

**CITY-WIDE ENGINEERING SERVICES  
DEVELOPMENT CHARGES  
BACKGROUND STUDY**

---

**City of Peterborough**

**HEMSON Consulting Ltd**

---

**June 4, 2012**

# TABLE OF CONTENTS

---

---

EXECUTIVE SUMMARY .....	1
I INTRODUCTION .....	8
II A CITY-WIDE METHODOLOGY ALIGNS DEVELOPMENT-RELATED COSTS AND BENEFITS .....	10
A. CITY-WIDE DEVELOPMENT CHARGES ARE CALCULATED.....	10
B. KEY STEPS IN DETERMINING DEVELOPMENT CHARGES FOR FUTURE DEVELOPMENT-RELATED PROJECTS .....	11
III DEVELOPMENT FORECAST.....	14
A. RESIDENTIAL DEVELOPMENT FORECAST .....	14
B. NON-RESIDENTIAL DEVELOPMENT FORECAST .....	14
IV SUMMARY OF HISTORIC CAPITAL SERVICE LEVELS .....	17
V THE DEVELOPMENT-RELATED CAPITAL PROGRAM .....	19
A. A DEVELOPMENT-RELATED CAPITAL PROGRAM IS PROVIDED FOR COUNCIL'S APPROVAL .....	19
B. DEVELOPMENT-RELATED CAPITAL PROGRAM FOR ENGINEERING SERVICES .....	19
VI DEVELOPMENT CHARGES ARE CALCULATED IN ACCORDANCE WITH THE <i>DCA</i> .....	22
A. UNADJUSTED DEVELOPMENT CHARGE CALCULATION FOR ROADS AND RELATED SERVICES .....	22
B. ADJUSTED RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES.....	24
B. COMPARISON OF 2012 NEWLY CALCULATED DEVELOPMENT CHARGES WITH CHARGES CURRENTLY IN FORCE IN PETERBOROUGH.....	26
VII LONG TERM CAPITAL AND OPERATING COSTS .....	29
VIII DEVELOPMENT CHARGES ADMINISTRATION.....	30
A. DEVELOPMENT CHARGE ADMINISTRATION .....	30
B. LOCAL SERVICE DEFINITIONS.....	30

## **LIST OF APPENDICES**

---

---

<b>A.</b>	<b>DEVELOPMENT FORECAST.....</b>	<b>35</b>
<b>B.</b>	<b>ROADS AND RELATED TECHNICAL APPENDIX.....</b>	<b>44</b>
<b>C.</b>	<b>SEWAGE TREATMENT .....</b>	<b>64</b>
<b>B.</b>	<b>DRAFT CITY-WIDE ENGINEERING SERVICES BY-LAW .....</b>	<b>67</b>

## **EXECUTIVE SUMMARY**

---

---

Hemson Consulting Ltd. was retained by the City of Peterborough to complete a Development Charges (DC) Background Study. This Background Study provides the basis and background to update the City-wide engineering services development charges to accurately reflect the servicing needs of new development in Peterborough.

### **A. BACKGROUND AND INTRODUCTION**

- The City of Peterborough currently levies two types of development charges for the recovery of development-related capital costs:
  1. Planning-area Development Charges – for the recovery of area-specific engineering infrastructure for sanitary sewage works, servicing and planning studies, and other area-specific engineering works as needed.
  2. City-wide Uniform Development Charges – for the recovery of cost for the provision of library, fire, police, recreation, parks, public works, parking, transit, roads and related, and sewage treatment services.
- The City currently levies its City-wide DCs through two by-laws; By-law number 09-166 which recovers for City-wide general services (all services except for roads and related and sewage treatment), and By-law number 09-167 which recovers for City-wide engineering services.
- At the time of passage of the 2009 City-wide engineering services DC by-law, the City was in the process of completing a Transportation Plan and as such, a recommendation was made by staff that, due to the uncertainty of the roads and related program, the roads component of the City-wide DC rate would be held constant for a maximum of two years.
- In December 2011, the City-wide engineering DC by-law was amended to extend the expiry date to December 31, 2014. This was done because the review and update of the Transportation Plan had not yet been approved by

Council. The amendment allowed the City to continue to collect for City-wide engineering DCs.

- The Transportation Plan has been completed and approved by Council on November 14, 2011 through Report USTR11-006.
- The City is now in a position to update and revise the City-wide engineering DC rates as per the recommendation outlined in Report CPFS11-044 dated December 5, 2011.
- This Study now calculates new City-wide engineering development charges (roads and related, and sewage treatment services) for the City of Peterborough in compliance with the provisions of the *Development Charges Act, 1997 (DCA)* and its associated regulation: *O. Reg. 82/98*.
- The City needs to continue implementing development charges to help fund capital projects related to development throughout the City so that development continues to be serviced in a fiscally responsible manner. The calculated changes to the development charges rates are required in order to reflect the revised costs associated with the infrastructure requirements.

## **B. STUDY CONSISTENT WITH DEVELOPMENT CHARGES LEGISLATION**

- The *DCA* and *O. Reg. 82/98* require that a development charges background study be prepared in which development charges are determined with reference to:
  - A forecast of the amount, type and location of residential and non-residential development anticipated in the City;
  - A review of future capital projects, including an analysis of gross expenditures, funding sources, and net expenditures incurred or to be incurred by the City to provide for the expected development, including the determination of the DC eligible and non-DC-eligible components of the capital projects; and

- An examination of the long-term capital and operating costs for the capital infrastructure required for each service to which the development charges by-laws would relate.
- This report identifies the development-related capital costs which are attributable to development that is forecast to occur in the City. These costs are apportioned to types of development (residential, industrial, non-industrial) in a manner that reflects the increase in the need for each service attributable to each type of development.

### **C. CITY-WIDE ENGINEERING COSTS ARE INCLUDED IN THE ANALYSIS**

- The following City services have been included in the development charge analysis:
  - Roads and Related
  - Sewage Treatment
- Development charges for the City-wide general services are recovered through By-law number 09-166.

### **D. DEVELOPMENT FORECAST**

- Consistent with the *Growth Plan*, a development forecast has been derived for the purposes of this Development Charges Background Study.
- The capital infrastructure planning period for the City-wide engineering services is based on a twenty-year planning horizon 2012 to 2031.
- The City is forecast to add approximately 5,160 new households in the planning period from 2012 to 2031. This household estimate can accommodate roughly 13,090 persons.
- The employment forecast for the City is forecast to add approximately 1,170 employees in the twenty-year planning period. This results in the addition of 68,960 square metres of new non-residential building space.

- The following is a summary of the projected growth for the City:

DEVELOPMENT FORECAST	Existing	2012 – 2031	
	As At Mid-Year 2011	Growth	Total at 2031
<b>Households</b>	33,435	5,161	38,596
<b>Population</b>			
Census	78,698	6,343	85,041
In New Households		13,093	
<b>Employment</b>	45,861	1,169	47,030
<b>Non-Residential Building Space (sq.m)</b>		68,958	

**E. THE CITY HAS AN EXTENSIVE DEVELOPMENT-RELATED CAPITAL PROGRAM FOR THE PROVISION OF ENGINEERING SERVICES**

- The total gross cost for roads and related is \$263.59 million. This provides for various roads and related projects such as capacity improvements, urbanizations, realignments, sidewalk installations, and new multi-use trails.
- A share of the roads and related capital program has deemed to benefit the existing community. This share totals to approximately \$131.01 million and has been netted off of the total gross cost of the program. Another share, funds available in the roads and related DC reserves of \$4.05 million, is applied to fund the program. And finally, a share of the program provides benefit to the population beyond the planning period and this share amounts to \$64.87 million.
- The total costs eligible for DC recovery amounts is reduced to \$63.66 million. Details of the roads and related capital program and development charges calculations can be found in Appendix B.

- The City continues to collect for the recovery of the debenture of the expansion to the wastewater treatment plant. The remainder of the recovery amounts to \$7.42 million. The post period share nets down the recovery by \$2.97 million, leaving \$4.45 million eligible for recovery through DCs
- The following table provides a summary of the City-wide engineering capital program:

<b>Service</b>	<b>Gross Cost (\$000)</b>	<b>DC Eligible Cost For Recovery 2010-2031 (\$000)</b>
Roads and Related	\$263,592.0	\$63,655.3
Sewage Treatment	\$7,424.9	\$4,454.9
<b>Total – Engineering Services</b>	<b>\$271,016.9</b>	<b>\$68,110.2</b>

**F. DEVELOPMENT CHARGES ARE CALCULATED WITH FULL REFERENCE TO THE *DCA***

- The development charges have been established under the parameters and limitations of the *DCA*. This study provides the rationale and basis for the calculated rates.
- A City-wide uniform cost approach is used to calculate development charges for the engineering services. Uniform residential and non-residential charges are levied throughout the City.
- The calculated charges are the maximum charges the City may adopt. Lower charges can be approved; however, this will require a reduction in the capital plan and reduced service levels or financing from other sources, most likely property taxes.
- The fully calculated residential charges are recommended to vary by unit type, reflecting the difference in occupancy patterns expected in various unit types



and the associated differences in demand that would be placed on City services.

- The following is a summary of the calculated development charges:

Service	Residential Development Charge By Unit Type			Non-Residential Charge per Square Metre
	Residential A Singles & Semis	Residential B Other Multiples	Residential C Apartments	
Roads and Related	\$14,902	\$12,922	\$8,650	\$73.28
Sewage Treatment	\$895	\$776	\$520	\$5.17
<b>Total City-wide Engineering Services</b>	<b>\$15,797</b>	<b>\$13,698</b>	<b>\$9,170</b>	<b>\$78.45</b>

#### **G. NEWLY CALCULATED DC RATES FOR ROADS ARE HIGHER THAN CURRENT RATES**

- The fully calculated residential charge for a single or semi-detached unit in Peterborough is \$15,797, which is a large increase over the City's current City-wide engineering charge of \$5,556.
- The calculated non-residential charge of \$78.45 per square metre of gross floor area is also higher than the City's currently imposed non-residential charge of \$36.92 per square metre.
- The calculated industrial charge of \$30.24 per square metre represents an 8 per cent increase over Peterborough's current industrial charge of \$28.00.
- It should be noted that the roads and related charge calculated in the November 2009 DC Background Study was not implemented by Council and the rate which was in force at the time was held constant.

#### **H. DEVELOPMENT CHARGES BY-LAW PRACTICES AND COLLECTION POLICIES**

- It is recommended that present practices regarding collection of development charges and by-law administration continue to the extent possible.

- As required under the *DCA*, the City should codify any rules regarding application of the by-laws and any exemptions within the development charges by-laws proposed for adoption.
- The proposed draft by-law sets out the rules to determine development charges applicable in any particular case. Rules for exemptions, potential reductions, and redevelopment of land are also outlined in the proposed draft by-law.
- It is recommended that Council adopt the development-related capital program included in this background study, subject to annual review through the City's normal capital budget process.

## I INTRODUCTION

---

---

This City of Peterborough City-wide Engineering Services Development Charges (DC) Background Study is presented as part of a process to lead to the approval of new development charge by-laws in compliance with the *Development Charges Act, 1997 (DCA)*.

The *DCA* and *O. Reg. 82/98* require that a development charge background study be prepared in which development charges are determined with reference to:

- A forecast of the amount, type and location of development anticipated in the City;
- A review of future capital projects, including an analysis of gross expenditures, funding sources, and net expenditures incurred, or to be incurred, by the City or its local boards to provide for the expected development, including the determination of the eligible and ineligible components of the capital projects; and
- An examination of the long-term capital and operating costs for the capital infrastructure required for each service to which the development charges by-laws would relate.

This study presents the results of the review which determines the development-related net capital costs which are attributable to development that is forecast to occur in the City. These development-related net capital costs are then apportioned among various types of development (residential; non-residential) in a manner that reflects the increase in the need for each service attributable to each type of development. The study arrives, therefore, at calculated development charges for various types of development.

The *DCA* provides for a period of public review and comment regarding the calculated development charges. Following completion of this process in accordance with the *DCA* and Council's review of this study and the comments it receives regarding this study or other information brought to its attention about the calculated

charges, it is intended that Council will pass a new development charges by-law for the City.

The remainder of this study sets out the information and analysis upon which the calculated development charges are based.

Section II designates the services for which the development charges are calculated and the areas within the City to which the development charges will apply. It also briefly reviews the methodology that has been used in this background study.

Section III presents a summary of the residential and non-residential development which is forecast to occur within the City over the 2010–2019 period and to 2031.

Section IV summarizes the ten-year historic service level for the roads and related service.

In Section V, the development-related capital programs that have been developed by various Municipal departments are reviewed.

Section VI summarizes the calculation of applicable development charges and the resulting calculated development charges by land use and by unit type. The chapter also provides a comparison of existing development charge rates in the City with the rates calculated in this study.

Section VII provides a review of development charges administrative matters and local service definitions. A brief examination of the long term capital and operating costs is also presented.

## **II A CITY-WIDE METHODOLOGY ALIGNS DEVELOPMENT-RELATED COSTS AND BENEFITS**

---

---

Several key steps are required in calculating any development charge. However, specific circumstances arise in each municipality which must be reflected in the calculation. In this study, therefore, we have tailored our approach to the City of Peterborough's unique circumstances. The approach to the calculated development charges is focused on providing a reasonable alignment of development-related costs with the development that necessitates them. This study calculates charges on a City-wide basis which is consistent with the City of Peterborough's 2009 Development Charges Study. Despite the fact that development charges are calculated on a City-wide basis, legislation allows a municipality to exempt or reduce rates for specific geographic areas. However, legislation prevents lost revenue, due to exemptions or reductions, from being made up through increasing charges on other areas.

### **A. CITY-WIDE DEVELOPMENT CHARGES ARE CALCULATED**

The *DCA* provides the City with flexibility when defining services that will be included in the development charge by-laws, provided that the other provisions of the *Act* and *Regulations* are met. The *DCA* also permits the City to designate, in its by-laws, the areas within which the development charges shall be imposed. The charges may apply to all lands in the City or to other designated development areas as specified in the by-laws.

For the engineering services that the City provides, the full range of capital infrastructure is available throughout the municipality. All residents therefore have access to the entire infrastructure. A widely accepted method for recovering the development-related capital costs for such services is to apportion them over all new development anticipated in the City.

The following services are included in the City-wide development charge calculation:

- Roads and Related
- Sewage Treatment

These services form a reasonable basis in which to plan and administer the City-wide development charges. The resulting development charge for all of the above services would be imposed uniformly against all new development everywhere in the City.

## **B. KEY STEPS IN DETERMINING DEVELOPMENT CHARGES FOR FUTURE DEVELOPMENT-RELATED PROJECTS**

Several key steps are required in calculating development charges for future development-related projects. These are summarized below.

### **1. Development Forecast**

The first step in the methodology requires a development forecast to be prepared for the twenty-year study period, 2012–2031, for engineering services. The forecast is consistent with the *Growth Plan*.

For the residential portion of the forecast both the census population growth and population growth in new units is estimated. A forecast of the expected dwelling unit growth is also included.

The non-residential portion of the forecast estimates the gross floor area (GFA) of building space to be developed over the same planning period. The forecast of GFA is based on the employment forecast for the City. Factors for floor space per worker by category are used to convert the employment forecast into gross floor area for the purposes of the development charges study.

### **2. Service Categories and Historic Service Levels**

The *DCA* provides that the increase in the need for service attributable to anticipated development:

... must not include an increase that would result in the level of service exceeding the average level of that service provided in the municipality over the 10-year period immediately preceding the preparation of the background study...(s. 5. (1) 4.)

Historic ten-year average service levels thus form the basis for development charges. A review of the City's capital service levels for roads and related services has therefore been prepared as a reference for the calculation so that the portion of future capital projects that may be included in the development charge can be determined. The historic service levels used in this study have been calculated based on the period 2002–2011.

### **3. Development-Related Capital Program and Analysis of DC Eligible Costs to be Recovered Through Development Charges**

A development-related capital program has been prepared by the City as part of the present study. The program identifies development-related projects and their gross and net municipal costs, after allowing for capital grants, subsidies or other recoveries as required by the Act (*DCA*, s. 5. (2)). The capital program provides another cornerstone upon which development charges are based. The *DCA* requires that the increase in the need for service attributable to the anticipated development may include an increase:

... only if the council of the municipality has indicated that it intends to ensure that such an increase in need will be met. (s. 5. (1) 3.)

In conjunction with *DCA*, s. 5. (1) 4. referenced above, these sections have the effect of requiring that the development charge be calculated on the lesser of the historic ten-year average service levels or the service levels embodied in future plans of the City. The development-related capital program prepared for this study ensures that development charges are only imposed to help pay for projects that have been or are intended to be purchased or built in order to accommodate future anticipated development. It is not sufficient in the calculation of development charges merely to have had the service in the past. There must also be a demonstrated commitment to continue to emplace facilities or infrastructure in the future. In this regard, *O. Reg. 82/98*, s. 3 states that:

For the purposes of paragraph 3 of subsection 5 (1) of the Act, the council of a municipality has indicated that it intends to ensure that an increase in the need for service will be met if the increase in service forms part of an official plan, capital forecast or similar expression of the intention of the council and the plan, forecast or similar expression of the intention of the council has been approved by the council.

For some projects in the development-related capital program, a portion of the project may confer benefits to existing residents. As required by the *DCA*, s. 5. (1) 6., these portions of projects and their associated net costs are the funding responsibility of the City from non-development charges sources. The amount of municipal funding for such non-DC-eligible shares of projects is also identified as part of the preparation of the development-related capital program.

There is also a requirement in the *DCA* to reduce the applicable development charge by the amount of any “uncommitted excess capacity” that is available for a service. Such capacity is available to partially meet the future servicing requirements. Adjustments are made in the analysis to meet this requirement of the *DCA*.

Finally, in calculating development charges, the development-related net municipal costs must be reduced by ten per cent for all municipal general services (*DCA*, s. 5. (1) 8.). The ten per cent discount is therefore not applied to any of the engineering services in this study.

#### **4. Attribution to Types of Development**

The next step in the determination of development charges is the allocation of the development-related net capital costs between the residential and the non-residential sectors. In this Study, the allocation for engineering services is based on the consideration of projected changes in population in new units and employment over the planning periods.

The residential component of the development charge is applied to different housing types based on average occupancy factors. The non-residential component is applied on the basis of gross building space in square metres.

#### **5. Final Adjustment**

The final determination of the development charge results from adjustments made to development-related DC eligible costs for each service and sector resulting from the application of any unallocated growth-related reserve fund balances that are available to finance the development-related capital costs in the capital program. A cash flow analysis is also undertaken to account for the timing of projects and receipt of development charges. Interest earnings or borrowing costs are therefore accounted for in the calculation as allowed under the *DCA*.



### **III DEVELOPMENT FORECAST**

---

---

This section summarizes the growth forecasts used to calculate the development charges for the City of Peterborough. Appendix A contains additional material related to the development forecast and the City's demographics.

The development forecast used in this Study is consistent with the *Growth Plan for the Greater Golden Horseshoe*. The *Growth Plan* provides population and employment projections for all upper and single-tier municipalities in the Greater Golden Horseshoe. In accordance with Provincial legislation, all affected municipalities must adopt these projections into their Official Plans.

#### **A. RESIDENTIAL DEVELOPMENT FORECAST**

Table 1 provides a summary of the residential forecast for the engineering services planning period a twenty- year planning horizon of 2012 to 2031.

Over the planning period from 2012 to 2031, the total number of new residential units will increase by approximately 5,160. The majority of these new units, over 55 per cent, will be low density units (single and semi-detached units), while roughly 25 per cent will be medium density units (row and townhomes) and the remainder being high density units (apartments). The population that can be accommodated in these new dwelling units is approximately 13,090. The population in new units was derived by using data from Statistics Canada analysing household sizes in recently constructed units.

A summary of the residential development forecast can be found in Table 1.

#### **B. NON-RESIDENTIAL DEVELOPMENT FORECAST**

The non-residential portion of the forecast estimates the amount of building space to be developed in the City over the twenty year planning period. The forecast is based on the projected increase in employment levels and the anticipated amount of new building space required to accommodate them.

TABLE 1

**CITY OF PETERBOROUGH  
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL  
DEVELOPMENT FORECAST**

Development Forecast	2011 Estimate	Growth	Total at 2031
<b>Residential</b>			
Total Private Occupied Dwellings	33,435	5,161	38,596
Total Population			
Census	78,698	6,343	85,041
<i>Population In New Dwellings</i>		<i>13,093</i>	
<b>Non-Residential</b>			
Employment	45,861	1,169	47,030
Non-Residential Building Space (sq.m.)		68,958	

The forecast employment for Peterborough is based on three major land use planning types: major office, population-related and employment land employment:

- Major office employment, defined as employment in free-standing office buildings. The employment density used in the forecast is 27 square metres per employee.
- Population-related employment, defined as employment that provides services to a resident population in retail and institutional establishments, including those who work from home. The employment density used in the forecast is 45 square metres per employee.
- Employment land employment, defined was the range of employment uses in industrial-type buildings, typically concentrated in business parks and other designated employment areas. The employment density used in the forecast is 80 square metres per employee.

The twenty-year forecast projects an increase of approximately 1,170 employees which can be accommodated in 68,960 square metres of new non-residential building space. Roughly half of the forecasted employment will be population-related, while slightly less than 45 per cent will be employment land based. The remainder will be major office employment.

A summary of the non-residential development forecast can be found in Table 1.

## **IV SUMMARY OF HISTORIC CAPITAL SERVICE LEVELS**

---

---

The DCA and O. Reg. 82/98 require that the development charges be set at a level no higher than the average service level provided in the municipality over the ten-year period immediately preceding the preparation of the background study, on a service by service basis.

For the roads and related service, the legislative requirement is met by documenting historic service levels for the preceding ten years, in this case, for the period 2002 to 2011. Typically, service levels for roads and related services are measured as a ratio of inputs per capita and employment.

O. Reg. 82/98 requires that when determining historical service levels both quantity and quality of service be taken into consideration. The service level is initially established in quantitative terms. For example, roads are presented in terms of number of kilometres. The qualitative aspect is introduced by the consideration of the monetary value of the infrastructure. In the case of roads, for example, the cost would be shown in terms of dollars per kilometre to reconstruct a road length of the same quality. This approach helps to ensure that the development-related capital infrastructure that are to be charged to new development reflect not only the quantity (number) but also the quality (value or replacement cost) of service provided historically by the City. Both the quantitative and qualitative aspects of service levels used in the present analysis are based on information provided by City staff based on historical records and their experience with costs to construct similar infrastructure.

Table 2 summarizes service levels for the roads and related service. Appendix B provides detailed historical inventory data upon which the calculation of service levels is based for roads and related services.

TABLE 2

**CITY OF PETERBOROUGH**  
**SUMMARY OF AVERAGE HISTORIC SERVICE LEVELS 2002-2011**  
**SERVICE LEVEL PER POPULATION AND EMPLOYMENT**

Roads	\$7,047.47	per pop & emp
Traffic Signals	\$450.17	per pop & emp
Sidewalks	\$449.04	per pop & emp
Trails	\$42.16	per pop & emp
Bridges And Culverts	\$513.70	per pop & emp
Parking Lots	\$92.30	per pop & emp
Noise & Retaining Walls	\$3.77	per pop & emp
Decorative Plants & Luminaries	\$13.73	per pop & emp
Road Signs & Posts	\$5.65	per pop & emp
<b>Total (\$/population &amp; employment)</b>	<b>\$8,618.00</b>	

## **V THE DEVELOPMENT-RELATED CAPITAL PROGRAM**

---

### **A. A DEVELOPMENT-RELATED CAPITAL PROGRAM IS PROVIDED FOR COUNCIL'S APPROVAL**

The *DCA* requires the Council of a municipality to express its intent to provide future capital facilities at the level incorporated in the development charges calculation. As noted above in Section II, *O. Reg. 82/98*, s. 3 states that:

For the purposes of paragraph 3 of subsection 5 (1) of the Act, the council of a municipality has indicated that it intends to ensure that an increase in the need for service will be met if the increase in service forms part of an official plan, capital forecast or similar expression of the intention of the council and the plan, forecast or similar expression of the intention of the council has been approved by the council.

Based on the development forecast summarized in Section III, City staff, in collaboration with the consultants, developed a development-related capital program setting out those projects that are required to service anticipated development. As permitted by the *DCA* s. 5 (1) 4., the development charge for engineering services is based on development expected in the City to 2031 which is the *Official Plan* horizon.

One of the recommendations contained in this background study is for Council to adopt the development-related capital program developed for the purposes of the development charges calculation. It is assumed that future capital budgets and forecasts will continue to bring forward the development-related projects contained herein that are consistent with the development occurring in the City. It is acknowledged that changes to the capital program presented here may occur through the City's normal capital budget process.

### **B. DEVELOPMENT-RELATED CAPITAL PROGRAM FOR ENGINEERING SERVICES**

Table 3 provides a summary of the 2012-2031 roads and related capital program. The capital program is comprised of roads and related projects and sewage treatment recoveries. The roads and related projects are comprised of capacity improvements, urbanizations, realignments, new arterial segments, a new high capacity collector, new sidewalk installations, new multi-use trails, and signalizations.

TABLE 3

CITY OF PETERBOROUGH  
 SUMMARY OF DEVELOPMENT-RELATED CAPITAL PROGRAM  
 ENGINEERING SERVICES

Service	Development-Related Capital Program							Total DC Eligible Costs for Recovery (\$000)
	Total Project Cost (\$000)	Grants/ Subsidies Other Contributions (\$000)	Net Municipal Cost (\$000)	Replacement & Benefit to Existing (\$000)	Available DC Reserves (\$000)	Post-Period Benefit (\$000)		
1 ROADS AND RELATED	\$263,592.0	\$0.0	\$263,592.0	\$131,014.4	\$4,047.9	\$64,874.4	\$63,655.3	
2 SEWAGE TREATMENT	\$7,424.9	\$0.0	\$7,424.9	\$0.0	\$0.0	\$2,970.0	\$4,454.9	
<b>TOTAL ENGINEERING SERVICES</b>	<b>\$271,016.8</b>	<b>\$0.0</b>	<b>\$271,016.8</b>	<b>\$131,014.4</b>	<b>\$4,047.9</b>	<b>\$67,844.4</b>	<b>\$68,110.1</b>	

The total gross cost of the roads and related capital program totals to \$263.59 million. No grants, subsidies, or other recoveries have been identified to aid in funding the roads program.

Approximately 50 per cent of the total cost of the roads program, or \$131.01 million, is identified as the benefit to existing share. This amount has been netted off of the total gross cost of the program. An additional \$4.05 million of uncommitted reserve funds is available to fund a small portion of the program, and this share has also been netted off of the total gross cost. Another portion of the roads program is deemed to service development beyond the planning period, and as such, \$64.87 million has been removed from the DC calculations.

The remaining \$63.66 million is related to development in the 2012-2031 period and has been included in the development charge calculation. Of the total cost eligible for DC recovery, 92.0 per cent has been allocated for recovery to the residential sector, and 8.0 per cent to the non-residential sector. Further details on the development charge calculation for roads and related services are available in Appendix B.

The sewage treatment charge solely recovers for the phase 3 expansion of the wastewater treatment plant debenture, and to a much lesser extent, a wastewater treatment plant expansion process audit. The total cost of the recoveries amount to \$7.42 million. No deductions for grants, benefit to existing shares, or uncommitted reserves funds have been made to the total project cost. However, a share of \$2.97 million has been identified as post-period benefit. The total cost eligible for DC recovery is \$4.45 million. This cost is apportioned the residential and non-residential sectors using the same allocation as the roads program.

Table 3 displays a summary of the engineering services capital program.



## **VI DEVELOPMENT CHARGES ARE CALCULATED IN ACCORDANCE WITH THE *DCA***

---



---

This section summarizes the calculation of development charges and the resulting total development charge by type of development. Furthermore, the calculation of the “unadjusted” per capita (residential) and per square metre (non-residential) is presented for the roads and related service. Adjustments are made to these amounts resulting from a cash flow analysis that considers interest earnings and borrowing costs.

For residential development, the adjusted total per capita amount is then converted to a variable charge by housing unit type using unit occupancy factors. The calculated non-residential charges are based on gross floor area (GFA) of building space.

It is noted that the calculation of the City-wide development charges does not include any provision for exemptions required under the *DCA* such as the exemption for enlargements of up to 50 per cent on existing industrial buildings. Such legislated exemptions, or other exemptions or reductions which Council may choose to provide, will result in loss of development charge revenue for the affected types of development. Any such revenue loss may not be made up, however, by offsetting increases in other portions of the calculated charge.

### **A. UNADJUSTED DEVELOPMENT CHARGE CALCULATION FOR ROADS AND RELATED SERVICES**

Table 4 describes the calculation of unadjusted rates for roads and related services and the calculated rate for sewage treatment. The capital program eligible for recovery through development charges is allocated to the residential and non-residential sectors based on future shares of population and employment growth. On this basis, the allocation to the residential and non-residential sectors is calculated at 92.0 per cent and 8.0 per cent respectively. The residential sector’s “unadjusted” development charge is calculated at \$4,785.87 per capita. This was calculated by taking the residential share of the development-related capital program (\$62.66 million) and dividing it by the growth in population in new units to 2031 (13,090).

TABLE 4

CITY OF PETERBOROUGH  
 SUMMARY OF UNADJUSTED RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES  
 CAPITAL PROGRAM FOR ENGINEERING SERVICES

20 Year Growth in Population in New Units	13,093
Ultimate Non-Residential Floorspace Growth in Square Meters	
Population-Related & Institutional	25,094
Major Office	2,589
Employment Land	41,275
Total	68,958

Service	Development-Related Capital Program										Residential Share % (\$000)	Non-Residential Share % (\$000)	
	Total Project Cost (\$000)	Grants/ Subsidies Other Contributions (\$000)	Net Municipal Cost (\$000)	Replacement & Benefit to Existing (\$000)	Available DC Reserves (\$000)	Post-Period Benefit (\$000)	Total DC Eligible Costs for Recovery (\$000)	Residential Share %	Non-Residential Share %				
<b>1 ROADS AND RELATED</b>													
Unadjusted Development Charge Per Capita	\$263,592.0	\$0.0	\$263,592.0	\$131,014.4	\$4,047.9	\$64,874.4	\$63,655.3	92.0%	\$58,562.9	8.0%	\$5,092.42		
Unadjusted Development Charge Per Square Metre									\$4,472.84		\$73.85		
<b>2 SEWAGE TREATMENT</b>													
Development Charge Per Capita	\$7,424.9	\$0.0	\$7,424.9	\$0.0	\$0.0	\$2,970.0	\$4,454.9	92.0%	\$4,098.5	8.0%	\$356.39		
Development Charge Per Square Metre									\$313.03		\$5.17		
<b>TOTAL ENGINEERING SERVICES</b>	<b>\$271,016.8</b>	<b>\$0.0</b>	<b>\$271,016.8</b>	<b>\$131,014.4</b>	<b>\$4,047.9</b>	<b>\$67,844.4</b>	<b>\$68,110.1</b>		<b>\$62,661.3</b>		<b>\$5,448.8</b>		
<b>Residential</b>									<b>\$4,785.87</b>				
Unadjusted Development Charge Per Capita													
<b>Non-Residential</b>											<b>\$79.02</b>		
Unadjusted Development Charge Per Sq.M													

The non-residential development charge is \$79.02 per square metre. This was calculated by taking the non-residential share of the development-related capital program (\$5.45 million) and dividing it by the growth in non-residential gross floor area to 2031 (68,960).

It should be noted that the charge per capita for roads and related in Table 4 is the “unadjusted rate”. In other words, financing costs have not yet been factored into the charge. While the sewage treatment plant charges include the principal and interest portions of the debenture. Subsection B, below, speaks to the cash flow analysis of the roads and related charge.

#### **B. ADJUSTED RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES**

Final adjustments to the “unadjusted” development charge rates for roads and related services are made through a cash flow analysis. The analysis, details of which are included in the Appendix B, considers the borrowing cost and interest earnings associated with the timing of expenditures and development charge receipts for each service.

Table 5 summarize the results of the roads and related adjustment to the development charge rates. The adjusted per capita rate for roads and related services increases from \$4,472.84 to \$5,210.65 after the cash flow analysis. The total charge per capita amounts to \$5,523.68. Residential City-wide engineering development charges are proposed to vary by dwelling unit type to reflect their different occupancy factors and resulting demand for services. The calculated residential development charges for the engineering services are shown in Table 5.

As shown in the table, the calculated residential charge ranges from \$9,170 for apartments to \$15,797 for single and semi-detached units. The calculated charge for other multiples is \$13,698.

The calculated non-residential development charges rates are also presented in Table 5. The calculated adjusted rate for roads and related is \$73.28 per square metre, which is a slight decrease from the unadjusted rate of \$73.85. The total non-residential charge for engineering services amounts to \$78.45 per square metre of GFA.

**TABLE 5**  
**CITY OF PETERBOROUGH**  
**SUMMARY OF ADJUSTED RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES**  
**FOR ENGINEERING SERVICES**

Service	Development Charge Per Capita	Residential Development Charge By Unit Type (1)			Non-Residential Charge per Square Metre
		Residential A Singles & Semis	Residential B Other Multiples	Residential C Apartments	
Roads and Related	\$5,210.65	\$14,902	\$12,922	\$8,650	\$73.28
Sewage Treatment	\$313.03	\$895	\$776	\$520	\$5.17
<b>Total City-wide Engineering Services</b>	<b>\$5,523.68</b>	<b>\$15,797</b>	<b>\$13,698</b>	<b>\$9,170</b>	<b>\$78.45</b>
Note 1: Based on Person Per Unit of		2.86	2.48	1.66	

**C. COMPARISON OF 2012 NEWLY CALCULATED DEVELOPMENT CHARGES WITH CHARGES CURRENTLY IN FORCE IN PETERBOROUGH**

Table 6 presents a comparison of the newly calculated residential and non-residential development charges with currently imposed development charge rates, for only the engineering services. It demonstrates that the residential development charge rate for a single- or semi-detached unit increases by \$10,241 per unit, or 184 per cent.

The current development charges rate for non-residential development increases by \$41.53 per square metre, or 113 per cent.

Table 7 presents the impact of the newly calculated rates on the overall City-wide uniform charge. The newly calculated City-wide engineering rates have an impact of a 107 per cent increase on the current City-wide uniform charge for a single detached unit. The City-wide uniform non-residential charge experiences a 91 per cent increase per square metre.

Overall, the development charges are increasing in the City. The increases are a result of:

- The City froze the roads and related charge at the time of the passage of the 2009 City-wide by-law update. In essence, the City-wide engineering charge was last calculated during the 2004 By-law update, and has only been indexed.
- The City has recently completed a Transportation Plan, approved by Council, which identifies additional works above and beyond those contained in the 2009 DC Background Study and the Capital Budgets. The new roads program is now considered to be comprehensive and has been designed to service the forecasted population and employment growth.

TABLE 6

**CITY OF PETERBOROUGH  
COMPARISON OF CURRENT VS. CALCULATED RATES  
CITY-WIDE ENGINEERING SERVICES**

Service	Residential Charge Per Single Detached Unit			
	Current Charge	Calculated Charge	Difference	
			\$/unit	%
Roads and Related	\$4,572	\$14,902	\$10,330	226%
Sewage Treatment	\$984	\$895	(\$89)	-9%
<b>Total City-wide Engineering Services</b>	<b>\$5,556</b>	<b>\$15,797</b>	<b>\$10,241</b>	<b>184%</b>

Service	Non-Residential Charge Per Square Metre			
	Current Charge	Calculated Charge	Difference	
			\$/sq.m.	%
Roads and Related	\$31.18	\$73.28	\$42.10	135%
Sewage Treatment	\$5.73	\$5.17	(\$0.56)	-10%
<b>Total City-wide Engineering Services</b>	<b>\$36.92</b>	<b>\$78.45</b>	<b>\$41.53</b>	<b>113%</b>

TABLE 7

**CITY OF PETERBOROUGH  
COMPARISON OF CURRENT VS. CALCULATED RATES  
TOTAL CITY-WIDE UNIFORM CHARGE**

Service	Residential Charge Per Single Detached Unit			
	Current Charge	Calculated Charge	Difference	
			\$/unit	%
Library	\$906	\$906	\$0	0%
Fire	\$611	\$611	\$0	0%
Police	\$55	\$55	\$0	0%
Recreation	\$121	\$121	\$0	0%
Parks	\$1,378	\$1,378	\$0	0%
Public Works	\$306	\$306	\$0	0%
Parking	\$198	\$198	\$0	0%
Transit	\$271	\$271	\$0	0%
General Government	\$146	\$146	\$0	0%
Roads and Related	\$4,572	\$14,902	\$10,330	226%
Sewage Treatment	\$984	\$895	(\$89)	-9%
<b>Total City-Wide Uniform Charge</b>	<b>\$9,548</b>	<b>\$19,789</b>	<b>\$10,241</b>	<b>107%</b>

Service	Non-Residential Charge Per Square Metre			
	Current Charge	Calculated Charge	Difference	
			\$/sq.m.	%
Library	\$0.00	\$0.00	\$0.00	0%
Fire	\$3.43	\$3.43	\$0.00	0%
Police	\$0.32	\$0.32	\$0.00	0%
Recreation	\$0.00	\$0.00	\$0.00	0%
Parks	\$0.00	\$0.00	\$0.00	0%
Public Works	\$1.71	\$1.71	\$0.00	0%
Parking	\$1.09	\$1.09	\$0.00	0%
Transit	\$1.52	\$1.52	\$0.00	0%
General Government	\$0.82	\$0.82	\$0.00	0%
Roads and Related	\$31.18	\$73.28	\$42.10	135%
Sewage Treatment	\$5.73	\$5.17	(\$0.56)	-10%
<b>Total City-Wide Uniform Charge</b>	<b>\$45.81</b>	<b>\$87.34</b>	<b>\$41.53</b>	<b>91%</b>

## **VII LONG-TERM CAPITAL AND OPERATING COSTS**

---

---

This section provides a brief examination of the long-term capital and operating costs for the capital facilities and infrastructure to be included in the development charges by-law. This examination is required as one of the features of the *DCA*.

The development-related capital costs discussed herein are largely fully fundable from development charges. Any share of the costs has been allocated to existing development and the City may choose to recover these costs by way of other charges (i.e. s.391 of the Municipal Act) or by way of utility user charges. The operating costs impacts of the expanded municipal infrastructure are anticipated to be fully funded from additional tax revenues generated by the growth-related increase in the property assessment base. Furthermore, the new households will generate additional sewer utility rate revenue that will be utilized to fund any incremental sewage servicing operating costs.

Council is made aware of these factors so that they understand the financial implications of the quantum and timing of the projects included in the growth-related capital forecast as set out in this study.



## **VIII DEVELOPMENT CHARGES ADMINISTRATION**

---

---

### **A. DEVELOPMENT CHARGE ADMINISTRATION**

Many of the administrative requirements of the *DCA* will be similar to those presently followed by the City in terms of collection practices. In this regard:

- It is recommended that the present practices regarding collection of development charges and by-law administration continue to the extent possible;
- As required under the *DCA*, the City should codify any rules regarding the application of the by-laws and any exemptions within the development charges by-law proposed for adoption;
- It is recommended that Council adopt the development-related capital program included in this background study, subject to annual review through the City's normal capital budget process.

### **B. LOCAL SERVICE DEFINITIONS**

The following provides the definition of “local service” under the *DCA* for a number of services provided by the City of Peterborough. The purpose of establishing these definitions is to determine the eligible capital costs for inclusion in the development charges calculations for the City. The functions or services deemed to be local in nature are not to be included in the determination of the development charges rates. The provision of local services is considered to be a direct developer responsibility under s.59 of the *DCA* and will (or may) be recovered under other agreement(s) with the landowner or developer. The issue of “local service” is being specifically considered for the following services:

- Roads and Related
- Sanitary Sewer
- Stormwater Services
- Parkland Development

## 1. Roads and Related

- Collector Roads
  - Collector roads internal to a development are a direct developer responsibility as a local service under s.59 of the *DCA*.
  - Collector roads external to a development are a local service if the works are within the area to which the plan relates and therefore a direct developer responsibility under s.59 of the *DCA*. Otherwise, the works are included in the development charges calculations to the extent permitted under s.5(1) of the *DCA*.
- Arterial Roads
  - New arterial roads and arterial road improvements are included as part of road costing funded through development charges.
- Local Roads
  - Local roads are local services and a direct developer responsibility under s.59 of the *DCA*.
- Subdivision/Site Entrances and Related
  - Entrances and all related costs (including, but not limited to: signalization, turn lanes, utility conduits and extensions, etc.), no matter the class of road, are a local service and a direct developer responsibility under s.59 of the *DCA*.
- Streetlights
  - Streetlights internal to a development or site are a direct developer responsibility through local service provisions under s.59 of the *DCA*.
  - Streetlights external to a development but related to the subject lands are a direct developer responsibility through local service provisions under s.59 of the *DCA*.

- Sidewalks
  - Sidewalks internal to a development or site are a direct developer responsibility through local service provisions under s.59 of the DCA.
  - Sidewalks external to a development but related to the subject lands are a direct developer responsibility through local service provisions under s.59 of the DCA.
  
- Bikeways
  - Bike lanes within road allowance are included in development charges roads costs.
  - Bike lanes outside road allowance are included in development charges roads costs.
  
- Noise Abatement Measures
  - Noise Abatement Measures internal to a development are a direct developer responsibility through local service provisions under s.59 of the DCA.
  
- Street Tree Planting
  - Street tree planting is considered a local service and a direct developer responsibility.
  
- Land Acquisition for Roads Allowances
  - Land acquisition for roads is a dedication under the Planning Act subdivision provisions (s.51) through development lands.
  - In areas with limited or no development land, acquisition needs to be included in the City development charges to the extent eligible as identified and included in the Development Charges Background Study.
  - Land acquisition for grade separations (beyond normal dedication requirements) is to be included in the City development charges to the extent eligible as identified and included in the Development Charges Background Study.

## 2. Sanitary Sewer

- Major external trunk sanitary sewers (those with sizes over 300mm) and major pumping stations are to be included in the development charges. Oversizing within subdivisions is also to be included in the development charges above 300mm for sanitary sewers.
- Connections to trunk mains and minor pumping stations to service specific areas are to be a direct developer responsibility as a local service provision under s.59 of the *DCA*. Minor pumping stations are those that service a single subdivision or adjacent or adjoining subdivisions.

## 3. Stormwater Services

- The costs of stormwater management facilities (SWM) that are internal to a subdivision or are related to a single plan of subdivision are considered to be a local service under the *DCA* and the associated costs are not included in the development charges calculations. Local SWM facilities would typically include:
  - Storm sewer oversizing associated with local drainage areas; and
  - Storm sewer works on existing roads.
- The costs of stormwater management facilities benefiting more than one subdivision are largely to be recovered through development charges to the extent eligible as identified and included in the Development Charges Background Study.

## 4. Parkland Development

For the purpose of parkland development, local service includes the requirement for the owner to undertake preparation of the park plan, to retain necessary consultants to prepare design and to grade plans for the park prior to development. In addition, the owner is required to provide stripping and stockpiling, leveling, topsoiling, seeding and stormwater servicing (consistent with the plan), and services to the lot line. These requirements are part of the conditions of s.51 and s.53 of the *Planning Act* agreements. The municipality also requires the owner to dedicate parkland or provide cash-in-lieu, consistent with the *Planning Act* provisions. All of these costs are deemed

a direct responsibility of the developer and have not been included in the development charges calculations.

With respect to other parkland development costs, the municipal policy is to include all other components of parkland development in the development charges calculations, including parking, park furniture, signage, landscaping and walkways/trails, in addition to the necessary fields, diamonds, playground equipment, lighting, irrigation and field houses.

## **APPENDIX A**

---

### ***DEVELOPMENT FORECAST***

## **APPENDIX A**

### **DEVELOPMENT FORECAST**

This appendix provides the details of the development forecast used in the preparation of the 2012 City-wide Engineering Services Development Charges Background Study for the City of Peterborough. The forecast, key inputs and assumptions are discussed in this appendix. The results of the forecasts are provided in a series of tables.

Forecasts of population, households, employment and non-residential building space were prepared by Hemson Consulting Ltd. The forecasts are with the *Growth Plan for the Greater Golden Horseshoe*.

These forecasts take into consideration: data from the 2011 Census; historical building permit and completions data; servicing constraints; and the current economic climate.

#### **Results of the City of Peterborough Development Forecasts**

Based upon the inputs and assumptions, forecasts of population, households, employment, and non-residential floor space were prepared for the development charges background study. The forecast results are presented in a series of tables and are summarized in the following:

- Table A.1: Displays the historic census population, households and employment from 1996 to 2011.
- Table A.2: Provides a breakdown of housing completions from 1996 to 2011 by unit type.
- Table A.3: Shows the historic households sizes by period of construction.
- Table B.1: Provides the overall population, household, and employment forecast results, annually, from 2012 to 2031.
- Table B.2: Displays the growth in households by unit type from 2012 to 2031.
- Table B.3: Shows the growth in new household by unit type from 2012 to 2031.

- Table B.4: Displays the forecasted population growth in new households by unit type from 2012 to 2031.
- Provides the total employment forecast and the additional non-residential floor space resulting from this forecast from 2012 to 2031.



**CITY OF PETERBOROUGH 2012 DEVELOPMENT CHARGES STUDY**

**TABLE A.1**  
**Historic Population, Dwellings & Employment**

Mid-Year	Population		Private Occupied Dwellings		Population Per Household Size		Employment by Place of Work		Activity Rate
	Population	Growth	Private Occupied Dwellings	Growth	Population Per Household Size	Growth	Employment by Place of Work	Growth	
<b>1996</b>	<b>69,742</b>		<b>28,000</b>		<b>2.49</b>		<b>35,770</b>		<b>51.3%</b>
1997	70,080	338	28,231	231	2.48		36,456	686	52.0%
1998	70,419	339	28,464	233	2.47		37,155	699	52.8%
1999	70,759	341	28,699	235	2.47		37,868	713	53.5%
2000	71,102	342	28,936	237	2.46		38,595	726	54.3%
<b>2001</b>	<b>71,446</b>	<b>344</b>	<b>29,175</b>	<b>239</b>	<b>2.45</b>		<b>39,335</b>	<b>740</b>	<b>55.1%</b>
2002	72,221	775	29,570	395	2.44		40,271	936	55.8%
2003	73,004	783	29,970	400	2.44		41,230	959	56.5%
2004	73,796	792	30,376	406	2.43		42,211	981	57.2%
2005	74,597	800	30,787	411	2.42		43,216	1,005	57.9%
<b>2006</b>	<b>75,406</b>	<b>809</b>	<b>31,204</b>	<b>417</b>	<b>2.42</b>		<b>44,245</b>	<b>1,029</b>	<b>58.7%</b>
2007	76,053	647	31,638	434	2.40		44,563	318	58.6%
2008	76,706	653	32,078	440	2.39		44,884	321	58.5%
2009	77,364	658	32,524	446	2.38		45,207	323	58.4%
2010	78,028	664	32,976	452	2.37		45,533	325	58.4%
<b>2011</b>	<b>78,698</b>	<b>670</b>	<b>33,435</b>	<b>459</b>	<b>2.35</b>		<b>45,861</b>	<b>328</b>	<b>58.3%</b>

Source: Statistics Canada, Census of Canada

**CITY OF PETERBOROUGH 2012 DEVELOPMENT CHARGES STUDY**

**TABLE A.2**  
**Historic Housing Activity - Units**

Mid-Year	Housing Completions - Units			Total
	Singles/Semis	Rows	Apts.	
1996	189	56	105	350
1997	222	87	0	309
1998	154	47	0	201
1999	167	21	0	188
2000	167	50	0	217
2001	114	12	0	126
2002	207	28	4	239
2003	180	72	17	269
2004	316	30	6	352
2005	274	24	18	316
2006	242	143	5	390
2007	192	97	0	289
2008	198	54	0	252
2009	178	86	75	339
2010	256	57	135	448
2011	154	70	0	224
<b>Total</b>	<b>3,210</b>	<b>934</b>	<b>365</b>	<b>4,509</b>
Average '02-'11	220	66	26	312
Average '07-'11	196	73	42	310

Source: Canadian Mortgage and Housing Corporation

**Historic Housing Activity - Shares By Unit Type**

Mid-Year	Housing Completions - Units			Total
	Singles/Semis	Rows	Apts.	
1996	54%	16%	30%	100%
1997	72%	28%	0%	100%
1998	77%	23%	0%	100%
1999	89%	11%	0%	100%
2000	77%	23%	0%	100%
2001	90%	10%	0%	100%
2002	87%	12%	2%	100%
2003	67%	27%	6%	100%
2004	90%	9%	2%	100%
2005	87%	8%	6%	100%
2006	62%	37%	1%	100%
2007	66%	34%	0%	100%
2008	79%	21%	0%	100%
2009	53%	25%	22%	100%
2010	57%	13%	30%	100%
2011	69%	31%	0%	100%
<b>Total</b>	<b>71%</b>	<b>21%</b>	<b>8%</b>	<b>100%</b>

**CITY OF PETERBOROUGH 2012 DEVELOPMENT CHARGES STUDY**

**TABLE A.3**  
Historic Households by Period of Construction Showing Household Size

	Period of Construction											Total
	Pre 1946	1946-1960	1961-1970	1971-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2006	Pre 1996	1996-2006	
<b>Singles</b>												
Household Population	10,175	11,515	5,480	5,850	2,285	4,750	2,630	2,190	3,435	42,685	5,625	48,310
Households	3,960	4,890	2,150	2,180	750	1,505	960	780	1,155	16,395	1,935	18,330
Household Size	2.57	2.35	2.55	2.68	3.05	3.16	2.74	2.81	2.97	2.60	2.91	2.64
<b>Semis</b>												
Household Population	405	325	405	260	100	240	210	50	20	1,945	70	2,015
Households	200	115	150	90	30	75	75	35	20	735	55	790
Household Size	2.03	2.83	2.70	2.89	3.33	3.20	2.80	1.43	1.00	2.65	1.27	2.55
<b>Rows</b>												
Household Population	335	365	655	1,065	780	860	355	355	450	4,415	805	5,220
Households	130	130	255	380	240	350	170	190	260	1,655	450	2,105
Household Size	2.58	2.81	2.57	2.80	3.25	2.46	2.09	1.87	1.73	2.67	1.79	2.48
<b>Apartments</b>												
Household Population	4,240	2,925	2,310	3,175	1,375	1,605	740	425	380	16,370	805	17,175
Households	2,320	1,655	1,405	1,860	815	970	425	260	225	9,450	485	9,935
Household Size	1.83	1.77	1.64	1.71	1.69	1.65	1.74	1.63	1.69	1.73	1.66	1.73
<b>All Units</b>												
Household Population	15,155	15,130	8,850	10,350	4,540	7,455	3,935	3,020	4,285	65,415	7,305	72,720
Households	6,610	6,790	3,960	4,510	1,835	2,900	1,630	1,265	1,660	28,235	2,925	31,160
Household Size	2.29	2.23	2.23	2.29	2.47	2.57	2.41	2.39	2.58	2.32	2.50	2.33

Source: Statistics Canada, 2006 Census Special Run

**CITY OF PETERBOROUGH 2012 DEVELOPMENT CHARGES STUDY**

**TABLE B.1**  
Population, Household & Employment Forecast Summary

Mid-Year	Population	Private Occupied Dwellings	Employment by Place of Work	Population Per Household Size	Activity Rate
2012	79,004	33,676	45,983	2.35	58.2%
2013	79,310	33,918	46,106	2.34	58.1%
2014	79,618	34,163	46,230	2.33	58.1%
2015	79,928	34,409	46,354	2.32	58.0%
<b>2016</b>	<b>80,238</b>	<b>34,657</b>	<b>46,478</b>	<b>2.32</b>	<b>57.9%</b>
2017	80,550	34,906	46,588	2.31	57.8%
2018	80,862	35,158	46,698	2.30	57.7%
2019	81,176	35,411	46,808	2.29	57.7%
2020	81,492	35,666	46,919	2.28	57.6%
<b>2021</b>	<b>81,808</b>	<b>35,923</b>	<b>47,030</b>	<b>2.28</b>	<b>57.5%</b>
2022	82,126	36,182	47,030	2.27	57.3%
2023	82,445	36,442	47,030	2.26	57.0%
2024	82,765	36,705	47,030	2.25	56.8%
2025	83,086	36,969	47,030	2.25	56.6%
<b>2026</b>	<b>83,409</b>	<b>37,235</b>	<b>47,030</b>	<b>2.24</b>	<b>56.4%</b>
2027	83,733	37,504	47,030	2.23	56.2%
2028	84,058	37,774	47,030	2.23	55.9%
2029	84,384	38,046	47,030	2.22	55.7%
2030	84,712	38,320	47,030	2.21	55.5%
<b>2031</b>	<b>85,041</b>	<b>38,596</b>	<b>47,030</b>	<b>2.20</b>	<b>55.3%</b>

Source: Hemson Consulting Ltd.

**TABLE B.2**  
Forecast Population & Household Growth Summary

Mid-Year	Population Growth	Dwellings Growth	Employment by Place of Work Growth
2012	306	241	123
2013	307	243	123
2014	308	244	123
2015	309	246	124
<b>2016</b>	<b>310</b>	<b>248</b>	<b>124</b>
2017	312	250	110
2018	313	251	110
2019	314	253	110
2020	315	255	111
<b>2021</b>	<b>316</b>	<b>257</b>	<b>111</b>
2022	318	259	0
2023	319	261	0
2024	320	262	0
2025	321	264	0
<b>2026</b>	<b>323</b>	<b>266</b>	<b>0</b>
2027	324	268	0
2028	325	270	0
2029	326	272	0
2030	328	274	0
<b>2031</b>	<b>329</b>	<b>276</b>	<b>0</b>
2012-2031	6,343	5,161	1,169

Source: Hemson Consulting Ltd.

**CITY OF PETERBOROUGH 2012 DEVELOPMENT CHARGES STUDY**

**TABLE B.3**  
Growth in Households by Unit Type

Mid-Year	Low	Medium	High	Total
2012	144	62	35	241
2013	145	62	35	243
2014	146	63	36	244
2015	147	63	36	246
<b>2016</b>	<b>148</b>	<b>64</b>	<b>36</b>	<b>248</b>
2017	155	63	32	250
2018	156	64	32	251
2019	157	64	32	253
2020	158	65	32	255
<b>2021</b>	<b>159</b>	<b>65</b>	<b>33</b>	<b>257</b>
2022	144	69	46	259
2023	145	69	46	261
2024	146	70	47	262
2025	147	71	47	264
<b>2026</b>	<b>148</b>	<b>71</b>	<b>47</b>	<b>266</b>
2027	125	63	80	268
2028	126	64	81	270
2029	127	64	81	272
2030	128	65	82	274
<b>2031</b>	<b>129</b>	<b>65</b>	<b>82</b>	<b>276</b>
2012-2031	2,875	1,307	978	5,161

Source: Hemson Consulting Ltd.

**TABLE B.4**  
Forecast Population in New Households by Unit Type\*

Mid-Year	Low	Medium	High	Total
2012	411	154	58	623
2013	414	155	59	628
2014	417	156	59	632
2015	420	157	60	637
<b>2016</b>	<b>423</b>	<b>158</b>	<b>60</b>	<b>641</b>
2017	442	157	53	652
2018	446	158	53	657
2019	449	159	53	661
2020	452	160	54	666
<b>2021</b>	<b>455</b>	<b>162</b>	<b>54</b>	<b>671</b>
2022	411	171	76	658
2023	414	172	77	663
2024	417	174	78	669
2025	420	175	78	673
<b>2026</b>	<b>423</b>	<b>176</b>	<b>79</b>	<b>678</b>
2027	357	157	133	647
2028	360	158	134	652
2029	362	159	135	656
2030	365	161	136	662
<b>2031</b>	<b>368</b>	<b>162</b>	<b>137</b>	<b>667</b>
2012-2031	8,226	3,241	1,626	13,093

\*Based on PPU's

2.86

2.48

1.66

**CITY OF PETERBOROUGH 2012 DEVELOPMENT CHARGES STUDY**

**TABLE B.5  
Non-Residential Space Forecast**

**Employment Density**  
 Employment Land Employment 80.0 m<sup>2</sup> per employee  
 Population-Related Employment 45.0 m<sup>2</sup> per employee  
 Major Office Employment 27.0 m<sup>2</sup> per employee

Mid-Year	Employment Land		Population-Related		Major Office		Total	
	Total Emp	Emp Growth	Total Emp	Emp Growth	Total Emp	Emp Growth	Total Emp	Emp Growth
2008	19,526		22,502		3,754		45,782	
2012	19,680	85	22,532	27	3,771	10	45,983	123
2013	19,766	86	22,560	27	3,781	10	46,106	123
2014	19,852	86	22,587	27	3,791	10	46,230	123
2015	19,938	86	22,614	27	3,801	10	46,354	124
2016	20,025	87	22,642	27	3,811	10	46,478	124
2017	20,042	17	22,725	84	3,820	9	46,588	110
2018	20,059	17	22,809	84	3,829	9	46,698	110
2019	20,076	17	22,894	84	3,838	9	46,808	110
2020	20,093	17	22,978	85	3,848	9	46,919	111
2021	20,111	17	23,063	85	3,857	9	47,030	111
2022	20,111	0	23,063	0	3,857	0	47,030	0
2023	20,111	0	23,063	0	3,857	0	47,030	0
2024	20,111	0	23,063	0	3,857	0	47,030	0
2025	20,111	0	23,063	0	3,857	0	47,030	0
2026	20,111	0	23,063	0	3,857	0	47,030	0
2027	20,111	0	23,063	0	3,857	0	47,030	0
2028	20,111	0	23,063	0	3,857	0	47,030	0
2029	20,111	0	23,063	0	3,857	0	47,030	0
2030	20,111	0	23,063	0	3,857	0	47,030	0
2031	20,111	0	23,063	0	3,857	0	47,030	0
2012-2021		516		558		96		1,169
2012-2031		516		558		96		1,169

Source: Hemson Consulting Ltd.



## **APPENDIX B**

---

### ***ROADS AND RELATED TECHNICAL APPENDIX***

## APPENDIX B

### ROADS AND RELATED TECHNICAL APPENDIX

This appendix provides an outline of the City-wide engineering infrastructure namely; roads and related. The roads and related capital program includes the capacity improvements, urbanizations, and realignments to the roads themselves, as well as intersection improvements, sidewalk installations, multi-use trails, and any land purchases associated with the project.

The roads and related capital program is largely based upon the 2011 Council approved Transportation Plan. In approving the Transportation Plan, Council also adopted the recommended road network improvements and implementation horizons as detailed in the Plan. The cycling and trail network improvements and implementations horizons were also adopted. Other projects included for recovery through DCs are from the 2009 Development Charges Background Study or contained in the City's Capital Budget and Forecast.

The development-related road and related infrastructure projects are required to service the demands of new development up to “build-out”, or 2031, of the City. The roads and related program was designed to service a 2031 population and employment of 85,040 and 47,030, respectively.

The following tables set out the 2012 to 2031 development-related capital program and the calculation of the development charges for roads and related. The cost of the development-related capital program for roads and related services was prepared by City staff. The projects identified in the capital program are required to service the demands of new development between 2012 and 2031, subject to annual capital budget reviews. Consistent with s.5.(1)7. of the DCA, there is no legislated percentage reduction in the eligible development-related capital cost for the provision of roads and related infrastructure.

Tables 1 – 6 provide details of the projects included in the City-wide roads and related services development charges calculation. The content of the tables is as follows:

Table 1	2002 – 2011 Historical Service Level Analysis
Table 2	2012 – 2031 Roads & Related Capital Program



Table 3	Roads & Related Growth and Non-Growth Shares
Table 4	Roads & Related Capital Program Summary
Table 5	Calculation of Unadjusted Development Charge
Table 6	Residential and Non-Residential Cash Flow Analysis

The historic service level data on Table 1 indicates that the City has a 2012-2031 maximum funding envelope of \$64.74 million. This funding envelope entitles the City to recover for development-related capital projects up to this ceiling.

The entire Roads and Related capital program amounts to \$263.59 million, as displayed on Table 2. The development-related costs to be recovered from future development charges include road construction, structure and intersection, utility relocation, and land acquisition costs. The details of the timing of each road project, and the project cost breakdown are shown on Table 2.

The total gross cost of the Roads and Related program is not to be entirely recovered through future development charges. Approximately \$131.01 million of the program has been identified as the benefit to existing, or non-growth, share. Table 3 displays the percentages of each cost component that is considered to be growth-related. Of the \$263.59 million, only \$132.58 million is considered as the growth-related share.

Table 4 summarizes the Roads and Related program and the deductions made to the capital program. No grants or subsidies have been identified to help fund the program and as such, no deductions have been made. As shown on Table 3, an amount of \$131.01 million has been removed from the calculation of the Roads and Related DC rate. An amount of \$4.05 million has been identified in the Roads DC reserve fund balance and is available to fund a portion of the program. And finally, an amount of \$64.87 million is deemed to benefit development beyond the planning period of 2012-2031 and this amount has been removed from the DC calculation. Of the total program cost of \$263.59 million, the net DC recoverable share is netted down to \$63.66 million. This amount has been brought forward into the DC calculation.

The result is a development charge recoverable share of the capital program of \$63.66 million (Table 5). The DC recoverable costs have been allocated 92 per cent (\$58.56 million) to new residential development and 8 per cent (\$5.09 million) to new non-residential development. The allocation of costs is based on the future shares of population and employment growth. The result is an unadjusted charge of \$4,472.84

per capita, which is calculated by taking the residential share of the program (\$58.56 million) and dividing it by the population growth in new units (13,093). The unadjusted non-residential charge is \$73.85 per square metre, in which the non-residential share of the program (\$5.09 million) is divided by the anticipated growth in non-residential gross floor area (68,958 square metres).

The long term cash-flow analysis (Table 6) takes into consideration expenditure timing and revenue projections. Table 6, page 1, displays the residential cash flow analysis, Table 6, page 2, provides the non-residential cash flows.

The following is a summary of the roads and related development charge rates:

<b>ROADS AND RELATED SUMMARY</b>						
10-year Hist. Service Level per pop & emp	2012 - 2031 Development-Related Capital Prog		Unadjusted Development Charge		Adjusted Development Charge	
	Total	Net DC Recoverable	Residential \$/capita	Non-Residential \$/sq.m	Residential \$/capita	Non-Residential \$/sq.m
\$8,618.00	\$263,591,966	\$63,655,273	\$4,472.84	\$73.85	\$5,210.65	\$73.28

CITY OF PETERBOROUGH  
2012 DEVELOPMENT CHARGES BACKGROUND STUDY  
ROADS & RELATED HISTORIC SERVICE LEVEL ANALYSIS

ROADS Type of Road	# of Kilometres											UNIT COST (\$/km)		
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011				
<b>Urban Arterials</b>														
2 Lane	16.9	16.9	16.9	16.9	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	\$3,013,000
3 Lane	19.7	19.7	19.7	19.7	19.5	19.5	19.2	19.2	19.2	19.5	19.5	19.5	19.5	\$3,139,500
4 Lane	25.3	23.4	23.0	22.6	23.0	23.0	22.8	22.8	22.8	22.8	22.8	23.1	23.1	\$3,404,000
5 Lane	1.8	3.6	4.0	4.4	4.4	4.4	4.6	4.6	4.6	4.6	4.6	5.8	5.8	\$3,703,000
6 Lane	-	-	-	-	-	-	-	-	-	-	-	0.8	0.8	\$4,134,250
<b>Rural Arterials</b>														
2 Lane	28.1	28.1	28.1	27.4	27.3	27.3	31.4	31.4	31.4	30.7	30.7	29.3	29.3	\$1,845,750
3 Lane	1.5	1.5	1.5	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.1	2.1	\$1,966,500
4 Lane	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.2	2.2	2.2	2.2	\$2,277,000
<b>Urban Collector</b>														
2 Lane	39.6	40.3	42.3	43.5	45.5	45.8	45.8	46.2	46.2	46.2	46.2	46.2	46.2	\$2,708,250
3 Lane	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.8	11.8	11.8	11.8	\$2,783,000
4 Lane	-	-	-	-	-	-	-	-	-	-	-	-	-	\$3,237,250
<b>Rural Collector</b>														
2 Lane	17.2	16.5	16.5	15.7	15.6	15.6	18.5	18.5	18.5	18.5	18.5	18.5	18.5	\$1,489,250
3 Lane	-	-	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	\$1,880,250
<b>Urban Local</b>														
2 Lane	164.0	164.0	164.0	164.0	164.0	164.0	164.0	164.0	164.0	164.0	164.0	164.0	164.0	\$2,392,000
<b>Total (km)</b>	<b>328.3</b>	<b>328.3</b>	<b>330.3</b>	<b>330.7</b>	<b>332.7</b>	<b>333.0</b>	<b>339.9</b>	<b>340.3</b>	<b>340.2</b>	<b>340.2</b>	<b>340.2</b>	<b>340.2</b>	<b>340.2</b>	
<b>Total (\$000)</b>	<b>\$823,689.3</b>	<b>\$825,070.3</b>	<b>\$830,695.5</b>	<b>\$832,829.9</b>	<b>\$838,540.5</b>	<b>\$839,312.3</b>	<b>\$850,763.1</b>	<b>\$851,998.0</b>	<b>\$853,783.2</b>	<b>\$856,416.7</b>	<b>\$856,416.7</b>	<b>\$856,416.7</b>	<b>\$856,416.7</b>	

TRAFFIC SIGNALS Description	# of Traffic Signals											UNIT COST (\$/unit)		
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011				
Signalized Intersections	96	97	99	101	103	104	109	110	111	119	119	119	119	\$512,500
<b>Total (#)</b>	<b>96</b>	<b>97</b>	<b>99</b>	<b>101</b>	<b>103</b>	<b>104</b>	<b>109</b>	<b>110</b>	<b>111</b>	<b>119</b>	<b>119</b>	<b>119</b>	<b>119</b>	
<b>Total (\$000)</b>	<b>\$49,200.0</b>	<b>\$49,712.5</b>	<b>\$50,737.5</b>	<b>\$51,762.5</b>	<b>\$52,787.5</b>	<b>\$53,300.0</b>	<b>\$55,862.5</b>	<b>\$56,375.0</b>	<b>\$56,887.5</b>	<b>\$56,887.5</b>	<b>\$56,887.5</b>	<b>\$56,887.5</b>	<b>\$56,887.5</b>	

CITY OF PETERBOROUGH  
2012 DEVELOPMENT CHARGES BACKGROUND STUDY  
ROADS & RELATED HISTORIC SERVICE LEVEL ANALYSIS

SIDEWALKS Description	# of Kilometres											UNIT COST (\$/km)
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011		
Sidewalks	290.1	301.8	313.1	320.9	339.0	345.2	349.2	359.1	364.9	370.2		\$160,000
<b>Total (km)</b>	<b>290.1</b>	<b>301.8</b>	<b>313.1</b>	<b>320.9</b>	<b>339.0</b>	<b>345.2</b>	<b>349.2</b>	<b>359.1</b>	<b>364.9</b>	<b>370.2</b>		
<b>Total (\$000)</b>	<b>\$46,418.0</b>	<b>\$48,286.0</b>	<b>\$50,090.1</b>	<b>\$51,347.5</b>	<b>\$54,232.8</b>	<b>\$55,226.6</b>	<b>\$55,968.4</b>	<b>\$57,454.8</b>	<b>\$58,387.4</b>	<b>\$59,232.2</b>		

TRAILS Description	# of Kilometres											UNIT COST (\$/km)
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011		
Trails - Paved	14.2	14.2	14.2	14.2	18.5	18.5	20.3	20.5	21.7	22.0		\$250,000
Trails - Gravel	5.1	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.5		\$110,000
<b>Total (km)</b>	<b>19.3</b>	<b>19.6</b>	<b>19.6</b>	<b>19.6</b>	<b>23.9</b>	<b>23.9</b>	<b>25.7</b>	<b>25.9</b>	<b>27.1</b>	<b>27.4</b>		
<b>Total (\$000)</b>	<b>\$4,114.0</b>	<b>\$4,148.0</b>	<b>\$4,153.7</b>	<b>\$4,153.7</b>	<b>\$5,213.6</b>	<b>\$5,213.6</b>	<b>\$5,658.0</b>	<b>\$5,717.9</b>	<b>\$6,029.1</b>	<b>\$6,092.1</b>		

BRIDGES AND CULVERTS Description	# of Bridges and Culverts											UNIT COST (\$/unit)
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011		
Bridges and Culverts	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0		\$1,975,000
<b>Total (#)</b>	<b>31.0</b>	<b>31.0</b>	<b>31.0</b>	<b>31.0</b>	<b>31.0</b>	<b>31.0</b>	<b>31.0</b>	<b>31.0</b>	<b>31.0</b>	<b>31.0</b>		
<b>Total (\$000)</b>	<b>\$61,225.0</b>	<b>\$61,225.0</b>	<b>\$61,225.0</b>	<b>\$61,225.0</b>	<b>\$61,225.0</b>	<b>\$61,225.0</b>	<b>\$61,225.0</b>	<b>\$61,225.0</b>	<b>\$61,225.0</b>	<b>\$61,225.0</b>		

PARKING LOTS Lot Name	\$ (Value of Parking Lot)											
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011		
Gas Lot / POA - Asphalt	\$44,658	\$44,658	\$44,658	\$44,658	\$44,658	\$44,658	\$44,658	\$44,658	\$44,658	\$44,658		\$44,658
Gas Lot - Asphalt	\$46,176	\$46,176	\$46,176	\$46,176	\$46,176	\$46,176	\$46,176	\$46,176	\$46,176	\$46,176		\$46,176
Rehill Lot - Asphalt	\$113,374	\$113,374	\$113,374	\$113,374	\$113,374	\$113,374	\$113,374	\$113,374	\$113,374	\$113,374		\$113,374
Brock Lot - Asphalt	\$0	\$0	\$156,111	\$156,111	\$156,111	\$156,111	\$156,111	\$156,111	\$156,111	\$156,111		\$156,111
Chambers Lot - Asphalt	\$0	\$0	\$0	\$114,277	\$114,277	\$114,277	\$114,277	\$114,277	\$114,277	\$114,277		\$114,277
Reid Lot - Asphalt	\$0	\$0	\$0	\$0	\$129,824	\$129,824	\$129,824	\$129,824	\$129,824	\$129,824		\$129,824
Downie Asphalt Lot	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$131,949	\$131,949		\$131,949
Louis Asphalt Lot	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$105,080
King St Parkade	\$10,482,600	\$10,482,600	\$10,482,600	\$10,482,600	\$10,482,600	\$10,482,600	\$10,482,600	\$10,482,600	\$10,482,600	\$10,482,600		\$10,482,600
<b>Total (\$000)</b>	<b>\$10,686.8</b>	<b>\$10,686.8</b>	<b>\$10,842.9</b>	<b>\$10,957.2</b>	<b>\$11,087.0</b>	<b>\$11,087.0</b>	<b>\$11,087.0</b>	<b>\$11,087.0</b>	<b>\$11,219.0</b>	<b>\$11,324.0</b>		

CITY OF PETERBOROUGH  
2012 DEVELOPMENT CHARGES BACKGROUND STUDY  
ROADS & RELATED HISTORIC SERVICE LEVEL ANALYSIS

NOISE & RETAINING WALLS Description	\$ (Value of Noise & Retaining Walls)										
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Noise Wall along Sherbrooke St	\$146,304	\$146,304	\$146,304	\$146,304	\$146,304	\$146,304	\$146,304	\$146,304	\$146,304	\$146,304	
Retaining Wall - Brealey Dr	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	
Retaining Wall - Geraldine Ave	\$0	\$0	\$0	\$0	\$56,508	\$56,508	\$56,508	\$56,508	\$56,508	\$56,508	
Retaining Wall - b/w London St & Edinbur	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$241,999	\$241,999	\$241,999	
<b>Total (\$000)</b>	<b>\$346.3</b>	<b>\$346.3</b>	<b>\$346.3</b>	<b>\$346.3</b>	<b>\$402.8</b>	<b>\$402.8</b>	<b>\$402.8</b>	<b>\$644.8</b>	<b>\$644.8</b>	<b>\$644.8</b>	

DECORATIVE PLANTS & LUMINARIES Description	\$ (Value of Plants & Luminaries)										
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Decorative Plants	\$1,027,212	\$1,027,212	\$1,041,212	\$1,105,612	\$1,105,612	\$1,105,612	\$1,105,612	\$1,235,072	\$1,235,072	\$1,235,072	
Decorative Luminaries	\$480,509	\$480,509	\$486,509	\$514,109	\$514,109	\$514,109	\$514,109	\$556,072	\$556,072	\$556,072	
<b>Total (\$000)</b>	<b>\$1,507.7</b>	<b>\$1,507.7</b>	<b>\$1,527.7</b>	<b>\$1,619.7</b>	<b>\$1,619.7</b>	<b>\$1,619.7</b>	<b>\$1,619.7</b>	<b>\$1,791.1</b>	<b>\$1,791.1</b>	<b>\$1,791.1</b>	

ROAD SIGNS & POSTS Description	\$ (Value of Road Signs & Posts)										
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Road Signs and Posts	\$170,397	\$170,397	\$352,009	\$543,220	\$747,261	\$965,234	\$965,234	\$969,950	\$969,950	\$988,344	
<b>Total (\$000)</b>	<b>\$170.4</b>	<b>\$170.4</b>	<b>\$352.0</b>	<b>\$543.2</b>	<b>\$747.3</b>	<b>\$965.2</b>	<b>\$965.2</b>	<b>\$970.0</b>	<b>\$970.0</b>	<b>\$988.3</b>	

APPENDIX B  
TABLE 1 - PAGE 4

CITY OF PETERBOROUGH  
ROADS & RELATED HISTORIC SERVICE LEVEL ANALYSIS  
CALCULATION OF SERVICE LEVELS

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Historic Population	72,221	73,004	73,796	74,597	75,406	76,053	76,706	77,364	78,028	78,698
Historic Employment	40,271	41,230	42,211	43,216	44,245	44,563	44,884	45,207	45,533	45,861
<b>Total Historic Population &amp; Employment</b>	<b>112,492</b>	<b>114,234</b>	<b>116,008</b>	<b>117,813</b>	<b>119,651</b>	<b>120,617</b>	<b>121,590</b>	<b>122,572</b>	<b>123,561</b>	<b>124,559</b>

INVENTORY SUMMARY (\$000)

Roads	\$823,689.3	\$825,070.3	\$830,695.5	\$832,829.9	\$838,540.5	\$839,312.3	\$850,763.1	\$851,998.0	\$853,783.2	\$856,416.7
Traffic Signals	\$49,200.0	\$49,712.5	\$50,737.5	\$51,762.5	\$52,787.5	\$53,300.0	\$55,862.5	\$56,375.0	\$56,887.5	\$60,987.5
Sidewalks	\$46,418.0	\$48,286.0	\$50,090.1	\$51,347.5	\$54,232.8	\$55,226.6	\$55,868.4	\$57,454.8	\$58,387.4	\$59,232.2
Trails	\$4,114.0	\$4,148.0	\$4,153.7	\$4,153.7	\$5,213.6	\$5,213.6	\$5,658.0	\$5,717.9	\$6,029.1	\$6,092.1
Bridges And Culverts	\$61,225.0	\$61,225.0	\$61,225.0	\$61,225.0	\$61,225.0	\$61,225.0	\$61,225.0	\$61,225.0	\$61,225.0	\$61,225.0
Parking Lots	\$10,686.8	\$10,686.8	\$10,842.9	\$10,957.2	\$11,087.0	\$11,087.0	\$11,087.0	\$11,087.0	\$11,219.0	\$11,324.0
Noise & Retaining Walls	\$346.3	\$346.3	\$346.3	\$346.3	\$402.8	\$402.8	\$402.8	\$644.8	\$644.8	\$644.8
Decorative Plants & Luminaries	\$1,507.7	\$1,507.7	\$1,527.7	\$1,619.7	\$1,619.7	\$1,619.7	\$1,619.7	\$1,791.1	\$1,791.1	\$1,791.1
Road Signs & Posts	\$170.4	\$170.4	\$352.0	\$543.2	\$747.3	\$965.2	\$965.2	\$970.0	\$970.0	\$988.3
<b>Total (\$000)</b>	<b>\$997,357.6</b>	<b>\$1,001,153.1</b>	<b>\$1,009,970.9</b>	<b>\$1,014,785.0</b>	<b>\$1,025,856.2</b>	<b>\$1,028,352.3</b>	<b>\$1,043,451.8</b>	<b>\$1,047,263.6</b>	<b>\$1,050,937.1</b>	<b>\$1,058,701.9</b>

SERVICE LEVEL (\$/pop & emp)

											Average Service Level
Roads	\$7,322.18	\$7,222.61	\$7,160.69	\$7,069.08	\$7,008.22	\$6,958.51	\$6,996.97	\$6,951.02	\$6,909.81	\$6,875.62	\$7,047.47
Traffic Signals	\$437.36	\$435.18	\$437.36	\$439.36	\$441.18	\$441.90	\$459.43	\$459.94	\$460.40	\$489.63	\$450.17
Sidewalks	\$412.63	\$422.69	\$431.78	\$435.84	\$453.26	\$457.87	\$459.48	\$468.74	\$472.54	\$475.54	\$449.04
Trails	\$36.57	\$36.31	\$35.81	\$35.26	\$43.57	\$43.22	\$46.53	\$46.65	\$48.79	\$48.91	\$42.16
Bridges And Culverts	\$544.26	\$535.96	\$527.77	\$519.68	\$511.70	\$507.60	\$503.54	\$499.50	\$495.50	\$491.54	\$513.70
Parking Lots	\$95.00	\$93.55	\$93.47	\$93.00	\$92.66	\$91.92	\$91.18	\$90.45	\$90.80	\$90.91	\$92.30
Noise & Retaining Walls	\$3.08	\$3.03	\$2.99	\$2.94	\$3.37	\$3.34	\$3.31	\$5.26	\$5.22	\$5.18	\$3.77
Decorative Plants & Luminaries	\$13.40	\$13.20	\$13.17	\$13.75	\$13.54	\$13.43	\$13.32	\$14.61	\$14.50	\$14.38	\$13.73
Road Signs & Posts	\$1.51	\$1.49	\$3.03	\$4.61	\$6.25	\$8.00	\$7.94	\$7.91	\$7.85	\$7.93	\$5.65
<b>Total (\$/pop &amp; emp)</b>	<b>\$8,866.00</b>	<b>\$8,764.02</b>	<b>\$8,706.06</b>	<b>\$8,613.52</b>	<b>\$8,573.74</b>	<b>\$8,525.79</b>	<b>\$8,581.71</b>	<b>\$8,544.09</b>	<b>\$8,505.41</b>	<b>\$8,499.64</b>	<b>\$8,618.00</b>

CITY OF PETERBOROUGH  
CALCULATION OF MAXIMUM ALLOWABLE  
ROADS & RELATED HISTORIC SERVICE LEVEL ANALYSIS

<b>20-Year Funding Envelope Calculation</b>	
10 Year Average Service Level (2002-2011)	\$8,618.00
Net Population & Employment Growth (2012-2031)	7,512
Maximum Allowable Funding Envelope	\$64,742,702
Less: Uncommitted Excess Capacity	\$0
<b>Net Maximum Allowable Funding Envelope</b>	<b>\$64,742,702</b>

<b>Excess Capacity Calculation</b>	
Total Value of Inventory in 2011	\$1,058,701,871
Inventory Using Average Service Level	\$1,073,445,176
Excess Capacity	\$0



APPENDIX B  
TABLE 2 - PAGE 1

CITY OF PETERBOROUGH  
2012 DEVELOPMENT CHARGES STUDY  
ROADS AND RELATED CAPITAL PROGRAM  
BREAKDOWN OF TOTAL GROSS COSTS

Project and Location	Proposed Improvement	Anticipated Timing	Length (m)	Road Construction Costs	Structures and Intersections Construction	Utility Relocation	Land Acquisition	Total Project Cost
<b>Projects from 2009 DC Study</b>								
A Lansdowne Street West - Spillsbury Drive to West City Limit	Capacity Improvement	2012 - 2012		\$8,163,592	\$0	\$0	\$0	\$8,163,592
B Highway 115 / Parkway Interchange		2012 - 2012		\$185,000	\$0	\$0	\$0	\$185,000
1 Brealey Drive Realignment at Parkhill Rd West	Capacity Improvement	2012 - 2013	450	\$0	\$309,375	\$42,646	\$250,000	\$602,021
2 Parkhill - Wallis to Ravenwood	Urbanization	2012 - 2012	800	\$2,453,282	\$0	\$338,176	\$0	\$2,791,458
3 Sherbrooke/Wallis Intersection	Capacity Improvement	2013 - 2013	150	\$0	\$343,750	\$29,791	\$100,000	\$473,541
4 Ashburnham - Lansdowne to Maria	Urbanization	2013 - 2014	1,400	\$4,612,313	\$137,500	\$108,807	\$0	\$4,858,620
5 Parkhill - Ravenwood to City Limit	Urbanization	2013 - 2014	1,600	\$5,369,391	\$275,000	\$778,059	\$1,415,000	\$7,837,450
6 Sherbrooke St - Glenforest to W. City Limit	Urbanization	2013 - 2013	1,600	\$5,114,072	\$0	\$117,151	\$840,000	\$6,071,224
7 Armour Rd- Nassau Mills S. to Rotary Trail	Realignment	2015 - 2016	1,350	\$4,314,998	\$0	\$431,500	\$0	\$4,746,498
8 Brealey - Lansdowne to Stenson	Urbanization	2013 - 2015	1,200	\$3,975,481	\$275,000	\$97,369	\$0	\$4,347,849
9 Kawartha Heights Pond	Capacity Improvement	2015 - 2015		\$260,000	\$0	\$0	\$0	\$260,000
10 Bethune St - Dalhousie to Dublin	Capacity Improvement	2014 - 2017	1,450	\$4,253,221	\$550,000	\$662,107	\$1,900,000	\$7,365,328
11 Brealey - Lansdowne to Sherbrooke	Urbanization	2015 - 2017	1,525	\$5,052,173	\$275,000	\$122,033	\$0	\$5,449,207
12 Maria St. - Walker Ave to Television Road	Capacity Improvement	2015 - 2018	1,150	\$3,675,739	\$275,000	\$395,074	\$0	\$4,345,813
13 River Road - Hwy 7/115 to Lansdowne St	Urbanization	2016 - 2019	1,600	\$5,389,072	\$0	\$123,451	\$0	\$5,512,523
14 Brealey - Sherbrooke to Parkhill Rd	Urbanization	2017 - 2020	1,500	\$4,969,351	\$275,000	\$120,136	\$0	\$5,364,487
<b>Subtotal</b>				<b>\$57,787,687</b>	<b>\$2,715,625</b>	<b>\$3,366,300</b>	<b>\$4,505,000</b>	<b>\$68,374,612</b>
<b>Projects From Capital Budget and Forecast</b>								
15 Armour Rd - Thompson Creek south of Francis Stewart	Urbanization	2012 - 2013	400	\$1,347,268	\$0	\$30,863	\$0	\$1,378,131
16 Extension of Crawford Drive to Harper Road	Capacity Improvement	2012 - 2014	700	\$3,292,582	\$0	\$230,616	\$0	\$3,523,197
17 Intersection Improvement - Willowcreek/Lansdowne	Capacity Improvement	2012 - 2013	250	\$0	\$1,031,250	\$142,154	\$0	\$1,173,404
18 Lansdowne - River Rd to Ashburnham Rd	Capacity Improvement	2012 - 2014	1,600	\$0	\$0	\$0	\$0	\$0
19 Medical Drive South Extension	Capacity Improvement	2013 - 2015	1,300	\$4,856,771	\$550,000	\$540,677	\$0	\$5,947,448
20 Erosion Control Measures	Creek Erosion	2012 - 2031		\$1,497,447	\$0	\$0	\$0	\$1,497,447
<b>Subtotal</b>				<b>\$10,994,068</b>	<b>\$1,581,250</b>	<b>\$944,310</b>	<b>\$0</b>	<b>\$13,519,627</b>

APPENDIX B  
TABLE 2 - PAGE 2

CITY OF PETERBOROUGH  
2012 DEVELOPMENT CHARGES STUDY  
ROADS AND RELATED CAPITAL PROGRAM  
BREAKDOWN OF TOTAL GROSS COSTS

Project and Location	Proposed Improvement	Anticipated Timing	Length (m)	Road Construction Costs	Structures and Intersections Construction	Utility Relocation	Land Acquisition	Total Project Cost
<b>2011 Transportation Plan</b>								
21 Carnegie Planning Area - E/W Arterial	New Medium Capacity Arterial	2014 - 2014	1,500	\$4,794,443	\$0	\$479,444	\$0	\$5,273,887
22 Carnegie Planning Area - N/S Arterial	New Medium Capacity Arterial	2014 - 2014	280	\$894,963	\$0	\$89,496	\$0	\$984,459
23 Charlotte - Clonsilla Ave to Monaghan Rd	Capacity Improvement	2014 - 2014	325	\$2,398,287	\$0	\$54,939	\$895,000	\$3,348,226
24 Chemong Rd-Parkhill to Parkway ROW	Capacity Improvement	2012 - 2014	1,200	\$5,168,916	\$687,500	\$807,286	\$4,700,000	\$11,363,702
25 Fairbairn St Widening	Capacity Improvement	2012 - 2015	700	\$2,961,516	\$0	\$408,234	\$1,100,000	\$4,469,750
26 Nassau Mills Rd over Otonabee River	Capacity Improvement	2013 - 2015	400	\$770,000	\$9,886,250	\$244,110	\$0	\$10,900,360
27 Ashburnham - McFarlane to Parkhill	New High Capacity Collector	2017 - 2018	800	\$2,557,036	\$275,000	\$283,204	\$0	\$3,115,240
28 Nassau Mills Rd over Trent Severn	Capacity Improvement	2017 - 2019	525	\$2,323,750	\$6,421,250	\$200,327	\$0	\$8,945,327
29 New 2 Lane Arterial	Capacity Improvement	2020 - 2022	3,350	\$14,398,217	\$0	\$1,439,822	\$0	\$15,838,039
30 Pioneer Rd Upgrade	Capacity Improvement	2022 - 2022	4,300	\$2,951,141	\$0	\$67,604	\$0	\$3,018,745
31 Television Rd Widening	Capacity Improvement	2021 - 2022	3,500	\$14,670,078	\$0	\$2,022,217	\$2,000,000	\$18,692,295
32 University Rd Upgrade	Capacity Improvement	2020 - 2023	3,000	\$2,470,723	\$0	\$56,598	\$0	\$2,527,321
33 Citywide Transportation Operational Improvements	Capacity Improvement	2012 - 2031		\$0	\$10,250,000	\$0	\$0	\$10,250,000
34 Various New Sidewalk Installations	Capacity Improvement	2012 - 2026		\$6,000,000	\$0	\$0	\$0	\$6,000,000
35 Various New Multi-Use Trails	Capacity Improvement	2012 - 2031		\$10,000,000	\$0	\$0	\$0	\$10,000,000
<b>Sub-Total</b>				<b>\$72,359,070</b>	<b>\$27,520,000</b>	<b>\$6,153,282</b>	<b>\$8,695,000</b>	<b>\$114,727,351</b>



APPENDIX B  
TABLE 2 - PAGE 3

CITY OF PETERBOROUGH  
2012 DEVELOPMENT CHARGES STUDY  
ROADS AND RELATED CAPITAL PROGRAM  
BREAKDOWN OF TOTAL GROSS COSTS

Project and Location	Proposed Improvement	Anticipated Timing	Length (m)	Road Construction Costs	Structures and Intersections Construction	Utility Relocation	Land Acquisition	Total Project Cost
<b>Lily Lake Growth</b>								
36 Intersection Improvements Chemong/Towerhill	Capacity Improvement	2020 - 2020		\$0	\$1,031,250	\$103,125	\$0	\$1,134,375
37 Lily Lake Rd/ Fairbairn Signalization	Capacity Improvement	2025 - 2025		\$0	\$1,031,250	\$103,125	\$0	\$1,134,375
38 Fairbairn Urbanization - Towerhill to O'Grady Sub	Urbanization	2025 - 2025	700	\$2,237,407	\$0	\$223,741	\$0	\$2,461,147
39 Lily Lake Urbanization - Fairbairn to Ackison	Urbanization	Beyond 2031	3,150	\$1,068,330	\$0	\$1,006,833	\$0	\$1,107,516
40 Ackison Road Urbanization - Lily Lake to Parkhill (Outside City)	Urbanization	Beyond 2031	1,400	\$4,474,813	\$0	\$447,481	\$0	\$4,922,295
41 Fairbairn/O'Grady Signalization	Capacity Improvement	Beyond 2031		\$0	\$275,000	\$27,500	\$0	\$302,500
42 Ackison/Lily Lake Signalization	Capacity Improvement	Beyond 2031		\$0	\$1,031,250	\$103,125	\$0	\$1,134,375
<b>Chemong Growth</b>								
43 Towerhill Urbanization - Chemong to Fairbairn	Urbanization	2020 - 2020	900	\$2,876,666	\$0	\$287,667	\$0	\$3,164,332
44 New Collector Internal to Plan out to County Rd 19	Capacity Improvement	2020 - 2020	120	\$658,555	\$687,500	\$0	\$0	\$1,346,055
45 Chemong Urbanization - Milroy to County Rd 19	Urbanization	2025 - 2025	880	\$2,812,740	\$0	\$281,274	\$0	\$3,094,014
46 Third Line & County Rd19 Urbanization (Outside City)	Urbanization	2020 & 2032	2,250	\$7,191,664	\$0	\$719,166	\$0	\$7,910,830
<b>Coldsprings Growth</b>								
47 Intersection Improvements Kennedy Rd/Donabee Dr	Capacity Improvement	2025 - 2025		\$0	\$1,031,250	\$103,125	\$0	\$1,134,375
48 Bensford Rd Signalization and Turn Lanes	Capacity Improvement	2025 - 2025		\$0	\$1,031,250	\$103,125	\$0	\$1,134,375
49 Wallace Pt Rd Urbanization - Kennedy to Coldsprings Sub	Urbanization	2025 - 2025	1,405	\$4,490,795	\$0	\$449,079	\$0	\$4,939,874
50 McNamara Rd/Guthrie Dr Urbanization (Outside City)	Urbanization	Beyond 2031	560	\$1,789,925	\$0	\$178,993	\$0	\$1,968,918
<b>Liftlock Growth</b>								
51 Intersection Improvements - Hunter/Ashburnham	Capacity Improvement	Beyond 2031		\$0	\$1,031,250	\$103,125	\$0	\$1,134,375
52 McFarlane/Canal Crossing Signalization	Capacity Improvement	Beyond 2031		\$0	\$1,031,250	\$103,125	\$0	\$1,134,375
53 Intersection Improvements - Armour/Parkhill	Capacity Improvement	Beyond 2031		\$0	\$1,031,250	\$103,125	\$0	\$1,134,375
54 Parkhill Urbanization - Park St to Television	Urbanization	Beyond 2031	3,480	\$11,123,107	\$0	\$1,112,311	\$0	\$12,235,418
<b>Carnegie Growth</b>								
55 New Arterial/County Rd 19 Signalization	Capacity Improvement	2014 - 2014		\$0	\$1,031,250	\$103,125	\$0	\$1,134,375
56 Cul-de-sac Cumberland Ave @ Parkway	Capacity Improvement	2014 - 2014		\$0	\$687,500	\$68,750	\$0	\$756,250
59 Carnegie Urbanization - Cumberland to Heritage Trail	Urbanization	2015 - 2015	375	\$1,198,611	\$0	\$119,861	\$0	\$1,318,472
58 Hilliard St Urbanization - Cumberland to County Rd 19	Urbanization	2020 - 2020	360	\$1,150,666	\$0	\$115,067	\$0	\$1,265,733
<b>Sub-Total</b>				<b>\$50,073,278</b>	<b>\$10,931,250</b>	<b>\$5,965,847</b>	<b>\$0</b>	<b>\$66,970,376</b>

<b>TOTAL ROADS AND RELATED PROGRAM</b>	<b>\$191,214,103</b>	<b>\$42,748,125</b>	<b>\$16,429,738</b>	<b>\$13,200,000</b>	<b>\$263,591,966</b>
--	----------------------	---------------------	---------------------	---------------------	----------------------



APPENDIX B  
TABLE 3 - PAGE 1  
CITY OF PETERBOROUGH  
2012 DEVELOPMENT CHARGES STUDY  
ROADS AND RELATED CAPITAL PROGRAM  
TOTAL PROJECT COSTS AND GROWTH SHARES

Project and Location	Project Costs and Growth Shares														
	Road Construction			Structures & Intersections			Utility Relocation			Land Acquisition			Total Project Cost		
	Subtotal Project Cost	Growth Share %	\$	Subtotal Project Cost	Growth Share %	\$	Subtotal Project Cost	Growth Share %	\$	Subtotal Project Cost	Growth Share %	\$	Non-Growth Share	Growth Share	Total Project Cost
<b>Projects from 2009 DC Study</b>															
A. Lansdowne Street West - Spilsbury Drive to West City Limit	\$8,163,592	100%	\$8,163,592	\$0	100%	\$0	\$0	100%	\$0	\$0	0%	\$0	\$0	\$8,163,592	\$8,163,592
B Highway 115 / Parkway Interchange	\$185,000	100%	\$185,000	\$0	100%	\$0	\$0	100%	\$0	\$0	0%	\$0	\$0	\$185,000	\$185,000
1 Breatley Drive Realignment at Parkhill Rd West	\$0	50%	\$0	\$309,375	50%	\$154,688	\$42,646	50%	\$21,323	\$250,000	100%	\$250,000	\$176,011	\$426,011	\$602,021
2 Parkhill - Wallis to Ravenwood	\$2,453,282	50%	\$1,226,641	\$0	50%	\$0	\$338,176	50%	\$169,088	\$0	0%	\$0	\$1,395,729	\$1,395,729	\$2,791,468
3 Sherbrooke/Wallis Intersection	\$0	50%	\$0	\$343,750	50%	\$171,875	\$29,791	50%	\$14,896	\$100,000	100%	\$100,000	\$186,771	\$286,771	\$473,541
4 Ashburnham - Lansdowne to Maria	\$4,612,313	50%	\$2,306,157	\$137,500	50%	\$68,750	\$108,807	50%	\$54,404	\$0	0%	\$0	\$2,429,310	\$2,429,310	\$4,858,620
5 Parkhill - Ravenwood to City Limit	\$5,389,391	50%	\$2,694,696	\$275,000	50%	\$137,500	\$778,059	50%	\$389,029	\$1,415,000	100%	\$1,415,000	\$3,211,225	\$4,626,225	\$7,837,450
6 Sherbrooke St - Glenforest to W. City Limit	\$5,114,072	50%	\$2,557,036	\$0	50%	\$0	\$117,151	50%	\$58,576	\$840,000	100%	\$840,000	\$2,615,612	\$3,455,612	\$6,071,224
7 Armour Rd - Nassau Mills S. to Rotary Trail	\$4,314,998	66%	\$2,847,899	\$0	66%	\$0	\$431,500	66%	\$284,790	\$0	0%	\$0	\$1,613,809	\$3,132,689	\$4,746,498
8 Breatley - Lansdowne to Stenson	\$3,975,481	33%	\$1,311,909	\$275,000	33%	\$90,750	\$97,369	33%	\$32,132	\$0	0%	\$0	\$2,913,059	\$1,434,790	\$4,347,849
9 Kawartha Heights Pond	\$260,000	100%	\$260,000	\$0	100%	\$0	\$0	100%	\$0	\$0	0%	\$0	\$0	\$260,000	\$260,000
10 Bethune St - Dalhousie to Dublin	\$4,253,221	33%	\$1,403,583	\$550,000	33%	\$181,500	\$662,107	33%	\$218,495	\$1,900,000	50%	\$950,000	\$4,611,770	\$2,753,558	\$7,365,328
11 Breatley - Lansdowne to Sherbrooke	\$5,052,173	33%	\$1,667,217	\$275,000	33%	\$90,750	\$122,033	33%	\$40,271	\$0	0%	\$0	\$3,650,968	\$1,798,238	\$5,449,207
12 Maria St. - Walker Ave to Television Road	\$3,675,739	33%	\$1,212,994	\$275,000	33%	\$90,750	\$395,074	33%	\$130,374	\$0	0%	\$0	\$2,911,695	\$1,434,118	\$4,345,813
13 River Road - Hwy 7/115 to Lansdowne St.	\$5,389,072	50%	\$2,694,536	\$0	50%	\$0	\$123,451	50%	\$61,726	\$0	0%	\$0	\$2,756,262	\$2,756,262	\$5,512,523
14 Breatley - Sherbrooke to Parkhill Rd	\$4,969,351	33%	\$1,639,886	\$275,000	33%	\$90,750	\$120,136	33%	\$39,645	\$0	0%	\$0	\$3,594,206	\$1,770,281	\$5,364,487
<b>Subtotal</b>	<b>\$57,787,687</b>		<b>\$30,161,125</b>	<b>\$2,715,625</b>		<b>\$1,077,313</b>	<b>\$3,366,300</b>		<b>\$1,514,748</b>	<b>\$4,505,000</b>		<b>\$3,555,000</b>	<b>\$32,086,426</b>	<b>\$36,308,185</b>	<b>\$66,374,612</b>
<b>Projects From Capital Budget and Forecast</b>															
15 Armour Rd - Thompson Creek south of Francis Stewart	\$1,347,268	50%	\$673,634	\$0	50%	\$0	\$30,863	50%	\$15,431	\$0	0%	\$0	\$689,065	\$689,065	\$1,378,131
16 Extension of Crawford Drive to Harper Road	\$3,292,582	50%	\$1,646,291	\$0	50%	\$0	\$230,616	50%	\$115,308	\$0	0%	\$0	\$1,761,599	\$1,761,599	\$3,523,197
17 Intersection Improvement - Willowcreek/Lansdowne	\$0	50%	\$0	\$1,031,250	50%	\$515,625	\$142,154	50%	\$71,077	\$0	0%	\$0	\$586,702	\$586,702	\$1,173,404
18 Lansdowne - River Rd to Ashburnham Rd	\$0	0%	\$0	\$0	0%	\$0	\$0	0%	\$0	\$0	0%	\$0	\$0	\$0	\$0
19 Medical Drive South Extension	\$4,856,771	33%	\$1,602,734	\$550,000	33%	\$181,500	\$540,677	33%	\$178,423	\$0	0%	\$0	\$3,984,790	\$1,962,658	\$5,947,448
20 Erosion Control Measures	\$1,497,447	50%	\$748,724	\$0	50%	\$0	\$0	50%	\$0	\$0	100%	\$0	\$748,724	\$748,724	\$1,497,447
<b>Subtotal</b>	<b>\$10,994,068</b>		<b>\$4,671,383</b>	<b>\$1,581,250</b>		<b>\$697,125</b>	<b>\$944,310</b>		<b>\$380,240</b>	<b>\$0</b>		<b>\$0</b>	<b>\$7,770,880</b>	<b>\$5,748,747</b>	<b>\$13,519,627</b>



APPENDIX B  
TABLE 3 - PAGE 2

CITY OF PETERBOROUGH  
2012 DEVELOPMENT CHARGES STUDY  
ROADS AND RELATED CAPITAL PROGRAM  
TOTAL PROJECT COSTS AND GROWTH SHARES

Project and Location	Project Costs and Growth Shares																
	Road Construction				Structures & Intersections				Utility Relocation				Land Acquisition				
	Subtotal Project Cost	Growth Share %	Growth Share \$		Subtotal Project Cost	Growth Share %	Growth Share \$		Subtotal Project Cost	Growth Share %	Growth Share \$		Subtotal Project Cost	Growth Share %	Growth Share \$		
																Total Project Cost	Non-Growth Share
<b>2011 Transportation Plan</b>																	
21 Carnegie Planning Area - E/W Arterial	\$4,794,443	33%	\$1,582,166	\$0	33%	\$0		\$479,444	33%	\$158,217	\$0	\$0	0%	\$0	\$3,533,504	\$1,740,363	\$5,273,887
22 Carnegie Planning Area - N/S Arterial	\$894,963	33%	\$295,338	\$0	33%	\$0		\$89,496	33%	\$29,534	\$0	\$0	0%	\$0	\$659,587	\$324,871	\$984,459
Charlotte - Clonsilla Ave to Monaghan Rd	\$2,398,287	33%	\$791,435	\$0	33%	\$0		\$54,939	33%	\$18,130	\$895,000	\$895,000	100%	\$895,000	\$1,643,662	\$1,704,565	\$3,348,226
24 Chemong Rd-Parkhill to Parkway ROW	\$5,168,916	20%	\$1,033,783	\$687,500	20%	\$137,500		\$807,286	20%	\$161,457	\$4,700,000	\$4,700,000	100%	\$4,700,000	\$5,330,962	\$6,032,740	\$11,363,702
25 Fairbairn St Widening	\$2,961,516	50%	\$1,480,758	\$0	50%	\$0		\$408,234	50%	\$204,117	\$1,100,000	\$1,100,000	100%	\$1,100,000	\$1,684,875	\$2,784,875	\$4,469,750
26 Nassau Mills Rd over Otonabee River	\$770,000	75%	\$577,500	\$9,886,250	75%	\$7,414,688		\$244,110	75%	\$183,082	\$0	\$0	0%	\$0	\$2,725,090	\$8,175,270	\$10,900,360
27 Ashburnham - McFarlane to Parkhill	\$2,557,036	0%	\$0	\$275,000	0%	\$0		\$283,204	0%	\$0	\$0	\$0	0%	\$0	\$3,115,240	\$0	\$3,115,240
28 Nassau Mills Rd over Trent Severn	\$2,323,750	50%	\$1,161,875	\$6,421,250	50%	\$3,210,625		\$200,327	50%	\$100,164	\$0	\$0	0%	\$0	\$4,472,664	\$4,472,664	\$8,945,327
29 New 2 Lane Arterial	\$14,398,217	33%	\$4,751,412	\$0	33%	\$0		\$1,439,822	33%	\$475,141	\$0	\$0	0%	\$0	\$10,611,486	\$5,226,553	\$15,838,039
30 Pioneer Rd Upgrade	\$2,951,141	50%	\$1,475,571	\$0	50%	\$0		\$67,604	50%	\$33,802	\$0	\$0	0%	\$0	\$1,509,373	\$1,509,373	\$3,018,745
31 Television Rd Widening	\$14,670,078	50%	\$7,335,039	\$0	50%	\$0		\$2,022,217	50%	\$1,011,109	\$2,000,000	\$2,000,000	100%	\$2,000,000	\$8,346,147	\$10,346,147	\$18,692,285
32 University Rd Upgrade	\$2,470,723	50%	\$1,235,362	\$0	50%	\$0		\$86,598	50%	\$28,299	\$0	\$0	0%	\$0	\$1,263,661	\$1,263,661	\$2,527,321
33 Citywide Transportation Operational Improvements	\$0	50%	\$0	\$10,250,000	50%	\$5,125,000		\$0	50%	\$0	\$0	\$0	0%	\$0	\$5,125,000	\$5,125,000	\$10,250,000
34 Various New Sidewalk Installations	\$6,000,000	25%	\$1,500,000	\$0	25%	\$0		\$0	25%	\$0	\$0	\$0	0%	\$0	\$4,500,000	\$1,500,000	\$6,000,000
35 Various New Multi-Use Trails	\$10,000,000	25%	\$2,500,000	\$0	25%	\$0		\$0	25%	\$0	\$0	\$0	0%	\$0	\$7,500,000	\$2,500,000	\$10,000,000
<b>Sub-Total Transportation Plan</b>	<b>\$72,359,070</b>		<b>\$25,720,237</b>	<b>\$27,520,000</b>		<b>\$15,887,813</b>		<b>\$6,153,282</b>		<b>\$2,403,051</b>	<b>\$8,695,000</b>			<b>\$8,695,000</b>	<b>\$62,021,250</b>	<b>\$52,706,101</b>	<b>\$114,727,351</b>

APPENDIX B  
 TABLE 3 - PAGE 3  
 CITY OF PETERBOROUGH  
 2012 DEVELOPMENT CHARGES STUDY  
 ROADS AND RELATED CAPITAL PROGRAM  
 TOTAL PROJECT COSTS AND GROWTH SHARES

Project and Location	Project Costs and Growth Shares										Total Project Cost	
	Road Construction		Structures & Intersections		Utility Relocation		Land Acquisition		Non-Growth Share		Growth Share	Total Project Cost
	Subtotal Project Cost	Growth Share %	Subtotal Project Cost	Growth Share %	Subtotal Project Cost	Growth Share %	Subtotal Project Cost	Growth Share %	Subtotal Project Cost	Growth Share %		
	\$		\$		\$		\$		\$			
<b>Lily Lake Growth</b>												
36 Intersection Improvements - Chemung/Towerhill	\$0	100%	\$1,031,250	100%	\$1,031,250	100%	\$103,125	100%	\$103,125	\$0	\$0	\$1,134,375
37 Lily Lake Rd/ Fairbairn Signalization	\$0	100%	\$1,031,250	100%	\$1,031,250	100%	\$103,125	100%	\$103,125	\$0	\$0	\$1,134,375
38 Fairbairn Urbanization - Towerhill to O'Grady Sub	\$2,237,407	50%	\$0	50%	\$223,741	50%	\$111,870	50%	\$111,870	\$1,230,574	\$0	\$2,461,147
39 Lily Lake Urbanization - Fairbairn to Ackson	\$10,068,330	50%	\$0	50%	\$1,006,833	50%	\$503,416	50%	\$503,416	\$5,537,581	\$0	\$11,075,163
40 Ackson Road Urbanization - Lily Lake to Parkhill (Outside City)	\$4,474,813	50%	\$0	50%	\$447,481	50%	\$223,741	50%	\$223,741	\$2,461,147	\$0	\$4,922,295
41 Fairbairn/O'Grady Signalization	\$0	100%	\$275,000	100%	\$275,000	100%	\$27,500	100%	\$27,500	\$0	\$0	\$302,500
42 Ackson/Lily Lake Signalization	\$0	100%	\$1,031,250	100%	\$1,031,250	100%	\$103,125	100%	\$103,125	\$0	\$0	\$1,134,375
<b>Chemung Growth</b>												
43 Towerhill Urbanization - Chemung to Fairbairn	\$2,876,666	50%	\$0	50%	\$287,667	50%	\$143,833	50%	\$143,833	\$1,582,166	\$0	\$3,164,332
44 New Collector Internal to Plan out to County Rd 19	\$658,555	100%	\$687,500	100%	\$687,500	100%	\$0	100%	\$0	\$0	\$0	\$1,346,055
45 Chemung Urbanization - Milroy to County Rd 19	\$2,812,740	50%	\$0	50%	\$281,274	50%	\$140,637	50%	\$140,637	\$1,547,007	\$0	\$3,094,014
46 Third Line & County Rd19 Urbanization (Outside City)	\$7,191,664	25%	\$0	25%	\$719,166	25%	\$79,792	25%	\$79,792	\$5,933,123	\$0	\$7,910,830
<b>Coldsprings Growth</b>												
47 Intersection Improvements - Kennedy Rd/Otonabee Dr	\$0	100%	\$1,031,250	100%	\$1,031,250	100%	\$103,125	100%	\$103,125	\$0	\$0	\$1,134,375
48 Bensford Rd Signalization and Turn Lanes	\$0	100%	\$1,031,250	100%	\$1,031,250	100%	\$103,125	100%	\$103,125	\$0	\$0	\$1,134,375
49 Wallace Pt Rd Urbanization - Kennedy to Coldsprings Sub	\$4,490,795	50%	\$0	50%	\$449,079	50%	\$224,540	50%	\$224,540	\$2,469,937	\$0	\$4,939,874
50 McNamara Rd/Guthrie Dr Urbanization (Outside City)	\$1,789,925	50%	\$0	50%	\$178,993	50%	\$89,496	50%	\$89,496	\$984,459	\$0	\$1,968,918
<b>Liflock Growth</b>												
51 Intersection Improvements - Hunter/Asibumhian	\$0	100%	\$1,031,250	100%	\$1,031,250	100%	\$103,125	100%	\$103,125	\$0	\$0	\$1,134,375
52 McFarlane/Canal Crossing Signalization	\$0	100%	\$1,031,250	100%	\$1,031,250	100%	\$103,125	100%	\$103,125	\$0	\$0	\$1,134,375
53 Intersection Improvements - Armour/Parkhill	\$0	100%	\$1,031,250	100%	\$1,031,250	100%	\$103,125	100%	\$103,125	\$0	\$0	\$1,134,375
54 Parkhill Urbanization - Park St to Television	\$11,123,107	50%	\$0	50%	\$1,112,311	50%	\$556,155	50%	\$556,155	\$6,117,709	\$0	\$12,235,418
<b>Carnegie Growth</b>												
55 New Arterial/County Rd 19 Signalization	\$0	100%	\$1,031,250	100%	\$1,031,250	100%	\$103,125	100%	\$103,125	\$0	\$0	\$1,134,375
56 Cui-de-sac Cumberland Ave @ Parkway	\$0	100%	\$687,500	100%	\$687,500	100%	\$68,750	100%	\$68,750	\$0	\$0	\$756,250
59 Carnegie Urbanization - Cumberland to Heritage Trail	\$1,198,611	50%	\$0	50%	\$119,861	50%	\$59,931	50%	\$59,931	\$659,236	\$0	\$1,318,472
58 Hilliard St Urbanization - Cumberland to County Rd 19	\$1,150,666	50%	\$0	50%	\$115,067	50%	\$57,533	50%	\$57,533	\$632,866	\$0	\$1,265,733
<b>Sub-Total</b>	<b>\$50,073,278</b>		<b>\$10,931,250</b>		<b>\$5,965,847</b>		<b>\$3,315,320</b>		<b>\$3,315,320</b>	<b>\$0</b>	<b>\$0</b>	<b>\$66,970,376</b>
<b>TOTAL</b>	<b>\$191,214,103</b>		<b>\$42,748,125</b>		<b>\$28,893,500</b>		<b>\$7,613,359</b>		<b>\$12,250,000</b>	<b>\$13,200,000</b>	<b>\$132,577,604</b>	<b>\$263,591,966</b>



APPENDIX B  
TABLE 4 - PAGE 1

CITY OF PETERBOROUGH  
2012 DEVELOPMENT CHARGES STUDY  
ROADS AND RELATED CAPITAL PROGRAM

Project and Location	Anticipated Timing		Total Project Cost	Grants and Subsidies	LESS:				Post-Period Benefit	Net DC Recoverable 2012-2031
					Non-Growth Shares	Available DC Reserves				
<b>Projects from 2009 DC Study</b>										
A Lansdowne Street West - Spillsbury Drive to West City Limit	2012	- 2012	\$8,163,592	\$0	\$0	0%	\$0	\$2,504,438	\$2,263,662	\$3,395,492
B Highway 115 / Parkway Interchange	2012	- 2012	\$185,000	\$0	\$0	0%	\$0	\$0	\$74,000	\$111,000
1 Brealey Drive Realignment at Parkhill Rd West	2012	- 2013	\$602,021	\$0	\$176,011	29%	\$316,500	\$316,500	\$43,804	\$65,707
2 Parkhill - Wallis to Ravenwood	2012	- 2012	\$2,791,458	\$0	\$1,395,729	50%	\$1,000,000	\$1,000,000	\$158,292	\$237,437
3 Sherbrooke/Wallis Intersection	2013	- 2013	\$473,541	\$0	\$186,771	39%	\$0	\$0	\$114,708	\$172,063
4 Ashburnham - Lansdowne to Maria	2013	- 2014	\$4,858,620	\$0	\$2,429,310	50%	\$0	\$0	\$971,724	\$1,457,586
5 Parkhill - Ravenwood to City Limit	2013	- 2014	\$7,837,450	\$0	\$3,211,225	41%	\$0	\$0	\$1,850,490	\$2,775,735
6 Sherbrooke St - Glenforest to W. City Limit	2013	- 2013	\$6,071,224	\$0	\$2,615,612	43%	\$0	\$0	\$1,382,245	\$2,073,367
7 Armour Rd- Nassau Mills S. to Rotary Trail	2015	- 2016	\$4,746,498	\$0	\$1,613,809	34%	\$0	\$0	\$1,253,076	\$1,879,613
8 Brealey - Lansdowne to Stenson	2013	- 2015	\$4,347,849	\$0	\$2,913,059	67%	\$0	\$0	\$573,916	\$860,874
9 Kawartha Heights Pond	2015	- 2015	\$260,000	\$0	\$0	0%	\$0	\$227,000	\$13,200	\$19,800
10 Bethune St - Dalhousie to Dublin	2014	- 2017	\$7,385,328	\$0	\$4,611,770	63%	\$0	\$0	\$1,101,423	\$1,652,135
11 Brealey - Lansdowne to Sherbrooke	2015	- 2017	\$5,449,207	\$0	\$3,650,968	67%	\$0	\$0	\$719,295	\$1,078,943
12 Maria St. - Walker Ave to Television Road	2015	- 2018	\$4,345,813	\$0	\$2,911,695	67%	\$0	\$0	\$1,434,118	\$0
13 River Road - Hwy 7/115 to Lansdowne St	2016	- 2019	\$5,512,523	\$0	\$2,756,262	50%	\$0	\$0	\$1,102,505	\$1,653,757
14 Brealey - Sherbrooke to Parkhill Rd	2017	- 2020	\$5,364,487	\$0	\$3,594,206	67%	\$0	\$0	\$708,112	\$1,062,169
<b>Subtotal</b>			<b>\$68,374,612</b>	<b>\$0</b>	<b>\$32,066,426</b>		<b>\$4,047,938</b>	<b>\$13,764,570</b>	<b>\$18,495,677</b>	
<b>Projects From Capital Budget and Forecast</b>										
15 Armour Rd - Thompson Creek south of Francis Stewart	2012	- 2013	\$1,378,131	\$0	\$689,065	50%	\$0	\$0	\$275,626	\$413,439
16 Extension of Crawford Drive to Harper Road	2012	- 2014	\$3,523,197	\$0	\$1,761,599	50%	\$0	\$0	\$704,639	\$1,056,960
17 Intersection Improvement - Willowcreek/Lansdowne	2012	- 2013	\$1,173,404	\$0	\$586,702	50%	\$0	\$0	\$234,681	\$352,021
18 Lansdowne - River Rd to Ashburnham Rd	2012	- 2014	\$0	\$0	\$0	0%	\$0	\$0	\$0	\$0
19 Medical Drive South Extension	2013	- 2015	\$5,947,448	\$0	\$3,984,790	67%	\$0	\$0	\$785,063	\$1,177,595
20 Erosion Control Measures	2012	- 2031	\$1,497,447	\$0	\$748,724	50%	\$0	\$0	\$299,489	\$449,235
<b>Subtotal</b>			<b>\$13,519,627</b>	<b>\$0</b>	<b>\$7,770,860</b>		<b>\$0</b>	<b>\$2,299,498</b>	<b>\$3,449,249</b>	

CITY OF PETERBOROUGH  
2012 DEVELOPMENT CHARGES STUDY  
ROADS AND RELATED CAPITAL PROGRAM

Project and Location	Anticipated Timing		Total Project Cost	Grants and Subsidies	Non-Growth Shares	Available DC Reserves	Post-Period Benefit	Net DC Recoverable 2012-2031
<b>2011 Transportation Plan</b>								
21 Carnegie Planning Area - E/W Arterial	2014	- 2014	\$5,273,887	\$0	67%	\$3,533,504	\$696,153	\$1,044,230
22 Carnegie Planning Area - N/S Arterial	2014	- 2014	\$984,459	\$0	67%	\$659,587	\$129,949	\$194,922
23 Charlotte - Clonsilla Ave to Monaghan Rd	2014	- 2014	\$3,348,226	\$0	49%	\$1,643,662	\$681,826	\$1,022,739
24 Chemong Rd-Parkhill to Parkway ROW	2012	- 2014	\$11,363,702	\$0	47%	\$5,330,962	\$2,413,096	\$3,619,644
25 Fairbairn St Widening	2012	- 2015	\$4,469,750	\$0	38%	\$1,684,875	\$1,113,950	\$1,670,925
26 Nassau Mills Rd over Otonabee River	2013	- 2015	\$10,900,360	\$0	25%	\$2,725,090	\$2,725,090	\$5,450,180
27 Ashburnham - McFarlane to Parkhill	2017	- 2018	\$3,115,240	\$0	100%	\$3,115,240	\$0	\$0
28 Nassau Mills Rd over Trent Severn	2017	- 2019	\$8,945,327	\$0	50%	\$4,472,664	\$2,236,332	\$2,236,332
29 New 2 Lane Arterial	2020	- 2022	\$15,838,039	\$0	67%	\$10,611,486	\$2,090,621	\$3,135,932
30 Pioneer Rd Upgrade	2022	- 2022	\$3,018,745	\$0	50%	\$1,509,373	\$603,749	\$905,624
31 Television Rd Widening	2021	- 2022	\$18,692,295	\$0	45%	\$8,346,147	\$4,138,459	\$6,207,688
32 University Rd Upgrade	2020	- 2023	\$2,527,321	\$0	50%	\$1,263,661	\$505,464	\$758,197
33 Citywide Transportation Operational Improvements	2012	- 2031	\$10,250,000	\$0	50%	\$5,125,000	\$2,562,500	\$2,562,500
34 Various New Sidewalk Installations	2012	- 2026	\$6,000,000	\$0	75%	\$4,500,000	\$375,000	\$1,125,000
35 Various New Multi-Use Trails	2012	- 2031	\$10,000,000	\$0	75%	\$7,500,000	\$1,250,000	\$1,250,000
<b>Subtotal</b>			<b>\$114,727,351</b>	<b>\$0</b>		<b>\$62,021,250</b>	<b>\$21,522,189</b>	<b>\$31,183,912</b>

CITY OF PETERBOROUGH  
2012 DEVELOPMENT CHARGES STUDY  
ROADS AND RELATED CAPITAL PROGRAM

Project and Location	Anticipated Timing		Total Project Cost	Grants and Subsidies	LESS:			Post-Period Benefit	Net DC Recoverable 2012-2031
					Non-Growth Shares	Available DC Reserves			
<b>Lily Lake Growth</b>									
36 Intersection Improvements Chemong/Towerhill	2020	- 2020	\$1,134,375	\$0	0%	\$0	\$0	\$453,750	\$680,625
37 Lily Lake Rd/ Fairbairn Signalization	2025	- 2025	\$1,134,375	\$0	0%	\$0	\$0	\$453,750	\$680,625
38 Fairbairn Urbanization - Towerhill to O'Grady Sub	2025	- 2025	\$2,461,147	\$0	50%	\$1,230,574	\$0	\$492,229	\$738,345
39 Lily Lake Urbanization - Fairbairn to Ackison		Beyond 2031	\$11,075,163	\$0	50%	\$5,537,581	\$0	\$5,537,581	\$0
40 Ackison Road Urbanization - Lily Lake to Parkhill (Outside City)		Beyond 2031	\$4,922,295	\$0	50%	\$2,461,147	\$0	\$2,461,147	\$0
41 Fairbairn/O'Grady Signalization		Beyond 2031	\$302,500	\$0	0%	\$0	\$0	\$302,500	\$0
42 Ackison/Lily Lake Signalization		Beyond 2031	\$1,134,375	\$0	0%	\$0	\$0	\$1,134,375	\$0
<b>Chemong Growth</b>									
43 Towerhill Urbanization - Chemong to Fairbairn	2020	- 2020	\$3,164,332	\$0	50%	\$1,582,166	\$0	\$632,866	\$949,300
44 New Collector Internal to Plan out to County Rd 19	2020	- 2020	\$1,346,055	\$0	0%	\$0	\$0	\$538,422	\$807,633
45 Chemong Urbanization - Milroy to County Rd 19	2025	- 2025	\$3,094,014	\$0	50%	\$1,547,007	\$0	\$618,803	\$928,204
46 Third Line & County Rd 19 Urbanization (Outside City)	2020	& 2032	\$7,910,830	\$0	75%	\$5,933,123	\$0	\$988,854	\$988,854
<b>Goldsprings Growth</b>									
47 Intersection Improvements Kennedy Rd/Otonabee Dr	2025	- 2025	\$1,134,375	\$0	0%	\$0	\$0	\$453,750	\$680,625
48 Bensford Rd Signalization and Turn Lanes	2025	- 2025	\$1,134,375	\$0	0%	\$0	\$0	\$453,750	\$680,625
49 Wallace Pt Rd Urbanization - Kennedy to Coldsprings Sub	2025	- 2025	\$4,939,874	\$0	50%	\$2,469,937	\$0	\$987,975	\$1,481,962
50 McNamara Rd/Guthrie Dr Urbanization (Outside City)		Beyond 2031	\$1,968,918	\$0	50%	\$984,459	\$0	\$984,459	\$0
<b>Liflock Growth</b>									
51 Intersection Improvements - Hunter/Ashburnham		Beyond 2031	\$1,134,375	\$0	0%	\$0	\$0	\$1,134,375	\$0
52 McFaiene/Canal Crossing Signalization		Beyond 2031	\$1,134,375	\$0	0%	\$0	\$0	\$1,134,375	\$0
53 Intersection Improvements - Armour/Parkhill		Beyond 2031	\$1,134,375	\$0	0%	\$0	\$0	\$1,134,375	\$0
54 Parkhill Urbanization - Park St to Television		Beyond 2031	\$12,235,418	\$0	50%	\$6,117,709	\$0	\$6,117,709	\$0
<b>Camegie Growth</b>									
55 New Arterial/County Rd 19 Signalization	2014	- 2014	\$1,134,375	\$0	0%	\$0	\$0	\$453,750	\$680,625
56 Cul-de-sac Cumberland Ave @ Parkway	2014	- 2014	\$756,250	\$0	0%	\$0	\$0	\$302,500	\$453,750
59 Camegie Urbanization - Cumberland to Heritage Trail	2015	- 2015	\$1,318,472	\$0	50%	\$659,236	\$0	\$263,694	\$396,542
58 Hilliard St Urbanization - Cumberland to County Rd 19	2020	- 2020	\$1,265,733	\$0	50%	\$632,866	\$0	\$253,147	\$379,719
<b>Subtotal</b>			<b>\$66,970,376</b>	<b>\$0</b>		<b>\$29,155,805</b>	<b>\$0</b>	<b>\$27,288,136</b>	<b>\$10,526,434</b>
<b>TOTAL ROADS AND RELATED CAPITAL PROGRAM 2012-2031</b>			<b>\$263,591,966</b>	<b>\$0</b>		<b>\$131,014,362</b>	<b>\$4,047,938</b>	<b>\$64,874,393</b>	<b>\$63,655,273</b>

APPENDIX B  
TABLE 5

CITY OF PETERBOROUGH  
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES  
ROADS AND RELATED 2012 TO 2031

Ultimate Year Growth in Population in New Units	13,093
Ultimate Employment Growth	1,169
Ultimate Growth in Square Metres	68,958

	Development-Related Capital Forecast (\$'000)							Residential Share		Non-Residential Share	
	Total Project Cost	Grants/ Subsidies Other Contributions	Non-Growth Share	Available DC Reserves	Post Period Benefit	Total Costs Eligible For DC Recovery	%	\$	%	\$	
<b>ROADS AND RELATED</b>											
Projects from 2009 DC Study	\$68,374.6	\$0.0	\$32,066.4	\$4,047.9	\$13,764.6	\$18,495.7	92%	\$17,016.0	8%	\$1,479.7	
Projects From Capital Budget and Forecast	\$13,519.6	\$0.0	\$7,770.9	\$0.0	\$2,299.5	\$3,449.2	92%	\$3,173.3	8%	\$275.9	
2011 Transportation Plan	\$114,727.4	\$0.0	\$62,021.3	\$0.0	\$21,522.2	\$31,183.9	92%	\$28,689.2	8%	\$2,494.7	
Other Projects	\$66,970.4	\$0.0	\$29,155.8	\$0.0	\$27,288.1	\$10,526.4	92%	\$9,684.3	8%	\$842.1	
<b>TOTAL ROADS AND RELATED</b>	<b>\$263,592.0</b>	<b>\$0.0</b>	<b>\$131,014.4</b>	<b>\$4,047.9</b>	<b>\$64,874.4</b>	<b>\$63,655.3</b>		<b>\$58,562.9</b>		<b>\$5,092.4</b>	
Unadjusted Development Charge Per Capita								\$4,472.84		\$73.85	
Unadjusted Development Charge Per Square Metre										\$6.86	

Roads: Residential	Unadjusted Charge Per Capita	Charge By Unit Type (1)		
		Residential A Singles/Semis	Residential B Multiples	Residential C Apartments
<b>Roads and Related</b>	\$4,472.84	\$12,792	\$11,093	\$7,425

Roads: Non-Residential	
<b>Unadjusted Calculated Charge</b>	
Per Square Metre of GFA	\$73.85
Per Square Foot of GFA	\$6.86

(1) Based on Persons Per Unit Of:

2.86                      2.48                      1.66



APPENDIX B  
TABLE 6 - PAGE 1

CITY OF PETERBOROUGH  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
ROADS AND RELATED  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>ROADS AND RELATED</b>											
OPENING CASH BALANCE	\$0.0	(\$2,953.0)	(\$9,103.0)	(\$16,818.0)	(\$19,699.4)	(\$19,781.4)	(\$19,857.1)	(\$19,072.3)	(\$18,182.5)	(\$21,663.8)	(\$24,260.7)
2012- 2031 RESIDENTIAL FUNDING REQUIREMENTS											
- Roads And Related: Non Inflated	\$6,120.1	\$8,985.4	\$10,041.8	\$5,113.3	\$2,430.8	\$2,496.3	\$1,785.4	\$1,785.4	\$5,531.3	\$4,640.9	\$4,671.1
- Roads And Related: Inflated	\$6,120.1	\$9,165.1	\$10,447.5	\$5,426.3	\$2,631.1	\$2,756.1	\$2,010.6	\$2,050.8	\$6,480.8	\$5,546.3	\$5,694.0
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	623	628	632	637	641	652	657	661	666	671	658
REVENUE											
- DC Receipts: Inflated	\$3,246.2	\$3,337.7	\$3,426.2	\$3,522.3	\$3,615.4	\$3,750.9	\$3,855.3	\$3,956.3	\$4,066.0	\$4,178.5	\$4,179.5
INTEREST											
- Interest on Opening Balance	\$0.0	(\$162.4)	(\$500.7)	(\$925.0)	(\$1,083.5)	(\$1,088.0)	(\$1,092.1)	(\$1,049.0)	(\$1,000.0)	(\$1,191.5)	(\$1,334.3)
- Interest on In-year Transactions	(\$79.0)	(\$160.3)	(\$193.1)	(\$52.4)	\$17.2	\$17.4	\$32.3	\$33.3	(\$66.4)	(\$37.6)	(\$41.6)
TOTAL REVENUE	\$3,167.2	\$3,015.0	\$2,732.4	\$2,544.9	\$2,549.2	\$2,680.3	\$2,795.4	\$2,940.7	\$2,999.6	\$2,949.4	\$2,803.5
CLOSING CASH BALANCE	(\$2,953.0)	(\$9,103.0)	(\$16,818.0)	(\$19,699.4)	(\$19,781.4)	(\$19,857.1)	(\$19,072.3)	(\$18,182.5)	(\$21,663.8)	(\$24,260.7)	(\$27,151.2)

	2023	2024	2025	2026	2027	2028	2029	2030	2031	TOTAL
<b>ROADS AND RELATED</b>										
OPENING CASH BALANCE	(\$27,151.2)	(\$24,300.1)	(\$21,164.9)	(\$24,042.3)	(\$20,649.3)	(\$17,196.6)	(\$13,425.9)	(\$9,323.7)	(\$4,853.6)	\$0.0
2012- 2031 RESIDENTIAL FUNDING REQUIREMENTS										
- Roads And Related: Non Inflated	\$20.7	\$20.7	\$4,795.8	\$20.7	\$20.7	\$20.7	\$20.7	\$20.7	\$20.7	\$58,562.9
- Roads And Related: Inflated	\$25.7	\$26.2	\$6,203.9	\$27.3	\$27.8	\$28.4	\$28.9	\$29.5	\$30.1	\$64,756.6
NEW RESIDENTIAL DEVELOPMENT										
- Population Growth in New Units	663	669	673	678	647	652	656	662	667	13,093
REVENUE										
- DC Receipts: Inflated	\$4,295.4	\$4,421.0	\$4,536.4	\$4,661.5	\$4,537.3	\$4,663.8	\$4,786.3	\$4,926.7	\$5,063.2	\$83,025.9
INTEREST										
- Interest on Opening Balance	(\$1,493.3)	(\$1,336.5)	(\$1,164.1)	(\$1,322.3)	(\$1,135.7)	(\$945.8)	(\$738.4)	(\$512.8)	(\$266.9)	(\$18,342.4)
- Interest on In-year Transactions	\$74.7	\$76.9	(\$45.9)	\$81.1	\$78.9	\$81.1	\$83.3	\$85.7	\$88.1	\$73.8
TOTAL REVENUE	\$2,876.8	\$3,161.4	\$3,326.5	\$3,420.3	\$3,480.5	\$3,799.1	\$4,131.1	\$4,499.6	\$4,884.3	\$64,757.3
CLOSING CASH BALANCE	(\$24,300.1)	(\$21,164.9)	(\$24,042.3)	(\$20,649.3)	(\$17,196.6)	(\$13,425.9)	(\$9,323.7)	(\$4,853.6)	\$0.6	

2012 Adjusted Charge Per Capite **\$5,210.65**

<b>Allocation of Capital Program</b>	
Residential Sector	92.0%
Non-Residential Sector	8.0%
<b>Rates for 2012</b>	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%



APPENDIX B  
TABLE 6 - PAGE 2

CITY OF PETERBOROUGH  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
ROADS AND RELATED  
NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>ROADS AND RELATED</b>											
OPENING CASH BALANCE	\$0.0	\$79.0	(\$95.6)	(\$377.4)	(\$212.2)	\$225.3	\$431.8	\$721.6	\$1,028.4	\$963.7	\$991.2
2012 - 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Roads And Related: Non Inflated	\$532.2	\$781.3	\$873.2	\$444.6	\$211.4	\$217.1	\$155.3	\$155.3	\$481.0	\$403.6	\$406.2
- Roads And Related: Inflated	\$532.2	\$797.0	\$908.5	\$471.9	\$228.8	\$239.7	\$174.8	\$178.3	\$563.5	\$482.3	\$495.1
NON-RESIDENTIAL SPACE GROWTH											
- Growth in Square Metres	8,322	8,354	8,385	8,417	8,450	5,374	5,390	5,406	5,422	5,438	-
REVENUE											
- DC Receipts: Inflated	\$609.8	\$624.4	\$639.3	\$654.6	\$670.3	\$434.8	\$444.8	\$455.1	\$465.5	\$476.2	\$0.0
INTEREST											
- Interest on Opening Balance	\$0.0	\$2.8	(\$5.3)	(\$20.8)	(\$11.7)	\$7.9	\$15.1	\$25.3	\$36.0	\$33.7	\$34.7
- Interest on In-year Transactions	\$1.4	(\$4.7)	(\$7.4)	\$3.2	\$7.7	\$3.4	\$4.7	\$4.8	(\$2.7)	(\$0.2)	(\$13.6)
TOTAL REVENUE	\$611.2	\$622.4	\$626.6	\$637.0	\$666.4	\$446.1	\$464.6	\$485.2	\$498.8	\$509.8	\$211.1
CLOSING CASH BALANCE	\$79.0	(\$95.6)	(\$377.4)	(\$212.2)	\$225.3	\$431.8	\$721.6	\$1,028.4	\$963.7	\$991.2	\$517.1

	2023	2024	2025	2026	2027	2028	2029	2030	2031	TOTAL
<b>ROADS AND RELATED</b>										
OPENING CASH BALANCE	\$517.1	\$532.9	\$549.2	\$14.1	\$12.2	\$10.1	\$8.0	\$5.7	\$3.2	
2012 - 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS										
- Roads And Related: Non Inflated	\$1.8	\$1.8	\$417.0	\$1.8	\$1.8	\$1.8	\$1.8	\$1.8	\$1.8	\$5,092.4
- Roads And Related: Inflated	\$2.2	\$2.3	\$539.5	\$2.4	\$2.4	\$2.5	\$2.5	\$2.6	\$2.6	\$5,631.0
NON-RESIDENTIAL SPACE GROWTH										
- Growth in Square Metres	-	-	-	-	-	-	-	-	-	68,958
REVENUE										
- DC Receipts: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,474.8
INTEREST										
- Interest on Opening Balance	\$18.1	\$18.7	\$19.2	\$0.5	\$0.4	\$0.4	\$0.3	\$0.2	\$0.1	\$175.6
- Interest on In-year Transactions	(\$0.1)	(\$0.1)	(\$14.8)	(\$0.1)	(\$0.1)	(\$0.1)	(\$0.1)	(\$0.1)	(\$0.1)	(\$18.7)
TOTAL REVENUE	\$18.0	\$18.6	\$4.4	\$0.4	\$0.4	\$0.3	\$0.2	\$0.1	\$0.0	\$5,631.7
CLOSING CASH BALANCE	\$532.9	\$549.2	\$14.1	\$12.2	\$10.1	\$8.0	\$5.7	\$3.2	\$0.6	

**\$73.28**

**2012 Adjusted Charge Per Square Metre**

<b>Allocation of Capital Program</b>	
Residential Sector	92.0%
Non-Residential Sector	8.0%
<b>Rates for 2012</b>	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%



## **APPENDIX C**

---

### ***SEWAGE TREATMENT***

## APPENDIX C

### SEWAGE TREATMENT TECHNICAL APPENDIX

This appendix provides a brief overview of the City-wide engineering service of Sewage Treatment. The Sewage Treatment charge is recovering for the phase 3 expansion of the wastewater treatment plant (WWTP) and also for the recovery of the wastewater treatment plant expansion process audit.

The remaining balance of the WWTP debenture, including principal and interest payments, amounts to \$7.38 million. The auditing cost to be recovered is \$45,700. The two costs amount to \$7.42 million, and this amount is netted down by the post-period benefit share applied to the WWTP debenture of \$2.97 million (Table 1).

The total growth-related sewage treatment capital program for the 2012-2031 period is \$4.45 million, as shown on Table 1. The growth-related cost has been allocated 92 per cent (\$4.10 million) to residential development and 8 per cent (\$356,400) to non-residential development. The allocation of costs is based on shares of population and employment growth over the planning period.

The residential costs are recovered against the population growth over the period 2012-2031 of 13,093 persons yielding an unadjusted charge of \$313.03 per capita (\$4,098,500/13,093 persons). The non-residential costs are recovered against the growth in non-residential floor area over the period 2012-2031 of 68,958 square metres yielding an unadjusted charge of \$5.17/m<sup>2</sup> (\$356,400/68,958 m<sup>2</sup>).

The following is a summary of the calculated Sewage Treatment charges:

<b>SEWAGE TREATMENT SUMMARY</b>			
2012 - 2031		<b>Calculated Development Charge</b>	
Development-Related Capital Prog		<b>Residential</b>	<b>Non-Residential</b>
Total	Net DC Recoverable	<b>\$/capita</b>	<b>\$/sq.m</b>
\$7,424,867	\$4,454,867	<b>\$313.03</b>	<b>\$5.17</b>

APPENDIX C  
TABLE 1

CITY OF PETERBOROUGH  
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES  
SEWAGE TREATMENT 2012 - 2031

Ultimate Year Growth in Population in New Units	13,093
Ultimate Growth in Square Meters	68,958

	Development-Related Capital Forecast (\$'000)									
	Total Project Cost	Grants/ Subsidies Other Contributions	Non-Growth Share	Available DC Reserves	Post Period Benefit	Total Costs Eligible For DC Recovery	Residential Share		Non-Residential Share	
							\$	%	\$	%
<b>SEWAGE TREATMENT</b>										
Recovery of Phase 3 Expansion of the WWTP Debenture	\$7,379.1	\$0.0	\$0.0	\$0.0	\$2,952.0	\$4,427.1	92%	\$4,073.0	8%	\$354.2
Recovery of WWTP Expansion Process Audit	<u>\$45.7</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$0.0</u>	<u>\$18.0</u>	<u>\$27.7</u>	92%	<u>\$25.5</u>	8%	<u>\$2.2</u>
<b>TOTAL SEWAGE TREATMENT</b>	<b>\$7,424.9</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$2,970.0</b>	<b>\$4,454.9</b>		<b>\$4,098.5</b>		<b>\$356.4</b>
Unadjusted Development Charge Per Capita								\$313.03		\$5.17
Unadjusted Development Charge Per Square Metre										\$0.48

Residential	Calculated Charge Per Capita	Charge By Unit Type (1)		
		Residential A Singles/Semi	Residential B Other Multiples	Residential C Apartments
<b>Sewage Treatment</b>	\$313.03	\$895	\$776	\$520

(1) Based on Persons Per Unit Of:

2.86      2.48      1.66

<b>Non-Residential</b>	
Calculated Charge Per Square Metre of GFA	\$5.17
Per Square Foot of GFA	\$0.48

**APPENDIX D**

---

***DRAFT CITY-WIDE  
ENGINEERING SERVICES BY-LAW***

THE CORPORATION OF THE CITY OF PETERBOROUGH

BY-LAW NUMBER 12-XXX

BEING A BY-LAW TO ESTABLISH DEVELOPMENT CHARGES FOR  
THE CITY OF PETERBOROUGH (CITY-WIDE ENGINEERING  
SERVICES CHARGE)

WHEREAS the City of Peterborough has and will continue to experience growth through development;

AND WHEREAS development requires the provision of physical infrastructure and other services by the City;

AND WHEREAS subsection 2(1) of the *Development Charges Act*, 1997, S.O. 1997 c.27 (the "Act") provides that the council of a municipality may by by-law impose development charges against land to pay for increased capital costs required because of increased needs for services arising from the development of the area to which the by-law applies;

AND WHEREAS Council has before it a report entitled "City-wide Engineering Services Development Charges Background Study", prepared by Hemson Consulting Limited, for the City of Peterborough, dated June 4, 2012 (the "Study");

AND WHEREAS the Study was made available to the public prior to a public meeting held on June 25, 2012, in accordance with Section 12 of the Act, at which time Council heard comments and representations from all persons who applied to be heard (the "Public Meeting");

AND WHEREAS Council, at its meeting on July 30, 2012, approved certain amendments to the Study, and adopted the Study, as amended, including the development related capital program referred to therein, and thereby has indicated that it intends to ensure that the increase in the need for services attributable to anticipated development will be met, and has further indicated its intent that the future excess capacity identified in the Study shall be paid for by development charges or other similar charges;

AND WHEREAS Council determined that no further public meetings were required under Section 12 of the Act;

NOW THEREFORE THE CORPORATION OF THE CITY OF PETERBOROUGH  
BY THE COUNCIL THEREOF HEREBY ENACTS AS FOLLOWS:

Definitions

1. In this By-law,

"Act" means the *Development Charges Act*, 1997, S.O. 1997, c.27;

"Board of Education" has the same meaning as specified in the *Education Act*, or any successor legislation;

"building floor area" means the total of the horizontal areas of a building, as calculated by using the exterior dimensions;

"City" means the Corporation of the City of Peterborough;

"commercial use" means lands, buildings or structures or portions thereof used or designed or intended to be used for a purpose which is classified as a Group D, Group E, Group A (restaurant and licensed beverage establishment only), or Group C (hotel and motel only) occupancy, pursuant to the *Ontario Building Code*;

“development” means the construction, erection or placing of one or more buildings or structures on land or the making of an addition or alteration to a building or structure that has the effect of increasing the building floor area thereof, and includes redevelopment;

“development charge” means a charge imposed pursuant to this By-law;

“dwelling unit” means one or more rooms used, designed or intended to be used together as a single and separate house-keeping unit by one person or persons living together, in which both culinary and sanitary facilities are provided for the exclusive use of such person or persons;

“farm building” means a farm building as defined in the **Ontario Building Code**;

“gross floor area” has the same meaning as that which is contained in O.Reg. 82/98 made under the Act;

“industrial use” means lands, buildings or structures or portions thereof used or designed or intended to be used for a purpose which is classified as a Group F occupancy, pursuant to the **Ontario Building Code**;

“local board” means a local board as defined in the **Development Charges Act, 1997**;

“multi-suite residence” means a multi-suite residence as defined in the Zoning By-law of the City;

“non-residential use” means land, buildings or structures or portions thereof used, or designed or intended to be used for a use other than for a residential use, and includes an industrial use and a commercial use;

“owner” means the owner of land or a person who has made application for an approval for the development of land upon which a development charge is imposed;

“place of worship” means that part of a building or structure that is exempt from taxation as a place of worship under the **Assessment Act**, as amended, or any successor legislation;

“Residential A building” means a building containing one or two dwelling units;

“Residential B building” means a building containing more than two dwelling units, other than a Residential C building;

“Residential C building” means a building containing more than two dwelling units, each of which has access to the common corridor and entrance(s); and a multi-suite residence;

“residential use” means land, buildings or structures or portions thereof used, designed or intended to be used as living accommodation for one or more individuals;

“semi-detached dwelling or row dwelling” means a residential building which contains a single dwelling unit, that has one or two vertical walls, but no other parts, attached to other buildings;

“services” means services designated in this By-law including Schedule A to this By-law or in an agreement under section 44 of the Act, or both;

“single detached dwelling” means a residential building which contains only a single dwelling unit, and which is not attached to other buildings;



“temporary building or structure” means a building or structure constructed or erected or placed on land for a continuous period not exceeding eight months, or an addition or alteration to a building or structure that has the effect of increasing the total floor area thereof for a continuous period not exceeding eight months;

### Rules

2. For the purpose of complying with section 6 of the Act:
  - (a) the area to which this By-law applies shall be the area described in section 3 of this By-law;
  - (b) the rules developed under paragraph 9 of subsection 5(1) of the Act for determining if a development charge is payable in any particular case and for determining the amount of the charge shall be as set forth in sections 4 through 18, inclusive, of this By-law;
  - (c) the exemptions provided for by such rules shall be the exemptions set forth in sections 19 through 21, inclusive of this By-law, the indexing of charges shall be in accordance with section 16 if this By-law and the phasing in of charges shall be in accordance with subsection 17 of this By-law; and
  - (d) the redevelopment of land shall be in accordance with the rules set forth in section 22 of this By-law.

### Lands Affected

3.
  - (a) This By-law applies to all lands in the geographic area of the City.
  - (b) This By-law shall not apply to lands which are owned by, or used for the purposes of:
    - (i) the City or a local board thereof;
    - (ii) a board of education.
  - (c) The development of land within the City may be subject to one or more development charges by-laws of the City.

### Designation of Services

4. It is hereby declared by Council that all development of land within the City will increase the need for services.
5. The development charge applicable to a development as determined under this By-law shall apply without regard to the services required or used by an individual development.
6. Development charges shall be imposed for the following categories of services to pay for the increased capital costs required because of increased needs for services arising from development:
  - (a) Roads And Related;
  - (b) Sewage Treatment.

Approvals for Development

7. Development charges shall be imposed against all lands, buildings or structures within the area to which this By-law applies if the development of such lands, buildings or structures requires any of the following approvals:
  - (a) the passing of a zoning by-law or of an amendment thereto under section 34 of the **Planning Act**,
  - (b) the approval of a minor variance under section 45 of the **Planning Act**,
  - (c) a conveyance of land to which a by-law passed under subsection 50(7) of the **Planning Act** applies;
  - (d) the approval of a plan of subdivision under section 51 of the **Planning Act**,
  - (e) a consent under section 53 of the **Planning Act**,
  - (f) the approval of a description under section 50 of the **Condominium Act**, or
  - (g) the issuing of a permit under the **Building Code Act, 1992** in relation to a building or structure, except where the development entails the conversion or renovation, but not expansion, of an existing building for a change of use which does not require any of the approvals provided in subsections (a) to (f) inclusive above.
8. No more than one development charge for each service designated in section 6 shall be imposed upon any lands, buildings or structures to which this By-law applies even though two or more of the actions described in section 7 are required before the lands, buildings or structure can be developed.
9. Notwithstanding section 8, if two or more of the actions described in section 7 occur at different times, additional development charges shall be imposed in respect of any increased or additional development permitted by such actions.
10. Where a development requires an approval described in section 7 after the issuance of a building permit and no development charge has been paid, then the development charge shall be paid prior to the granting of the approval required under section 7.
11. If a development does not require a building permit but does require one or more of the approvals described in section 7, then the development charge shall nonetheless be payable in respect of any increased or additional development permitted by such approval.
12. Nothing in this By-law prevents Council from requiring, as a condition of an agreement under sections 51 or 53 of the **Planning Act**, that the owner, at his or her own expense, install such local services related to a plan of subdivision or within the area to which the plan relates, as Council may require, or that the owner pay for local connections to storm drainage facilities installed at the owner's expense, or administrative, processing, or inspection fees.

### Calculation of Development Charges

13. The development charge with respect to the use of any land, buildings or structures shall be calculated as follows:
  - (a) in the case of residential development, or the residential portion of a mixed-use development, based upon the number and type of dwelling units; or
  - (b) in the case of non-residential development, or the non-residential portion of a mixed-use development, based upon the building floor area of such development.

### Amount of Charge - Residential

14. The development charges described in Schedule B to this By-law shall be imposed on residential uses of lands, buildings or structures, including a dwelling unit accessory to a non-residential use and, in the case of a mixed use building or structure, on the residential component of the mixed use building or structure, according to the type of residential use. For the purposes of calculation of the charge for a multi-suite residence, two suites shall be deemed to comprise one dwelling unit.

### Amount of Charge - Non-Residential

15. The development charges described in Schedule C to this By-law shall be imposed on non-residential uses of lands, buildings or structures and, in the case of a mixed-use building or structure, on the non-residential components of the mixed-use building or structure, and calculated with respect to each of the services according to the building floor area of the non-residential use.

### Indexing of Development Charges

16. The development charges set out in Schedules B and C hereto shall be adjusted by the City Treasurer without amendment to this By-law annually on January 1<sup>st</sup> in each year, commencing January 1, 2012, in accordance with the most recent annual change in the Statistics Canada Quarterly, Construction Price Statistics.

### Phasing, Timing of Calculation and Payment

17.
  - (a) The development charges imposed pursuant to this by-law may be considered by Council to be phased-in as outlined in proposed recommendations in Staff Report CPFS 12-051, dated June 25, 2012, subject to the exemptions and indexing provision herein, from the effective date of this by-law.
  - (b) Development charges in respect of industrial uses of lands, buildings or structures shall not be payable during the term of this By-law.
  - (c) Subject to section 22 (with respect to redevelopment) and subsection (d), the development charges shall be calculated as of, and shall be payable, on the date the first building permit is issued in relation to a building or structure on land to which the development charge applies.
  - (d) Notwithstanding subsection (c), pursuant to section 27 of the Act, the City may enter into an agreement with a person required to pay a charge pursuant to this By-law, including the provision of security for the person's obligations under such agreement, providing for all or part of the development charge to be paid before or after it otherwise would be payable. The terms of such agreement shall

then prevail over the provisions of this By-law.

- (e) Where a development charge or any part of it remains unpaid after it is payable, the amount unpaid shall be added to the tax roll and shall be collected in the same manner as taxes.

#### Payment by Services

- 18. The City, may in an agreement pursuant to Section 38 of the Act, permit an owner to provide services in lieu of the payment of all or any portion of a development charge. The City shall give the owner who performed the work a credit towards the development charge in accordance with the agreement, subject to the requirements of the Act.

#### Rules with Respect to Exemptions for Intensification of Existing Housing

- 19. (a) This By-law does not apply with respect to approvals related to the residential development of land, buildings or structures that would have the affect only of,
  - (i) permitting the enlargement of an existing dwelling unit;
  - (ii) creating one or two additional dwelling units in an existing single detached dwelling, where the total gross floor area of the additional unit or units does not exceed the gross floor area of the existing dwelling unit;
  - (iii) creating one additional dwelling unit in an existing semi-detached or row dwelling where total gross floor area of the additional unit does not exceed the gross floor area of the existing dwelling unit; or
  - (iv) creating one additional dwelling unit in any other existing residential building, where the total gross floor area of the additional unit does not exceed the gross floor area of the smallest existing dwelling unit.

#### Other Exemptions

- 20. Notwithstanding the provisions of this By-law, development charges shall not be imposed with respect to:
  - (a) a hospital governed by the **Public Hospitals Act**, R.S.O 1990, c. P. 40;
  - (b) a place of worship, or a cemetery or burial ground;
  - (c) Trent University or Sir Sandford Fleming College;
  - (d) a farm building;
  - (e) lands, buildings or structures located within the Commercial Core Sub-Area and the Waterfront Commercial Sub-Area of the Central Area, as depicted on Schedule J of the Official Plan of the City;
  - (f) the redevelopment of any building or structure, which is located within the Central Area, as depicted on Schedule J of the Official Plan of the City, and which exists as of January 1, 2005.

#### Temporary Buildings or Structures

- 21. (a) Temporary buildings or structures shall be exempt from the provisions of this By-law.

- (b) In the event that a temporary building or structure continues to exist for a continuous period exceeding eight (8) months, it shall be deemed not to be nor ever to have been a temporary building or structure, and the development charges required to be paid under this By-law shall be calculated and payable on the date that the building or structure is deemed not to be temporary.
- (c) Prior to the City issuing a building permit for a temporary building or structure, the City may require an owner to enter into an agreement, including the provision of security for the owners obligation under the agreement, pursuant to section 27 of the Act, providing for all or part of the development charge required by this section to be paid after it would otherwise be payable. The terms of such agreement shall then prevail over the provisions of this By-law.

#### Rules with Respect to the Redevelopment of Land

- 22. (a) Where there is a redevelopment of land on which there is a conversion of space proposed, or on which there was formerly erected a building or structure that has been demolished, a credit shall be allowed against the development charge otherwise payable by the owner pursuant to this By-law for the portion of the previous building or structure still in existence that is being converted or for the portion of the building or structure that has been demolished, as the case may be, calculated by multiplying the number and type of dwelling units being converted or demolished, or the non-residential building floor area being converted or demolished, by the development charge shown in Schedule B or C, on the date when the development charge is payable in accordance with this By-law.
- (b) A credit in respect of any demolition under this section shall not be given unless a building permit has been issued or a subdivision agreement has been entered into with the City for the development within five (5) years from the date the demolition permit was issued.
- (c) The amount of any credit hereunder shall not exceed, in total, the amount of the development charges otherwise payable with respect to the development.
- (d) The onus is on the applicant to produce evidence to the satisfaction of the City, acting reasonably, which establishes that the applicant is entitled to the reduction in the payment of development charges claimed under this section.

#### Interest

- 23. The City shall pay interest on a refund under subsection 18(3), 18(5), or 25(2) of the Act, shall be the Bank of Canada rate on the date this By-law comes into force updated on the first business day of every January, April, July and October.

#### Schedules

- 24. The following Schedules to this By-law form an integral part of this By-law.
  - Schedule A = Designated Services
  - Schedule B = City-Wide Engineering Services - Uniform Residential Development Charges
  - Schedule C = City-Wide Engineering Services - Uniform Non-Residential Development Charges

By-law Registration

25. A certified copy of this By-law may be registered in the Land Registry Office against title to any land to which this By-law applies.

Date By-law Effective

26. This By-law comes into force on August 1, 2012.

Date By-law Expires

27. This By-law expires five years after the date it becomes effective.

Headings for Reference Only

28. The headings inserted in this By-law are for convenience of reference only and shall not affect the construction or interpretation of this By-law.

Severability

29. If, for any reason, any provision, section, subsection or paragraph of this By-law is held invalid, it is hereby declared to be the intention of Council that all the remainder of this By-law shall continue in full force and effect until repealed, reenacted or amended, in whole or in part or dealt with in any other way.

Repeal

30. By-law No. 09-167 and any amendments made thereto is hereby repealed as of the date this By-law comes into force and effect

By-law read a first, second and third time this 30<sup>th</sup> day of July, 2012

(Sgd.) D. Paul Ayotte, Mayor

(Sgd.) John Kennedy, City Clerk

**SCHEDULE A**  
**SERVICES**

- (a) Roads And Related;
- (b) Sewage Treatment.

**SCHEDULE B**

**CITY-WIDE ENGINEERING SERVICES  
UNIFORM RESIDENTIAL DEVELOPMENT CHARGES**

Service	Development Charge Per Capita	Residential Development Charge By Unit Type (1)		
		Residential A Singles & Semis	Residential B Other Multiples	Residential C Apartments
Roads and Related	\$5,210.65	\$14,902	\$12,922	\$8,650
Sewage Treatment	\$313.03	\$895	\$776	\$520
<b>Total City-wide Engineering Services</b>	<b>\$5,523.68</b>	<b>\$15,797</b>	<b>\$13,698</b>	<b>\$9,170</b>
Note 1: Based on Person Per Unit of		2.86	2.48	1.66



**SCHEDULE C**  
**CITY-WIDE ENGINEERING SERVICES**  
**UNIFORM NON-RESIDENTIAL DEVELOPMENT CHARGES**

<b>Service</b>	<b>Non-Residential Charge per Square Metre</b>
Roads and Related	\$73.28
Sewage Treatment	\$5.17
<b>Total City-wide Engineering Services</b>	<b>\$78.45</b>