

**POTENTIAL ALTERNATIVE REVENUE SOURCES
FOR MUNICIPAL INFRASTRUCTURE MAINTENANCE**

A CASE STUDY

COUNTY OF PETERBOROUGH TRANSPORTATION INFRASTRUCTURE

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INTRODUCTION

The County of Peterborough is a rural, upper tier municipality approximately one and a half hours drive northeast of the City of Toronto. The County is comprised of eight townships and at its geographic, political and social hub is the City of Peterborough, a separate city within the local political setting. The population of the county, based on 2003 assessment information is approximately 54,000, comprised of a mix of permanent and seasonal residents who reside in 32,324 households, 21,271 of them permanent, the balance seasonal. The employment of the residents crosses a broad spectrum, with the main focuses being on tourism, agricultural, industrial, commercial, and institutional. Based on data supplied by Morand & Associates, as part of a cost/benefit study of the Greater Peterborough Area Economic Development Corporation presented to the County of Peterborough on March 3, 2004, approximately 9,200 greater Peterborough area residents commute daily to the Greater Toronto Area to work. Tourism is a major revenue generator for the area, with approximately 1,951,000 tourist visits a year (2001 data taken from a study completed by Research Resolutions and Consulting Ltd.). Most tourists visit the area to enjoy water related activities on the Trent Canal system and the Kawartha Lakes.

The area of the County of Peterborough is 387,727.41 hectares (3,877.19 square kilometres) and is made up of rich agricultural land in the south and Canadian Shield land with numerous lakes and rivers in the north. Enabling travellers to move about the county is a transportation network of 733 kilometres of County roads, consisting mostly of two lane, rural (ditches as opposed to concrete curbs), hard surface road. Allowing motorists to travel conveniently throughout the County are 139 structures, bridges and large culverts, which cross the numerous lakes and rivers of the region.

Maintaining a transportation network of this size carries a significant cost. The 2004 capital and operating budget for the County of Peterborough Public Works Department, Roads and Bridges Section, is \$7.2 million, \$2.1 million of which is designated for capital projects. While this is a

significant amount of money, the current roads and bridges needs of the county is \$98 million. Each year, the annual Public Works Department increases, yet the roads and bridges needs increases as well. Each year, the gap gets larger.

The County of Peterborough, like most municipal governments within the Province of Ontario is in dire financial straits. The provincial re-alignment of services of the 1990s has left the County in a situation where the net result of the downloading was an increase in the cost of services to be provided with inadequate finances available to them. More funds are necessary. "Municipal reforms will not negate the need for Canadian cities to gain access to new funding sources."¹ The financial woes of most municipal governments today cover the spectrum of most of the services provided by municipalities, including police services, ambulance services, social services, social housing and roads. With respect to transportation infrastructure, "Too many roads and insufficient funding has created a downward spiral. With less money to spend on capital projects, roads are deteriorating and as roads deteriorate maintenance costs increase. Higher maintenance costs add to short-term financial pressures, further eroding the capital spending needed to fix the problems in the first place. A recent survey showed that two-thirds of municipalities are not increasing capital spending at a pace that will keep up with inflation. For almost half of the municipalities, capital spending is actually down"². This paper will address one of the most significant under-funded services that is provided by municipalities, that being the roads and bridges component of the municipal infrastructure within Peterborough County. Specifically, this paper will look at alternative solutions for the problem that exists with respect to developing long term sustainable funding for road and bridge maintenance within Peterborough County.

"It is widely accepted that there is a major infrastructure deficit in Canada, with the shortage in public infrastructure running in the billions of dollars, especially at the municipal level. All levels

¹ "A Choice Between investing in Canada's Cities or Disinvesting in Canada's Future", TD Economics Special Report, TD Bank Financial Group, April 22, 2002, P. 3.

² Ontario Good Roads Association, State of Ontario Roads, Milestones, Volume 4, Number 2, (Mississauga: The Penwortham Group, 2004), P. 29.

of government are working together to tackle this critical situation. New initiatives are being explored, from gas taxes to direct and indirect provincial contributions, and new financing tools are being introduced....”³

Questions that will be dealt with in this paper are:

1. Is the current funding system for local infrastructure adequate to ensure a sustainable, well maintained transportation network?
2. Is there a single, more effective means of funding local infrastructure maintenance?
3. What is the best solution for the County of Peterborough?

The County of Peterborough, like most local governments, funds its transportation network maintenance for the most part from the local property tax. In these times of deficits and tax cuts at the provincial and federal level, it is increasingly difficult for local governments to access funding from the senior levels of government. There is, however, a limit to what most residents are willing to pay as property taxes are increasing at a high level to cover other local costs associated with police, fire and ambulance services, dealing with the fallout of the Walkerton water disaster, health services, social services, social housing, and all of the other services now offered by local municipal government. Perhaps some radical change in the form of reform is necessary when addressing municipal funding. John Sewell stated, when discussing urban reform, “Reform, however, is a certain kind of change attempted on the city to gain a new sense of direction. It goes beyond reorganizing to do things better, and pushes into new directions to pursue new goals”⁴. This paper will investigate if there is a need to pursue new directions in municipal funding and reform the existing the system.

³ Abraham Akkawi, “Public-Private Partnerships: An infrastructure and service delivery tool for smaller municipalities,” *Municipal World*, (April, 2004), (St. Thomas: Municipal World Publications Inc., 2004), p. 17.

⁴ John Sewell, *Prospects for Reform*, Centre for Urban and Community Studies (Toronto: University of Toronto, 1991), p. 1.

CHAPTER 1: OUTLINE

While attempting to answer the research questions noted in the introduction, this paper will first examine the current condition of the roads and bridges infrastructure within the County of Peterborough. As noted in the previous section, there is significant infrastructure consisting of 733 kilometres of road and 139 structures. Prior to examining the potential alternative revenue sources available to the County of Peterborough it is necessary to establish whether in fact there is a need for any additional or alternative funding. Chapter 2 will determine if there is a need for change to the existing system. The method to be used will involve examining the existing financial needs to bring the County of Peterborough infrastructure system up to an acceptable standard. How much would it cost to repair every road and bridge that needed repairs today? The next step will be to examine the existing revenue stream to determine the funds that are being allocated for the maintenance of the transportation infrastructure. The final step is simply to compare and analyse the costs and revenues and determine if the revenues are adequate to ensure that the County of Peterborough will have a well maintained transportation system in future years.

Once a determination of needs is established, this paper will analyse the numerous alternative revenue sources that might be available to the County of Peterborough to improve the existing funding mechanism. As previously noted, the primary source of funds for infrastructure maintenance is the local property tax. There are numerous other potential sources. Chapter 3 is broken down into a number of sections, each section investigating a different potential revenue source.

The first four sections of Chapter 3 involve looking at how adjusting the applications of various existing taxes might impact the County of Peterborough revenue stream. Like all municipal governments, the County of Peterborough must pay the Goods and Services Tax (GST) and the Provincial Sales Tax (PST) on goods and services purchased for the municipality. The two senior levels of government are charging local governments taxes. Does this make sense? What would the impact be if these taxes paid by the County of Peterborough were rescinded or refunded? It is most

important to note that this paper will only address the portion of the GST and PST paid on Public Works Department expenditures as they relate to the maintenance of roads and bridges within the County of Peterborough.

While the most recent federal budget has made a significant change to the application of the GST – municipalities will now be refunded the full amount of all GST paid – an investigation will be made of the impact of the previous partial GST rebate that the County of Peterborough received and what the impact of the full rebate will be. What would the impact have been if the full GST rebate had existed for the County of Peterborough since the inception of the tax? The results of this section will be an interesting comparator to the next section which addresses the PST, where there is no rebate. Municipal governments pay their full share of the PST. What would the impact of a partial or full PST rebate be to the funding of transportation infrastructure needs in the County of Peterborough? What would the historical impact be?

The third section of Chapter 3 will address the impact of the County of Peterborough's accessibility to the provincial and federal gas tax for the purpose of dedicating a portion of these taxes directly to transportation infrastructure. This topic has received significant media attention in recent years as local government has been constantly hammering both senior governments for a piece of their action. Both the provincial and federal governments direct the revenues they receive from the gas taxes for the most part to general revenues. Does it make sense that a portion of these funds be directed to fund improvements of the transportation infrastructure at the local level? An investigation will be made of both the rationale behind such a direction of funds and the impact.

The final tax related section of the Chapter 3 alternatives will deal with the potential for municipalities to implement their own income tax. While this paper will address this topic in general terms, it will more specifically examine both the need and the impact that a local income tax has for the purpose of local infrastructure maintenance funding.

Infrastructure funding programs is the topic of the next Chapter 3 alternative. Prior to the early 1990s, the Province of Ontario heavily utilized subsidies and transfers to assist municipalities in funding their operations. There is no better example of subsidies and transfers than those that existed for the purpose of transportation infrastructure maintenance. This paper will examine the usefulness of the past subsidy and transfer system to the County of Peterborough and investigate the feasibility of re-introducing a similar system today.

The sixth section of Chapter 3 will examine the role of infrastructure maintenance funding programs as alternative revenue sources. There have been a number of such programs in the Province of Ontario since the early 1990s. The County of Peterborough has qualified to participate in two of these programs. In both instances, the funding mechanism has been that each of the participants of the program, the federal government, the provincial government and the municipality pay one third of the cost of the total designated project cost. The impact that each of these infrastructure programs has had on the County of Peterborough's infrastructure system will be examined. Further, an attempt will be made to determine the impact that continuous, sustainable, annual infrastructure funding programs might have on enabling the County of Peterborough to better maintain their roads and bridges.

The final funding alternative that will be examined is user fees. Recently, much has been made of this topic generally with respect to many government services, from hospital and medical use to provision of water to toll highways. There are a number of user fees that might prove beneficial to local municipalities for the purpose of funding transportation infrastructure. In particular, this paper will examine access to license plate and drivers' license fees, the potential for implementing tolls within the County of Peterborough transportation network, that is, on certain roads or bridges, and a more significant access to fees charged to local pits and quarries for mineral extraction and to the forestry industry for stumpage.

What is being done about the financial troubles that local government is experiencing? Chapter 4 will examine an existing political initiative that is underway that involves the County of Peterborough. In this instance, it appears that a determination has been made at the local political

level that there is strength in numbers. Where the mayors of the major cities of Canada have banded together to lobby the federal government as a united front to attempt to access significant funds for projects such as infrastructure maintenance, social housing and transit, closer to home and more relevant for the purposes of this paper is a similar initiative underway in the rural counties of eastern Ontario. A coalition of these upper tier municipalities has been formed and is called the Eastern Ontario Wardens' Caucus. This recently formed group is actively working together on issues of joint concern to attempt to access funds primarily at the provincial level, and to a lesser degree at the federal level. The main thrust of this group is to rationalize to the province the need for additional funding, in particular to assist in the annual additional costs related to the services provided by local government that were provided by the province prior to the re-alignment of services, or downloading, of the late 1990s. These services include Emergency Medical Services (ambulance), social housing, and a significant number of provincial highways and bridges.

The final chapter of this paper, Chapter 5, will deal with conclusions. At this point, the paper will answer the research questions established in the Introduction.

CHAPTER 2: ESTABLISHING THE NEEDS

Is there a need to examine alternate revenue sources to supplement the existing funding sources that exist in local government, specifically in the County of Peterborough as they might relate to the funding of transportation infrastructure? The first research question outlined in the Introduction of this paper asked if the current funding system for local infrastructure is adequate to ensure a sustainable, well maintained transportation network. It is widely recognized that the answer to this question in general is no. "With municipalities reportedly facing a backlog in infrastructure investment of some \$50 billion, and falling further behind at a rate of \$2 billion a year, the federal commitment appears ludicrously inadequate"⁵. There has been much attention in the media in recent years paid to the issues of availability of funds to municipalities to provide the services they do. In fact, in the most recent federal election campaign, all three of the popular national parties have campaigned with municipal infrastructure funding as a key issue in their campaigns. It remains to be seen if the successfully elected Liberal party of Prime Minister Paul Martin will live up to their promises. The need for alternate funding has also been dealt with in many publications; "The past decade's combination of provincial downloading of funding responsibilities, decreases in the relative importance of grants, and corresponding increases in reliance on own-source revenues has changed the fiscal environment in which municipalities must operate. This shift has brought to the forefront issues about the funding responsibilities of municipal governments, concerns about the role and structure of property taxes and user fees, and questions of giving municipalities access to new tax sources."⁶

This section will examine three variables to determine whether alternate revenue sources are required for the transportation infrastructure in the County of Peterborough. These are the condition

⁵ C. Richard Tindal, "Federal-Local Relations: Future Prospects," Municipal World, December 2003, (St. Thomas, Municipal World Inc. Publication, 2003), p. 13.

⁶ Harry Kitchen, "Municipal Finance in a New Fiscal Environment," C. D. Howe Institute Commentary, The Urban Papers, (Ottawa: Renouf Publishing, 2000), p. 21.

of the roads and bridges that constitute the County of Peterborough transportation network, the annual budget of the County of Peterborough Public Works Department, and the roads and bridges capital reserve.

The Public Works Department completes an annual condition survey of the roads and bridges within its transportation network. The purpose of these condition surveys is to determine the physical condition of the structure of the roads and bridges, to establish a ranking of the prioritization of the repairs to each of the roads and bridges within the system that are necessary and to attach cost estimates to each project. These three factors are all quantified based on a system developed by the Ministry of Transportation of Ontario (MTO), the Roads Needs Study and the Municipal Bridge and Culvert Inventory Manuals, which have been a standard tool of municipal governments in the Province of Ontario for many years.

The roads and bridges needs are categorized based on the timing of the needs and are broken down into windows of time, those being Now, 1 – 5 Years and 6 – 10 Years. Now needs are those that are immediate, where the work is required to prevent the particular section of road or part of a bridge from failing, 1 – 5 Year needs are those that should be completed within the next 5 years, and 6 – 10 Year needs are those that should be completed within the next 10 years. See Appendix 1, Roads Need, and Appendix 2, Structural Need, P. 47 for examples of typical needs reports for a specific section of road and a specific bridge.

Table 1 shows a breakdown of roads and bridges needs for the County of Peterborough for the previous recent years. It is important to note that because of the downloading of provincial highways and bridges in 1996 - 1998, and the resultant municipal transfers that occurred at the time, only studies completed since that time are being considered relevant for the purposes of this paper.

Table 1County of Peterborough Transportation Infrastructure Needs (\$Million)

	1999	2001	2003
ROADS NEEDS	\$60	\$72	\$79
STRUCTURES NEEDS	\$19	\$19	\$19
TOTAL NEEDS	\$79	\$91	\$98

The conclusion one can draw from the data presented in Table 1 is that the total funds needed to deal with the Now, 1 – 5 Year and 6 – 10 Year needs for the County of Peterborough's roads and structures is increasing annually at a dramatic rate. While the capital project schedule for the structures appears to be holding its own, there is a serious concern related to the rate of the deterioration of the roads. Another way of looking at these data is that the quality of the infrastructure is decreasing on an annual basis. The transportation infrastructure in the County of Peterborough is deteriorating at a rate that is outpacing the improvements that are being completed annually as part of the capital and maintenance budgets.

To determine if the current funding system for local infrastructure is adequate to ensure a sustainable, well maintained transportation network, it is necessary to not only look at the rate of decline of the existing system, but to examine the funds that are expended annually to attempt to deal with the increase in needs. The County of Peterborough Public Works Department annual budget is comprised of two sections, the operating budget and the capital budget. While the operating budget deals with work items such as snow plowing, maintenance grading, pothole patching, linepainting, bridge deck patching and other minor regular maintenance work, it is the capital budget that must be examined to determine the level of annual spending directed to the overall improvement of the infrastructure.

Table 2 shows the County of Peterborough Public Works Department annual budget for the capital projects needed to improve the transportation network for the period corresponding to that discussed above.

Table 2

County of Peterborough Annual Capital Budget (\$Million)

	2000	2001	2002	2003	2004
ROADS BUDGET	3.725	3.725	3.7	3.3	1.65
BRIDGES BUDGET	.6	1.37	.58	1.7	.45
TOTAL BUDGET	4.325	5.095	4.28	5.0	2.1

The work included in the capital budget is broken down into major projects. For roads, the work is comprised of two types of projects, resurfacing and reconstruction. Any financially significant structural project, that is, a project greater than approximately \$50,000, is carried in the bridges capital budget.

The final variable to investigate is the state of the annual capital reserves for roads and bridges. Reserves are held to allow for beneficial planning and for dealing with unexpected large expenditures. Listed in table 3 are the capital reserves for roads and bridges for the past five years.

Table 3

County of Peterborough Capital Reserves (\$Million)

	2000	2001	2002	2003	2004
Roads Reserve	8.429	6.538	4.267	3.573	2.997
Bridges Reserve	1.828	1.663	1.542	1.466	1.436
Total Reserve	10.257	8.201	5.809	4.739	4.433

It is important to note that there was a significant, large cash infusion into the Roads and Bridges Reserve in 1998. As part of the provincial government's service re-alignment strategy of the 1990s, a large number of provincial highways and bridges were downloaded to the County of Peterborough. To partially off-set some of the costs that would be assumed with the downloading, the Province paid to the County a one time amount of \$13 Million. The intent of this payment was to cover the cost of most of the capital projects that would be associated with the downloading. Unlike many other municipalities which similarly received financial assistance for their downloaded highways, the County of Peterborough injected the full amount of the funding assistance into the Roads and Bridges Reserve for the purpose of paying for capital projects. Many other municipalities used their funding assistance for other purposes, not necessarily connected with their transportation infrastructure. While there were adequate funds transferred to the County of Peterborough as part of the provincial downloading process for purposes of capital improvements to the downloaded roads, there were no funds transferred, or any allowance made for annual maintenance and operating costs of the downloaded roads.

At the same time the County of Peterborough injected their \$13 Million into their reserve in 1998, County Council agreed to increase the roads and bridges part of the tax levy by \$200,000 per year every year for an eight year period to ensure the reserve was not reduced to too low a level. In 2003 and 2004, County Council increased the levy a further \$100,000 per year, bringing the annual levy increase to \$300,000.

It is apparent, when looking at the information presented in Table 3 that the funding reserves for roads and bridges is declining at a rapid rate. In spite of the increased levy instalments that are being invested annually into the reserve, the reserve is not keeping up with the expenditures.

When looking at the information presented in the three tables, the following conclusions can be made:

- The condition of the County of Peterborough transportation infrastructure is steadily declining annually.

- The County of Peterborough is both increasing the tax levy and increasing the amount of money spent every year to attempt to improve their transportation infrastructure.
- The capital reserves for roads and bridges is declining at a high rate.

The question asked at the beginning of this section was; is the current funding system for local infrastructure adequate to ensure a sustainable, well maintained transportation network? The observations made with the data provided above, that is, the roads and bridges needs, the annual capital budget, and the state of the capital reserves, leads one to conclude that there is insufficient funds available to maintain the roads and bridges in the County of Peterborough.

CHAPTER 3: ANALYSING THE ALTERNATIVES

We've established that there is an inadequate funding system and that there are insufficient funds to maintain the County of Peterborough transportation infrastructure in the previous section. Is there a solution? Many publications argue that there is. When discussing fiscal imbalance between local municipal government and the two senior levels of government, Bird and Slack argue "...the question of fiscal imbalance can be resolved...by stressing the need to match revenue-raising authority with expenditure responsibility if good fiscal decisions are to be made."⁷

This chapter will delve into the opportunities that might exist for local municipalities to generate the revenue that is required to maintain the infrastructure they are responsible for. Although these alternatives are applicable in a general sense to all local government services, the focus of this section will be on transportation infrastructure. Further, the transportation infrastructure of the County of Peterborough will be examined when analysing the alternatives.

The first two sections of this chapter will deal with alternatives that make a great deal of sense and are relatively easy to implement. In fact, the first section will deal with an alternative that has been partially implemented in past years and fully implemented only recently, in 2004. The federal Goods and Services Tax (GST) rebate is being discussed in this paper because of its recent full implementation by the federal government and also as a comparator to the provincial sales tax (PST), the subject of the second section.

Section three of the chapter will deal with the federal and provincial gas taxes; quite possibly the most sought after alternative revenue source for municipal governments in today's political environment. "Although fuel taxes are ubiquitous in Canada, few Canadians seem to realize that they

⁷ Richard M. Bird and N. Enid Slack, "Urban Public Finance in Canada", (Butterworths, Toronto, 1983), p. 15.

are not earmarked for roads in any province; thus we do not even make a pretence of financing roads on a user-pay basis.”⁸

Perhaps the most widely discussed alternative revenue source in academia is the subject of the next section, some form of a municipal income tax. Deemed simple to implement from a practical perspective, this option is likely the most difficult to implement when attempting to sell it to the local electorate.

Subsidies and transfers is the next section to be discussed. These forms of alternative revenue, once utilized with a great deal of success from the perspective of local government, and also a certain degree of failure have a significant history in provincial – local fiscal relationships across Canada.

An alternative revenue source that has been used in the Province of Ontario many times since the early 1990s, coinciding with the elimination of the provincial roads subsidies, in a cooperative effort between the local municipalities and both senior levels of government with a reasonable amount of success, is the structured infrastructure maintenance funding programs.

Finally user fees will be discussed. There is great potential for the implementation of user fees in the County of Peterborough as a means to raise revenues relevant to the funding of the transportation infrastructure.

3.i. GOODS AND SERVICES TAX

The federal Goods and Services Tax (GST) was repealed as it applied to municipal governments as part of the 2004 federal budget. As such, in a strict sense, this does not qualify this section as an alternative revenue source as it already exists at the time of the writing of this paper. It

⁸ Richard M. Bird and Thomas Tsiopoulos, “User Charges for Public Services: Potentials and Problems”, Canadian Tax Journal, Volume 45, No. 1, 1997, P. 80.

is being included as it was researched prior to the implementation of the repeal and also because it serves as a comparator to the next section, the Provincial Sales Tax.

The GST has been in effect since 1991 and has essentially been a seven percent additional cost added on to all goods and services purchased, save for some products deemed by the federal government to be essential, such as food and prescription drugs. This removal of this federal tax on all municipalities in Canada has had a significant impact on local government, as it has added revenue by the act of eliminating a rather large expense. This section will analyse the impact that the GST has historically had on the County of Peterborough transportation infrastructure, that is, what the tax has cost prior to the repeal, and what future impact the repeal of the GST will have.

The repeal of the GST was a relatively simple procedure to implement by the federal government as there has always been a mechanism in place for refunding a portion of the tax. Local municipalities have always received a rebate on their GST payments. At the end of every municipal fiscal year, municipalities submit a remittance to obtain their GST rebate. The amount of this "refund" has been 57% of the total GST paid, which represents four of the seven percent total. What makes the implementation of the full GST rebate simple is that the process that has been in place for the partial rebate will be used for the full rebate. Municipalities must still pay the full 7% GST, but they will be refunded the full amount.

The GST applies to all aspects of the transportation infrastructure program in the County of Peterborough except the direct cost of internal labour. The GST is applied to all indirect labour costs, that is benefits, materials, equipment and the full cost of all contracted work including the contractors' direct labour costs.

Table 4 shows the cost the GST has represented to the County of Peterborough transportation infrastructure for the past four years, and the savings that will be seen by benefiting from the full rebate in the 2004 fiscal year.

Table 4

County of Peterborough Public Works Department
GST Payments

	2000	2001	2002	2003	2004
Public Works Budget (\$M)	\$8.7	\$9.2	\$9.1	\$9.4	\$7.2
Direct Labour (\$M)	\$1.027	\$1.053	\$1.08	\$1.108	\$1.136
Balance (\$M)	\$7.673	\$8.147	\$8.02	\$8.292	\$6.064
7% GST (\$k)	\$443	\$470	\$463	\$479	\$350
Municipal Rebate (\$k)	\$253	\$269	\$265	\$273	\$350

*Annual Direct Labour estimated based on actual Public Works Department employment at 2004 rates of pay. Prior year totals are based on the 2004 estimate less 2.5% collective agreement cost of living increases. The \$350,000 rebate for 2004 has been provided by the County of Peterborough Finance Department. 7% GST rates for the balance of the years has been calculated based on the 2004 ratio of Balance of Budget to 7% GST.

* 100% GST rebate implemented in 2004.

Although the overall percentage of the budget is small, the impact of the GST rebate in dollars is significant. As can be seen from Table 4, the GST has cost the County of Peterborough Public Works Department \$795,000 (7% GST less the Municipal Rebate) for the four year period prior to 2004, an average of \$199,000 per year. Based on an average cost of \$65,000 to resurface one kilometre of road, had the GST been fully rebated for the previous four years, the County of Peterborough would have been able to resurface 12.2 kilometres of road during that period. The full rebate of the GST in 2004 will represent a savings to the County of Peterborough Public Works Department of \$350,000, which will represent the cost for the resurfacing of 5.4 kilometres of road. As it has worked out in the 2004 budget, the additional GST rebate savings has been used to off-set

the increased costs of liability insurance and legal fees, the harsh reality of inflation and an increasingly litigious society.

One further cost that the County of Peterborough must still pay, and a revenue that the federal government still benefits from, is the value of the accruing GST revenues in the period prior to the actual physical rebate is made. While it is relatively simple for the mechanical system for the GST to be rebated to local municipal governments, this simplicity does not come without a cost to the local municipalities. Perhaps this is one area that local municipalities might further lobby the federal government in order to supplement the GST rebate as an important alternative revenue source.

3.ii. PROVINCIAL SALES TAX

The appropriate sub-heading for this section might be, “what’s good for the gander is good for the goose”. As we have seen in the previous section, the federal government has seen fit to exempt municipal governments from the act of paying a tax on work that is funded by another form of tax, that is, the property tax. The Provincial Sales Tax, known also as the Retail Sales Tax has been in existence for a much longer period of time and has also had a significant and long term impact on diverting funds from the County of Peterborough general revenues that could have been better spent on the maintenance of transportation infrastructure.

While the federal GST was applied to all costs associated with the transportation infrastructure except direct labour costs, the provincial PST does not apply to all of the same costs. The PST does apply to the purchase of all goods, but not to the purchase of services. The following example helps to explain this application. The Public Works Department contracts a construction company to reconstruct an existing road. While the contractor does not directly apply a line item for PST to the invoices submitted to the County of Peterborough, it does pay PST on all charges for materials used in the construction process, including the materials such as sand, gravel and liquid asphalt cement that make up the hot mix asphalt, and aggregates and Portland cement that are used to

make the concrete used for curbs and sidewalks. The contractor must pay PST on all materials such as sod, seed and topsoil that are purchased from sodding companies, and the paint that is used in the application of lines on the pavement surface. While the contractor does not apply the PST to the labour that is necessary to complete the work, it must pay the PST on all of the materials that are incorporated into the work. While the contractor does not charge directly for the PST that is incorporated into its equipment fleet that is used on County projects, the hourly rate of the contractor's equipment does contain the PST paid on the capital purchase of the fleet and on the parts and any contracted mechanical work that is spent on it.

Since there has been no purpose in developing or maintaining records related to the PST costs that are associated with transportation infrastructure related work and paid both indirectly and directly by the County of Peterborough Public Works Department, it is difficult to establish what the exact cost to the County of Peterborough is. The following argument is based on conservative estimates as they might apply to the 2004 Public Works Budget and is used strictly to make the argument that a significant amount of funds are expended on PST:

The 2004 Public Works Budget is \$7.2 million. If the internal direct labour charge of \$1,136,000 is subtracted from the total, the balance will be \$6,064,000. Assuming that 50% of this balance is paid to suppliers and contractors for goods related purchases, that is any PST taxable item, we are left with a total of \$3,032,000 of PST taxable purchases. This equates to \$224,593, or 3.1% of the Public Works Budget indirectly ending up in Provincial coffers. Based on the \$65,000 per kilometre amount to resurface a kilometre of road, an additional 3.5 kilometres of road could have been resurfaced in 2004 if the Province refunded the PST paid by the Public Works Department. Using ratios developed from the previous 4 budget years, this would also represent a total of \$1,128,400 that could have resurfaced 17.4 kilometres of road.

The implementation and administration of a PST rebate system would be considerably more difficult to manage than that of the GST rebate system as there is no system in place at this time. However, some type of partial rebate system, for example based on the value of the PST incorporated

into the materials purchased directly or indirectly by the County would be relatively simple to manage.

3.iii. GAS TAX

Local government access to revenues generated by the gas tax is currently an extremely hot topic in discussions between municipalities and the federal and provincial governments in today's cash-strapped municipal environment. As part of the recent 2004 federal election campaign, all three of the major national parties made a commitment to municipalities in varying degrees that they would have access to some of the federal revenues generated by the federal excise tax. "A second-best method of paying for road services may be to levy a tax on motor fuels and earmark the proceeds for the construction and improvement of roads and highways. An earmarked fuel tax is in effect a crude proxy for a price (user charge) that charges road users the marginal costs of providing road services."⁹

While there is no municipal gas tax and no direct gas tax revenue transfer in the Province of Ontario, there are many examples where this has been successfully implemented. "Many US cities levy fuel taxes, but they are scarce at the municipal level in Canada. The Greater Vancouver Regional District levies a tax of 4 cents per litre (soon to be 6 cents) for transit and transportation services within its borders. Similarly, both Victoria and Montreal impose a tax of 1½ cents per litre, with revenues generated in each city used for transit services there. Cities in Alberta now share in provincial fuel tax revenues, although they have no say in the rate – it is determined solely by the province, which collects the revenue and transfers it to the cities. Regardless of where municipalities have the authority to levy fuel taxes, the revenues are generally earmarked for local roads and public transit or are intended to replace provincial grants that were previously provided for local transit and roads."¹⁰

⁹ Bird & Tsiopoulos, "User Char. for Pub. Serv: Pot. and Prob.", p. 80.

¹⁰ Ibid, Kitchen, "Mun. Fin. in a New Fis. Env.", P. 21.

Listed below in Table 5 is a breakdown of the average cost of a litre of gasoline in the Province of Ontario in 2003, based on data supplied by M. J. Erwin & Associates and distributed by the petro-chemical industry.

Table 5
Gasoline Cost Breakdown

Manufacturing and Distribution Price	\$0.40
Federal Excise Tax	0.10
Provincial Tax	0.147
GST	0.028
Total	\$0.675

Based on the fill of an average sized passenger vehicle of 50 litres, the above would represent \$5.00 for federal excise tax, \$7.35 for provincial tax, and a further \$1.40 for GST. Taxes represent \$13.75 of the \$33.75 consumer purchase, or 40.7%.

The total revenues generated by the federal and provincial taxes for gasoline are immense. Based on data supplied by Transport Canada and the Ministry of Transportation of Ontario, and included in an information package produced by the Canadian Taxpayers Federation, "Gas Tax Facts", dated May 24, 2001, Federal Gas Tax revenue for 1999 was \$4.8 billion and Provincial Gas Tax revenue for the same period was \$2.8 billion, totalling \$7.6 billion. Of this amount, only approximately \$2.7 billion in total was spent by the two authorities on transportation. These revenues are generated as a result of the public purchase of the gas that is needed to fuel the vehicles that use the roads that are rapidly deteriorating. An argument can be made that all of the revenue generated from the sale of gasoline should be pumped back into transportation in general, and specifically the transportation infrastructure. This could in fact be considered a user fee of sorts. "Recent provincial downloading and reduced provincial funding have...placed considerable pressure on the property tax

base, raising the importance of introducing provincial legislation that would permit municipalities to implement one or more new local taxes. One can defend such enlargement on benefits-based grounds. Of the alternatives that are generally viewed as possible supplements to – not substitutes for – property taxes, access to a municipal fuel tax would make considerable economic and political sense, especially in large urbanized areas with severe traffic congestion. Such a tax could be administered easily if piggybacked onto the provincial fuel tax, would be relatively efficient and fair, and would likely be politically acceptable if the revenues were used to fund local transit and transportation expenditures.”¹¹ Notwithstanding transit systems, this argument is easily transferred to the local areas outside of large urbanized areas as the problems of transportation infrastructure funding differ only in scope, not in nature.

An interesting topic that is making its way to the surface in discussions is related to the scenario that one day soon may likely arise, that being the elimination of gasoline for the purpose of fuelling motor vehicles. While there is significant research ongoing to reduce or eliminate the use of fossil fuels, this scenario would create massive problems for revenue generation for the federal, provincial, and hopefully soon, local governments. Not to miss a beat, a number of governments, particularly in the United States are already investigating alternatives to the gas tax for the day when they may disappear. “In Oregon, a state task force has concluded this scenario isn’t all that far-fetched. It has proposed a possible long-term replacement for the gas tax, something no one has tried before: a tax based on how many miles you drive.”¹² It would appear that as long as there are vehicles on the road, government will find a way of developing the taxes needed to maintain their revenues.

How much of the gas tax should go to the County of Peterborough for their transportation infrastructure maintenance? Developing a funding formula for how much each municipality should, or would receive would likely be a difficult task. Local governments with high population density

¹¹ Ibid, Kitchen, “Mun. Fin. in a New Fis. Env.”, P. 21.

¹² Eric Pryne, “Oregon to test mileage tax as replacement for gas tax”, The Seattle Times, July 5, 2004.

would likely argue for per capita distribution of funds, whereas those with low population density would argue for a formula based on the length or value of the infrastructure. Regardless of the formula used, a good argument can be made for a re-distribution of the massive revenues received from the gas tax by the Provincial and Federal governments or the piggy-backing onto the existing tax for sole distribution to local government for their infrastructure maintenance.

When considering the revenues generated by the drivers of the vehicles of the 21,271 permanent households (See Table 9, p. 36) in the County of Peterborough when they purchase gas, every \$1.00 raised per driver would produce \$42,542 in local revenues when considering only full-time residents. This represents a very small amount of the gas taxes currently generated when one considers the taxes raised on the fill of a tank of gas for an average car as noted above is \$13.75. If the average driver filled his or her car once a week and the gas tax revenues from only one week were applied to the local level, the County of Peterborough would receive approximately \$438,707.

3.iv INCOME TAX

One of the simplest solutions to increasing the revenues of municipal governments, and providing the resources necessary to supplement the existing transportation infrastructure funding mechanisms would be to allow municipalities to implement their own income tax. "The major revenue sources of governments in Canada as a whole are sales and income taxes, which together account for close to 90 percent of total taxes collected (Bird 1979, p. 31). It is not surprising, therefore, that there have frequently been suggestions that local governments too should be permitted to tap these sources, which are at present reserved for higher levels of government."¹³

Local income taxes are not new, "...it should be noted that both these levies [municipal sales and income taxes] have existed at the local level in the past in this country and still exist in some parts

¹³ Ibid, Bird and Slack, "Urb. Pub. Fin. In Can.", p. 77.

of the United States. Moreover, in the case of the income tax, local governments in a number of European countries – especially Scandinavia – rely almost exclusively upon this source to finance their extensive expenditures. Either a municipal income or a municipal sales tax is therefore clearly a possible alternative or supplement to property taxes.”¹⁴ In a separate paper, Bird states, “...international experience suggests strongly that local income taxes are the most promising source of local finance, at least in industrial countries.”¹⁵

It is the opinion of the writer that the major problem with implementing a specific local income tax in an environment such as the Province of Ontario would be the uproar created by the introduction of a new tax. Assuming the political will for a local income tax would be virtually non-existent, the most logical step would be to commit a portion of the provincial and or federal income tax to local government for their local needs, which conveniently leads into the next section.

3.v. SUBSIDIES & TRANSFERS

In the early 1990s, the Province of Ontario commenced the elimination of most provincial grants to local governments for the maintenance and new construction of roads. The outright elimination of these grants in the County of Peterborough did not occur until 1998. Prior to that time, the province heavily subsidized all municipal public works departments, covering a relatively large portion of the municipalities’ roads budgets. For example, in the County of Peterborough, in 1996, the last year of the original grant program for roads and bridges in the County of Peterborough, the Public Works Department budget for the year was \$5,023,000. Of this total budget, \$3,142,000, or 62.5% was paid for with subsidy revenues contributed by the Ministry of Transportation. The significance of the provincial grant system was widely recognized; “Although the relative importance

¹⁴ Ibid, P. 77.

¹⁵ Richard M. Bird, “Financing Local Services: Patterns, Problems and Possibilities”, Centre for Urban and Community Studies, (Toronto, University of Toronto, 1995), P. 26.

of provincial grants has declined slightly in recent years, such grants still constitute an extremely important part of the urban financial system.”¹⁶

Table 6

Provincial-Municipal Transfers, 1990

	<u>Operating</u>		<u>Capital</u>	
	<u>(\$ million)</u>	<u>(Percent)</u>	<u>(\$ million)</u>	<u>(Percent)</u>
General Assistance	1,094	42.8		
Roads	387	15.1	371	43.6
Transit	205	8.0	171	20.1
Homes for the aged	300	11.7	16	1.9
Day nurseries	198	7.7	3	0.3
Public health	187	7.3	1	0.1
Environment	19	0.7	207	24.4
Recreation and culture	48	1.9	39	4.6
Planning development	14	0.5	22	2.6
Ambulances (Metro)	37	1.4		
All other	68	2.7	20	2.4
Conditional – total	2,555	100.0	850	100.0
Unconditional – total	904			
Total	3,459		850	

Source: Ontario Ministry of Municipal Affairs (1992), and unpublished updates.

Outlined above, in Table 6 (from Ploeger, H.), is a summary of Provincial-Municipal Transfers in the Province of Ontario, 1990. Prior to the elimination of grants, Ploeger states, “...the provincial municipal grant structure is very extensive and complex. As can be seen, capital grants are completely dominated by roads, transit and environment, the three accounting for 88% of the total.”¹⁷ It is easy to see that the provincial grants were essential for the funding of both the operating and capital costs of municipal public works departments. It can be argued that they remain so today. “Municipal governments...provide a range of local public services (police protection, local roads, streets, sidewalks, street lighting, and so on) whose collective benefits are enjoyed by the residents

¹⁶ Ibid, Bird and Slack, “Urb. Pub. Fin. in Can.”, p. 14.

¹⁷ Hank Ploeger, “Reforming Provincial-Local Finance in Ontario,” Government and Competitiveness School of Policy Studies, (Kingston, Queens University, 1994), p. 19, 20.

within its jurisdiction. User fees may not be appropriate for funding these services. Instead, they should be paid for from a tax or taxes on local residents with grants providing the adjustments necessary to account for externalities; that is, something other than a local tax should fund benefits that spill over into neighbouring communities.”¹⁸

The importance of the municipal grant system can be seen when noting the amount of roads and bridges subsidies transferred from the Province to the County of Peterborough for the period 1992 – 1996, the last year of the full grant program.

Table 7

County of Peterborough Roads & Bridges Subsidies

	1992	1993	1994	1995	1996
Roads & Bridges Budget	\$4,477,500	\$4,510,900	\$4,510,000	\$4,309,000	\$5,023,000
Provincial Subsidy	\$2,421,366	\$2,810,000	\$2,727,000	\$2,736,000	\$3,142,000

The elimination of the provincial subsidy system of transfers to the County of Peterborough in 1998 had a disastrous financial impact, especially when considering that the downloading of the Provincial highways occurred at the same time.

While the system of provincial subsidies and transfers was effective in providing funds to local municipalities for their maintenance purposes, two problems existed with the system as it operated. Since the Ministry of Transportation provided the funds for the local roads, they insisted on having a say in the management of the local roads systems. This led to many municipalities, at both the administrative and the political level feeling a good deal of resentment towards the province. Quite often, the representatives of the Ministry would deal with local issues from a strictly objective perspective, particularly when prioritizing projects, which would eliminate the political body from decision making as it related to which roads would be built or improved. Since the duty of running a

¹⁸ Ibid, Kitchen, “Mun. Fin. in a New Fis. Env.”, P. 7

roads system can be one of the most contentious and widely debated of the local responsibilities, reducing the role of local politicians in the process led to the overall reduction of the political process.

The second problem that existed was one of waste. Based on observations of the writer, during the 1980s and early 1990s the political saying, "use it or lose it" was particularly relevant when discussing provincial-municipal transfers as they related to the funding of the local transportation infrastructure. As a result of the cumbersome provincial bureaucracy that was part of the distribution of funds to the local municipalities, local roads managers and superintendents would often spend funds in a wasteful manner. Municipal public works depots were often filled with equipment and tools that were not necessary for the work that was performed. Year end spending was often not to ensure the funds were used in the most effective manner possible, but to use up the funds in order to qualify for the same amount, or more, the following year.

Unfortunately for municipal governments, the province eliminated the municipal grant and subsidy program. This left municipalities in a position they were not accustomed to, having to rely almost exclusively on the property tax for the funding of their infrastructure maintenance. While it is essential that local municipalities receive an injection of funds for the purpose of funding transportation infrastructure maintenance, if some form of senior government transfer system is to be implemented, a method of installing checks and balances to reduce the potential for the aforesaid concerns must be put into place. Local government, especially at the political level, must maintain a significant say in what work gets done. Likewise, it is especially important that all of the funds that would be received for infrastructure maintenance would have to be managed in a responsible manner.

Is there rationale for re-instating a provincial grant system for transportation infrastructure? "An option favoured by many advocates for cities is to have the federal and provincial governments increase grants to their municipalities. We believe that grants can be a useful tool for addressing cities' existing infrastructure gap. In fact, a legitimate argument can be made that federal and

provincial governments have an obligation to provide one-time grants to municipalities to help fill the financial hole created by downloading.”¹⁹

3.vi. INFRASTRUCTURE MAINTENANCE FUNDING PROGRAMS

In spite of the provincial government eliminating their subsidization program for roads maintenance as discussed in the previous section, there can be no doubt that the provincial government recognizes that there is a funding shortfall for local municipalities, particularly as it relates to the funding of local infrastructure maintenance. Likewise, the federal government recognizes that it has a role to play in assisting the municipalities with funding. Evidence of this can be found by noting that both the Province of Ontario and the federal government have participated in a number of infrastructure maintenance funding programs that have assisted most municipalities in Ontario since the elimination of the provincial subsidy program. The County of Peterborough has participated in two programs that have been available to them.

Table 8 details the infrastructure funding programs that have occurred since the early 1990s as they relate to the County of Peterborough.

Table 8

Federal/Provincial Infrastructure Funding Programs

	Federal Funds	Provincial Funds	County Funds	Total
1997	\$61,927	\$61,927	\$61,927	\$185,771
2002	\$163,353	\$163,350	\$163,297	\$490,000

The infrastructure funding programs of 1997, called Canada Ontario Infrastructure Works program (COIW) was structured in such a way that each participating party, the federal government, the provincial government, and the County of Peterborough would each contribute an equal 1/3 of the

¹⁹ Ibid, “A Choice Between Investing...”, “TD Economics Special Report”, P. 22.

funds required to complete the work of the program. While there were only limited restrictions placed on the municipalities with respect to the amount of funds that could be contributed to the program, a condition placed on the County of Peterborough, and all participating municipalities in Ontario, was that the work to be done could not be budgeted or forecast work. There was a set total limit of federal and provincial funding allotted by the Provincial and Federal governments for this program. The County of Peterborough, as was the case with most municipalities, chose to invest their combined funds into asphalt resurfacing programs, as this type of work requires a minimum of pre-engineering and design work, can be quickly completed, and provides the best return for immediate investment in lengthening the life of the road.

As a result of the fallout of the Walkerton water disaster, another infrastructure funding program was initiated in the Province of Ontario, the Ontario Small Town and Rural (OSTAR) funding program. This program was initiated to deal with projects as they related to rural drinking water systems and public health and safety issues. Bridge reconstruction programs fell within the scope of public health and safety issues, and as a result, municipalities with bridges, such as the County of Peterborough were able to apply for funding for assistance with their rural infrastructure programs. Coincidentally, the timing of this program could not have been better for the County of Peterborough as shortly before the program was initiated, a municipal grader punched a hole into the bridge deck that forced the closure of the bridge that was reconstructed as part of this program.

While there is often a great deal of fanfare and publicity attached to the media releases related to these infrastructure maintenance funding programs, one must not overlook the impact that these projects have on the total needs of the municipality. The federal government issued a news release on July 22, 2003 which led off with "Ottawa, July 22, 2003 – Minister of Industry and Minister responsible for Infrastructure Allan Rock today outlined the broad parameters for the \$3 billion infrastructure funds announced in Budget 2003."²⁰ This news release tells the reader a significant

²⁰Canada, Infrastructure Canada, Government of Canada Announces parameters for infrastructure funds, News Release, (Ottawa, July 22, 2003, p. 1).

amount of money is going to be injected into infrastructure. At the end of the day, when spread over the entire country of Canada, and dealing with the widespread issues that are included under the heading of infrastructure, none of the budgeted \$3 billion ended up financing any of the County of Peterborough's transportation infrastructure maintenance.

Any funding that is injected into the local public works budget is always gratefully accepted, but as the numbers indicate, the funding programs make a very small dent in the amount of work that remains to be funded and completed. For example, while the federal and provincial governments contributed a total of \$326,703 for the OSTAR project, and the result of the funding was the reconstruction of an eighty year old bridge that had been closed due to its poor condition, when the project was complete, there remained \$95 million (see Table 1) of work left outstanding on the County of Peterborough Public Works Department needs list. A lot of hype, a lot of fanfare, but at the end of the day, the result is only a drop in the bucket – the reduction of the transportation infrastructure needs within the County of Peterborough of 1/3 of a percent.

One interesting after-thought as it relates to the voluntary participation of the Province of Ontario and the federal government when it comes to injecting funds into local municipal infrastructure maintenance through structured, non-annualized funding programs is that, while the funds were gratefully accepted by all participating municipalities, including the County of Peterborough, a cynic might think that the provincial and federal governments may have initiated these programs as a means of saving themselves billions of dollars. As discussed in a previous section, local municipalities have been lobbying both senior governments relentlessly for access to the gas tax. By initiating infrastructure maintenance funding programs, and projecting the image of generously assisting local municipalities with infrequent cash, the senior governments may have been reducing the pressure being placed on them by municipalities to get access to the gas tax, a dependable, annualized, sustainable source of alternate revenue.

Infrastructure maintenance funding programs, while effective in providing municipalities an opportunity to complete a major project that might be difficult to finance without assistance, or allow

a municipal public works department to complete more capital work than they normally would in a year, fail to provide any sustainable financing that is essential in managing any infrastructure system. As noted above, while these programs are always welcome, without the predictability of annualization, these programs are little more than over-hyped drops in the bucket. Interestingly, once the infrastructure maintenance funding programs become annualized, predictable, dependable and sustainable for the local municipality, they will no longer be considered infrastructure maintenance funding programs, but would be better defined as subsidies or transfers.

3.vii. USER FEES

There has been a great deal of focus on user fees as supplemental or alternative revenue sources in the past decade in Ontario. There is a reasonable amount of potential for the implementation of a number of relevant user fees in the County of Peterborough as they might relate to the maintenance of transportation infrastructure. “Budgetary pressures are leading governments at all levels to turn increasingly to user charges to finance their activities. Properly designed and applied, user charges can indeed play an important role in providing finance for what governments do. What is more important, they can also ensure that what governments do is what people want and are willing to pay for. Nonetheless, it is by no means easy either to determine the appropriate domain for user charges or to design and implement user charges when they are appropriate.”²¹

“Various authors, including Bossons (1981), Thirsk (1982), Hobson (1987) and the Economic Council of Canada (1987), have argued that property related services” [water and sewer services, garbage disposal, roads, fire and police protection, street lighting] “should be financed on a user charge basis reflecting some notion of cost sharing.”²² The key to the implementation of user fees at the local municipal level is to gain the authority to do so, and to ensure that the fees are designed to

²¹ Bird & Tsiopoulos, “User Char. for Pub. Serv.: Pot. & Prob”, p. 27.

apply to the users of the roads and that there is a strong relationship between the use, the users, and the applicable fees. “Bad pricing in one area can too easily become the enemy of good policy in general, so it is worth taking the time and trouble needed to ensure that the right charges are applied to the right services. User charges are potentially too important an instrument in improving public sector outcomes to be left to the vagaries of officials and politicians looking for money from any source, special- interest groups defending their particular subsidies on public-interest grounds, journalists looking for sensational headlines, or, for that matter, economists trying to sell efficiency as a panacea for all of society’s ills.”²³

While most people living in the Province of Ontario would associate toll highways, such as Highway 407 in the Greater Toronto Area or toll bridges such as those which link Canada to the United States as appropriate user fees, this type of toll is not practical in the County of Peterborough. Toll roads are effective only where there is controlled access, such as with the Provincial 400 series highways, and secondly, there simply is not the traffic volume available to generate any significant funds.

User fees that might be deemed to be more appropriate in the County of Peterborough are drivers’ licence fees, vehicle licence fees, fees on sand and gravel extraction, and fees on timber stumpage. These fees would be relatively easy to quantify and there is a direct relationship between the user, the use and the fee.

As noted in the introduction, there are 21,271 permanent households in the County of Peterborough. If there is an average of two licensed drivers and one and one half licensed vehicles per household (strictly a hypothetical assumption for the purpose of making this argument), the following user fees might be established for each on an annual basis:

²² Paul Hobson, “Efficiency and the Local Public Sector”, Government and Competitiveness School of Policy Studies, (Queens University, 1993), P. 31.

²³ Ibid, Bird & Tsiopoulos, “User Char. For Publ. Serv: Pot. & Prob.”, P. 28

Table 9County of Peterborough License Fees

	Households	Per Households	Number	Unit Fee	Total Fee
Drivers	21,271	2	42,542	\$10.00	\$425,420
Vehicles	21,271	1.5	31,906	\$10.00	\$319,060

*Households includes full-time only.

From Table 9, there is the potential to raise a significant amount of revenue through the implementation of County licensing fees. Implementation and administration of such fees would be relatively simple as they could be piggy-backed onto the existing provincial licensing fees and administered through the existing provincial licensing bureaus.

One form of user fee that is in place that could be increased to supplement the funds needed for the maintenance of transportation infrastructure is the fees the County of Peterborough receives from pits and quarries within the County. The County of Peterborough receives on average, approximately \$10,000 per year from the Ministry of Natural Resources from fees paid to the ministry from local aggregate producers. In 2003, the amount received was \$14,244. This amount is comprised of \$0.005 per tonne of some of the materials extracted from the pits and quarries. No funding is received for materials removed from areas within Crown Land (there are a large number of pits and quarries located on Crown Land in the County of Peterborough) and no funding is received for materials removed from areas exempted by the province. The province has the right to exempt any pit and quarry for any or no reason.

While it is clearly understood that the County road system is meant to handle the requirements of commercial transport in order to sustain the local and regional economy, trucks that haul the sand and gravel removed from the pits and quarries create an incredible amount of wear and tear on the roads within the County. It is not unreasonable to charge an increased amount to the pits and quarries to help pay the cost of the infrastructure maintenance as it relates to their use. Table 10

shows the quantity of material extracted from the pits and quarries within the County of Peterborough and the fees received from the Ministry of Natural Resources for the material extracted.

Table 10

County of Peterborough Pits & Quarries Production

Year	Production (tonnes)	Fee (per tonne)	Amount
2001	2,400,000	0.005	\$8,959
2002	3,200,000	0.005	\$11,093

*Source: Ontario Aggregate Resources Corporation

*Note: Not all production qualified for the \$0.005 fee per tonne.

From Table 10, based on 2002 total production quantities, for every \$.01 added to the fee for all extracted material from the pits and quarries in the County of Peterborough, regardless of its origin, an additional \$32,000 would be raised which would be of assistance to the maintenance of the transportation infrastructure. Considering the wear and tear the trucks used for the hauling of aggregates on County of Peterborough roads cause, the application of a \$.05 - \$.10 fee would raise \$160,000 - \$320,000 per year. Again, this user fee demonstrates a clear association between the user and the fee. Applying the benefit to the maintenance of the transportation infrastructure demonstrates an association between the use, the user and the fee. Since there is a system in place with the Ministry of Natural Resources to monitor tonnage and gather revenues, piggy-backing onto the provincial system would be a simple task.

An identical argument could be made for the implementation of some fee for stumpage cut and hauled from forests within the County of Peterborough. The only difference in this regard from that noted above regarding pits and quarries is that there is no system in place for taxing or gathering revenue at this time. The establishment of an administration at the County level to manage this might

negate the benefits that might be found. Further investigation into this alternative would be necessary.

CHAPTER 4: POLITICAL INITIATIVES

Financial assistance from the provincial and federal governments will not come without an intensive, focussed lobby by the lower tier municipalities

During the summer of 2002, the twelve counties of Eastern Ontario, through the leadership of the Eastern Ontario Wardens Caucus, agreed to undertake a detailed study related to the full impact of the broad range of services transferred through the provincial government's Local Services Realignment Initiative. The findings of this study have been compiled in a document entitled "Future Directions" and have been submitted to a number of Provincial ministries including the Ministries of Municipal Affairs and Housing, Transportation, and Finance of the Province of Ontario and a number of federal ministries. The findings of this study state that there is in fact a huge gap in the funds available and the funds needed to provide local residents with the services that local government in Eastern Ontario is mandated to provide. Recommendations made in Future Directions as they related to transportation infrastructure were:

- That the Provincial Government provide capital funding of \$25 million per year for capital improvements for former provincial highways.
- That the Province also provide funding for operating costs of former provincial highways in the amount of \$5,000 per two-lane kilometre.
- That those jurisdictions responsible for arterial roads and bridges receive a portion of gasoline tax and other user fee revenues to support a portion of the capital cost and operating cost of the transportation infrastructure.
- That qualifying infrastructure be selected according to set criteria recognizing the uniqueness of eastern Ontario, and that those funds be distributed on a life cycle basis, commensurate with the quantity and character of infrastructure in their care.

- That local municipalities receive a percentage of the capital costs covered in each municipality, and it should be adjusted to reflect the local ability to generate revenues from the property tax base.

While there have been a number of high level meetings with representatives of the Eastern Ontario Wardens' Caucus and representatives of the Province of Ontario and the federal government at both the political and senior staff level, there has been no action to date on implementing any of the recommendations of Future Directions. Continued pressure on the senior levels of government is necessary if there is any hope of local government, specifically the County of Peterborough, receiving the funding necessary to provide the transportation infrastructure necessary in the future.

CHAPTER 5: CONCLUSION

Concerns related to the provision of funding for transportation infrastructure is widespread throughout local government. "Increasingly there is recognition that the infrastructure that served communities well in its early life has aged, deteriorated or reached maximum carrying capacity."²⁴ The initial section of this paper, Chapter 2, Establishing the Needs, dealt with determining the need for alternative revenue sources for the maintenance of the transportation infrastructure in the County of Peterborough.

The roads and bridges that constitute the transportation infrastructure of the County of Peterborough have current maintenance needs totalling \$98 million. The amount of work that is needed to maintain the infrastructure is increasing at an alarming rate, an increase of \$19 million, or 24% from 1999 to 2003. The increase is for the most part due to the decreasing condition of the roads.

The current means for financing the maintenance of the transportation infrastructure within the County of Peterborough is the property tax. In spite of the annual increases to the Public Works budget through the levy, there is little room left to increase the property tax in order to further finance municipal transportation infrastructure maintenance. In today's political environment, there is tremendous resistance to increasing any taxes at the local level, although there is sound reason for doing so. Politicians are under great pressure from their constituents to maintain the status quo at best, or at worst, to institute tax cuts. With the re-alignment of services introduced by the Provincial government in the 1990s, there has been a substantial increase in costs to local municipalities for the provision of the downloaded services that have had to be addressed through property tax increases.

²⁴ Almos Tassonyi, "Financing Municipal Infrastructure in Canada's City-Regions", ed. Paul A. R. Hobson and France St Hilaire, (Montreal, Renouf Publishing Co. Ltd., 1997), p. 171.

While both senior governments have taken credit for introducing tax cuts at the provincial and federal levels, these tax cuts have been paid for partly by increases at the local level.

Not only is the existing level of spending inadequate in keeping up with the inflating value of the transportation infrastructure needs of the County of Peterborough, the reserves for the roads and bridges are declining at a rate where they will likely be depleted in the next 5 – 10 years. Once this occurs, it will be difficult for the County of Peterborough to meet the existing annual spending levels on their roads and bridges.

There can be no question that the current funding system for local infrastructure maintenance is inadequate to ensure a sustainable, well maintained transportation network.

The second question that was dealt with in this paper was, “Is there a single, more effective means of funding local infrastructure maintenance?” The alternative revenue sources discussed in this paper included the federal GST, the provincial PST, the gas tax, income tax, subsidies and transfers, infrastructure maintenance funding programs and user fees. There are compelling arguments to implement, or in some cases, increase local government access to all of these sources of funds. An argument for not implementing a local income tax can be made, and the implementation of a full rebate to municipalities of the GST has already been instituted, adding much needed funds, \$350,000 for 2004 to the County of Peterborough. An argument can be made to access funds from the other sources noted to assist local government.

The implementation of a PST rebate makes good sense for the provision of more funds but would be relatively difficult to implement and administer as an entire new bureaucracy would have to be initiated to deal with this program. Although it may not make much sense for the provincial government to be taxing local government, a large amount of the potential savings to the local governments, approximately \$225,000 per year to the County of Peterborough, would likely be partially off-set by administrative costs.

Infrastructure maintenance funding programs have been of marginal benefit to municipalities in the past. The value of the funds injected into local coffers has not come near the amount of the

recently eliminated provincial transfers. While the funding of these programs is welcome by local municipalities, these programs as a source of funding are minimal and totally unpredictable.

Significant, sustainable funding is essential for ensuring that municipalities can properly forecast their spending and design a long-term maintenance program that will result in an efficient and effective transportation system.

It makes sense to implement some or all of the remaining alternative revenue sources discussed in this paper, the gas tax, subsidies and transfers, and user fees. Either diverting some of the federal and/or provincial gas tax, or piggy-backing an increase onto the existing gas taxes and designating it for municipal transportation infrastructure would be a simple to implement, simple to administer solution. In doing this, there would be no “new” tax created, but an extension to an existing one. This would also provide a sustainable tax to local government, notwithstanding the potential impact that the reduction or elimination of the use of gas as fuel would cause. As discussed, there is a way around this obstacle with the implementation of alternate mileage taxes. The key to the success of this option is the sustainability of the source of the funds.

Access to the gas tax might be considered a form of subsidies and transfers. In fact, the revenues generated through the gas tax could be utilized as transfer funding, a relatively simple task. There has been widespread documented success of subsidies and transfers as they relate to municipal transportation infrastructure funding. The key to re-implementing this type of program is the generation of adequate revenues at the provincial level. This could only be done through the increase of some type of tax. Once again, we are led back to the gas tax as the best potential solution. This ties in further with the best solutions, in that the gas tax can truly be considered a user fee, and makes good sense as long as the funds generated from it are pumped back into transportation infrastructure.

Other user fees as outlined in this paper have the potential of increasing fees at the local level, but lack the potential for totally funding the infrastructure needs of most municipalities by themselves. Local license taxes, both on drivers' licenses and on vehicle licenses would be easy to implement but would not generate significant revenues. Access to aggregate and stumpage revenues

would potentially offer significant resources, be simple to implement for the aggregates, yet difficult to implement for the timber industry, but in end, would not be sufficient to provide the necessary sustainable, long-term financing needed for municipalities province wide. Most municipalities in the province require significant funding increases but many of those same municipalities do not have local aggregate or timber industries. It is important that the implementation of any new funding program be applicable on a province wide basis.

The above discussion leads to the conclusion that not only is the gas tax the single, most effective means of funding local infrastructure maintenance, but also that it would succeed on a province-wide basis. This would, in fact, be the best solution for the County of Peterborough.

The attitudes of the senior levels of government must change when addressing the financial needs of local government. Local municipal government requires the financial tools to provide their residents with the services that are required. "While the economic arguments for reforming property taxes, imposing user fees, and giving municipalities access to new tax sources are solid and have been around for some time, they have never received much political support. In part, the reason may be the provinces' reluctance to relinquish any control over municipalities and unwillingness to permit them access to additional tax sources currently in the provincial domain."²⁵ The Province must change their attitude and the collective efforts of groups such as the Eastern Ontario Wardens Caucus will prove to be essential in gaining this change. "Given past political resistance, why should one believe that these reforms would receive political acceptance in the future? While the answer is uncertain, the probability of securing these changes may now be greater than ever. Given the increasing role that cities and regions play in the global economy and the recent trend toward greater reliance on own-source revenues, improving the efficiency of municipal taxes and enhancing their accountability is becoming more urgent."²⁶

²⁵ Ibid, Kitchen, "Mun. Fin. in a New Fjs. Env.", P. 22.

²⁶ Ibid, P. 22.

REFERENCES

“A Choice Between Investing in Canada’s Cities or Disinvesting in Canada’s Future, “TD Economics Special Report, April 22, 2002, TD Bank Financial Group.

Akkawi, Abraham. Public-Private Partnerships: An infrastructure and service delivery tool for smaller municipalities?, Municipal World, April, 2004. Municipal World Inc. Publications, St. Thomas, 2004.

Auld, Douglas, and Kitchen, Harry. The Supply of Government Services, The Fraser Institute, Singapore, 1988.

Bird, Richard M. Charging for Public Services: A New Look at an Old Idea, Canadian Tax Foundation, Toronto, 1976.

Bird, Richard M., and Slack, N. Enid. Urban Public Finance in Canada. Toronto, Butterworths, 1983.

Bid, Richard M., and Tsiopoulos, Thomas. User Charges for Public Services: Potentials and Problems. Toronto: Canadian Tax Journal, 1997.

Canada, Infrastructure Canada, Government of Canada Announces Parametes for Infrastructure Funds. Press Release, Ottawa, July 22, 2003.

Dickerson, M. O., Drabek, S. and Woods, J. T., ed, Problems of Change in Urban Government, Wilfred Laurier Univrsity Press, Waterloo, 1980.

“Gas Tax Facts”, Canadian Taxpayers Federation, Ottawa, May 24, 2001.

“Greater Peterborough Area Economic Development Corporation Cost/Benefit Study”. Morand & Associates, March 3, 2004.

“GST introduced (January 1991): historical context, economic impact and related links”.
<http://canadianeconomy.gc.ca/english/economy/1991gst.html>.

Hobson, Paul A. R. Efficiency and the Local Public Sector. Government and Competitiveness School of Policy Studies, Queens University, 1993.

Hobson, Paul A. R. and St Hilaire, France. Urban Government and Finance: A Question of Who Does What. Montreal: Renouf Publishing Co. Ltd., 1997.

Kitchen, Harry. Efficient Delivery of Local Government Services. School of Policy Studies, Kingston: Queen’s University, 1993.

Kitchen, Harry. Local Government Finance in Canada. Canadian Tax Foundation, Canada, 1984.

Kitchen, Harry. “Municipal Finance in a New Fiscal Environment,” C. D. Howe Institute Commentary, The Urban Papers. Renouf Publishing, Ottawa, 2000.

Ontario Good Roads Association. “State of Ontario Roads,” Milestones, Volume 4, Number 2. The Penwortham Group, Mississauga, 2004.

Ploeger, Henk M., Local Finance in Ontario, Government and Competitiveness School of Policy Studies, Queens University, 1994.

Pryne, Eric, "Oregon to test mileage tax as replacement for gas tax", The Seattle Times, July 5, 2004.

Sewell, John. Prospects for Reform. Centre for Urban and Community Studies, Toronto, University of Toronto, 1991.

Tindal, C. Richard. "Federal Local Relations: Future Prospects," Municipal World, December 2003. Municipal World Inc. Publications, St. Thomas, 2003.

A. IDENTIFICATION

1. Control Code	1-E-CO-00	6. Current Section No.	002006
2. Municipal Name/Code	66000 - County of Peterborough	7. Length	6.4500 Km
3. Road Name	COUNTY ROAD 02 S.MONAGHAN WARD	A. Offset From	0 m
4. From	580m East of Hwy 28	B. Offset To	m
5. To	LOTS 12/13 (FISHER'S CORNERS)	8. Old Section No.	002000
9. Boundary Road	N		
10. Adjacent Municipality Name/Code	-	12. Local Municipality Code (Upper Tier Only)	66607
11. Adjacent Road Section Number	-	13. Special Designation	NSD

B. EXISTING CONDITIONS

21. Bridges	Horizontal Alignment		32. Roadside Environment	R		
	24. Substandard Curves	0	33. Existing Class	400		
	25. Substandard S.S.D	0	34. Number of Lanes	2		
	Vertical Alignment		35. Surface Type	LCB		
	26. Substandard Grades	0	36. Platform Width	11.5 m		
22. Culverts	27. Substandard S.S.D.	0	37. Surface Width	6.5 m		
	Right of Way Width		38. Median Width	m		
	28. Existing	26.2 m	39. Shoulder Type	GST		
	29. Desirable	26.2 m	40. Shoulder Width	2.5 m		
23. Railway Crossings	30. Terrain	NR	41. Curb/Gutter	Left NC	Right NC	
	31. Drainage	OD	42. Sidewalk Width	Left	Right	
			43. Boulevard Width	Left	Right	
			44. Crosswalks			
			45. Parking	Left Restricted	Right Restricted	
46. Utilities	LT	RT	OH	UG	Major Local	
	Hydro				47a. Existing Hot. Mix. Depth	mm
	Phone				47b. Existing Gran "A". Depth	150 mm
	Gas				47c. Existing Gran "B". Depth	300 mm
	Other				48. Subdrains	N

C TRAFFIC DATA

51. Speed Limit	80 km/hr	Traffic Count		10 Year Traffic Forecast	
52. Average Operating Speed	80 km/hr	56. Year	A-2001-C	64. Year	2011
53. Traffic Operation	2W	57. AADT	800	65. AADT	1600
54. Route Designation		58. DHV Factor	%	66. DHV Factor	%
Bus N	Truck Y	59. DHV	vph	67. DHV	vph
School N	Bicycle N	60. Trucks	5 %	68. Trucks	5 %
55. Load Restrictions	NR	61. Count Loc.	002006	Capacity	
		62. Peak Directional Split	%	69. Midblock	vph
		63. 10 Yr Growth Factor	2.00	70. Intersection	vph

Municipal Road Appraisal - Sheet 2

D. POINT RATINGS	MAX. POINTS			RATING
	R	S	U	
81. Horiz. Alignment	10	-	-	10
82. Vert. Alignment	10	-	-	10
83. Surface Condition	10	10	10	10
84. Shoulder Width	10	10	-	10
85. Surface Width	15	15	25	15
86. Level of Service	20	20	20	
87. Str. Adequacy	20	20	20	16
88. Drainage	15	15	15	15
89. Maint. Demand	10	10	10	10
90. Condition Rating	100	100	100	96
90a. PCI Index				80

E. NEEDS	Existing Condition	Minimum Tolerable Standard	Time Of Need
91. Geometrics	80	65	ADEQ
92. Surface Type	LCB	LCB	ADEQ
93. Surface Width	6.5 m	6.0	ADEQ
94. Capacity	A	E	ADEQ
95. Struct. Adequacy		Year 1998	ADEQ
96. Drainage		Year 1998	ADEQ

F. TYPE & TIME OF IMPROVEMENT	
101. Year (Re) Constructed	92
102. Year Assumed	NA
103. Eligibility for Contribution	EFS
104. Type of Improvement	R1
105. Design Class	400
106a. Surface Design Width	7.0 m
106b. Shoulder Design Width	2.5 m
106c. Pavement Design Depth	50 mm
106d. Pavement Resurfacing Depth	mm
106e. Design Gran "A" Depth	150 mm
106f. Design Gran "B" Depth	300 mm
106g. Design Concrete Depth	mm
107. Improvement Length	6.5200 km
108. Costing Category	OT
109. Time of Improvement	NOW
110. Bench Mark Cost	50 (\$ thousand / km)

G. IMPROVEMENT COST (\$ THOUSANDS)	
121. Construction	
122. Resurfacing	326
123. Drainage	
124. Small Structures	
125. Sidewalk	
126. Traffic Signals (Existing)	
127. Other	
128. Other	
129. Contingencies	5 % 16
130. Total Construction	342
131. Utilities	
132. Right of Way	
133. Engineering Environmental Assessment (E/A) Study	
134. Engineering - Design & Supervision	2 % 7
135. Total Project Cost	349
136. Eligibility for Contribution	EFS
137. Non-Contributable Cost	
138. Contributable Cost	349
139. Municipal Percent of Contributable Cost	100 %
140. Municipal Share of Cost	349
141. Road System Ratings	Y
	Priority Rating 4
	cents / Vehicle km 1.40
	Guide Number 3
150. This appraisal sheet was completed by: DAVE CARSWELL	

H. CONSTRUCTION / IMPROVEMENT HISTORY			
	YEAR	TYPE	LENGTH
111.	1992	REC	3.0000
112.	1991	REC	3.6000
113.			
114.			
115.			
116.			
117.			
118.			
119.			
120.			

L. Remarks

7 VERIFIED LENGTH IN FIELD IN 2000
 36 AADT UPDATED 2001

A. IDENTIFICATION

Control Code	3-S-CO-03	6. Bridge No.	023001
Municipal Name/Code	66000 - County of Peterborough	7. Road Section No.	023179
3. Bridge Name	LOWER BUCKHORN LAKE BRIDGE	8. MTO Site No.	026-0146-
4. Road Name	COUNTY ROAD 23 (FORMERLY 507)		
5. Location	0.60 km S of COUNTY ROAD 36		
9. Roadside Environment	U		
10. Posting	t t t	13. Posting Sign	t t t
11. Bylaw No.		14. Low Clearance Sign	m
12. Bylaw Expiry Date	y m	15. Narrow Structure Sign	
		16. Crossing Type	O-WAT
		17. Federal Navigable Waterway	N
		18. Bridge Value (\$000)	2133

B. RAILWAY OVERPASS/UNDERPASS

21. Railway Level Crossing Number		27. Original Board Order Number	
22. Railway Company		Date	y m d
23. Railway Subdivision			
24. Subdivision Mileage	mi	28. Current Board Order Number	
25. Transport Canada Crossing No.		Date	y m d
26. Number of Tracks		29. Seniority	

C. JURISDICTION

31. Ownership	O A MUN	35. Boundary Bridge	I	38. Local/Area Municipality (Upper Tier Only!)
	B			A. 66604
32. Heritage Status	R	36. Adjacent Municipality Name / No	00000	B. 66608
33. Special Designation	NSD	37. Adjacent Bridge No.		39. Maintenance Area
34. Suburban Roads Commission Name				40. Municipal Ward

D. EXISTING CONDITIONS

General

41. Year Constructed	A 1976	45. Span Length	33.5 m	50. Longitudinal Joint	0
	B 1976	46. Deck Type	CC	51. Transverse Joints	2
42. Bridge Type	P - IB - L	47. Deck Length	92.6 m	52. Number of Bearings	30
43. Crossing Skew	-0	48. Deck Width	12.8 m	53. Soil Condition	P
44. Number of Spans	3	49. Deck Area	1185 sm	54. Abutment and Foundation Type	C SF

ROAD OVER BRIDGE

55. Existing Road Class	CCI	59. No. of Lanes	2	62. Barrier Walls / Railings	CP
56. Operational Status	2W - OAT	60. Median Type / Width	0.0 m	63. Minimum Vertical Clearance	m
57. Wearing Surface	A	61. Safety Curb / Sidewalk & Curb Barrier	A N E 1.5 m B N W 1.5 m		
58. Travel Deck Width	9.1 m				

ROAD UNDER BRIDGE

64. Existing Road Class		68. No. of Lanes		71. Traffic Barrier	
65. Operational Status	-	69. Median Type / Width	m	72. Minimum Vertical Clearance	m
66. Opening Width	m	70. Safety Curb / Sidewalk & Curb Barrier	A 0.0 m B 0.0 m		
67. Surface Width	m				

E. TRAFFIC DATA

		Traffic Count		10 Year Traffic Forecast	
81. Legal Speed Limit	50	83. Year	A-1991-C	90. Year	2001
82. Route Designations		84. AADT	3850	91. AADT	4813
		85. DHV Factor (%)	%	92. DHV Factor (%)	%
Transit N	Truck N	86. DHV (vph)	vph	93. DHV (vph)	vph
School Y	Bicycle N	87. Trucks (%)	3 %	94. Trucks (%)	3 %
		88. Peak Directional Split (%)	%	95. Capacity (vph)	vph
		89. 10 Year Growth Factor	1.25	96. 20 Year AADT	5800

F. APPROVALS

101. Date	OCTOBER 2003	102. Professional Engineer Name	D.L. BAXTER, P. ENG.
103. Municipality / Company	TSH		

Municipal Bridge Appraisal - Sheet 2

	RATING		TIME of NEED
	MCR	PCR	
111. Superstructure	6	6	ADEQ
112. Wearing Surface	4	5	1-5
113. Deck Condition	6	6	ADEQ
114. Expansion Joints	5	3	1-5
115. Railings	3	6	1-5
116. Substructure	3	5	1-5
117. Coating	0	0	ADEQ
118. Streams / Waterways	6	6	ADEQ
119. Curb / Sidewalk	5	5	6-10

	Existing Condition	Minimum Tolerable	TIME of NEED
ROAD OVER			
121. Travel Deck Width	9.1 m	6.5 m	ADEQ
122. Level of Service	A	E	ADEQ
123. Min. Vertical Clearance	m	4.5 m	ADEQ
124. Sidewalks	Y	Y	ADEQ
ROAD UNDER			
125. Surface Width	m	m	
126. Level of Service			
127. Min. Vertical Clearance	m	m	
128. Sidewalks			

I. ENGINEERING RECOMMENDATIONS				
131. Bridge Drawings	UNK			
131a. Structure Dwg No.				
131b. Road Dwg No.				
132. Engineering Investigations	Type	Year	Cost (\$000)	
	A DCS	2004	20	
	B			
	C			
	D			
133. Total Cost of Engineering Investigations				20
134. Single Posting	t	y	m	d
135. Evaluated Posting	t	t	t	
Date	y	m		
136. Monitoring		m		
137. Closure / Date	y	m	d	

J. TYPE & TIME OF IMPROVEMENT					
141. Design Class					
142. Operational Status					
143. Abutment type					
144. Design Deck Width	m				
145. Design Deck Length	m				
146. Type of Improvement	a) Costing	b) Category	c) Quantity	d) Time of Improvement	e) Cost (\$000)
A RJR	PC			6-10	20
B PWP	PC			1-5	150
C RSB	PC			1-5	30
D OTH	PC			NOW	10
E TJR	PC	2		1-5	55
F					
G					
H					
I					
J					

K. IMPROVEMENT COST		COST (\$000)
151. Construction		265
152. Approaches		15
153. Detours		
154. Traffic Control / Protection		75
155. Utilities		
156. Other		
157. Contingencies	10.00 %	36
158. Total Construction		391
159. Right of Way		
160. Engineering Environmental Assessment (E/A) Study		
161. Engineering - Design & Supervision	20.00 %	78
162. Total Project Cost		469
163. Eligibility for Contribution		EFS
164. Non-Contributable Costs	Contributing Agency	Non-Contributable Cost
	A	
	B	
	C	
	D	
165. Total Non-Contributable Cost		
166. Contributable Cost		469
167. Municipal Percent of Contributable Cost		100 %
168. Municipal Share of Cost		469

L. HISTORY			CONSTRUCTION IMPROVEMENTS		
ENGINEERING INVESTIGATIONS					
	Type	Year		Type	Year
171.			181.		
172.			182.		
173.			183.		
174.			184.		
175.			185.		
176.			186.		
177.			187.		
178.			188.		
179.			189.		
180.			190.		

M. Remarks

Lower Buckhorn Lake Bridge (Bridge No. 23001), MTO Site No. 26-146, County Road 23, 0.60 km South of County Road , Lot 9, Conc VIII, Harvey, Township of Galway-Cavandish-Harvey, County of Peterborough:

- Structure is not posted with a load limit.
 - Three span (29.3 m+/-; 33.5 m+/-; 29.3 m+/-) precast concrete girder bridge with a concrete deck and asphalt wearing surface.
 - Concrete parapet walls are in fair condition with cracking, spalling and delaminations. A horizontal crack was noted along the outside face of the wall about 100 mm below the top of the wall in several areas. Steel parapet rails are in good condition. Several anchor bolts are missing or broken off.
 - Concrete sidewalks are in generally good condition with extensive light scaling. Minor cracking was also noted. Some areas of the west sidewalk have been coated with tapecrete. The tapecrete is debonded in some locations.
 - Asphalt paved wearing surface is in fair condition with numerous sealed and unsealed cracks.
 - Deck expansion joints consist of strip seals set in steel armouring angles in concrete dams. Deck expansion joints are in generally good condition with minor corrosion of the steel armouring angles. Evidence of leakage was noted.
 - Concrete deck soffit, precast concrete girders and piers are in good condition.
 - Concrete abutments are in poor to fair condition with minor water staining and extensive delaminations. The east end of the south abutment face is extensively spalled.
 - Concrete wingwalls are in generally good condition with minor localized cracking and scaling.
 - Watercourse is unobstructed with no evidence of scour. A dam is located about 50 m upstream of the bridge.
 - Asphalt paved approach roads are in generally good condition with minor cracking.
 - Concrete approach slabs have settled. A 100 mm+/- (maximum) step was noted at the wingwalls.
 - Concrete curb and gutter and asphalt boulevards on the approaches are in good condition.
 - Steel beam guiderail on the approaches are in good condition.
 - No serious evidence of structural distress.
 - Structure does not require posting with a load limit.
 - Major rehabilitation - repair concrete parapet walls, patch, waterproof and pave bridge deck, replace expansion joints, repair abutments, overlay sidewalks on approach slabs and adjust sidewalks on approaches.
 - Minor repairs - pad south approach slab and replace missing and broken parapet post anchor bolts.
- Requires a deck condition survey.