

December 20, 2004

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## **BRIEFING NOTE – Update on the Toronto Police Services Approved Capital Project for Computerized Hand-held Parking Ticket Issuance Devices**

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### **ISSUE:**

At its special meeting held February 24, 25, 26, 27, 28 and March 3, 2003, City Council approved a capital budget of \$2.9 million for the procurement and implementation of hand held parking ticket issuance devices (re: Clause 1 contained in Report No. 2 of The Policy and Finance Committee headed “City of Toronto 2003-2012 Capital Budget and Program”).

At the September 20<sup>th</sup>, 2004 meeting of the Toronto Police Services Budget Advisory Sub-Committee responsible for the review of the Toronto Police Services Board budget, Budget Committee members requested information on the status of the Hand Held Ticket Writers capital project approved as part of the Toronto Police Services 2003 Capital Budget.

At its meeting held on November 30, December 1 and December 2, 2004, City Council pre-approved a revised capital budget for 2005 of \$4.16 million for the procurement and implementation of hand held parking ticket issuance devices (re: Clause 51 contained in Report No. 9 of The Policy and Finance Committee headed “Pre-Approval for 2005 Capital Projects”, subject to the Chief Administrative Officer for the City of Toronto, the Chief Administrative Officer for the Toronto Police Services, and the President of the Toronto Parking Authority agreeing on a common technology for hand-held devices for parking ticket issuance.

### **BACKGROUND:**

- The City of Toronto issues approximately three (3) million parking tickets each year, all of them hand-written, while most other large municipalities in Canada and the United States have moved to automated hand-held ticket writers. Table 1 below identifies some of the larger municipalities across the GTA, Canada and the United States that have implemented hand-held technology for parking tickets.

Table 1: Municipalities Using Hand-Held Technology

| Canadian/Ontario Municipalities | United States – Municipalities |
|---------------------------------|--------------------------------|
| Brampton                        | Detroit                        |
| Kingston                        | Los Angeles                    |
| Mississauga                     | Miami                          |
| Ottawa                          | New York                       |
| Vancouver                       |                                |
| Vaughan                         |                                |

- As part of its 2003 Capital Budget Submission, the Toronto Police Services, Parking Enforcement Unit submitted and received approval for a Capital Budget Project for computerized hand-held parking ticket writers/issuance devices. The Capital Business Case presented in 2003 in support of this capital project identified a number of efficiencies, benefits and operating savings that will be realized with the introduction of hand held parking ticket writers. Following is a summary of the benefits and the estimated annual operating savings.
- **Benefits Associated with the Implementation of Hand Held Technology:**

*a) Expedient Transfer of Data to the City's Parking Tag system, resulting in Enhanced Customer Service*

Under the City's current hand-written approach to ticket issuance, data entry staff are required to enter ticket information onto the City's parking tag system manually. Given that it takes up to two (2) days for the Finance Department, Revenue Services Division, Parking Tag Operations staff to receive a copy of the parking tickets issued, there is a two (2) to three (3) day delay between the time a ticket is issued and the time the data is captured on the parking tag system. This delay impacts customer service, since customer service staff cannot provide ticket specific information to customers until the ticket is data-entered. The implementation of these real-time, hand-held ticket writers will allow parking ticket data to be immediately transmitted to the City's Parking Tag Management System (PTMS) as tickets are issued, resulting in the City's ability to immediately respond to customer inquiries on newly issued parking tickets.

*b) An Increased Ability to Locate Stolen/Wanted Vehicles*

Currently, Toronto Police Services, Parking Enforcement staff assist in locating stolen and wanted vehicles only when there are clear signs on a vehicle such as damage to steering columns, broken windows or broken locks. The current process involves the parking enforcement officers calling the main office and having the license plate checked manually to determine if the vehicle was reported stolen or wanted. With the implementation of computerized, hand-held parking ticket issuance devices, stolen or wanted vehicle information can be loaded daily onto each unit, thus allowing the unit to alert the officer that a vehicle is stolen as the parking ticket is being issued. In addition, it allows the officer to check the license plate on the spot, when there are obvious signs of damage. This functionality will lead to the recovery of more stolen vehicles and will help reduce the time required to locate stolen vehicles.

c) *Increased Processability of Parking Tickets*

Currently a small percentage (less than 1%) of all hand-written parking tickets cannot be processed due to the ticket being illegible or because of date, time or street address errors and these tickets are subsequently cancelled. The introduction of computerized, hand-held parking ticket issuance devices will reduce errors and completely eliminate illegible parking tickets, given that the hand-held devices:

- print the ticket;
- have an automatic date and time format; and,
- are pre-loaded with all City of Toronto street names.

The implementation of these devices will lead to an increased processability level for all parking tickets.

d) *Opportunity to Link to the City’s Residential Permit Parking Database, thus Enhancing Enforcement with respect to Permit Parking*

Along with the pre-loading of street names, hand-held parking ticket issuance devices also have the ability to store a vehicle’s parking permit information. This permit information can be linked to a license plate so that as an officer checks a license plate, any related permit information will be on hand for the officer to determine permit validity for that street. The wireless component of these devices further allows for customers to renew their parking permits on-line and provides for an immediate update to every hand-held device regardless of time of day, since the information is sent to each device in a manner similar to cellular phone transmissions.

• **Annualized Operating Budget Savings Associated with the Implementation of Hand Held Technology:**

Table 2: Projected Annualized Operating Budget Savings

| Operating Budget<br>– Department /<br>Agency                     | Description of Savings   | Projected<br>Annualized<br>Savings &<br>Increased<br>Revenues<br>(\$) |
|--|--|---|
| Toronto<br>Police<br>Services,<br>Parking<br>Enforcement<br>Unit | Materials & Benefits: Tags<br><br>Parking Enforcement unit will not be required to order hand written tag books for staff using hand held devices.   | 275,000   |
|  | Services & Rent: Pagers & Geocoding<br><br>Handheld units will have pager functionality – so pagers currently in use will no longer be required. Savings in geocoding of parking tag data by Land Information Toronto. | <u>44,500</u>   |

| Operating Budget<br>– Department /<br>Agency                       | Description of Savings   | Projected<br>Annualized<br>Savings &<br>Increased<br>Revenues<br>(\$) |
|--|--|---|
|  | Sub-Total: Toronto Police Services – Projected Annualized Operating Savings  | <b>319,500</b>  |
| Finance<br>Department,<br>Revenue Services<br>Division             | Salary & Benefits: Data Entry Staff<br><br>The implementation of hand-held parking ticket issuance devices will reduce the City’s reliance on manual data entry resources, given that the information on the tickets will no longer have to be manually entered onto the City’s parking tag system (10 data entry positions). It should be noted that the reduction in data entry staff will be achieved through a combination of staff attrition and re-training. | 450,180   |
| Parking Tag<br>Revenues – Non<br>Program Revenue<br>Account NP8070 | As described under point “c)” above, hand held devices will reduce errors and completely eliminate illegible parking tickets, thus increasing the processability level of parking tickets. It is estimated that the processable rate will increase by 0.8%, resulting in increased revenues for the City.  | 533,131   |
| <b>GRAND TOTAL</b>   |  | <b>1,302,811</b>  |

- In May 2004, the Toronto Police Services, Parking Enforcement Unit issued a Request for Proposal (RFP) for the procurement of computerized hand-held parking ticket writers, with the aim of having the ticket writers acquired and implemented by September 2004. Based on the responses received from the RFP, new information came to light with respect to the capital cost of the project, requiring the Toronto Police Services to re-submit its Capital Budget for the hand held project in order to increase the approved capital budget of \$2.9 million (approved by Council in February 2003) to \$4.16 million. The operating savings identified in Table 2 above continue to be valid.
- The estimated increase in the capital budget requirements of \$1.26 million is attributable to the following:
  - I. increased system integration costs of \$750,000, as the vendors have identified that the work for systems integration is much more complicated than City staff originally anticipated;
  - II. since the 2003 Capital Project submission, the technology in the market place has changed and as a result the cost of the hand-held units has increased by approximately \$1,000 per unit for a total increase of \$300,000;
  - III. as a result of the industry change and the complexity of the project, software charges have increased by \$15,000, professional service fees have increased by \$50,000, and the infrastructure costs have increased by \$150,000.
- It should be noted that based on the original implementation date of September 1, 2004, the Finance Department reduced its 2004 Operating Budget by \$153,000 – the equivalent of 10

data entry staff , effective September 1, 2004; and by \$305,000 on an annualized basis commencing January 1, 2005. Given the delay with respect to the procurement and implementation of these hand held ticket writers by Toronto Police Services, the Finance Department has not yet reduced its reliance on data entry staff. In order to cover the cost of the required data entry function until such time as the hand held ticket issuance devices are procured and implemented, a request for one-time funding in the amount of \$233,700 has been included in the Finance Department's 2005 Operating Budget Submission to cover the cost of maintaining 10 data entry staff for a six-month period (January to June 2005). Finance Department staff will be working closely with Toronto Police Services to ensure that the hand held ticket writers are in place by June 2005. If the technology is delayed beyond June 2005, the Finance Department will have to report to Committee and Council on the funding implications associated with any further delay.

- At its meeting held on September 23, 2004, the Toronto Police Services Board approved a revised capital budget submission for Hand-held ticket writers. Attached as Appendix A is a copy of the Toronto Police Service Revised Capital Business Case (2005 – 2009 Submission) for Hand Held Ticket Issuance Devices, original submission May 24, 2002, revised August 26, 2004.
- At its meeting held on November 30, December 1 and December 2, 2004, City Council pre-approved an increased capital budget for 2005 of \$4.16 million for the procurement and implementation of hand held parking ticket issuance devices (re: Clause 51 contained in Report No. 9 of The Policy and Finance Committee headed "Pre-Approval for 2005 Capital Projects"), subject to the Chief Administrative Officer for the City of Toronto, the Chief Administrative Officer for the Toronto Police Services, and the President of the Toronto Parking Authority agreeing on a common technology for hand-held devices for parking ticket issuance.
- On December 15, 2004, staff from the Toronto Police Services Parking Enforcement Unit, the Toronto Parking Authority and the Finance Department held a conference call to discuss a common technology for hand-held devices for parking ticket issuance. All three parties supported the implementation of hand-held parking ticket technology. In fact, the Toronto Parking Authority currently uses hand held ticket devices to issue its courtesy envelopes. The three parties will be meeting early in 2005 to review the RFP issued in May 2004 by the Toronto Police Services, Parking Enforcement Unit with respect to the procurement of computerized hand-held parking ticket writers in order to ensure that the technology specified in the RFP is adaptable to the Toronto Parking Authority's needs.

#### **KEY POINTS:**

- The Toronto Police Services, Parking Enforcement Unit issued an RFP in May 2004 for the acquisition and implementation of computerized hand-held parking ticket issuance devices. The original scheduled implementation date has been revised due to a number of factors including a requirement for additional funding, complexity of the project and changes in the hand-held industry. The revised Project Time Schedule now forecasts implementation in late 2005. However, Finance Department staff will be working closely with Toronto Police Services to ensure that the hand held devices are implemented as soon as possible, given that the

Finance Department cut its budget/funding for data entry resources effective September 1, 2004 based on the original implementation schedule.

- At its meeting held on November 30, December 1 and December 2, 2004, City Council pre-approved an increased capital budget for 2005 of \$4.16 million for the procurement and implementation of hand held parking ticket issuance devices (re: Clause 51 contained in Report No. 9 of The Policy and Finance Committee headed “Pre-Approval for 2005 Capital Projects”), subject to the Chief Administrative Officer for the City of Toronto, the Chief Administrative Officer for the Toronto Police Services, and the President of the Toronto Parking Authority agreeing on a common technology for hand-held devices for parking ticket issuance.
- The Toronto Police Services Parking Enforcement Unit, the Toronto Parking Authority and the Finance Department will be meeting in early 2005 to review the RFP issued in May 2004 by the Toronto Police Services, Parking Enforcement Unit for the procurement of computerized hand-held parking ticket writers in order to ensure that the technology specified in the RFP is supported by the Toronto Parking Authority.
- To cover the cost of the required data entry function until such time as the hand held ticket issuance devices are procured and implemented, a request for one-time funding in the amount of \$233,700 has been included in the Finance Department’s 2005 Operating Budget Submission to cover the cost of maintaining 10 data entry staff for a six-month period (January to June 2005). Finance Department staff will be working closely with Toronto Police Services to ensure that the hand held ticket writers are in place by June 2005. If the technology is delayed beyond June 2005, the Finance Department will have to report to Committee and Council on the funding implications associated with any further delay.

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**Circulated to:** Budget Advisory Committee

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**Date:** December 20, 2004

Attachment:

Appendix A – Toronto Police Service Revised Capital Business Case (2005 – 2009 Submission) for Hand Held Ticket Issuance Devices

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# APPENDIX “A”

## Toronto Police Service

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Revised Capital Business Case  
(2005 – 2009 Submission)

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Hand Held Parking Ticket Issuance Devices

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## 1. Business Case General Information

|                                       |   |
|---------------------------------------|---|
| <b>Project Name:</b>                  | Hand Held Parking Ticket Issuance Devices |
| <b>Project Start Date:</b>            | May, 2004 (RFP Released)                  |
| <b>Project End Date:</b>              | March 2006                                |
| <b>Command:</b>                       | Operational Support                       |
| <b>Business Case Author:</b>          | Kimberly Rossi 8-6605                     |
| <b>Secondary Contact:</b>             | Maghfoor Chaudhry 8-6617                  |
| <b>ITS Contact:</b>                   | Tapan Sen 8-7586                          |
| <b>Facilities Management Contact:</b> | N/A                                       |
| <b>Original Submission Date:</b>      | May 24, 2002                              |
| <b>Latest Submission Date:</b>        | August 25, 2004                           |
| <b>Type of Project:</b>               | Proposal                                  |
| <b>Funding Source:</b>                | Capital                                   |

## 2. Executive Summary

The Parking Enforcement Unit (PEN) continues to produce hand written parking tickets while a number of other Canadian and American Cities have moved towards hand held ticket writing technology.

Moving to hand held technology provides many benefits to the City of Toronto, the Toronto Police Service and our communities. These benefits include more expedient data transfer, increased ability to identify stolen vehicles, increased processability, and enhanced management information to name a few.

In May 2004 an RFP was issued for the procurement of hand held related products and services. Based on the responses received, new information has come to light in relation to costs and resources required.

The overall project consists of a 5-year plan (2005-2009) and has an estimated overall cost of \$6.2 Million. The return on investment would be achieved in 6 years and 4 months (payback sheet, appendix refers).

There are project benefits that cannot be quantified at this time, including: increased recovery of stolen vehicle (benefits to insurance companies, less time spent by police on investigations related to stolen vehicles, and crime prevention). Further, the benefits to the general public from the enhancement to the permit parking system, the anticipated savings due to possible reductions of Court trials, based on the production of a more clear and legible parking tag, and the more expedient data transfer to the Parking Tag Management System (PTMS) that prepares the City for “e-payments” have not been quantified in this business case.

This is a previously approved project and the capital funding of \$2.9 Million has already been approved in 2003. One of the challenges that the project encountered was the great deal of time spent negotiating between TPS and City ITS staff to determine ownership of the system as a result of limited City and Police ITS resources, although this was not raised as an issue at the time of the initial submission. In addition, discussions around the issue of bank processable ticket paper took a considerable amount of time. As a result of the on-going discussions, included in this updated proposal are recommendations to carry forward the funds budgeted for 2003 and 2004 to 2005 based on the revised project plan described herein.

It should be noted that funds have been budgeted for City of Toronto departments as part of this project, including the Bylaw Consolidation (\$600,000) and the integration of seven interfaces (\$584,000). These functions are an integral part of the hand held overall application. The total amount budgeted for City of Toronto related items is \$1.2 M of the overall project request. This will provide a significant benefit to the City of Toronto.

This submission is to request additional capital funding of \$1.26 M for the following reasons:

**System Integration Costs:**

The work for system integration has been identified as more complicated than originally thought in the original business case submission. There are nine interfaces that are to be developed and maintained between TPS, the City and the new hand held server. It should be noted that two of the nine interfaces are for the benefit of TPS and this amounts to approximately \$166,000 and the remaining seven interfaces that benefit the City of Toronto amount to approximately \$584,000. This brings the one time costs for system integration to an estimated \$750,000.

### **System Maintenance and Operations:**

As the resources required for ongoing system maintenance and operations have not yet been determined, budgetary impacts have not been included in this plan.

### **Equipment Costs:**

Since the RFP has been released and responses received, it has come to the attention of TPS that the equipment which was considered in the original submission of 2002 is being phased out by the manufacturers and as a result no vendors have recommended that particular equipment for this application. Based on up-to-date environmental and ergonomic testing, and hardware availability in the marketplace for the parking enforcement application, the price of the new equipment (hand held computers and printers collectively) on average has gone up by \$1,000 per unit. The net increase for 300 units is a one-time cost of an additional \$300,000.

### **Software Costs, Professional Services, and Infrastructure (Wiring and Docking of Units)**

The cost of hand held software appears to have increased by approximately \$15,000. Similarly, fees for professional services have increased by \$50,000 and infrastructure related items such as the electrical wiring, Ethernet wiring and docking of charging units for the hand held computers and related accessories is estimated to cost \$150,000.

The cost of operating licences for 300 units will be included in on-going operating costs. The operating licence seems to come as part of the standard package from vendors. This provides TPS the benefit of getting all the software updates when available from the vendor. Since this is licensed software, vendors do not generally sell their source code to customers. It should be noted that there may or may not be an opportunity to acquire the source code from some vendors for an additional cost in the future if TPS determines they wish to be responsible for this.

## **3. Background**

### **3.1 Project Description and Scope**

This project is already approved for 2.9M. This business case submission is for an increase in funding as mentioned in the above section.

Presently, parking ticket issuance is done by manually handwriting a ticket. The proposal is to replace the manual ticket writing with electronic devices that will print parking tickets. Through the introduction of hand held ticket writers, the Toronto Police Service, Parking Enforcement Unit (PEN) and the City of Toronto will be in a position to benefit from several efficiencies.

Before a potential hand held project can commence, it is imperative that the City of Toronto harmonize the parking bylaws of the seven (7) former municipalities. Harmonization of these bylaws would ensure a cost savings for the overall capital project, as software programming of the hand held units would only be an expense at the onset of the project. Failure to amalgamate the bylaws would result in additional software programming costs in subsequent years. Since the project was approved in 2003, the City has initiated the bylaw harmonization process and is on track in relation to implementation of this project.

It should also be mentioned that the introduction of hand held ticket writers and the bylaw harmonization both bring forth change. With any change comes a learning curve that results in a short-term decline in productivity. It is therefore recommended, that both of these changes (bylaw harmonization and hand held ticket writers) be rolled out at the same time; hence, one learning curve and one potential short term decline in productivity that would be offset by the continuing efficiencies.

In the year 2000, the City Auditor conducted a review of the TPS Parking Enforcement Unit. The City Auditor then provided a report that made 26 recommendations. The following recommendations relate to the scope of this project:

*“(Recommendation #14)*

*The Parking Enforcement Unit, in consultation with the appropriate City officials, expedite the drafting of a uniform by-law that consolidates all existing parking-related by-laws of the former area municipalities;*

*(Recommendation #22)*

*The Chief of Police, in consultation with the City’s Chief Financial Officer and Treasurer, prepare a complete cost benefit analysis and identify any issues with respect to the use of hand-held ticket issuing equipment by parking enforcement officers, ...”*

### **Current Parking Ticket Issuance and Tracking Systems**

In the current parking ticket issuance system, a copy of the manually issued ticket is sent to the City of Toronto Land Information System (LIS), for scanning. At LIS, all parking tickets are scanned and ticket images are electronically sent to the City of Toronto Parking Tag Operations (PTO). Based on the image information, the parking ticket data is manually re-entered in the PTO Parking Tag Management Information System (PTMS). Further, with a separate link, PEN sends flyleaf information to PTO. Flyleaf information contains parking ticket book numbers and the assigned badge numbers. Any delay in the flyleaf files or problems in scanning due to improper tag printing, results in delays in transferring information to PTO. This leaves Customer Service staff without any information in PTMS in order to effectively deal with public inquires about the status of a particular ticket.

In order to keep the Parking Enforcement Unit Management Information System (PINS) up to date, PTO sends new data files to LIS every day (Monday to Friday) for geo-coding. This file is returned back to PTO the next day and is electronically transferred to the PINS system. Currently, the ticket information is available in PINS after 10 days from its issuance date.

Any delay in the process (scanning, data entry, flyleaf, geocoding, file transfers) results in information not being available in PINS even after several days of parking ticket issuance; hence, a lack of management information. A more efficient management of information allows for a better evaluation of accuracy rate for each officer, which is performed on an average of 35 days with information currently 2 periods behind. It also allows for a faster and more effective way of locating stolen and wanted cars, and it allows the unit to provide better special service consideration to various functions such as funerals and religious services.

Below is a summary of the efficiencies to be realized by the Toronto Police Service Parking Enforcement Unit and the City of Toronto.

1. Increase in the overall officer controllable tag processable rate.
2. More expedient data transfer.
3. One time parking tag data entry/recording.
4. Increase in ability to find stolen/wanted vehicles.
5. Opportunity to link to the residential and temporary permit parking program database.

1. Increase in the overall officer controllable tag processable rate.

The Parking Enforcement Unit currently has an officer controllable processable rate of above 98%. Through the use of hand held technology it is possible to increase this to closer to 100%. The use of hand held technology would eliminate problems currently experienced as a result of improper tag printing, carbon copy tag data transfer, illegible handwriting, incomplete tags, bylaw mismatch errors, and frozen pens.

It is estimated that with hand held devices there will be an immediate increase of 0.8% in the overall officer controllable processable rate. This would realize approximately 24,000 tags equating to \$650,000 in total, of which 98% is estimated to be processable. The City of Toronto collects about 82% or \$533,000 of the total processable tickets.

It should be noted that there are processing efficiencies on the City of Toronto side that are not included as part of this business case. The additional processing efficiencies are estimated at 5.5%.

2. More expedient data transfer

It currently takes two to three working days for parking tag information to be scanned, data entered and uploaded to the PTMS system. This delay often results in a lack of available management information, not to mention the added inconvenience to members of the public inquiring about a tag that has not yet been uploaded to the system.

The introduction of hand held technology would allow managers to receive tag data more quickly through both a real time environment and a daily up and downloading of information. This in turn provides for better management control over parking enforcement activities, officer performance and better customer service to members of the public.

### 3. One time parking tag data entry/ recording.

With the hand held devices, parking data will be directly entered by enforcement officers. This will eliminate the need for re-entry of data by data entry operators at the City of Toronto PTO. It is estimated that there will be savings of approximately 12 FTEs. Further, one time data entry will reduce data entry errors.

### 4. Increase in ability to identify stolen/ wanted vehicles.

One of the key components of the Parking Enforcement program is to provide operational support to the Toronto Police Service. The Parking Enforcement Unit employs 357 civilian uniformed members, who increase the police service visibility by acting as the “eyes and ears” for the Toronto Police Service while on routine patrol.

In the year 2000 and 2001, the Parking Enforcement Unit was responsible for recovering 622 and 808 stolen/wanted vehicles respectively. In 2002 and 2003 this number changed to 1,116 and 1,874 vehicles recovered respectively.

Through hand held technology, it is possible to communicate real time with CPIC or query a Hot List of stolen autos. Every licence plate number for every vehicle ticketed would be input into the hand held device and checked against CPIC or the Hot List stolen vehicle database to determine vehicle status.

This would increase the ability to identify stolen/wanted vehicles and as a result would ensure less inconvenience to members of the public trying to locate their vehicles, the Police Service in investigating these matters and insurance companies who often “pay out” for stolen vehicles prior to their recovery.

It should be noted that all agencies do not have access to the Hot List/ CPIC interface. However, as a unit of the Toronto Police Service, the Parking Enforcement Unit is currently able to access this information and as a result, would be able to incorporate this option into the hand held ticket

writer project. Any material benefits from recovering stolen vehicles are not included in the payback time.

#### 5. Residential permit parking program database link.

Hand held technology would allow for the option of linking to the Residential and Temporary Permit Parking Program database, through “real time” data transfer or daily upload/download.

With the input of a licence plate, the hand held ticket writer would search the permit-parking database to determine whether the vehicle has authorization to park in the designated area. This eliminates the inquiries in situations where the permit is not attached to the windshield, not to mention, where a permit is issued for more than one licence plate number. It would also eliminate the problems resulting from the permit holder not transferring the permit to the vehicle that is parked on the roadway.

Overall, use of this option will decrease the inconvenience to members of the public when permits are not visible and decrease inquiries to the Permit Parking Department and Parking Tag Operations i.e., reduced counter traffic. Any material benefits from these functions are not included in the payback time.

### **Hand Held Parking Ticket Issuance Devices Project Details**

With this project implemented, Parking Enforcement Officers would issue parking tickets from a hand held computer device. The hand helds would be run by an administrative back end system (computer) at the Toronto Police Service. Parking Enforcement Officers will be able to communicate real time with the servers that hold the parking tag issuance data. The servers would be housed at the TPS. From the servers, information can be pushed or pulled into the PTMS System and the PINs System. While transferring data to PINS geocoding of data is to be performed.

#### **Equipment:**

1. Hand Held Parking Ticket Issuance Devices, Printers attached or separately held.
2. Data holding and communication servers.
3. Power Back up devices.
4. Battery Chargers.

#### **New Data Sources Required:**

1. Stolen/ wanted autos – real time connectivity or hot list with daily/ hourly update.
2. Vehicle Information, Licence plate, make model, Colour, Validation month.
3. Permit Parking information.

#### 4. Consolidated Bylaw Information.

### **Project Developer/ Consultant Selection**

Once the project is approved by the city, the consultant will be selected through RFP process. RFP was released on May 21, 2004.

### **Revised Project Time Schedule**

- RFP Closure date: June 30 2004.
- Vendor(s) Selection: TBD, 2005.
- Contract Negotiation TBD, 2005.
- Board Approval: TBD, 2005.
- Development/ set up/ consultation process TBD, 2005.
- Developments complete TBD, 2005.
- Pre testing with 30 units TBD, 2005.
- Modifications and equipment requisitioning TBD, 2005.
- Full implementation TBD, 2005. (Commence between July 2005 and December 2005, based on budget approval process).

Based on the revised project dates unspent budgeted funds for the year 2003 and 2004 will be required to be carried over to 2005, as based on the revised time schedule the majority of the spending is not anticipated until 2005.

### **3.2 Context**

The purpose of the Parking Enforcement Unit of the Toronto Police Service is to:

- Assist with the safe and orderly flow of traffic.
- Respond to the parking concerns of the community.
- Regulate parking.
- Provide operational support to the Toronto Police Service.

Many enforcement departments in Canada and the USA are already using advanced hand held equipment for issuance of parking tickets. Some cities in Canada include: Mississauga, Ottawa, Vancouver, and Niagara Falls. By using hand held devices for issuance of parking tickets the Parking Enforcement Unit of the Toronto Police Service will enhance its ability to fulfil its purpose.

With the hand held devices Parking Enforcement Officers of the Toronto Police Service will be better equipped to write computer generated tickets and at the same time look for stolen and wanted vehicles. With the hand held devices, once the licence plate is entered the enforcement officer should be able to identify vehicle Make/ Model, colour, street permit(s) issued, or whether

the vehicle has been reported stolen. Further, location/ street should automatically identify applicable offence codes. With all this, enforcement officers will be more efficient in carrying out their duties, and data will be entered only once. This will save time and monies for re-entry of data.

### **3.3 Project Dependencies**

Though this project is not directly dependent on consolidation of the seven former municipal parking bylaws, as discussed in section 3.1, the consolidation/harmonization of bylaws will provide project savings and convenience and clarity for enforcement officers and the general public.

#### **Resource Dependencies:**

This project requires assistance and support from ITS network and staff. Presently, the PINS system already has this support available from ITS; however, this project will require additional resources. Since the resources required for ongoing system maintenance and operations have not yet been determined, any budgetary impacts have not been included in this plan.

## **4. Project Impacts**

This project is estimated to cost \$6.2 Million (Capital plus 5 years of operating) and will payback its cost in 6 years and 4 months. The ongoing project benefits are estimated to be \$1.3 M. per annum.

With this project the City and TPS will be able to provide better customer service to the general public inquiring about their parking tickets. More expedient data transfer will help officers and managers to enhance performance.

### **4.1 Assumptions**

The following assumptions are part of this report:

- Saving for FTE, data entry staff, are based on present rate.
- For this report, that Parking Enforcement Unit will issue 2.8M tags annually.
- Staff potential learning curve: how to use hand held devices, without significantly affecting parking tag issuance.
- It is assumed that the City of Toronto harmonizes the parking bylaws of the seven (7) former municipalities, which would ensure a cost savings for the overall capital project, as software programming of the hand held units would only be an expense at the onset of the project. Failure to amalgamate the bylaws would result in additional software programming costs in subsequent years.
- It is also assumed that the savings for FTE's is achieved.

- Issues surrounding bank processability of tickets (presently thermal papers can not be processed at banks), which are not within the TPS or City's control, will not affect the planned savings/benefits.

#### **4.2 Information Technology Impact**

ITS involvement with this project is limited as only stolen and wanted cars information will be downloaded to the handheld devices and the City provides the rest of the information.

|   | Yes / No | Details   |
|---|----------|---|
| <b>Infrastructure</b>   |          |   |
| Has your project been included in the IT Strategic Plan?<br>If not, then explain the action taken to become part of the plan. | No       |   |
| Have your project details been reviewed by your ITS contact and they concur with the recommendation and solution?             |          | In process  |
| Will this project impact the TPS infrastructure? How?   |          | This info. not available yet. No significant change is expected.                    |
| Does it rely on an assumed change to infrastructure? What is this change?   | No       |   |
| What is the estimated number of users?  | 350      |   |
| <b>Integration</b>  |          |   |
| Will this project require integration to existing systems, networks connections?  | Yes      |   |
| Have any integration requirements been excluded from this case? Why?  |          | Integration cost estimate is \$750,000.00   |
| Is there an impact on network capacity?   | Yes      |   |
| Is there an impact on server capacity?  | Yes      |   |
| Is there an impact on workstation capacity?   | No       |   |
| <b>Support</b>  |          |   |
| Will your project require ITS support during the project?   | Yes      | To work facilitate Vendor now - Full support Starting 2007 – scope to be identified |
| Will your project require ITS support post project implementation?  | Yes      |   |
| Describe the type of support (technical staff, network, servers, etc.) required.  |          | Network, Database   |
| <b>On-going Maintenance</b>   |          |   |
| What are the on-going maintenance costs?<br>What are the number of staff new or existing included in this cost?               |          | Don't know currently  |
| Are there any special conditions in the Lease/maintenance agreements?   |          | Don't know currently  |

### 4.3 Project Cost

Project Cost, please see Exhibit “A”.

Post program operating cost is expected to be 450,000 per annum.

TPS may have the opportunity to select alternative pricing models based more on operating costs, rather than capital. For example, leasing, cost per ticket issued.

| Cost Component             | Up to 2004   | 2005         | 2006       | 2007       | 2008       | 2009       | Post Program (2010-2014) | Total        |
|----------------------------|--------------|--------------|------------|------------|------------|------------|--------------------------|--------------|
|                            | (\$000's)    | (\$000's)    | (\$000's)  | (\$000's)  | (\$000's)  | (\$000's)  | (\$000's)                | (\$000's)    |
| <b>Total Project Costs</b> | <b>2,871</b> | <b>1,527</b> | <b>450</b> | <b>450</b> | <b>450</b> | <b>450</b> | <b>2,251</b>             | <b>8,653</b> |

### 4.4 Project Benefits

Project Benefits, please see Exhibit “B” (Based on present performance standards).

Post program enhanced benefits are estimated be \$1.3 Million per annum.

| Savings/Enhanced Revenues     | Up to 2004 | 2005      | 2006           | 2007           | 2008           | 2009           | Post Program (2010-2014) | Total           |
|-------------------------------|------------|-----------|----------------|----------------|----------------|----------------|--------------------------|-----------------|
|                               | (\$000's)  | (\$000's) | (\$000's)      | (\$000's)      | (\$000's)      | (\$000's)      | (\$000's)                | (\$000's)       |
| <b>Total Project Benefits</b> | <b>0</b>   | <b>0</b>  | <b>(1,077)</b> | <b>(1,302)</b> | <b>(1,302)</b> | <b>(1,302)</b> | <b>(6,514)</b>           | <b>(11,500)</b> |

### 4.5 Financial Summary

Financial Summary, please see Exhibit “C” (Based on present performance standards).

Post program net benefits are estimated be \$900,000 per annum.

| Cost Component            | Up to 2004   | 2005         | 2006         | 2007         | 2008         | 2009         | Post Program (2010-2014) | Total          |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------------------|----------------|
|                           | (\$000's)                | (\$000's)      |
| <b>Net Cost/(Benefit)</b> | <b>2,871</b> | <b>1,527</b> | <b>(627)</b> | <b>(852)</b> | <b>(852)</b> | <b>(852)</b> | <b>(4,262)</b>           | <b>(2,846)</b> |

### 4.6 Non-Financial Impacts

#### 4.6.1 2002 – 2004 Service Priorities

##### 4.6.1.1 Youth Violence and Victimization of Youth

N/A

##### 4.6.1.2 Organised Crime

N/A

#### **4.6.1.3 Traffic Safety**

The traffic on Toronto's roadways affects almost everyone within our City and is a consistent theme at public meetings. It is evident that the people of Toronto see traffic safety and congestion as priority issues. The safe and efficient flow of traffic, and the safety of our drivers, passengers, cyclists, and pedestrians, is, therefore, of significant concern to the Toronto Police Service. By focusing Unit efforts on increased enforcement of traffic offences and safety education for those most at risk, we will seek to improve conditions on our roadways for everyone.

#### **4.6.1.4 Drug Enforcement and Education**

N/A

#### **4.6.1.5 Human Resource Development**

N/A

#### **4.6.1.6 Service Infrastructure**

Standardise and improve information systems and production of information systems and production of information within the Service.

#### **4.6.1.7 Community Safety and Satisfaction**

Expedite availability of information to members of the public and provide timely information to effectively resolve community concerns and/or complaints.

#### **4.6.1.8 Other Factors (not addressed above in Service Priorities)**

N/A

#### **4.6.1.9 Community-Based Crime Prevention**

N/A

#### **4.6.1.10 Community Patrol**

N/A

#### **4.6.1.11 Criminal Investigation**

Increase in identifying wanted and stolen autos would help in future investigations.

#### **4.6.1.12 Community Satisfaction**

Consolidated/harmonized bylaws will enhance general public's understanding of municipal parking bylaws. The City of Toronto will be able to provide enhanced customer service for those inquiring about their parking violations.

**4.6.1.13 Emergency Calls**

N/A

**4.6.1.14 Violent Crime and Clearance**

N/A

**4.6.1.15 Property Crime and Clearance Rates for Property Crime**

N/A

**4.6.1.16 Assistance to Victims**

N/A

**4.6.2 Legislated Responsibility**

N/A

**4.6.3 Risk Associated with Not Funding/Undertaking Project**

A loss of approximately \$900,000 in increased revenue per year associated with processing of tags by PTO and Parking Staff.

**4.6.3.1 Risk to Public or Officer Safety**

N/A

**4.6.3.2 Risk to Organization or Public Confidence**

N/A

**4.6.3.3 Financial Risk**

N/A

**5. Alternative Solutions Considered**

## **6. Recommendations**

Based on the preceding analyses, it is recommended that:

1. Additional Capital funding of \$1.26 Million be approved for this project.
2. The annual operating costs of this project of \$450,000 be approved.
3. The operating benefits of \$320,000 for fiscal years 2006-2009 for a net operating increase of \$130,000 per year above current levels (to cover such costs as printer paper, communication charges, equipment replacement, software licence and other operating expenses detailed in the business case) be approved.
4. That the revised project and implementation for the Hand Held Parking Ticket Issuance Device project (beginning in May 2004 and completed by the end of March 2006) be approved.