Westfield Public Parking Plan

Parking Management / Technology Enhancements Budget

Westfield, NJ

October 10, 2022

Parking Management / Technology Enhancements Budget

License Plate Recognition (LPR) Enforcement System

LPR technology uses special cameras to read license plates quickly and accurately. When connected to a cloud-based enforcement system, the data from the LPR camera is processed by the enforcement software immediately. This process determines whether a car has complied with parking rules and regulations. The use of LPR technology has seen widespread adoption in the parking industry in recent years to improve parking compliance, enforcement, and management. LPR systems provide an efficient and accurate method to enforce parking regulations, time limits, and permit areas to increase compliance, turnover, revenue, and efficiency. LPR yields increased compliance resulting in improved access and more available parking. This efficiency also provides the Parking Enforcement Officers (PEO's) more time to perform other enforcement or downtown ambassador activities. Lastly, the data collected by LPR systems can be effectively utilized by parking management personnel to analyze parking trends and utilization to inform future parking policy and management initiatives.

LPR System Budget
Initial Capital Cost Estimate - $115,000
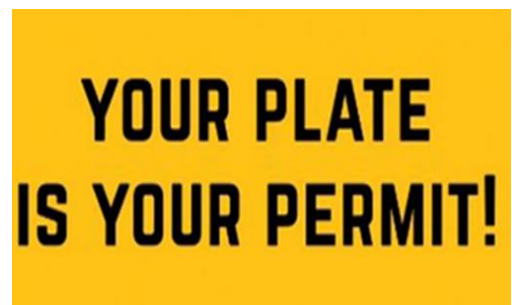- o   Vehicle Mounted License Plate Recognition (LPR) cameras (2 per vehicle / 3 vehicles)
- o   Laptop and vehicle mounting
- o   LPR Central Management System (CMS)
- o   All necessary components, hardware, software, supplies, appurtenances, and installation
- o   Licensing fee
- o   Shipping, Installation, system testing, and training

Annual Recurring Cost Estimate - $15,000
- o   Permitting fee, maintenance, and future software upgrades

Digital / Virtual Permitting System

Digital parking permitting systems use specialized software to manage "digital permits" where the vehicle license plates become the permit. Digital permitting allows for streamlined permitting administration, reduced paperwork, enhanced customer convenience, and improved enforcement. Digital permitting systems allow for online permit application, approval, payment, monitoring and administration. The utilization of digital permitting system with a LPR system allows a municipality to efficiently administer and manage permit parking program.

With the deployment of the digital permitting system, staff time dedicated to permit administration is significantly reduced and there is no need for the purchase and utilization of paper permits. Digital permitting provides the following functionalities:

- o   Residents apply for and the town issues permits through an online permitting portal
- o   Mass email alerts / notifications and multiple vehicle assignment and tracking
- o   Waiting list management
- o   Inventory tracking and lot utilization surveys
- o   Custom renewal letters and notifications
- o   Carpool permit management
- o   Residential Permit Program management

Digital Permitting System Budget
Initial Capital Cost Estimate - $28,000
- o   Digital permitting software
- o   Installation, system testing, and commissioning, and training

Annual Recurring Cost estimate - $20,000
- o   Permitting fee, maintenance, and future software upgrades

Parking Lot Occupancy Count System and Signage

Digital Signage Systems are increasingly used to provide real-time space availability to parking patrons. With these systems, vehicles entering and exiting the facility are monitored by various technologies including loop detectors, sonic sensors, or cameras. Parking occupancy data is captured in real-time and displayed on digital signage mounted at the entrance of parking lots. The signs alert parkers to space availability in the facility prior to entering and the space availability information can also be displayed on the Town's website or via web-based devices, allowing patrons to check real-time availability from their mobile phone. These systems enhance the downtown customer experience by providing real time occupancy information and reducing the frustration associated with cruising for an available parking space.

Occupancy System and Signage Budget (Lots 1,4,5,6 and 7)
Initial Capital Cost Estimate - $350,000
- o   Two (2) signs per lot - 10 total
- o   Space monitoring cameras for five (5) lots - 11 cameras
- o   Shipping, Installation, system testing, and training

Annual Recurring Cost Estimate - $28,000
- o   Licensing, maintenance, and software upgrades

Parking / Mobility Analyst

With the significant amount of data produced by parking permitting, enforcement, and payment equipment and technology, reviewing, and analyzing parking related data and the associated parking trends is an increasingly important component of municipal parking management best practices. The analysis of the multiple sources of parking related data, especially with an LPR, digital permitting and digital payment technologies, can improve the

overall management and performance of the town's parking system and inform future parking policy and initiatives to enhance the system and patron convenience. Dedicating a qualified staff person, either full or part time, to serve as parking / mobility system analyst can assist the town monitor and improve the performance of the parking and mobility system to achieve desired outcomes. The Parking Mobility Analyst duties typically include:

- o Monitor parking system performance in terms of regulation compliance, revenues, level of utilization, etc.
- o Design and analyze enforcement deployment strategies
- o Regularly observe on-street activities and refine parking policies, pricing, and regulations for adjusting parking patterns
- o Review on-street parking occupancy, dwell time, and vehicle frequency by zone and on-street parking revenue and expenses
- o Review the number of issued parking tickets for on-street parking by block
- o Make recommendations to establish and refine parking policies, pricing, and regulations for adjusting parking patterns
- o Assist in initiating parking marketing campaigns, special messages, and alerts
- o Update the parking communications information on Westfield's website and social media to include information pertaining to frequently asked questions (FAQ's), event parking, space availability, etc.

Annual Parking / Mobility Analyst Budget - $60,000
- o 50% of $80,000 annual salary per year ($40,000) plus health, pension, work's compensation, payroll tax and burden

Parking Management / Technology Enhancement Budget Summary	One-Time Cost	Annual Cost
License Plate Recognition (LPR) Enforcement System	$115,000	$15,000
Digital Permitting	$28,000	$20,000
Lot Occupancy Count System (5 Lots)	$350,000	$28,000
Parking Mobility Analyst	N/A	$60,000
Total	**$493,000**	**$123,000**