



Agenda Item Summary

File #: ID 17-424, **Version:** 1

Submitted By

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Agenda Item Title

Presentation of Parking Technology and Best Practices by Dixon Resources Unlimited

Overview

At the January 23, 2017 Village Board Study Session, the Board approved a monthly schedule of topics. February's topic is a presentation by the Village's Parking Consultant, Dixon Resources Unlimited to discuss parking technology and best practices.

Anticipated Future Actions/Commitments

A monthly study session is planned thru September of 2017 to address individual parking policies prior to final approval by the Board of comprehensive ordinance amendments.

Report

Dixon Resources Unlimited (Dixon) was hired by the Village to review the Village's parking services, permit, vehicle stickers and citation systems to determine requirements for a Unified system that would improve the customer experience. Over the last few months Dixon has been reviewing processes that are shared between the Adjudication, Finance, Information Technology, Police, Public Works and Parking & Mobility Services Departments in an effort to develop a request for proposal that encompasses best practices for a new system.

As part of this process, Dixon will be presenting to the Village Board different parking technologies and parking industry best practices that are currently being used by municipalities throughout the country.

The Village Board Goals for 2016-2017 include revisiting the overall parking systems within Oak Park in a holistic manner and with consideration for neighborhoods and business districts in order to understand the impact on residents, visitors and employees in the community. As a part of this meeting, staff will review the recommended goals for this review and a proposed schedule.

Staff recommends that the following Guiding Principles be considered as each public parking system is reviewed and changes proposed:

- Sustainability
- Public Safety
- Customer Service

Additionally, staff recommends the following Goals be considered as each public parking system is reviewed and changes proposed:

- Parking Ordinances must be simple and user friendly (e.g. language is clear and concise)
- Parking Signage of all types must be standardized and more streamlined so that residents, visitors and employees in Oak Park are able to understand regulatory language that may be required and directional information is clear and concise.
- Parking Technology must support efficient parking administration and operation while also being customer service focused.

In order to facilitate a comprehensive review of the public parking system, staff recommends a schedule of monthly study sessions be established. In general, each individual session would seek consensus of the Village Board related to the parking policy with final comprehensive ordinance approval scheduled at the conclusion of the study sessions. Similar to the review of the I-290 Reconstruction, the review of recommendations related to individual public parking policies will take multiple meetings and then comprehensive Board direction can be obtained.

Staff recommends the following Monthly Study Session Schedule:

January	Pleasant Business District/South and Harlem Redevelopment project/Gwendolyn Brooks Middle School, including Recommendations from the Transportation Commission related to on-street resident parking (<i>this is a time sensitive topic due to pending ground breaking by Lincoln Properties</i>)
February	Parking Technology Best Practices
March	Parking Signage Recommendations
April	On-Street Parking Austin Blvd & Harlem Avenue, including adjacent areas
May	On-Street Parking North Avenue and Roosevelt Road, including adjacent areas
June	Parking near and adjacent to Public Transit/Residential/Mixed Use Areas - Metra CTA Green Line, and CTA Blue Line
July	Parking near and adjacent to Residential/Mixed Use Areas - Madison Street and Washington Blvd
August	Parking near and adjacent to Residential or Mixed Use Areas - Chicago Avenue and Division Street
September	Comprehensive Recommended Ordinance Amendments

While conducting the above area reviews, all of the diverse parking needs would be considered. For example, parking needs of single/multi-family homes, business districts, service providers, schools, parks, hospitals and public transit.

Beginning with the March study session, online public input will be solicited in advance of the Study Sessions to provide feedback for customers who may not be able to attend a specific meeting.

Alternatives

The Village Board could ask staff to incorporate other agenda topics and research additional information as part of the study sessions.



PARKING TECHNOLOGY AND BEST PRACTICES

DIXON RESOURCES UNLIMITED



- Parking consulting firm focused solely on supporting municipalities
 - Extensive parking and traffic management experience supporting municipalities throughout North America
 - Designs solutions for long-term customer partnerships
 - Manages organizational, technical and cultural changes to meet the evolving needs of our clients (not a cookie cutter approach)

DIXON Clients

AK – Juneau
CA – Beverly Hills
CA – Downey
CA – Los Angeles
CA – Newport Beach
CA – Oakland
CA – Palo Alto
CA – Pasadena
CA – San Francisco
CA – Sausalito
ID – Boise
IL – Oak Park
NC – Hendersonville
NM – Albuquerque
NV – Las Vegas
NV – Reno
MI – Ann Arbor
OR – Portland
TX – Dallas
UT – Salt Lake City
WA – Seattle

DEVELOPING PARKING ROADMAP



- What are your parking objectives?
 - Immediate / Within 12-months
 - 5-years
 - 10-years +
- Will the Municipality be:
 - Updating old infrastructure or software systems?
 - Interested in pilot/trialing new-to-market technologies?
- Develop a parking technology roadmap
 - Consider the End User Experience – Customer Service
 - Long-term planning, technology refresh - Sustainability
 - Incremental investments, phased approach
 - Public Safety



ALTERNATIVE OPTIONS



- Opportunity to promote alternative forms of transportation:
- Transit
 - Maximize transit schedule: convenience for night & weekend workers
- Car share
- Bike Share



KEY COMPONENTS TO CONSIDER



- Goal to implement parking operations and technology around the ongoing and future needs of the Village, including:
 - Enforcement
 - Public Communication
 - Sustainability
 - Public Safety
 - Customer Service
- Achieve through:
 - Comprehensive parking management system (incl. permits, citations, vehicle stickers)
 - Enhance License Plate Recognition (LPR) technology to increase staff efficiency
 - Upgrade other technology such as pay stations and enforcement handhelds/hardware

KEY COMPONENTS TO CONSIDER



- Explore opportunities to integrate technology to improve customer service by:
 - Improving ease and experience
 - Approach improvements as if customers are unfamiliar with technology
 - Buzz word “intuitive”
- Develop an open and transparent relationship with technology vendors for sustainability by ongoing review of performance data and feedback

RESEARCH AND REFERENCES



- Understand the Village needs - **Sustainability, Public Safety, and Customer Service** - before hitting the open market
- Reach out to those around you
 - Comparable cities
 - Similar programs
 - Good experiences or bad
- Ask questions and know who to talk to
 - Reliable point of contact
 - Product knowledgeable



IMPORTANT FUNCTIONS OF PARKING



- Five functional areas:
 - Financial Analysis
 - Operations
 - Asset Management
 - Workforce Management
 - Maintenance
- Decision Support System:
 - Robust & Reliable
 - Modular / Flexibility / Expandable
 - Open Standards / Scalable
 - Dashboard / Reporting

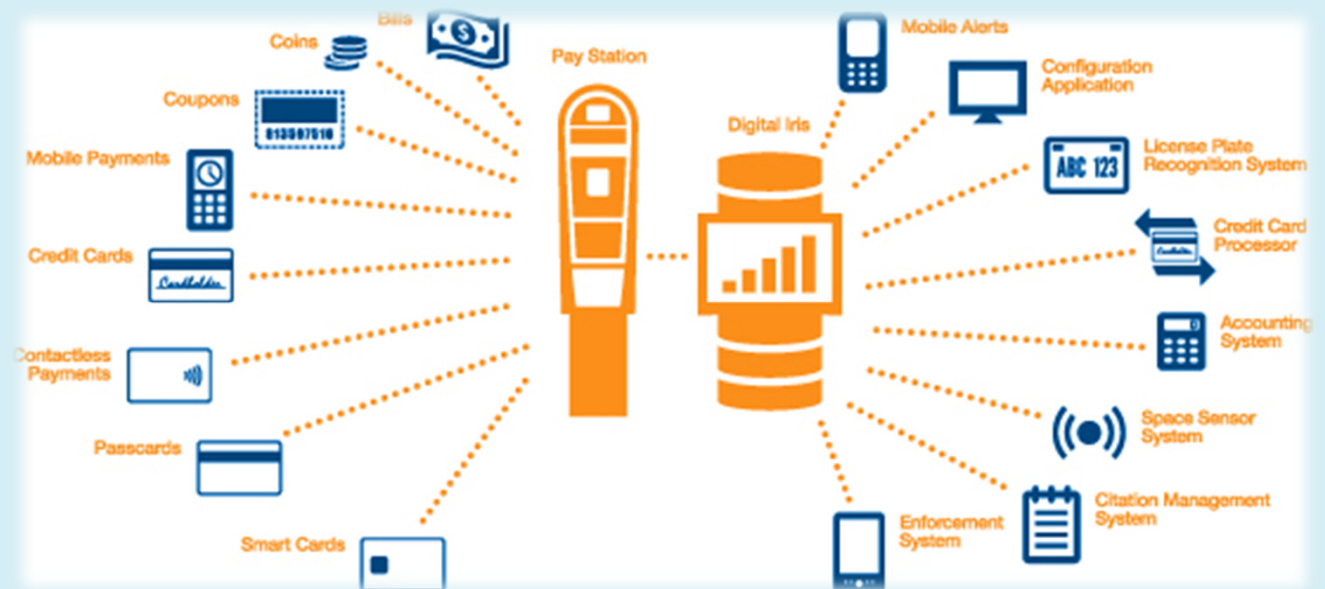
Parking Management System (PMS) makes it possible, track & visualize parking operations

Vendor interfaces are customizable and can be tailored to a specific customer need

PARKING MANAGEMENT SYSTEM



- Centralized reports
- Revenue reconciliation
- Online permit processes (downtown, residential, special event)
- Customer service applications



WHICH TECHNOLOGIES TO CHOOSE?



- Consider the current solution
 - Adaptability & Evaluate Upgrades
- Total # of Spaces
 - Distance / Accessibility
- Aesthetics
- Cost of Spare Parts / Ease of Repair
- Ongoing fees
 - Merchant Service Account
 - Credit Card Fees
- Reconciliation & Reporting Features
- Integration Partners & Reporting Capabilities
- Customer Experience

PCI
Compliance

<http://www.visa.com/splisting/index.html>

Customer
Service

WHAT IS THE BEST WAY TO MOVE FORWARD



- **RFP vs. Sole Source**
 - Where does the Municipality stand?
- **Best Value vs. Low Price**
 - Apples to apples comparison
 - Defined SOW / Change Orders
- **Pilots / Trials**
- **Turnkey Solutions**
- **Integration / Application Program Interface (API)**
- **Data Ownership**
- **Engagement (community, staff, admin, political)**

ON STREET TECHNOLOGY: METERS & PAY STATIONS



- Single-space vs. multi-space pay stations
- Considerations:
 - Ease of use
 - Signage
 - Fees
 - Aesthetics
 - Collections
 - Revenue
 - Enforcement
- Multi-space: Pay & Display, Pay by Space, Pay by Plate



IPS



MacKay



Parkeon



T2

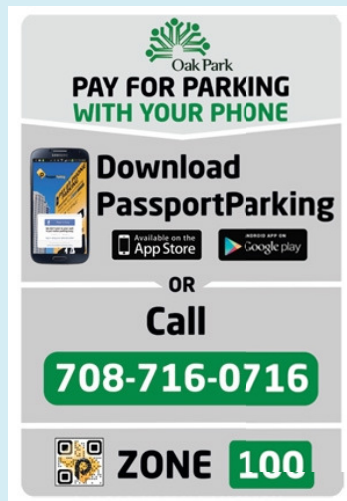


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OTHER CONSIDERATIONS



Pay by Phone



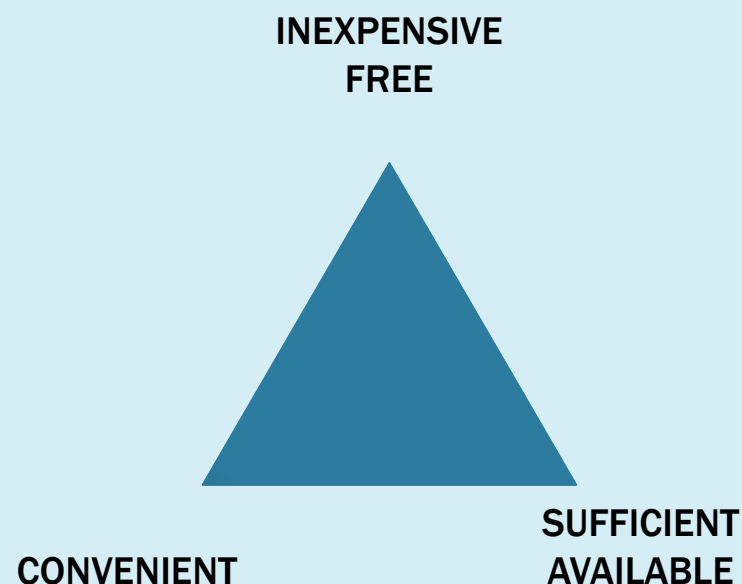
Merchant validations and incentives



ON STREET TECHNOLOGY: RATE STRUCTURES



- **Tiered/demand-based rate**
 - Hourly rates vary by location based on occupancy rates
- **Demand-responsive/time of day**
 - Peak occupancy times are priced higher
- **Pay-to-stay**
 - Based on the amount of time spent parking
 - Hourly rate increases with the length of stay
- **Peak vs. Non-peak season**
 - Rate & time limits



OFF-STREET TECHNOLOGY: LICENSE PLATE RECOGNITION ACCESS CONTROL



- LPR Access- Control technology
 - Improves incoming traffic flow
 - Entry control
 - Improves traffic flow
 - Digital permit automated entry
 - Occupancy and utilization analysis
 - Customer Service

VALET / RESERVED PARKING



Valet Program

- Convenience to visitors and customers
- Designated point of destination
- Reduction in traffic congestion from motorists circling for open parking spaces
- Coordination between restaurant/business owners and the City



Special Events

- Valet & reserved parking will support
- Automate special event entry
- Pre-purchase parking
- Meter technology will support special event rates



UNDERSTANDING MUNICIPAL ENFORCEMENT NEEDS



- Neighborhood Blight / Community Aesthetics / Public Safety
- Increase Vehicle Turnover in Business Districts (Timed & Meter Zones)
- Coverage Area & Staffing Availability
- Safety Hazards (Vehicles Parked in Tow-Away & No Stopping Zones)

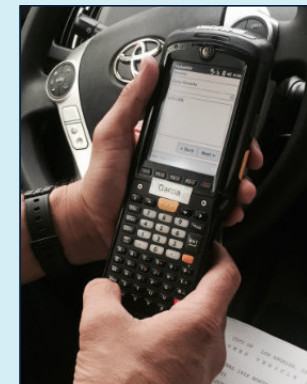
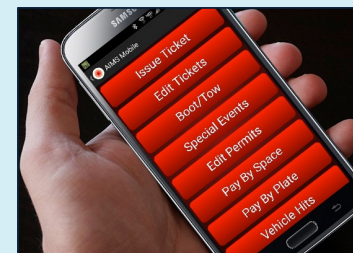


What is your enforcement ethic?

PARKING AMBASSADORS



- Main enforcement objective is: **compliance**
- Eyes and ears for the community
 - Daily sign audits/assessment
- Information representatives
- Technology solutions
 - License Plate Recognition (LPR)
 - Smartphone handhelds



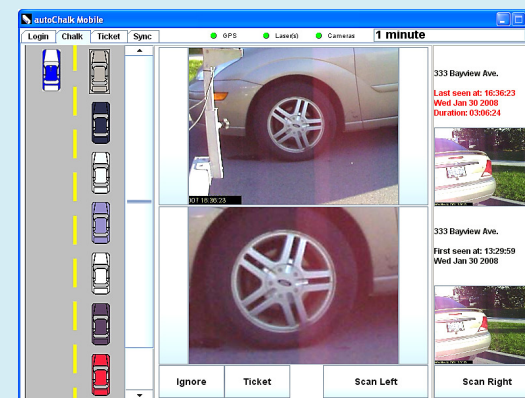
PARKING ENFORCEMENT EQUIPMENT AND SERVICES



- Handhelds & Printers
 - Market shift in technology use



- Automated License Plate Recognition (ALPR)
 - Timed Parking
 - Scofflaw Capture
 - Pay by Plate
 - Digital Permits
 - Residential Preferred Parking (RPP)
 - Employee Parking
 - Special Events



PARKING ENFORCEMENT EQUIPMENT AND SERVICES



- Vehicle Impound
 - Street Sweeping (snow/leaf)
 - Scofflaw Capture
 - Pro-active Vehicle Abatement
 - Auto Boot



PERMIT MANAGEMENT



- Easy to use online platform for both Customer and Village staff
- User accounts
- Applications and renewals
- Modified and simplistic permit database

The screenshot shows a web application interface for permit management. At the top, there are navigation tabs: Home, Tickets, and Permits. A 'Click here to login' link is in the top right. Below the tabs, there are two sub-tabs: 'Permit Types' (selected) and 'Parking Violations'. The main content area displays a table with the following columns: Description, Amount, Available, Active, and Expires. The table lists various permit types such as Annual Additional, Employee Annual, Employee Motorcycle, Employee No Pay Annual, Employee Semester, Employee Summer, Online Visitor/Temporary, Semester Additional, and Shuttle Lot 7 or Freshman Annual. Below the table, there are four large yellow buttons: 'Lookup A Ticket' (with subtext 'View, pay and appeal parking tickets'), 'View My Parking Account' (with subtext 'Click here to login and view your parking account'), 'Visitor or Temporary Permits' (with subtext 'Purchase temporary, daily or single use permits'), and 'Employee or Student Permits' (with subtext 'Purchase term permits for employees or students'). A small note at the bottom of the table area says 'Scroll down for more permit types.' The footer of the page reads 'AIMS Web 5.1.08.01 Copyright ©2013 EDC Corporation'.

Description	Amount	Available	Active	Expires
Annual Additional	\$0.00	Available	Active	08/16/2013
Employee Annual	\$95.00	Available	Active	08/16/2013
Employee Motorcycle	\$0.00	Available	Active	08/16/2013
Employee No Pay Annual	\$0.00	Available	Active	08/16/2013
Employee Semester	\$25.00	Available	Active	01/23/2013
Employee Summer	\$20.00	05/01/2013	06/01/2013	08/16/2013
Online Visitor/Temporary	\$1.00	Available	Active	11/14/2012
Semester Additional	\$0.00	Available	Active	01/23/2013
Shuttle Lot 7 or Freshman Annual	\$70.00	Available	Active	08/16/2013

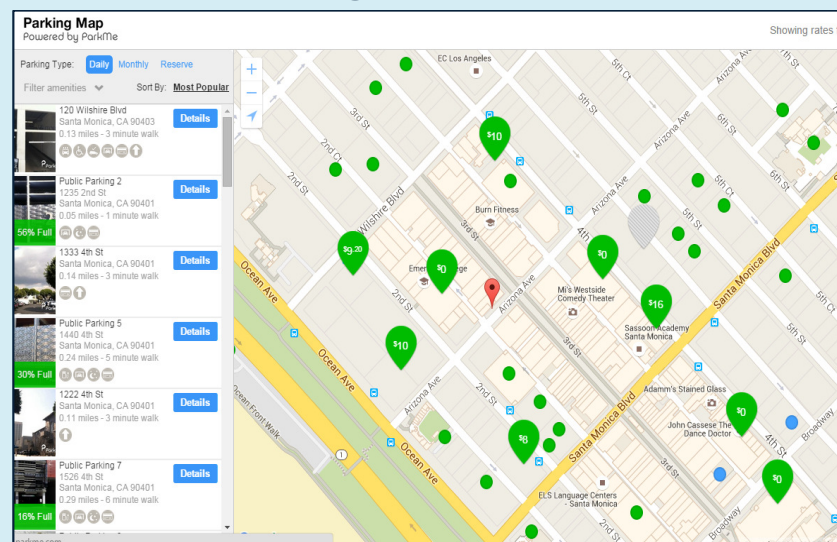
PARKING GUIDANCE & COUNT SYSTEMS



Vehicle detection and occupancy count system



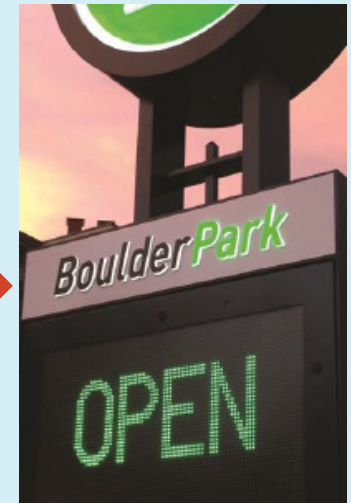
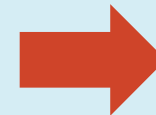
Real-time parking data



WAYFINDING: BOULDER, CO



- Brand identity
- Design and implementation of an innovative parking guidance system to assist visitor's in finding available parking within the downtown core



INITIAL FINDINGS RECOMMENDATIONS



1. Simplify permit regulations and move towards digital permits
2. Implement new permit/citation management system (automation of tasks)
3. Pay station *Pay by Plate* transition revitalize existing pay station technology
4. Upgrade enforcement hardware including LPR and handheld technology
5. Ongoing parking hardware/software training and improve staff equipment

PILOTS



- **Pay by Plate configuration on pay stations**
- **License Plate Recognition**
 - **Ability to enforce Pay by Plate pay stations**



THANK YOU



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