

TOWNSHIP OF LOWER MERION
Parking Services Department

Memorandum

TO: Douglas S. Cleland, Township Manager

FROM: Thomas D. Pintande, Director of Parking Services

SUBJECT: Parking Meter Study

DATE: February 22, 2010

The current inventory of parking meters was purchased in 1999 and at 10 years old the devices are nearing the end of their useful life. Meters last an average of 10 years, and like the computer industry, components and their specifications change over time. These changes make it impossible to repair or replace the main board, which is the most critical component of a meter. The Township faces its next parking meter certification by the State of Pennsylvania in 2011. Because 465 meters of 1,900 meters failed the 2008 certification, it is expected that many more of the 1,426 meters on streets and lots could be expected to fail this certification. Based on this prognosis, the Parking Services Department proposed a new CIP Project for 2010 recommending replacement of all parking meters including cases.

There are many different types of parking meters for the Township to consider. They generally fall into one of two categories: single space meters and multi-space meters. The Department conducted a thorough study of both, including presentations by multiple vendors for each type. The following pages detail the different types of meters available, their advantages and disadvantages, costs, and recommendations for the Township.

SINGLE-SPACE METERS

Single-space meters are the original on-street meter solution, and are currently in use in the Township. On the plus side, they are simple to use and almost universally understood by the public. Innovations have brought electronic controls with increased audit and security applications, free time options, smart card payment option, and pay-by-cell phone to the meters. Meters make it clear how much time you have available before risking a ticket. On the negative side, many municipalities dislike the impact of rows of industrial looking single-space meters on their landscape. In addition, the sheer volume of meters means more equipment to maintain and monitor. Revenue collection can also be a labor and time consuming affair.

SINGLE SPACE METER BENEFITS:

- Tried and true, most everyone understands the single space meter;
- Relatively low initial cost per meter to purchase;
- No on-going costs for wireless services, management system access, and smart card fees;
- Can accept coins, smart cards, and payment by cell phone;
- Each machine covers one space, thus an out of service meter only impacts one space.

SINGLE SPACE METER DISADVANTAGES:

- Unused time remains when vehicle leaves the space;
- Revenue collection can be time consuming and difficult, due to the weight and volume of the coin;
- Limited rate options, and labor intensive to change the rates at all meters;
- Less than aesthetically pleasing to see a "sea" of poles along the sidewalk;
- Meter may be out of service until it is reported to the parking department, or discovered by a meter attendant or maintenance staff;
- Enforcement officer must visually check each meter head.

COSTS

Costs for single space meters vary based on the manufacturer, quantity, and features. Generally a single space meter costs \$380 - \$650 each which includes the case.

IPS SINGLE SPACE METER

This is the only single space meter on the market that accepts credit cards, as well as the other forms of payment for single space meters. The technology is fairly new and only one manufacturer produces the meter. The technology in this meter is outstanding. The integrated software allows for real-time monitoring, communication of data between the meters and a central command station which allows for enhanced enforcement, collection, auditing and maintenance.

The disadvantages of this meter are the price of the equipment and the additional ongoing costs associated with wireless services, management system access, and credit card fees. The cost for the meter is \$695 each including the case. The combined ongoing cost per meter per month is \$5.75, plus \$0.13 per credit card transaction. The annual cost to the Township based on 1,426 meters would be \$98,394 excluding credit card transactions. It is not recommended that this meter be utilized unless the rate is at least \$1.00 per hour.

MULTI-SPACE METERS

A growing trend for municipalities is to move away from the use of traditional parking meters, and replace them with multi-space meters. As the name implies, multi-space meters cover multiple spaces for on or off street metered parking.

There are two main types of multi-space meters: Pay and Display and Pay by Space. Pay-and-display issues the patron a receipt to be placed inside the vehicle. The receipt shows how long the vehicle can park. The pay-by-space meter allows the user to pay for a particular parking space. Numerous companies manufacture variations of multi-space meters; however most of the kiosks are solar powered, equipped with wireless software to allow for real-time monitoring and integration between several kiosks, and accept coins, bills, credit cards, smart cards, and pay-by-cell.

Pay-and-Display Advantages:

- When paying with a credit card, customers often pay for the maximum amount of time;
- Increased revenue (between 10-40%) without increasing parking rates;
- Unused time leaves with the vehicle, unlike traditional single space meters;
- Patrons can use valid receipt to re-park and use parking time at multiple locations;
- Can accept credit cards, bills, coins, smart cards, and pay-by-cell;
- Multiple machines can be used by patrons to make payment, thus an out of service meter does not necessarily result in lost revenue;
- Does not require individually marked spaces.

Pay-and Display Disadvantages:

- Higher initial cost to purchase each pay station;
- On-going monthly costs for on-line access, receipt paper, and processing of credit card payments;
- Initial investment needed to promote, educate, and implement new method of payment collection;
- Some users find the pay stations difficult or confusing to use;
- Municipalities that have not properly educated and informed the public about the transition to multi-space meters have experienced a high rate of failure in terms of patrons accepting the systems. In some cities, the multi-space meters were actually removed in response to customer complaints;
- Patron must walk back to vehicle after paying for parking;
- Enforcement officer must visually find and inspect paper receipt;
- Potential for litter from old receipts;
- Issues with motorcycles, multiple receipts, and "messy" dashboards.

Pay-by-Space Benefits:

- Similar to Pay-and-Display, increased revenues with credit card payment;
- Patron walks to the meter and is finished with the transaction, there is no need to return to the vehicle;
- Unused time stays at the meter, but can be hidden from the general public;
- In some cases additional time can be added at another machine;
- Enforcement is quicker and easier as the officer prints out who paid from the machine or receives the information electronically without looking for a ticket or time on individual meters.

Pay-by-Space Disadvantages:

- Similar to Pay-and-Display, higher purchasing costs, on-going monthly costs, promote and educate users, difficult or confusing to use, and complaints by users resulting in removal of equipment.
- Added expense of maintaining the marked spaces over time, as well as during snow conditions;

- Marking system may include poles at every space, which may be viewed as clutter on the sidewalk;
- Additional signage needed to mark and educate patrons.

COSTS

Multi-space meter costs vary greatly depending on the options added to the unit. Prices can vary from \$8,000 to \$15,000 per unit, and some higher. One unit usually covers 10 to 15 spaces which break down to \$1,000 to \$1,500 per space. The cost of a well equipped single space meter is \$400. In addition to the costs for the equipment, installation and on-going fees per unit to maintain real time connectivity is required, as is credit card processing fees. These fees can range from \$35 to \$100 per month per unit, excluding credit card processing fees. These monthly fees break down to \$4 to \$10 per space. Single space meters have no such fees associated with them.

PHOTO VIOLATION METER

This meter was developed by Photo Violation Technologies, based in Vancouver, Canada approximately 7 years ago. The design of the meter allows it to accept payment in various forms, but also tracks the vehicle in the space through an in ground device, and thus knows when the vehicle is in violation. It can then actually issue a violation by taking a picture of the vehicle including the license plate. Owner information is obtained through PennDot and the violation is mailed to the vehicle's owner. A picture of the vehicle in the space is printed on the violation. The meter also offers a no-fine option and grace period. The no-fine feature gives drivers the option of swiping a credit card and the meter adds time to the meter. The grace period feature is available to drivers who are running late, allowing payment at the meter for the expired time, rather than receiving a violation. If they cannot return within the grace period, they have the option of paying for violations at the meter.

During my investigation of this meter, I learned it has only been used in approximately 5 test trials around the country. After all the trials were completed, no municipality purchased the product. I have supporting information indicating the meters did not perform as expected, as well as integrity issues with the company. These meters are not for purchase, the company prefers to do a 50% split of the meter and violation revenue over a base amount. This is determined by a three year average of revenues in the area the meters are placed.

I do not recommend this product be considered. The fact that no agreements were ever reached with any municipality to install these meters raises issues with the credibility of the technology and the company. I recently attended a parking conference that discussed the latest and accepted trends in parking meter technology. The presentation was presented by members of the International Parking Institute Technology Committee. All forms of meters discussed in this study were recognized except for this meter.

RECOMMENDATION

In determining the type of meter that would best serve the Township's needs, the Department focused on the following items:

- Initial cost to purchase and on-going costs.

- Ease of use by the public.
- Degree of improvement or upgrade over current meters.
- Methods of payment for the public.
- Ability to upgrade or enhance meter in the future with improved technology.

Single space meters are the least costly to purchase and have minimal on-going costs compared to multi-space meters. The notion that multi-space meters may be less costly to purchase because they cover multiple spaces is incorrect. The proper number of units must be placed at locations in order to be user friendly. To demonstrate the cost difference, if all 1,426 spaces in the Township were equipped with multi space units the cost would range from \$1.4 to \$1.8 million compared to \$675K for single space meters. Other reasons to consider for not selecting multi-space meters are the Township does not accept credit card payments, and our low meter rate. Credit cards are a prime factor for selecting multi-space meters. Even if credit cards were accepted, our low rates would not support the on-going costs of these units including credit card processing fees.

The Department recommends single space meters be selected to replace the current meters in the Township. It is projected this project will cost \$675,000. The meters should be equipped with a closed can collection system, smart card payments, security and audit functions, and possibly offer free time options. If there is a desire by the Board for multi-space meters, I would only recommend a few units be introduced in combination with single space meters.

One of the biggest advances in single space meters today is the ability to be integrated with other technology or upgraded in the future to expand their capabilities. This study also focused on integrated technology such as pay-by-cell payment options. A cell phone payment option is not recommended at this time. There is continuing improvements being made in the areas of enforcement and the ability to display time on the meter with cell phone payments. Not all systems can show time on the meter which makes enforcement difficult. There is a new program being released in early 2010 by POM Meters that will address the enforcement and display issues. Cell payments are linked to a credit card and are subject to the usual fees. This option can be added to single or multi-space meters in the future at minimal costs.

Another integrated technology studied was StreetSmart Technology. This is one of the best new technologies to emerge in the parking meter industry. It gives the single space meter virtually unlimited capabilities never experienced. It monitors every aspect of a parking operation including maintenance, occupancy, violations, audit, and collection status for every meter. The system also has the ability to rectify the difficulties mentioned for cell phone payments. There is no cost for the equipment and set up, just a monthly cost of approximately \$30 per meter. It is suggested that your meter rate should be at least \$0.75 per hour to support these fees. This technology can be added in the future to any new meter purchased.

I hope that this has provided you with sufficient information. If you have any questions, please do not hesitate to contact me.

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