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Public Works Department- Traffic Control Division

#### 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 Uni-



versity 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, 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 25¢ per hour and a few being 15-minute meters and still others being 10-hour meters. 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.

The 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. 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 1 - Campus Corner Public Parking Areas



#### 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. 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. 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. There are a total of five parking spaces reserved for drivers with disabilities, 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 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:

Asp Avenue - Two spaces along the east side of the roadway in front of 747 Asp Avenue. The northernmost space is van-accessible.

Buchanan Avenue - One space along the east side of the roadway north of White Street.

Boyd Street - Two spaces along the north side of the roadway (one immediately west of Buchanan Avenue and one immediately west of Asp Avenue.

Figure 2 depicts the location of each of the spaces.

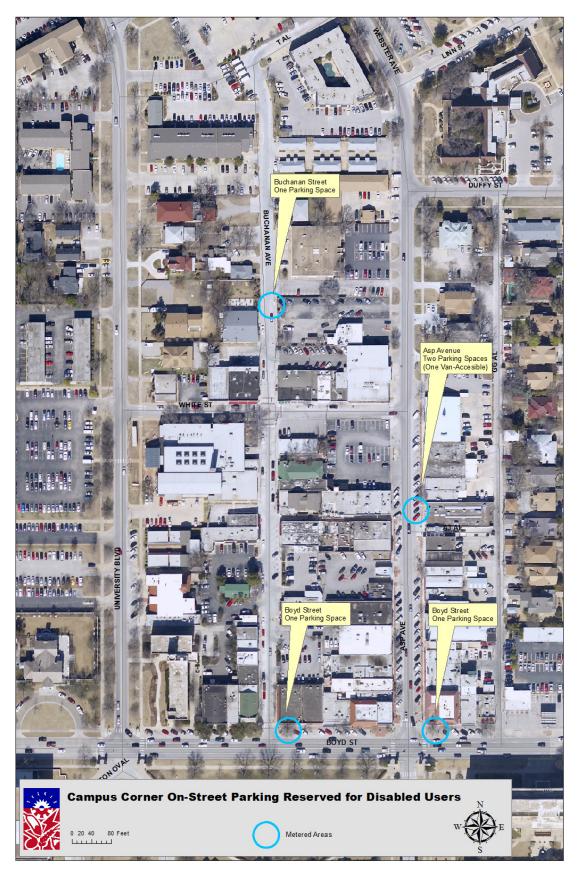
Customers using these spaces are exempted from any of the hourly fees and can park for the entire day.







Figure 2 - Campus Corner Parking for the Disabled



## **B.** Commercial Loading Zones



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.

The other two zones are along the west side of Buchanan Avenue. These two zones are significantly smaller and only accommodate singleunit 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.

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 3 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-







Figure 3 - Campus Corner Commercial Loading Zones



## C. Single-Space Parking Meters



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.

The meters are 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 meter and sensors, working in tandem with the webbased management system, generates expired meter notifications visible to the parking enforcement officers.

The new meters and sensors became operational in late July, 2013.







#### a) Signing

The individual parking meters 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 meter in August, 2015, to provide users with specific and detailed information regarding enforcement hours, etc.

#### b) Operation

- 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

### 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

When paired with the IPS credit card enabled single-space parking meter, 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

The Vehicle Detection System is the most cost effective and reliable sensor system on the market today. Sensors communicate wirelessly to the meter, which means there is no need to install expensive, complicat-

ed mesh networks. The result is an anticipated increase of 25%-50% in City revenues and improvements in operating efficiencies, all while providing vehicle detection technology at a fraction of the ongoing costs (up to 50% less expensive).

The Vehicle Detection System has 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 maximum hours of parking 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 75¢.





# III. PARKING FEES

# **Hourly 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

#### IV. ANTICIPATED NET REVENUE

#### A. Revenues

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 \$382,000 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).

Occupancy = 69.8% (based on actual collections @  $25\phi$ )

a 25¢ per hour for 100% occupancy = \$95,600 per year or \$637.50 per space per year

Actual Collections = \$70,744 per year or \$444.93 per space per year

% Occupancy =  $444.93 / 637.50 = 69.79\% \sim 70\%$ 

Daily Transactions = 154 meters x 13 hours x  $0.70 \sim 1,400$  transactions per day

Projected revenue with increased rates = \$432,860

Reduction in use due to rate increase = 10%

Number of Weekday transactions =  $1,400 \times 0.90 \sim 1,260$  per day

Number of Weekend transactions = 1,000 per day

Revenue per Weekday =  $(1,260 \times $1.00) = $1,260 \text{ per day}$ 

Revenue per Weekend Day =  $1,000 \times 1.000 = 1,000 \text{ per day}$ 

Revenue per year = (\$1,260 per day x 261 days) + (\$1,000 per day x 104 days) = \$432,860

#### b) Parking Meter Citation Revenue

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

## **B.** Expenses

The annual cost of operating the new Campus Corner parking meter system is \$166,401 and includes the following items:

- Wireless Gateway / Data Fee \$10,971 per year
- Sensor System Management Fee \$6,678.00 per year
- Real Time Sensor Reporting Fee \$5,247.00 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

The Norman Police Department also funds one FTE position (Parking Enforcement Office) for enforcement of the parking meter regulations in the Campus Corner Area. Salaries, benefits and equipment total \$55,195 per year.

## C. Net Revenue

The increase in parking meter rates minus the expenses associated with operation, maintenance and enforcement of the new system, is expected to generate a net revenue of \$236,264, which more than doubles the current revenue collection.

