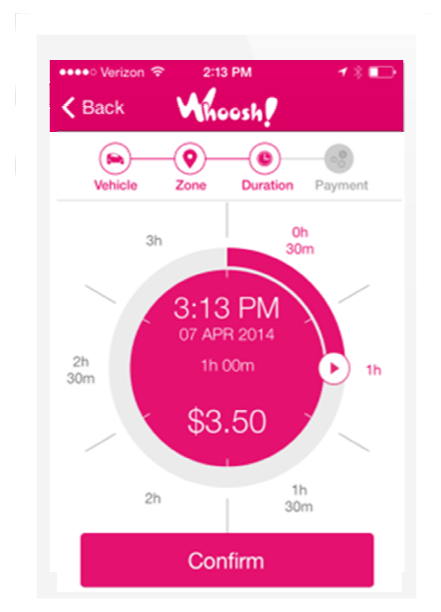
The meters accept Visa or MasterCard for hourly purchase transactions and support real-time credit card processing, with authentication within 15 seconds in most situations. In order to cover credit card transaction fees, the minimum amount that can be charged for time at the Campus Corner meters is \$1.00.



Pay-By-Cell Phone

One of the more convenient features of the new system offers customers the option to pay for the use of the lot using a cell phone using Whoosh!. Any customer may take advantage of this payment option offering the features shown below:

- The Whoosh! mobile phone app can be downloaded from the App Store onto an iPhone or the Google Play Store onto an Android device
- Users register their license plates and credit card with the Whoosh! system through the app or through www.whooshstore.com
- Non-Android or non-iPhone users can access Whoosh! by visiting its mobile web site - m.whooshstore.com
- To pay for parking, you simply open the app or mobile web site on your phone, select your vehicle, choose the closest meter to your vehicle, and choose the amount of time you want to park



Validation Codes

The Parkeon Validation Codes System gives the City the capability to provide validated parking at the pay stations. In this case, those desiring to pay for others parking would visit the City, pay for the specified amount of time, and the City would create a code choosing from many different parameters to help provide a convenient parking experience for its customers.

- City staff have access to the system 24/7/365
- The system is password protected
- Parking staff creates and manages all codes
- Codes can be assigned the following attributes: specific description, usage restriction, and code definition
- Full back end reporting

Benefits of the system include:

- Gives merchants a mechanism for validating customer parking and employers for employees
- Validated parking can be given to attendees of special events
- Can be a significant customer service tool

III. PARKING FEES

Summary of Parking Rates

Day	Hours	Maximum Hours	Cost
Monday - Saturday	8:00 a.m. to 6:00 p.m.	2	\$1.00 per hour
Monday - Saturday	6:00 p.m. to 9:00 p.m.	3	\$1.00 per hour
OU Game Days	All Day	N/A	\$20.00 per space

IV. ANTICIPATED PARKING NET REVENUE

A. Parking Meter Revenue

Revenue from the parking meter system comes from two sources; meter fees and expired meter citations. Using historical data, the revenue is anticipated to be approximately \$320,000 per year. The following assumptions are made:

a) Meter Fees

- Number of meters = 154
- Hours of Operation = 3,939 hours per year per meter (8:00 a.m. to 9:00 p.m., 303 days per year) (excludes Sundays and holidays)
- Actual 2018 Collections = \$295,000

b) Parking Meter Citation Revenue

- Total Expired Meter Citations = \$25,000 (2,500 citations at \$10 per citation)

B. Parking Meter Expenses

The annual cost of operating the new Campus Corner parking meter system is \$111,206 and includes the following items:

- Wireless Gateway / Data Fee - \$10,971 per year
- Sensor System Management Fee - \$6,678 per year
- Real Time Sensor Reporting Fee – \$5,247 per year
- Credit Card Transaction Fees - \$82,310 per year (550 daily transactions average @ \$0.41 per transaction)
- Regular Meter / Sensor Maintenance - \$5,000 per year
- Sensor Battery Replacement – \$5,000 every five years

C. Parking Meter Net Revenue

The parking meter rates plus the parking meter citations minus the expenses associated with operation, maintenance and enforcement of the new system, is expected to generate an annual net revenue of \$208,794.



D. Pay Station Revenue

Revenue from the parking pay stations in the Asp Avenue Parking Lot comes from two sources; pay station fees (from two (2) pay stations) and expired meter citations. Using historical data, the revenue is anticipated to be approximately \$127,320 per year. The following assumptions are made:

a) Pay Station Fees

- Number of paid parking spaces = 61
- 61 parking lot spaces = 40% of the total number of single space meters in Campus Corner
- 2018 revenue from the Campus Corner parking meters was approximately \$300,000
- Assuming pay station revenue tracks similarly to the Campus Corner parking meters, it is anticipated that Asp Avenue Parking Lot revenues should be 40% of those seen at the Campus Corner parking meters = \$120,000
- Assuming that each of the paid spaces is sold for \$20 during each of six home University of Oklahoma football games, the revenue would be $\$20 \times 64 \text{ spaces} \times 6 \text{ games} = \$7,680$

b) Pay Station Citation Revenue

- It is assumed that pay station citations would be issued at the same rate as for the other Campus Corner parking meters
- Total Expired Meter Citations = \$10,000 (1,000 citations at \$10 per citation)

E. Pay Station Expenses

The annual cost of operating the new Asp Avenue parking management system is \$7,810 and includes the following items:

- Parking Management (licensing, remote internet access, system hosting, etc..) - \$1,330 per year
- Credit Card Transaction Fees - \$2,850 per year (27 daily transactions average @ \$0.41 per transaction)
- Pay-By-Cell Fees - \$2,300 per year (13 daily transactions average @ \$0.66 per transaction)
- Regular Meter Maintenance - \$1,330 per year

F. Pay Station Net Revenue

The projected pay station in the new Asp Avenue Parking Lot revenue minus the expenses associated with operation, maintenance and enforcement of the new system, is expected to generate an annual net revenue of \$129,510.

G. Total Campus Corner Public Parking Net Revenue (Meters and Pay Stations)

The projected total annual net revenue for parking meters and pay stations in the campus corner area is \$338,304.



**Total Net Annual Revenue for
Campus Corner Parking
~ \$338,304**