

# The City of Flint Delivers Smarter Parking Solution



## Background

The City of Flint Michigan (population 100,000) became one of the first U.S. cities to install an innovative, smart parking system that provides real-time parking availability and photo-verified parking compliance among other conveniences and features. The new internet connected cloud-based parking system was designed, installed, and managed by Municipal Parking Systems (MPS), using its patented, Sentry Parking Meters, Payment Kiosks and SafetyStick™ equipment.

With the new parking system, Flint has increased revenue generation because the system automatically senses and registers every new parking session and offers consumers online, autopay and in-person payment options. Parking compliance has also improved significantly because the MPS system is monitored remotely by MPS personnel using real-time, image-capture technology to document possible violations for enforcement authorities.



## ORGANIZATION

City of Flint, Michigan

## KEY CHALLENGES

The city was struggling to find the resources to manage both a parking system and necessary parking enforcement in the city. A new, unreliable system actually increased the overall maintenance costs and had the city searching for a more dependable solution.

## KEY BENEFIT

The City of Flint has seen an increase in their parking revenue (equating to a 4x financial return). Additionally, parking compliance has improved through the use of the remotely monitored MPS system and image-capture technology.



Under a managed service agreement, once a parking violation is verified by Flint parking enforcement authorities, MPS assumes all other administrative duties necessary to manage Flint's parking program, which further reduces administrative and maintenance costs. For example, once a violation is approved by parking enforcement, MPS manages the entire administrative process, from printing the photo evidence and ticket, to mailing the notification and collecting payments. By switching to a managed services model for its paid parking program, Flint significantly reduced its contract support needs and the overall costs associated with managing its parking program. Under the previous model, Flint carried the burden of oversight and the expense of relying on multiple vendors to maintain the system and administer parking compliance activities.

## Why Change?

Flint City leaders had been suffering from the same, age-old problems faced by cities around the world – people hate to pay for parking and parking enforcement is both resource intensive and challenging to manage. Parking enforcement was a constant battle in Flint and many motorists avoided paying to park, depriving the city of the resources needed to deploy parking enforcement personnel and compounding the revenue strains on an already cash-strapped city administration.

The Downtown Development Authority (DDA), which is responsible for Flint's parking program, tried several different strategies to improve compliance and increase parking revenues. Before installing the MPS system, DDA had worked with its previous vendor to purchase solar and battery-operated multi-space meters, hoping that system would improve revenue generation and system reliability.

Unfortunately, the new solar powered, battery-backed system increased overall maintenance costs because they proved highly unreliable and required frequent recharging by field personnel. The batteries failed at an alarming rate over time, requiring even more unplanned maintenance time and expense. The outcome was more cost, more field maintenance work, less uptime, and less revenue. On any given day, as many as 50 to 75 meters, or 15 to 20%, of Flint's entire parking system, was offline and inoperable due to dead batteries or other maintenance issues.

Managing the parking system and parking compliance also proved to be resource intensive for DDA. Over the past decade, DDA had to bulk up its staff and operations to manage the workload associated with parking system management and ongoing infrastructure maintenance, and to perform parking enforcement and fee collection activities. These management requirements forced DDA to hire and coordinate with four different vendors just to keep the program running. This division of labor compounded the management challenges for DDA staff because when complex problems surfaced, no single vendor had responsibility for the overall system.

In an earlier effort to improve parking compliance, DDA acquired a mobile License Plate Recognition (LPR) solution



by attaching cameras to city parking enforcement vehicles. City officials were told by vendors that the solution would significantly increase parking enforcement but, unfortunately, chronic technical challenges created additional resource constraints and challenges during the implementation phase. After only a few months, the new LPR system failed to achieve any demonstrable benefits and only caused more problems. The entire project was eventually scrapped.

DDA also struggled to find a solution for persistent enforcement problems in designated “no parking” zones intended to protect access to fire hydrants and ensure deliveries to downtown businesses. Parking noncompliance in these critically vital areas was a constant safety concern for Flint-area law enforcement and first responders, and economic concern for local businesses. DDA was unable to find a viable enforcement solution.

## The Solution

In 2018, MPS reached out to the city of Flint with a proven, technology-driven solution to improve parking enforcement, encourage compliance, reduce costs, increase revenue, and make life easier for residents and businesses. After learning of MPS and its modern, internet connected parking solutions, Flint agreed to implement a cloud-based 30-day pilot program to test the effectiveness of a smart, connected parking system. The pilot proved so successful that DDA immediately terminated its parking vendor and three other contractors and entered a multi-year, managed services contract with MPS. Under the agreement with DDA, MPS installed, administers, and manages oversight of Flint's 327 metered spaces. MPS installed 90 hardwired, energy efficient parking pay stations and 237 Parking Sticks to manage and monitor paid parking along Flint's major streets. 15 internet-connected SafetySticks™ were also installed to monitor and enforce no parking zones that protect access for emergency vehicles.

The most unique and innovative aspect of Flint's agreement with MPS is that the city did not have to make a large capital investment to obtain a modern, connected and smart parking solution. Through its managed services agreement and unique business model, MPS assumed the multimillion-dollar cost of the necessary equipment and its installation, as well as the cost of the associated enforcement and fee collection software system.



## FINANCIAL BENEFITS



**4X**  
INCREASE IN  
GROSS REVENUE



**+20%**  
PAYMENT  
COMPLIANCE  
IMPROVEMENT



**+3000%**  
SUPERIOR  
ENFORCEMENT  
EFFICIENCY  
(IN DEC 20)



**4:1**  
VENDOR  
CONSOLIDATION



**99%+**  
REDUCTION IN  
MAINTENANCE  
BREAK-FIX  
EXPENSE



**99.99%**  
SYSTEM  
UPTIME

## The Outcome

- Monthly parking revenues more than quadrupled from \$14,000 to \$57,000 in just the first three months.
- In just one month, the MPS system issued over 6,500 parking violations, compared to the 2,800 it estimated for the entire previous year.
- In just one month, the total MPS solution generated over \$165,000 in violation revenue, a 3,000% increase over prior months.
- Parking meter compliance increased 25% over the first three months as motorists adapted to the new system and began paying for parking.
- Department efficiency more than doubled:
  - Since MPS is solely responsible for the system operations, meter maintenance, meter troubleshooting, break/fix maintenance activity decreased by nearly 100%.
  - Consolidated from 4 vendors to 1 for the entire parking system.
- In exchange for providing, installing, and maintaining the software and parking equipment necessary in Flint for its program, MPS gains its proceeds through a revenue-sharing agreement between the city and company on the net-collected revenue generated from the system. MPS also receives certain fees from the city for its services, such as managing violation issuance, transaction processing, violations management, and for violation fee collection.



## THE MPS SOLUTION FEATURES:

- Hard-wired, internet connected parking system yields near 100% uptime.
- Advanced automated license plate recognition capability throughout the parking system.
- Vision Technology and AI are combined with a sophisticated back-end software management platform to automatically photograph and register every parking session and document violations.
- Flexible, easy-to-read LED screen for customer interface enables additional notification services to city such as safety messages and business advertising.
- Multiple language customer interface capability.
- Touchless auto-pay option for parkers.
- Real-time, open space identification for customers; system can also provide parkers with turn-by-turn directions from Sentry smart phone app.
- MPS personnel review every violation for quality assurance prior to presenting the violation to city parking enforcement officers for verification and ticket issuance.
- Manages ticket mailing and violation collection services.
- Increases community safety with cameras located on every parking meter and SafetyS-tick™.

## FLINT TODAY: System Performance Continues to Impress

With the MPS parking installation complete, Flint's parking program continues to generate meaningful revenue for the city, while freeing up DDA resources for other priorities and programs. While the pandemic reduced downtown parking across the nation, since early 2021, traffic and parking in Flint has gradually increased to reach 85% of pre-pandemic levels and DDA management continue to infuse new options and use cases for the parking meters that have increased efficiency and effectiveness.

MPS anticipates achieving material improvements in payment compliance through 2022 and beyond, ultimately resulting in achieving a city-wide parking payment compliance rate of 80%+. By way of comparison, most city payment compliance rates range from 50 to 60% for all paid parking. MPS is now working with the City to achieve further incremental gains and take advantage of MPS value-added features available on the smart parking city system.

### FLINT PERFORMANCE WITH MPS METER/VIOLATION REVENUE

