

# 2016 DEVELOPMENT CHARGES BACKGROUND STUDY

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Staff Consolidation Report  
Accessible Version

HEMSON Consulting Ltd

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## **Executive Summary**

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Hemson Consulting Ltd. was retained by the Town of Whitby to complete a Development Charges (DC) Background Study. This Background Study provides the basis and background to update the Town's general and engineered development charges to accurately reflect the servicing needs of new development in the Town.

### **A. Town of Whitby Current Development Charge Regime**

- The Town of Whitby currently levies a single Town-wide development charge for the recovery of all development-related capital costs.
- The Town's current DCs recover for the provision of General Government, Non-Administration Operational Facilities, Fire Services, Operations, Parks and Recreation, Libraries, Parking & By-law, Roads & Related and Stormwater Management. These charges are levied on a uniform basis against all development in Whitby.

### **B. Study Consistent with Development Charges Legislation**

- The study calculates development charges for the Town of Whitby in compliance with the provisions of the Development Charges Act, 1997 (DCA) and its associated regulation Ontario Regulation (O.Reg.) 82/98 and the recently amended provisions of the legislation.
- The Town needs to continue implementing DCs to help fund capital projects related to development throughout Whitby 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 arising from new development.
- 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 Town;

- The average capital service levels provided in the Town over the ten-year period immediately preceding the preparation of the background study;
  - A review of future capital projects, including an analysis of gross expenditures, funding sources, and net expenditures incurred or to be incurred by the Town to provide for the expected development, including the determination of the DC eligible and non-DC-eligible components of the capital projects;
  - 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; and
  - An asset management plan to deal with all assets whose capital costs are proposed to be funded under the DC by-law, demonstrating that all assets included in the capital program are financially sustainable over their full life cycle.
- This report identifies the development-related capital costs which are attributable to development that is forecast to occur in the Town. The costs are apportioned to types of development (residential, commercial and non-commercial) in a manner that reflects the increase in the need for each service attributable to each type of development.

### **C. All Services with Development-Related Costs Included in the Analysis**

- The following services have been included in the development charge analysis:

#### **General Services**

- General Government
- Non-Administrative Operational Facilities
- Operations
- Fire Services
- Parks & Recreation
- Libraries
- Parking & By-law
- Waste Management

#### **Engineered Services**

- Roads and Related – Town-wide Infrastructure
- Roads and Related – Alternative Route and Related Infrastructure
- Stormwater Management

- Waste Management Services is a new service being proposed for inclusion in the Town's DC regime. Following amendments to the DCA, certain waste management functions that were previously ineligible may now be included in the development charge calculation. It is proposed that the calculated Waste Management DC rate be included in the 2016 DC By-law.

#### **D. Approach Used to Calculate Development Charges**

- Development charge rates have been established under the parameters and limitations of the DCA. This study provides the rationale and basis for the calculated rates.
- A Town-wide average cost approach is used to calculate development charges for all eligible services. This approach results in uniform charges levied throughout the Town.
- As required by the legislation, consideration was given to calculating development charges on an area-specific basis. The Town's historical approach to calculating DCs has been a Town-wide approach as infrastructure requirements are based on population or population and employment growth Town-wide. After analysing the Town's development forecast, it was determined that a Town-wide approach continues to be most appropriate based on current infrastructure planning practices. For this reason, a Town-wide development charge has been calculated.
- The calculated charges are the maximum charges the Town may adopt. Lower charges may be approved; however, this will require a reduction in the capital plan and reduced service levels, or increased financing from the tax base.

#### **E. Development Forecast**

- A forecast of the amount, type and location of residential and non-residential development anticipated in the Town of Whitby to 2036 is included in this report.
- A ten-year forecast, from 2016 to 2025 was used in the development charges calculation for general services. A longer term forecast period, from 2016 to 2036 was used for engineered services.

- The Town is forecast to add approximately 10,620 total dwelling units in the ten-year planning period from 2016 to 2025. The longer term planning period to 2036 will see an addition of 27,950 total dwelling units.
- The development forecast for the ten-year planning period from 2016 to 2025 estimates that the Town's population will grow by approximately 24,270 people and by about 60,160 to 2036.
- Population growth in new dwelling units is expected to add 28,360 over the ten-year planning period. By 2036, it is anticipated that the population increase in new dwelling units will reach 71,570.
- Employment in Whitby is forecast to grow by approximately 7,400 employees over the next ten-years, which will be accommodated in 553,030 square metres of new non-residential building space. To 2036, an additional 17,720 employees are forecast and an estimated 1,293,190 square metres of building space.
- The following is a summary of the projected development in the Town:

Town-wide Development Forecast	2015 Estimate	General Services Planning Period 2016 - 2025		Engineered Services Planning Period 2016 - 2036	
		Growth	Total at 2025	Growth	Total at 2036
<b>Residential</b>					
Total Occupied Dwellings	43,017	10,622	53,639	27,953	70,970
Total Population					
Census	127,080	24,274	151,354	60,163	187,243
Population In New Dwellings		28,361		71,573	
<b>Non-Residential</b>					
Employment	40,339	7,401	47,740	17,716	58,054
Non-Residential Building Space (sq.m.)		553,026		1,293,188	

**F. Funding Envelope Based on “Net” Growth**

- In accordance with the DCA, development charges have been calculated at a level no higher than the average service level provided in the Town over the ten-year period immediately preceding the preparation of the Background Study, on a service-by-service basis.
- The service levels are expressed as a dollar value per capita (\$/capita) or a dollar value per capita plus employment (\$/capita & employee) of infrastructure value. This service level expression is a construct to meet the requirements of s. 5(1) of the DCA and does not directly reflect the utilization of infrastructure or the way in which a municipality plans for services.
- The maximum permissible funding envelopes in the study are based on “net” population, employment and dwelling unit growth.

**G. The Town has an Extensive Development-Related Capital Program for the Provision of Eligible Services**

**Town-wide General Services**

- Town staff, in collaboration with Hemson Consulting, have developed a development-related capital program setting out projects that are required to service the anticipated development between 2016 and 2025. It should be noted that the capital program is comprehensive and includes both development charge eligible and ineligible projects. Only projects that are eligible for inclusion in the development charges calculation have been included in the proposed rates.
- The gross cost of the Town’s development-related capital program for general services amounts to \$204.50 million and provides for a wide range of infrastructure additions. Of the \$204.50 million, approximately \$88.23 million has been identified as eligible for recovery through development charges over the 2016–2025 planning period.
- Subsidies or grants that the Town anticipates to receive over the 2016–2025 planning period total \$325,000. In total, \$22.37 million has been identified as costs related to ineligible services and has been removed from the development charges calculation.



- The DCA requires that development-related net capital costs for general services be reduced by ten per cent when calculating the applicable development charges for these services. The ten per cent share of development-related net capital costs not included in the development charges calculations must be funded from non-development charges sources. In total, about \$13.02 million is identified as the required ten per cent reduction.
- Costs that relate to ineligible projects or shares of projects have are also removed from the total DC eligible capital program costs. In total, \$22.37 million relates to ineligible capital program costs that will be recovered from non-DC revenues.
- Non-development charges funding for replacement portions of the capital program and for portions of development-related capital projects that benefit existing development have been identified. Replacement or benefit to existing shares amount to \$25.06 million.
- A share of the capital program is for portions of projects that relate to development in the post-2025 period (which will be considered for recovery in future development charges studies subject to service level considerations). In total, about \$29.08 million falls within this definition.
- Available DC reserve funds, in the amount of \$26.41 million, have been identified in each capital program to fund development-related infrastructure.
- The following is a summary of the development-related capital program for general services.

<b>Service</b>	<b>Gross Cost (\$000)</b>	<b>DC Eligible Cost (\$000)</b>
General Government	\$16.68	\$10.05
Non-Administrative Operational Facilities	\$30.04	\$1.60
Fire Services	\$14.73	\$9.27
Operations	\$15.56	\$5.88
Parks & Recreation	\$100.71	\$50.55
Libraries	\$12.74	\$8.18
Parking & By-Law	\$12.25	\$1.69
Waste Management	\$1.78	\$1.02
<b>Total General Services</b>	<b>\$204.50</b>	<b>\$88.23</b>

- Details for the capital programs for each service are provided in Appendix B.

### **Town-wide Engineered Services**

- In the Town of Whitby, the engineered services development-related capital program is related to the delivery of Roads and Related infrastructure and Stormwater services. The longer-term capital program, 2016 to 2036, totals \$411.96 million.
- Of the \$411.96 million in the engineered services capital program, almost \$244.48 million of the total program is to be recovered from development charges over the planning period.
- In total, approximately \$9.69 million has been identified as subsidies or grants that the Town will anticipate receiving to fund development-related projects.
- Non-DC funding for replacement portions of the capital forecast and for portions of the capital projects that benefit existing development total \$84.76 million. These shares will require funding from other sources.
- A portion of the capital program provides service to development that has already occurred in the Town and for which development charges have been collected. Current development charges reserve fund balances for engineered services total \$39.76 million. This amount will be used to fund a portion of the capital program.
- The following is a summary of the development-related capital forecast for engineered services:

<b>Service</b>	<b>Gross Cost (\$000)</b>	<b>DC Eligible Cost (\$000)</b>
Roads and Related (Town-wide)	\$329.42	\$183.50
Roads and Related (Alternative)	\$58.00	\$52.06
Stormwater Management	\$24.54	\$8.93
<b>Total Engineered Services</b>	<b>\$411.96</b>	<b>\$244.48</b>

- Appendix C provides a full calculation of Roads and Related – Town-wide Infrastructure and Alternative Route and Related Infrastructure (C.1) and Stormwater Management (C.2) calculated development charges.

- A Town-wide cost approach is used to calculate development charges for the eligible services. Uniform residential and non-residential charges are levied throughout the Town of Whitby.
- The fully calculated residential Town-wide charges are recommended to vary by unit type, reflecting the difference in occupancy patterns expected in various unit types and associated differences in demand placed on municipal services.

### Accessibility Standards Included in Capital Costs

- All development-related capital costs identified in the study have included accessibility considerations and are priced to meet provincial standards or Town standards, whichever is higher.

### Calculated Residential Development Charges

Service	Adjusted Charge After Cashflow per Capita	Residential Charge By Unit Type <sup>(1)</sup>			
		Single & Semi-Detached	Rows & Other Multiples <sup>(2)</sup>	Large Apartments 2BR or Larger <sup>(3)</sup>	Small Apartment 1BR or Less <sup>(4)</sup>
General Government	\$296.51	\$994	\$794	\$586	\$381
Non-Administrative Operational Facilities	\$47.83	\$160	\$128	\$95	\$62
Fire Services	\$274.75	\$921	\$736	\$543	\$353
Operations	\$191.28	\$642	\$512	\$378	\$246
Parks & Recreation	\$1,840.58	\$6,173	\$4,929	\$3,639	\$2,367
Libraries	\$326.25	\$1,094	\$874	\$645	\$420
Parking & By-Law	\$50.71	\$170	\$136	\$100	\$65
Waste Management	\$46.18	\$155	\$124	\$91	\$59
<b>Total General Services</b>	<b>\$3,074.09</b>	<b>\$10,309</b>	<b>\$8,233</b>	<b>\$6,077</b>	<b>\$3,953</b>
Roads & Related - Town-Wide Infrastructure	\$2,322.95	\$7,791	\$6,221	\$4,592	\$2,987
Roads & Related - Alternate Route And Related Infrastructure	\$699.88	\$2,347	\$1,874	\$1,384	\$900
Stormwater Management	\$111.08	\$373	\$297	\$220	\$143
<b>Total Engineered Services</b>	<b>\$3,133.92</b>	<b>\$10,511</b>	<b>\$8,392</b>	<b>\$6,196</b>	<b>\$4,030</b>
<b>TOTAL TOWN-WIDE CHARGE PER UNIT</b>	<b>\$6,208.01</b>	<b>\$20,820</b>	<b>\$16,625</b>	<b>\$12,273</b>	<b>\$7,983</b>

(1) Based on Persons Per Unit Of:

3.35

2.68

1.98

1.29

(2) Includes Townhouse Dwellings with 3 or more Bedrooms

(3) Includes Townhouse Dwellings with Less than 3 Bedrooms and Mobile Home Dwelling Units

(4) Includes Garden Suites and Special Care/Special Needs Dwelling Units

### Calculated Retail Commercial and Other Non-Residential Development Charges

Service	Retail Commercial	Other Non-Residential
	Adjusted Charge per Square Metre	Adjusted Charge per Square Metre
General Government	\$6.86	\$3.53
Non-Administrative Operational Facilities	\$1.11	\$0.57
Fire Services	\$6.36	\$3.28
Operations	\$4.43	\$2.28
Parks & Recreation	\$0.00	\$0.00
Libraries	\$0.00	\$0.00
Parking & By-Law	\$1.17	\$0.61
Waste Management	\$0.00	\$0.00
<b>General Services Charge Per Square Metre</b>	<b>\$19.93</b>	<b>\$10.27</b>
Roads & Related - Town-Wide Infrastructure	\$53.90	\$28.45
Roads & Related - Alternate Route And Related Infrastructure	\$16.23	\$8.58
Stormwater Management	\$2.57	\$1.35
<b>Engineered Services Charge Per Square Metre</b>	<b>\$72.70</b>	<b>\$38.38</b>
<b>TOTAL TOWN-WIDE CHARGE PER SQUARE METRE</b>	<b>\$92.63</b>	<b>\$48.66</b>

#### H. Newly Calculated DC Rates are Higher than Current Rates

- The fully calculated residential charge for a single or semi-detached unit for general services is \$20,820, which represents an \$8,112 increase from the Town's current charge of \$12,708.
- The Town's current non-residential charge is \$31.43 per square metre and is levied uniformly against non-residential development in the Town. As part of the 2016 Development Charges update, a delineated non-residential charge between retail commercial and other non-residential uses is proposed. The calculated retail commercial charge of \$92.63 per square metre of gross floor area represents a \$61.20 increase from the Town's current uniform non-residential charge. In contrast, the calculated other non-residential charge of \$48.66 per square metre of gross floor area represents a \$17.23 increase from the Town's current uniform non-residential charge.

**I. Cost of Growth Analysis**

- The total gross capital cost of the ten-year capital program amounts to \$482.15 million.
- The Town's cumulative total net direct and indirect operating costs for tax supported services are estimated to cost \$79.31 million over the 2016-2025 period. This amount includes, development charges, Town funded, and developer subdivision assets (i.e. assumed assets). Included in this amount, is the addition of approximately 130 full-time equivalent employees over ten years.
- Over the 2016-2025 planning period, the Town will need to fund a cumulative total of \$31.52 million towards the lifecycle capital maintenance for new assets considered in the Development Charges Study and \$9.51 million for developer subdivision assets (i.e. assumed assets).
- Anticipated growth will have the effect of increasing the overall assessment base and will result in an additional \$106.82 million in cumulative assessment revenue over the ten-year period.

**J. Development Charges By-Law Practices and Collection Policies**

- As required under the DCA, the Town 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 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 Town's normal capital budget process.

## **I Introduction**

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This Town of Whitby 2016 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 anticipated residential and non-residential development in the Town of Whitby between 2016 and 2036 will increase demand on all municipal services. The Town wishes to continue implementing DCs to fund development-related capital projects so that development continues to be serviced in a fiscally responsible manner.

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 Town;
- The average capital service levels provided in the Town over the ten-year period immediately preceding the preparation of the background study;
- A review of future capital projects, including an analysis of gross expenditures, funding sources, and net expenditures incurred, or to be incurred, by the Town to provide for the expected development, including the determination of the eligible and ineligible components of the capital projects;
- 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; and
- An asset management plan to deal with all assets whose capital costs are proposed to be funded under the DC by-law, demonstrating that all assets included in the capital program are financially sustainable over their full life cycle.

The study presents the results of the review which determines the development-related net capital costs attributable to development that is forecast to occur in the Town. These development-related net capital costs are then apportioned among various types of development (residential and non-residential) in a manner that

reflects the increase in the need for each service attributable to each type 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, 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 Town.

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 Town to which the development charges will apply. It also briefly reviews the methodology that has been used in the background study.

Section III presents a summary of the residential and non-residential development which is forecast to occur within the Town over two planning periods: from 2016 to 2025 for general services and a longer-term planning period from 2016 to 2036.

Section IV summarizes the historical ten-year average service levels that have been attained in the Town which form the basis for the development charge calculations.

In Section V, the development-related capital programs that have been developed by various Town 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 and provides a comparison of existing development charge rates in the Town with the rates calculated in this study.

Section VII provides a Cost of Growth analysis relating to the Town's ten-year growth-related capital program and includes both development charge eligible and ineligible costs. This section is also intended to satisfy the long-term capital and operating costs and asset management plan requirements as required by section 10(1)(c) and 10(3) of the DCA.

Section VIII provides a discussion of other issues and considerations including by-law administration.

## **II      A Town-wide Methodology Aligns Development-Related Costs and Benefits**

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Several key steps are required in calculating a development charge. However, specific circumstances arise in each Town which must be reflected in the calculation. In this study, therefore, we have tailored our approach to the Town of Whitby'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 Town-wide basis which is consistent with the Town of Whitby's 2012 Development Charges Study. Despite the fact that development charges are calculated on a Town-wide basis, legislation allows a Town to exempt or reduce rates for specific geographic areas. However, the legislation prevents lost revenue, due to exemptions or reductions from being made up through increasing charges on other areas.

### **A.      Town-wide Development Charges are Calculated**

Whitby provides a range of services to the community it serves and has a sizeable inventory of facilities, land, infrastructure, vehicles and equipment. The DCA provides the Town 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 Town 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 Town or to other designated development areas as specified in the by-laws. As required under the recent changes to the legislation, consideration for the use of area-rating for development charge eligible services must be considered.

For all of the development charge eligible services that the Town provides, the full range of capital facilities, land, equipment and infrastructure is available throughout the Town. All residents therefore have access to all facilities. 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 Town.

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



## **General Services**

- General Government
- Non-Administration Operational Facilities
- Fire Services
- Operations
- Parks & Recreation
- Libraries
- Parking & By-law
- Waste Management Services

## **Engineered Services**

- Roads and Related – Town-wide Infrastructure
- Roads and Related – Alternative Route and Related Infrastructure
- Stormwater Management

These services form a reasonable basis in which to plan and administer the Town-wide development charges. It is noted that the analysis of each of these services examines the individual capital facilities and equipment that make them up. For example, the Fire Services category includes fire stations and associated land, vehicles, furniture and equipment. The resulting development charge for all of the above services would be imposed uniformly against all new development everywhere in the Town.

Waste Management Services is a new service proposed to be introduced in the 2016 DC By-law as elements of Waste Management, such as collection, diversion, recycling and organics processing are now eligible under the DCA.

## **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 ten-year study period, 2016 to 2025, for general services and to 2036 for engineering related services. It should be noted that the identified 2031 population and household targets, as described further in Appendix A, were extended to 2036 to

reflect recent development activity and new information since the adoption of ROPA 128.

For the residential portion of the forecast both the census population growth and population growth in new units is estimated. Net population growth determines the need for additional facilities and provides the foundation for the development-related capital program.

The non-residential portion of the forecast estimates the gross floor area (GFA) of building space to be developed over the ten-year period, 2016–2025 and the longer-term period to 2036. The forecast of GFA is based on the employment forecast for the Town. 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 Historical 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.)

Historical ten-year average service levels thus form the basis for the general services development charges. A review of the Town's capital service levels for buildings, land, vehicles, and so on 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 historical service levels used in this study have been calculated based on the period 2006–2015.

## **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 Town's departments as part of the study. All development-related capital costs included in the study have included accessibility considerations and are priced to meet provincial standards or Town standards, whichever is higher. 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, the provisions have the effect of requiring that the development charge be calculated on the lesser of the historical ten-year average service levels or the service levels embodied in future plans of the Town. 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 Town from non-development charges sources. The amount of municipal funding for such 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, the development-related net capital costs must be reduced by ten per cent for all services except services related to a highway such as Public Works and Roads and Related Services (DCA, s. 5.(1)8.) as well as protection and engineered services. The ten per cent discount is applied to the other services and the resulting Town funding responsibility from non-development charge sources is identified.

#### **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 the Town of Whitby, the allocation for general services is based on the consideration of projected changes in population in new units and employment over the planning periods. The exceptions are for the services of Library, Parks & Recreation and Waste Management. The development-related costs for these services have been allocated 100 per cent to residential growth.

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 for non-residential development.

## **5. Final Adjustment**

The final determination of the development charges results from adjustments made to development-related DC eligible costs for each service and sector resulting from the application of any unallocated development-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**

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

The growth forecast used in the 2016 Development Charges Background Study was based on available planning documents and discussions with Town staff. The forecast provides overall population, housing and employment projections for the Town.

#### **A. Residential Growth Forecast**

Development charges are levied on residential development as a charge per new unit. Therefore, for the residential forecast, a projection of both the population growth<sup>1</sup> as well as the population in new units is required.

- The population growth determines the need for additional facilities and provides the foundation for the development-related capital program.
- When calculating the development charge, however, the development-related net capital costs are spread over the total additional population that occupy new housing units. This population in new units represents the population from which development charges will be collected.

Table 1 provides a summary of the residential forecast for the ten-year planning period from 2016 to 2025 and the longer-term period from 2016 to 2036. The ten-year planning period is used throughout this study for the general services and the longer-term forecast is used for engineered services.

Over the planning period from 2016 to 2025, the total number of new residential units will increase by approximately 10,620, which translates into a population in new units of approximately 28,360. Over the 2016 to 2036 planning period, the Town is forecast to add an additional 27,950 dwelling units with an associated population of 71,570. 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 growth forecast can be found in Table 1.

<sup>1</sup> Commonly referred to as “net population growth” in the context of development charges.

**B. Non-Residential Growth Forecast**

Development charges are levied on non-residential development as a charge per square metre of GFA. As with the residential forecast, the non-residential forecast requires both a projection of employment growth as well as a projection of the employment growth associated with new floorspace in the municipality.

The non-residential forecast projects an increase of approximately 7,400 employees to 2025, which will be accommodated in 553,030 square metres of new non-residential building space. To 2036, the Town anticipates adding 1,293,190 square metres of building space, which will be occupied by approximately 17,720 new employees.

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

**TABLE 1**  
**TOWN OF WHITBY**  
**SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL**  
**DEVELOPMENT FORECAST**

Town-wide Development Forecast	2015 Estimate	General Services Planning Period 2016 - 2025		Engineered Services Planning Period 2016 - 2036	
		Growth	Total at 2025	Growth	Total at 2036
<b>Residential</b>					
Total Occupied Dwellings	43,017	10,622	53,639	27,953	70,970
Total Population					
Census	127,080	24,274	151,354	60,163	187,243
<i>Population In New Dwellings</i>		28,361		71,573	
<b>Non-Residential</b>					
Employment	40,339	7,401	47,740	17,716	58,054
Non-Residential Building Space (sq.m.)		553,026		1,293,188	

## **IV Summary of Historical Capital Service Levels**

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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 Town over the ten-year period immediately preceding the preparation of the background study, on a service by service basis.

For non-engineered services, or general services, the legislative requirement is met by documenting historical service levels for the preceding ten years, in this case, for the period 2006 to 2015. Typically, service levels for general services are measured as a ratio of inputs per capita (or 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. In most cases, the service levels are initially established in quantitative terms. For example, service levels for buildings are presented in terms of square feet per capita. For most services, the typically approach to addressing the qualitative aspect is introduced by considering the monetary value of the facility or service. In the case of buildings, for example, the cost would be shown in terms of dollars per square foot to replace or construct a facility of the same quality. This approach helps to ensure that the development-related capital facilities that are to be charged to new development reflect not only the quantity (number and size) but also the quality (value or replacement cost) of service provided historically by the Town. Both the quantitative and qualitative aspects of service levels used in the present analysis are based on information provided by Town staff based on historical records and their experience with costs to acquire or construct similar facilities, equipment and infrastructure as of 2015.

Table 2 summarizes service levels for all Town-wide services included in the development charge calculation (excluding General Government). Appendix B provides detailed historical inventory data upon which the calculation of service levels is based for general services.



**TABLE 2**  
**TOWN OF WHITBY**  
**SUMMARY OF AVERAGE HISTORIC SERVICE LEVELS 2006 - 2015**

Service	2006 - 2015 Service Level Indicator
<b>1.0 NON-ADMINISTRATIVE OPERATIONAL FACILITIES</b> Buildings Land Furniture And Equipment	<b>\$55.99 per pop &amp; empl</b> \$44.77 per pop & empl \$8.87 per pop & empl \$2.35 per pop & empl
<b>2.0 FIRE SERVICES</b> Buildings Land Furniture And Equipment Vehicles	<b>\$292.58 per pop &amp; empl</b> \$140.06 per pop & empl \$55.55 per pop & empl \$11.76 per pop & empl \$85.21 per pop & empl
<b>3.0 OPERATIONS</b> Buildings Land Furniture And Equipment Vehicles	<b>\$185.50 per pop &amp; empl</b> \$63.68 per pop & empl \$43.50 per pop & empl \$43.63 per pop & empl \$34.69 per pop & empl
<b>4.0 PARKS &amp; RECREATION</b> Indoor Recreation Parkland Park Facilities Park Buildings & Equipment	<b>\$3,180.55 per capita</b> \$1,917.80 per capita \$762.29 per capita \$287.46 per capita \$213.00 per capita
<b>5.0 LIBRARIES</b> Buildings Land Materials Furniture And Equipment	<b>\$377.62 per capita</b> \$251.35 per capita \$26.46 per capita \$74.36 per capita \$25.45 per capita
<b>6.0 PARKING &amp; BY-LAW</b> Buildings Land Parking Lots - Spaces Parking Lots - Land Furniture & Equipment Vehicles	<b>\$59.46 per pop &amp; empl</b> \$7.12 per pop & empl \$2.52 per pop & empl \$21.64 per pop & empl \$23.46 per pop & empl \$2.65 per pop & empl \$2.07 per pop & empl
<b>7.0 WASTE MANAGEMENT</b> Vehicles	<b>\$53.20 per capita</b> \$53.20 per capita
<b>8.0 ROADS &amp; RELATED</b> Roads Bridges & Culverts Traffic Signals Sidewalks	<b>\$6,631.75 per pop &amp; empl</b> \$5,493.67 per pop & empl \$502.37 per pop & empl \$43.62 per pop & empl \$592.09 per pop & empl

## **V The Development-Related Capital Program**

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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 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.

### **A. A Development-Related Capital Program is Provided for Council's Approval**

Based on the development forecasts summarized in Section III and detailed in Appendix A, Town staff, in collaboration with the consultants, developed a development-related capital program setting out those projects that are required to service anticipated development. For all general services, the capital plan covers the ten-year period from 2016 to 2025. As permitted by the DCA, s. 5(1)4., the development charges for engineered services is based on development anticipated in the Town to 2036.

One of the recommendations contained in the 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 Town. It is acknowledged that changes to the capital program presented here may occur through the Town's normal capital budget process.

### **B. The Development-Related Capital Program for General Services**

A summary of the development-related capital forecast for general services is presented in Table 3.

**TABLE 3**  
**TOWN OF WHITBY**  
**SUMMARY OF DEVELOPMENT-RELATED CAPITAL PROGRAM**  
**FOR GENERAL SERVICES 2016 - 2025**  
**(in \$000)**

<b>Service</b>	<b>Gross Cost</b>	<b>Grants/ Subsidies</b>	<b>Municipal Cost</b>
<b>1.0 GENERAL GOVERNMENT</b>	<b>\$16,679.9</b>	<b>\$0.0</b>	<b>\$16,679.9</b>
1.1 Recovery of Negative Reserve Fund Balance	\$1,202.9	\$0.0	\$1,202.9
1.2 Development Related Studies: Corporate	\$4,505.0	\$0.0	\$4,505.0
1.3 Development-Related Studies: Downtown	\$1,955.0	\$0.0	\$1,955.0
1.4 Development-Related Studies: Library	\$50.0	\$0.0	\$50.0
1.5 Development-related Studies: Official Plan and Related	\$7,690.0	\$0.0	\$7,690.0
1.6 Development-Related Studies: Parks, Parks Maintenance & Recreation	\$1,092.0	\$0.0	\$1,092.0
1.7 Development-Related Studies: Operations	\$185.0	\$0.0	\$185.0
<b>2.0 NON-ADMINISTRATIVE OPERATIONAL FACILITIES</b>	<b>\$30,036.0</b>	<b>\$0.0</b>	<b>\$30,036.0</b>
2.1 Buildings, Land and Materials	\$23,025.0	\$0.0	\$23,025.0
2.2 Business Solutions - Growth	\$5,180.0	\$0.0	\$5,180.0
2.3 Electronic Service Delivery - Growth	\$650.0	\$0.0	\$650.0
2.4 Management Information Systems Infrastructure - Growth	\$1,181.0	\$0.0	\$1,181.0
<b>3.0 FIRE SERVICES</b>	<b>\$14,730.5</b>	<b>\$0.0</b>	<b>\$14,730.5</b>
3.1 Buildings, Land and Equipment	\$12,065.0	\$0.0	\$12,065.0
3.2 Fire Trucks and Vehicles - Additional	\$2,440.0	\$0.0	\$2,440.0
3.3 Equipment - Additional	\$105.5	\$0.0	\$105.5
3.4 Business Solutions - Growth	\$120.0	\$0.0	\$120.0
<b>4.0 OPERATIONS</b>	<b>\$15,562.6</b>	<b>\$0.0</b>	<b>\$15,562.6</b>
4.1 Recovery of Negative Reserve Fund Balance	\$409.2	\$0.0	\$409.2
4.2 Public Works Facilities - New and Expanded	\$8,912.5	\$0.0	\$8,912.5
4.3 Operations Vehicles - Additional	\$3,818.4	\$0.0	\$3,818.4
4.4 Operations Equipment - Additional	\$2,422.5	\$0.0	\$2,422.5

TABLE 3

**TOWN OF WHITBY**  
**SUMMARY OF DEVELOPMENT-RELATED CAPITAL PROGRAM**  
**FOR GENERAL SERVICES 2016 - 2025**  
**(in \$000)**

Service	Gross Cost	Grants/ Subsidies	Municipal Cost
<b>5.0 PARKS &amp; RECREATION</b>	<b>\$100,712.7</b>	<b>\$325.0</b>	<b>\$100,387.7</b>
5.1 Indoor Recreation: Shared Facilities	\$6,495.0	\$0.0	\$6,495.0
5.2 Indoor Recreation: New & Expanded Facilities	\$2,358.0	\$0.0	\$2,358.0
5.3 Indoor Recreation: Sports Facility Strategy Recommendations	\$60,438.5	\$0.0	\$60,438.5
5.4 Indoor Recreation: Equipment	\$8.0	\$0.0	\$8.0
5.5 Outdoor Recreation: Park Development - New	\$3,100.0	\$0.0	\$3,100.0
5.6 Outdoor Recreation: Parks Growth Related Redevelopment / Expansion	\$3,669.0	\$0.0	\$3,669.0
5.7 Outdoor Recreation: Waterfront Park Development	\$11,171.6	\$0.0	\$11,171.6
5.8 Outdoor Recreation: West Whitby Area - New Park Development	\$6,550.0	\$0.0	\$6,550.0
5.9 Parks Trail System - Expansion	\$4,525.9	\$325.0	\$4,200.9
5.10 Waterfront Trail Development	\$1,075.0	\$0.0	\$1,075.0
5.11 Parks Operations Equipment - Additional	\$807.8	\$0.0	\$807.8
5.12 Parks Operations Vehicles - Additional	\$514.0	\$0.0	\$514.0
<b>6.0 LIBRARIES</b>	<b>\$12,738.2</b>	<b>\$0.0</b>	<b>\$12,738.2</b>
6.1 Recovery of Negative Reserve Fund Balance	\$381.3	\$0.0	\$381.3
6.2 Recovery of Central Public Library Facility	\$5,626.9	\$0.0	\$5,626.9
6.3 Buildings, Land and Equipment	\$4,730.0	\$0.0	\$4,730.0
6.4 Library Collection Expansion	\$2,000.0	\$0.0	\$2,000.0
<b>7.0 PARKING &amp; BY-LAW</b>	<b>\$12,254.0</b>	<b>\$0.0</b>	<b>\$12,254.0</b>
7.1 Parking: Municipal Parking Facilities	\$12,000.0	\$0.0	\$12,000.0
7.2 Parking: Vehicles and Equipment	\$97.0	\$0.0	\$97.0
7.3 By-Law: Vehicles and Equipment	\$114.5	\$0.0	\$114.5
7.4 Animal Services: Facilities, Vehicles and Equipment	\$42.5	\$0.0	\$42.5
<b>8.0 WASTE MANAGEMENT</b>	<b>\$1,782.0</b>	<b>\$0.0</b>	<b>\$1,782.0</b>
8.1 Vehicles & Equipment	\$1,782.0	\$0.0	\$1,782.0
<b>TOTAL - GENERAL SERVICES</b>	<b>\$204,495.9</b>	<b>\$325.0</b>	<b>\$204,170.9</b>

The table provides a separate total for services analysed over the ten-year period, 2016–2025. Further details on the capital programs for each individual service category are available in Appendix B.

The development-related capital program for general services estimates a total gross cost of \$204.50 million. Grants and subsidies of \$325,000 has been identified, therefore, the net municipal cost of the capital program is \$204.17 million.

This capital program incorporates those projects identified to be related to development anticipated in the next ten years. It is not implied that all of these costs are to be recovered from new development by way of development charges (see Section VI for the method and determination of net municipal costs attributable to development). Portions of this capital program may relate to providing servicing for development which has occurred prior to 2016 (for which development charge reserve fund balances exist), for replacement of existing capital facilities, or for development anticipated to occur beyond the 2016–2025 planning period. In addition, the amounts shown in Table 3 have not been reduced by ten per cent for various general services as mandated by s.5(1)8 of the DCA.

Of the \$204.17 million in ten-year net municipal capital costs for general services, \$100.39 million (49 per cent) is related to the provision of Parks & Recreation Services. This amount includes for a number of projects including the parks related share of the proposed Operations Centre expansion, various indoor recreation facilities, new park development and trail development.

The major project in the Non-Administrative Operational Facilities capital program is for the design and construction of a new Town Hall. The net municipal cost for this program amounts to \$30.04 million, or 15 per cent, of the ten-year net municipal capital costs for general services.

The portion of the Town's capital program which relates to the provision of development-related studies is referred to as General Government. The net municipal cost for this program amounts to \$16.68 million, or 8 per cent, of the ten-year capital costs for general services. This service includes for the recovery of the existing negative reserve fund balance.

The capital program associated with Operations relates to the recovery of the reserve fund deficit, the operations related portion of the design and construction of the Operations Centre expansion, the construction of new salt and sand domes, and

various additions to fleet and equipment. The total net municipal cost for this program totals to \$15.56 million.

Fire Services has plans to expand and rehabilitate Fire Hall No. 2, construct a new Fire Hall No. 7 and a new Training Complex. The program also includes for the acquisition of two fire trucks and six fire prevention vehicles. The net municipal cost is \$14.73 million.

The Library Services capital program focuses on the creation of additional useable space in the Central Branch and also the relocation/expansion of the Rossland library branch. The net municipal cost for this program is \$12.74 million.

The most significant project in the Parking & By-law capital program is for the construction of a new municipal parking facility. The program also includes for various equipment and vehicles relating to parking, by-law and animal services. The net cost of this program to the Town is \$12.25 million.

Finally, Waste Management Services includes for the provision of eight additional collection trucks. The net cost of this program total \$1.78 million.

### **C. The Development-Related Capital Program for Engineered Services**

Table 4 provides the development-related capital recoveries for the Town-wide engineered services of Roads and Related and Stormwater Management. The Town-wide capital program totals \$411.96 million and provides servicing for anticipated development over the longer-term planning period from 2016 to 2036. Further details on the capital plans for each individual service category are available in Appendix C.

A total of \$9.69 million in grants, subsidies or alternative funding sources have been identified for the capital projects. As such, the remaining net cost of \$402.27 million is the cost to be paid by the Town. The majority of these costs, 80 percent, or \$321.00 million of the net capital program is associated with Town-wide Infrastructure Roads and Related capital projects. The Town-wide Infrastructure capital program includes a general provision for development-related works to the Town-wide road network and studies. The Alternative Route and Related Infrastructure capital program for works to Highway 7/12, represent 14 per cent, or \$58.00 million of the net capital program.

The remainder of the capital forecast includes \$23.27 million, or 6 per cent for the Town-wide Stormwater management capital program. The forecast includes various

storm sewers, storm water facilities and studies to identify future servicing requirements.

**TABLE 4**  
**TOWN OF WHITBY**  
**SUMMARY OF DEVELOPMENT-RELATED CAPITAL PROGRAM**  
**FOR TOWN-WIDE ENGINEERED SERVICES 2016 - 2036**  
**(in \$000)**

<b>Service</b>	<b>Gross Cost</b>	<b>Grants / Subsidies</b>	<b>Net Municipal Cost</b>
<b>1.1 ROADS &amp; RELATED - TOWN-WIDE INFRASTRUCTURE</b>	<b>\$329,418.8</b>	<b>\$8,423.7</b>	<b>\$320,995.1</b>
1.1.1 Bridges and Culverts - New	\$34,965.5	\$417.0	\$34,548.5
1.1.2 Bridges and Culverts Growth Related Improvements	\$6,775.0	\$0.0	\$6,775.0
1.1.3 Pedestrian Bridges and Tunnels - New	\$5,312.5	\$0.0	\$5,312.5
1.1.4 Multi-Use Paths and Cycling Facilities - New	\$10,479.9	\$175.5	\$10,304.4
1.1.5 Highway 407 Related Infrastructure	\$10,925.0	\$0.0	\$10,925.0
1.1.6 Land Acquisition Roads Widening & Extensions	\$2,925.3	\$0.0	\$2,925.3
1.1.7 Major Road Growth Related Reconstruction	\$40,493.7	\$204.5	\$40,289.3
1.1.8 Minor Road Growth Related Reconstruction	\$10,895.3	\$31.2	\$10,864.1
1.1.9 Road Intersection Improvements	\$15,377.5	\$134.7	\$15,242.8
1.1.10 Road Widening & Extensions	\$109,587.5	\$6,624.9	\$102,962.6
1.1.11 Roads EA & Preliminary Design	\$2,450	\$0.0	\$2,450.0
1.1.12 Rural Arterial Road Growth Related Resurfacing	\$5,157	\$43.4	\$5,113.7
1.1.13 Surface Treated to Hot Mix Conversion Program	\$3,364.2	\$0.0	\$3,364.2
1.1.14 Urban Arterial Road Growth Related Resurfacing	\$40,205.5	\$142.6	\$40,062.9
1.1.15 Sidewalks - New	\$8,069.9	\$232.3	\$7,837.6
1.1.16 Sidewalks - Highway 407 Related Infrastructure	\$2,237.5	\$0.0	\$2,237.5
1.1.17 Street Lighting - New	\$9,135.5	\$417.7	\$8,717.8
1.1.18 Traffic Signals - New	\$4,492.0	\$0.0	\$4,492.0
1.1.19 Roads and Roads-Related Studies	\$4,265.0	\$0.0	\$4,265.0
1.1.20 Transportation Master Plan and Related Studies	\$2,305.0	\$0.0	\$2,305.0
<b>1.2 ROADS AND RELATED - ALTERNATE ROUTE AND RELATED INFRASTRUCTURE</b>	<b>\$58,000.0</b>	<b>\$0.0</b>	<b>\$58,000.0</b>
1.2.1 Alternate Route for Hwy 7/12	\$58,000.0	\$0.0	\$58,000.0
<b>2.0 STORMWATER MANAGEMENT</b>	<b>\$24,541.5</b>	<b>\$1,267.6</b>	<b>\$23,273.9</b>
2.1 Storm Sewers - New / Expanded Capacity	\$9,200.0	\$0.0	\$9,200.0
2.2 Storm Water Facilities - New / Expanded Capacity	\$14,486.5	\$1,267.6	\$13,218.9
2.3 Storm Water Studies	\$855.0	\$0.0	\$855.0
<b>TOTAL - ENGINEERED SERVICES CAPITAL PROGRAM</b>	<b>\$411,960.3</b>	<b>\$9,691.3</b>	<b>\$402,268.9</b>



## **VI Development Charges are Calculated in Accordance with the DCA**

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This section summarizes the calculation of development charges for each service category 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. 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 Town-wide development charges does not include any provision for statutory 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 a 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 General Services**

A summary of the “unadjusted” residential and non-residential development charges for general services is presented in Table 5. Further details of the calculation for each individual Town service category are available in Appendix B.

The capital program for general services incorporates those projects identified to be related to development anticipated in the next ten years. However, not all of the capital costs are to be recovered from new development by way of development charges. Table 5 shows that \$22.37 million relates to ineligible services that cannot be funded through development charges. A further \$25.06 million of the capital program relates to replacement of existing capital facilities or to shares of projects that provide benefit to the existing community. These portions of capital costs will be funded from property taxes.

10 Year Growth in Population in New Units	28,361
10 Year Growth in New Building Space (Sq.M)	553,026
<i>Retail Commercial Space (sq.m)</i>	60,071
<i>Other Non-Residential Space (sq.m)</i>	492,955

Service	Development-Related Capital Program (2016 - 2025)												
	Net Municipal Cost (\$000)	Ineligible Services (\$000)	Replacement & Benefit to Existing (\$000)	Required Service Discount (\$000)	Available DC Reserves (\$000)	Post-2025 Benefit (\$000)	Total DC Eligible Costs for Recovery (\$000)	Residential Share		Non-Residential Retail Commercial		Residential Share Other Non-Residential	
								% (\$000)	% (\$000)	% (\$000)	% (\$000)		
1.0 GENERAL GOVERNMENT  Unadjusted Development Charge Per Capita Unadjusted Retail Commercial Charge Per Sq.M Unadjusted Other Non-Residential Charge Per Sq.M	\$16,679.9	\$590.0	\$5,060.5	\$982.7	\$0.0	\$0.0	\$10,046.7	79%	\$7,967.5	4%	\$392.5	17%	\$1,686.7
2.0 NON-ADMINISTRATIVE OPERATIONAL FACILITIES  Unadjusted Development Charge Per Capita Unadjusted Retail Commercial Charge Per Sq.M Unadjusted Other Non-Residential Charge Per Sq.M	\$30,036.0	\$16,226.0	\$3,927.0	\$988.3	\$104.0	\$7,194.2	\$1,596.4	79%	\$1,266.0	4%	\$62.4	17%	\$268.02
3.0 FIRE SERVICES  Unadjusted Development Charge Per Capita Unadjusted Retail Commercial Charge Per Sq.M Unadjusted Other Non-Residential Charge Per Sq.M	\$14,730.5	\$0.0	\$5,007.4	\$0.0	\$17.6	\$438.0	\$9,267.5	79%	\$7,349.6	4%	\$362.0	17%	\$1,555.9
4.0 OPERATIONS  Unadjusted Development Charge Per Capita Unadjusted Retail Commercial Charge Per Sq.M Unadjusted Other Non-Residential Charge Per Sq.M	\$15,562.6	\$54.0	\$292.9	\$0.0	\$0.0	\$9,339.7	\$5,876.0	79%	\$4,660.0	4%	\$229.5	17%	\$986.51
5.0 PARKS & RECREATION  Unadjusted Development Charge Per Capita Unadjusted Retail Commercial Charge Per Sq.M Unadjusted Other Non-Residential Charge Per Sq.M	\$100,387.7	\$5,500.0	\$9,626.9	\$8,526.1	\$26,184.5	\$0.0	\$50,550.2	100%	\$50,550.2	0%	\$0.0	0%	\$0.00
6.0 LIBRARIES  Unadjusted Development Charge Per Capita Unadjusted Retail Commercial Charge Per Sq.M Unadjusted Other Non-Residential Charge Per Sq.M	\$12,738.2	\$0.0	\$1,150.0	\$1,120.7	\$0.0	\$2,288.0	\$8,179.5	100%	\$8,179.5	0%	\$0.0	0%	\$0.00
7.0 PARKING & BY-LAW  Unadjusted Development Charge Per Capita Unadjusted Retail Commercial Charge Per Sq.M Unadjusted Other Non-Residential Charge Per Sq.M	\$12,254.0	\$0.0	\$0.0	\$1,225.4	\$105.0	\$9,228.8	\$1,694.8	79%	\$1,344.0	4%	\$66.2	17%	\$284.53
8.0 WASTE MANAGEMENT  Unadjusted Development Charge Per Capita Unadjusted Retail Commercial Charge Per Sq.M Unadjusted Other Non-Residential Charge Per Sq.M	\$1,782.0	\$0.0	\$0.0	\$178.2	\$0.0	\$587.6	\$1,016.2	100%	\$1,016.2	0%	\$0.0	0%	\$0.00
TOTAL 10 YEAR TOWN-WIDE GENERAL SERVICES	\$204,170.9	\$22,370.0	\$25,064.7	\$13,021.3	\$26,411.2	\$29,076.3	\$88,227.4	\$82,333.1	\$1,112.6	\$4,781.7			
Unadjusted Development Charge Per Capita Unadjusted Retail Commercial Charge Per Sq.M Unadjusted Other Non-Residential Charge Per Sq.M								\$2,903.03	\$18.52	\$9.70			

The DCA, s.5(1)8 requires that development-related net municipal costs for general services be reduced by ten per cent in calculating the applicable development charge. The discount does not apply to Fire Services and Operations. The ten per cent share of development-related net municipal costs not included in the development charge calculations must be funded from non-development charge sources. In total, \$13.02 million is identified as the required ten per cent reduction.

An additional share of \$26.41 million has been identified as DC reserve fund monies are available to fund development-related projects. These funds have been earmarked for specific projects and they have each been identified in Appendix D. This portion has been netted out of the chargeable capital costs. Another share of the forecast, \$29.08 million, is attributable to development beyond the 2025 period (which will be considered for recovery in future development charges studies, subject to service level considerations).

The total costs eligible for recovery through development charges for general services is \$88.23 million. This amount is allocated between the residential, retail commercial and other non-residential sectors to derive the unadjusted development charges. Library Services, Parks & Recreation and Waste Management are all deemed to benefit residential development only, while the other services are allocated between both sectors based on shares of population in new units and employment growth. Approximately \$82.33 million of the general services development charges recoverable amount is deemed to benefit residential development. When this amount is divided by the ten-year population growth in new units (28,360), an unadjusted charge of \$2,903.03 per capita is derived. The retail commercial share of the general services capital program totals \$1.11 million and when this amount is divided by the ten-year forecast of new commercial non-residential space growth (60,070 square metres), an unadjusted charge of \$18.52 per square metre is derived. For the other non-residential sector, the total share of the capital program amounts to \$4.78 million and when this amount is divided by the ten-year new non-commercial space growth (492,960 square metres), an unadjusted charge of \$9.70 per square metre is derived.

## **B. Unadjusted Development Charge Calculation For Engineered Services**

Table 6 displays the calculation of the development charge rates for the Town-wide engineered services of Roads and Related and Stormwater Management. The development-related town-wide engineering infrastructure will be used to service the development in the Town of Whitby to 2036.

Of the total net municipal cost of all Town-wide engineered services development-related projects, \$402.27 million, not all are to be recovered from new development by way of development charges. Table 6 shows that \$84.76 million is for the replacement of existing capital works or for shares of projects that provide benefit to the existing community.

Available reserve funds, \$39.76 million have also been removed from the development charges calculation. Another share of the forecast, \$33.27 million, is attributable to development beyond the 2036 period (which will be considered for recovery in future development charges studies, subject to service level considerations). After these deductions the total DC eligible cost of \$244.48 million is related to development in the 2016 to 2036 and has been included in the development charge calculation.

Like the general services, the capital program eligible for recovery through development charges is allocated to the residential, retail commercial and other non-residential sectors based on future shares of population in new units and employment growth over the planning period. On this basis, the allocation to the sectors is calculated at 80 per cent for the residential, 4 per cent for retail commercial and 16 per cent to other non-residential.

As a result, \$154.25 million of the engineered services capital program is deemed to benefit residential development. When this amount is divided by the long-term growth in population in new dwelling units (71,570), a charge of \$2,155.10 per capita is the result.

The retail commercial share totals \$7.46 million and, when this amount is divided by the long-term forecast of retail commercial space growth (148,890 square metres), a charge of \$50.12 per square metre results. The other non-residential share totals \$30.72 million and results in a charge of \$26.85 per square metre when divided by the long-term other non-residential growth (1,444,300 square metres).

TABLE 6

**TOWN OF WHITBY**  
**SUMMARY OF UNADJUSTED RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES**  
**CAPITAL PROGRAM FOR TOWN-WIDE ENGINEERED SERVICES**

2016-2036 Growth in Population in New Units	71,573
Employment Growth	17,716
2016-2036 Growth in Square Meters	1,293,188
Retail Commercial Space (sq.m)	148,886
Other Non-Residential Space (sq.m)	1,144,302

Service	Development-Related Capital Program (2016 - 2036)											
	Net Municipal Cost (\$000)	Ineligible Services (\$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			
							%	(\$000)	%	Retail Commercial (\$000)	%	Other Non-Residential (\$000)
1.0 ROADS & RELATED - TOWN-WIDE INFRASTRUCTURE	\$320,995.1	\$0.0	\$71,107.3	\$39,062.5	\$27,326.3	\$183,498.9	80%	\$147,091.4	4%	\$7,115.79	16%	\$29,291.79
Unadjusted Development Charge Per Capita								\$2,055.12				
Unadjusted Retail Commercial Charge Per Sq.M										\$47.79		
Unadjusted Other Non-Residential Charge Per Sq.M												\$25.60
2.0 ROADS AND RELATED - ALTERNATE ROUTE AND RELATED INFRASTRUCTURE	\$58,000.0	\$0.0	\$0.0	\$0.0	\$5,943.1	\$52,056.9	80%	\$41,728.4	4%	\$2,018.68	16%	\$8,309.79
Unadjusted Development Charge Per Capita								\$583.02				
Unadjusted Retail Commercial Charge Per Sq.M										\$13.56		
Unadjusted Other Non-Residential Charge Per Sq.M												\$7.26
3.0 STORMWATER MANAGEMENT	\$23,273.9	\$0.0	\$13,648.1	\$698.3	\$0.0	\$8,927.4	80%	\$7,156.2	4%	\$346.19	16%	\$1,425.08
Unadjusted Development Charge Per Capita								\$99.98				
Unadjusted Retail Commercial Charge Per Sq.M										\$2.33		
Unadjusted Other Non-Residential Charge Per Sq.M												\$1.25
TOTAL TOWN-WIDE ENGINEERED SERVICES	\$402,268.9	\$0.0	\$84,755.4	\$39,760.8	\$33,269.5	\$244,483.2	\$154,247.5		\$7,462.0		\$30,716.9	
Unadjusted Development Charge Per Capita							\$2,155.10					
Unadjusted Retail Commercial Charge Per Sq.M							\$50.12					
Unadjusted Other Non-Residential Charge Per Sq.M							\$26.85					

### **C. Adjusted Residential and Non-Residential Development Charges**

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

Table 7 summarize the results of the adjustment for the residential development charge rates. The adjusted per capita rate increases from \$5,646.93 to \$6,208.01 after the cash flow analysis. Residential Town-wide 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 all services are shown in Table 7.

As shown in the table, the calculated residential charge ranges from \$7,983 for a small apartment (including garden suites and special care/special needs dwelling facilities) to \$20,820 for single and semi-detached units. The calculated charge for rows and other multiples (including townhouses with three bedrooms or more) is \$16,625 and large apartments (including townhouses with less than three bedrooms) is \$12,273.

The calculated non-residential development charges rates are presented in Table 8. The calculated adjusted rate for new retail commercial development is \$92.63 per square metre, which is an increase of \$10.33 from the unadjusted rate of \$82.30 per square metre. For other non-residential development, the adjusted development charge amounts to \$48.66 per square metre which is an increase of \$4.85 from the unadjusted rate of \$43.81 per square metre.

### **D. Comparison of 2016 Newly Calculated Development Charges with Charges Currently in Force in Whitby**

Tables 9 through 11 present a comparison of the newly calculated residential and non-residential development charges with currently imposed development charge rates (as of January 1, 2016).

Table 9 shows that the calculated Town-wide residential development charge single or semi-detached unit is increasing by \$8,112 over the current charge of \$12,708 currently in force. The comparison of calculated non-residential development charges with current rates is shown on Table 10 and Table 11. It should be noted that under

the Town's current 2012 Development Charge By-law, a uniform non-residential rate is levied. As part of the 2016 Development Charges update, a delineated non-residential charge between retail commercial and other non-residential uses is proposed. The calculated Town-wide retail commercial charge of \$92.63 per square metre is \$61.20 more than the current charge of \$31.43. As shown in Table 11, the calculated Town-wide other non-residential charge of \$48.66 per square metre is \$17.23 more than the current non-residential uniform charge of \$31.43.

TABLE 7

**TOWN OF WHITBY  
TOWN-WIDE DEVELOPMENT CHARGES  
RESIDENTIAL DEVELOPMENT CHARGES**

Service	Unadjusted Charge per Capita	Adjusted Charge After Cashflow per Capita	Residential Charge By Unit Type <sup>(1)</sup>				Percentage of Charge
			Single & Semi-Detached	Rows & Other Multiples <sup>(2)</sup>	Large Apartments 2BR or Larger <sup>(3)</sup>	Small Apartment 1BR or Less <sup>(4)</sup>	
General Government	\$280.93	\$296.51	\$994	\$794	\$586	\$381	4.8%
Non-Administrative Operational Facilities	\$44.64	\$47.83	\$160	\$128	\$95	\$62	0.8%
Fire Services	\$259.14	\$274.75	\$921	\$736	\$543	\$353	4.4%
Operations	\$164.31	\$191.28	\$642	\$512	\$378	\$246	3.1%
Parks & Recreation	\$1,782.38	\$1,840.58	\$6,173	\$4,929	\$3,639	\$2,367	29.6%
Libraries	\$288.41	\$326.25	\$1,094	\$874	\$645	\$420	5.3%
Parking & By-Law	\$47.39	\$50.71	\$170	\$136	\$100	\$65	0.8%
Waste Management	\$41.61	\$46.18	\$155	\$124	\$91	\$59	0.7%
<b>Total General Services</b>	<b>\$2,908.81</b>	<b>\$3,074.09</b>	<b>\$10,309</b>	<b>\$8,233</b>	<b>\$6,077</b>	<b>\$3,953</b>	<b>49.5%</b>
Roads & Related - Town-Wide Infrastructure	\$2,055.12	\$2,322.95	\$7,791	\$6,221	\$4,592	\$2,987	37.4%
Roads & Related - Alternate Route And Related Infrastructure	\$583.02	\$699.88	\$2,347	\$1,874	\$1,384	\$900	11.3%
Stormwater Management	\$99.98	\$111.08	\$373	\$297	\$220	\$143	1.8%
<b>Total Engineered Services</b>	<b>\$2,738.12</b>	<b>\$3,133.92</b>	<b>\$10,511</b>	<b>\$8,392</b>	<b>\$6,196</b>	<b>\$4,030</b>	<b>50.5%</b>
<b>TOTAL TOWN-WIDE CHARGE PER UNIT</b>	<b>\$5,646.93</b>	<b>\$6,208.01</b>	<b>\$20,820</b>	<b>\$16,625</b>	<b>\$12,273</b>	<b>\$7,983</b>	<b>100.0%</b>
<i>(1) Based on Persons Per Unit Of:</i>			3.35	2.68	1.98	1.29	

*(2) Includes Townhouse Dwellings with 3 or more Bedrooms*

*(3) Includes Townhouse Dwellings with Less than 3 Bedrooms and Mobile Home Dwelling Units*

*(4) Includes Garden Suites and Special Care/Special Needs Dwelling Units*



TABLE 8

**TOWN OF WHITBY  
TOWN-WIDE DEVELOPMENT CHARGES  
NON-RESIDENTIAL DEVELOPMENT CHARGES**

Service	Retail Commercial		Other Non-Residential	
	Adjusted Charge per Square Metre	Percentage of Charge	Adjusted Charge per Square Metre	Percentage of Charge
General Government	\$6.86	7.4%	\$3.53	7.3%
Non-Administrative Operational Facilities	\$1.11	1.2%	\$0.57	1.2%
Fire Services	\$6.36	6.9%	\$3.28	6.7%
Operations	\$4.43	4.8%	\$2.28	4.7%
Parks & Recreation	\$0.00	0.0%	\$0.00	0.0%
Libraries	\$0.00	0.0%	\$0.00	0.0%
Parking & By-Law	\$1.17	1.3%	\$0.61	1.2%
Waste Management	\$0.00	0.0%	\$0.00	0.0%
<b>General Services Charge Per Square Metre</b>	<b>\$19.93</b>	<b>21.5%</b>	<b>\$10.27</b>	<b>21.1%</b>
Roads & Related - Town-Wide Infrastructure	\$53.90	58.2%	\$28.45	58.5%
Roads & Related - Alternate Route And Related Infrastructure	\$16.23	17.5%	\$8.58	17.6%
Stormwater Management	\$2.57	2.8%	\$1.35	2.8%
<b>Engineered Services Charge Per Square Metre</b>	<b>\$72.70</b>	<b>78.5%</b>	<b>\$38.38</b>	<b>78.9%</b>
<b>TOTAL TOWN-WIDE CHARGE PER SQUARE METRE</b>	<b>\$92.63</b>	<b>100.0%</b>	<b>\$48.66</b>	<b>100.0%</b>

TABLE 9

**TOWN OF WHITBY  
COMPARISON OF CURRENT AND CALCULATED  
RESIDENTIAL TOWN-WIDE DEVELOPMENT CHARGES**

<b>Service</b>	<b>Current Residential Charge / SDU</b>	<b>Calculated Residential Charge / SDU</b>	<b>Difference in Charge</b>	
General Government	\$493	\$994	\$501	102%
Non-Administrative Operational Facilities	\$126	\$160	\$34	27%
Fire Services	\$419	\$921	\$502	120%
Operations	\$327	\$642	\$315	96%
Parks & Recreation	\$6,349	\$6,173	(\$176)	-3%
Libraries	\$591	\$1,094	\$503	85%
Parking & By-Law	\$101	\$170	\$69	68%
Waste Management	\$0	\$155	\$155	N/A
<b>Total General Services</b>	<b>\$8,406</b>	<b>\$10,309</b>	<b>\$1,903</b>	<b>23%</b>
Roads & Related - Town-Wide Infrastructure	\$4,241	\$7,791	\$3,550	84%
Roads & Related - Alternate Route And Related Infras	\$0	\$2,347	\$2,347	N/A
Stormwater Management	\$61	\$373	\$312	511%
<b>Total Engineered Services</b>	<b>\$4,302</b>	<b>\$10,511</b>	<b>\$6,209</b>	<b>144%</b>
<b>TOTAL TOWN-WIDE RESIDENTIAL CHARGE</b>	<b>\$12,708</b>	<b>\$20,820</b>	<b>\$8,112</b>	<b>64%</b>

*\*Fire and Operations were previously combined under the last DC By-law*

TABLE 10

**TOWN OF WHITBY  
COMPARISON OF CURRENT AND CALCULATED  
RETAIL COMMERCIAL TOWN-WIDE DEVELOPMENT CHARGES**

<b>Service</b>	<b>Current Retail Commercial Charge / Sq.m</b>	<b>Calculated Retail Commercial Charge / Sq.m</b>	<b>Difference in Charge</b>	
General Government	\$2.59	\$6.86	\$4.27	165%
Non-Administrative Operational Facilities	\$0.68	\$1.11	\$0.43	63%
Fire Services	\$2.28	\$6.36	\$4.08	179%
Operations	\$1.78	\$4.43	\$2.65	149%
Parks & Recreation	\$3.38	\$0.00	(\$3.38)	-100%
Libraries	\$0.34	\$0.00	(\$0.34)	-100%
Parking & By-Law	\$0.56	\$1.17	\$0.61	110%
Waste Management	\$0.00	\$0.00	\$0.00	N/A
<b>General Services Charge Per Square Metre</b>	<b>\$11.61</b>	<b>\$19.93</b>	<b>\$8.32</b>	<b>72%</b>
Roads & Related - Town-Wide Infrastructure	\$19.71	\$53.90	\$34.19	173%
Roads & Related - Alternate Route And Related Infrastructure	\$0.00	\$16.23	\$16.23	N/A
Stormwater Management	\$0.11	\$2.57	\$2.46	2236%
<b>Engineered Services Charge Per Square Metre</b>	<b>\$19.82</b>	<b>\$72.70</b>	<b>\$52.88</b>	<b>267%</b>
<b>TOTAL TOWN-WIDE CHARGE PER SQUARE METRE</b>	<b>\$31.43</b>	<b>\$92.63</b>	<b>\$61.20</b>	<b>195%</b>

*\*Fire and Operations were previously combined under the last DC By-law*

TABLE 11

**TOWN OF WHITBY  
COMPARISON OF CURRENT AND CALCULATED  
OTHER NON-RESIDENTIAL TOWN-WIDE DEVELOPMENT CHARGES**

<b>Service</b>	<b>Current Other Non-Residential Charge / Sq.m</b>	<b>Calculated Other Non-Residential Charge / Sq.m</b>	<b>Difference in Charge</b>	
General Government	\$2.59	\$3.53	\$0.94	36%
Non-Administrative Operational Facilities	\$0.68	\$0.57	(\$0.11)	-16%
Fire Services	\$2.28	\$3.28	\$1.00	44%
Operations	\$1.78	\$2.28	\$0.50	28%
Parks & Recreation	\$3.38	\$0.00	(\$3.38)	-100%
Libraries	\$0.34	\$0.00	(\$0.34)	-100%
Parking & By-Law	\$0.56	\$0.61	\$0.05	9%
Waste Management	\$0.00	\$0.00	\$0.00	N/A
<b>General Services Charge Per Square Metre</b>	<b>\$11.61</b>	<b>\$10.27</b>	<b>(\$1.34)</b>	<b>-12%</b>
Roads & Related - Town-Wide Infrastructure	\$19.71	\$28.45	\$8.74	44%
Roads & Related - Alternate Route And Related Infrastructure	\$0.00	\$8.58	\$8.58	N/A
Stormwater Management	\$0.11	\$1.35	\$1.24	1129%
<b>Engineered Services Charge Per Square Metre</b>	<b>\$19.82</b>	<b>\$38.38</b>	<b>\$18.56</b>	<b>94%</b>
<b>TOTAL TOWN-WIDE CHARGE PER SQUARE METRE</b>	<b>\$31.43</b>	<b>\$48.66</b>	<b>\$17.23</b>	<b>55%</b>

*\*Fire and Operations were previously combined under the last DC By-law*

## VII Cost of Growth Analysis

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This section describes the cost of growth analysis for the capital facilities and infrastructure identified in the ten-year capital program. The objective of the analysis is to examine the impact of development-related infrastructure needs on the property tax base, irrespective of whether the infrastructure was funded by development charges or not. The analysis considers both capital and operating implications.

This section is also intended to satisfy the long-term capital and operating costs and asset management plan requirements as required by section 10(1)(c) and 10(3) of the DCA. Appendix E contains additional material related to the Cost of Growth Analysis.

### A. The Cumulative Gross Cost of the Ten-Year Capital Program Totals \$482.15 Million

As shown in Table 12, the total gross development-related capital program is anticipated to cost \$482.15 million for general and engineered services over the 2016-2025 period. In accordance with the test and filters required under the DCA, not all of the identified infrastructure costs may be recovered through development charges.

Grants, subsidies and other non-tax recoveries total \$9.06 million and are reduced from the total development charge eligible costs. Available DC reserves of \$66.17 million are applied to projects occurring in the initial years of the ten-year period and are also reduced. In total, based on the current development forecast and calculated development charges, the Town anticipates to generate approximately \$252.05 million in development charge revenue over the next ten-years, net of DC exemptions.

The Town's share of growth which cannot be funded through the calculated development charges amounts to \$142.05 million in DC deductions including benefit to existing shares, ten per cent statutory deductions, ineligible services and post-period benefiting shares. While it is likely that a portion of the post-period shares could be recovered from development charges in future DC by-laws, for the purposes of creating scenarios to test the annual tax increase, it has been assumed that the post-period shares will be fully funded by property taxes.

Finally, the statutory and non-statutory discounts, exemptions and reductions identified in the Draft 2016 DC By-law will require approximately \$12.82 million in funding from non-DC revenue sources over the 2016-2025 planning period.

**B. Net Long Term Capital and Operating Costs for Town Services are Estimated to Increase Over the Forecast Period**

Table 12 summarizes the estimated increase in net operating costs that the Town will experience for additions associated with the planned capital program. These estimates are based on average costs derived from a review of recent budgets and indirect operating estimates provided by Town staff (additional details are included in Appendix E).

As shown in Table 12, the Town's cumulative total net direct and indirect operating costs for tax-supported services are estimated to cost \$79.31 million over the 2016-2025 period, which by 2025 will reach \$14.76 million annually. This amount includes, development charge eligible, Town funded, and developer subdivision assets. Included in this amount, is the addition of approximately 130 full-time equivalent employees over ten years.

**C. Annual Capital Replacement Provisions will be Required for DC/Town Funded Projects and Assumed Assets**

The DCA was amended in late 2015 and, effective January 1 2016, municipalities are required to complete an Asset Management Plan before passing a development charges by-law. A key function of the Asset Management Plan is to demonstrate that all assets proposed to be funded under the development charges by-law are financially sustainable over their full life cycle. For the purposes of the study, the Asset Management Plan requirement is addressed through the Cost of Growth Analysis.

Table 12 summarizes the cumulative capital provisions over the 2016-2025 period required to replace the capital infrastructure proposed to be funded over the next ten years. This estimate is based on information obtained through discussions with Town staff regarding useful life assumptions and the capital cost of acquiring and/or replacing each asset.

Table 12 illustrates that over the 2016-2025 planning period, the Town will need to fund a cumulative total of \$31.52 million in new assets considered in the Development Charges Study and \$9.51 million for developer subdivision assets. By 2025, the Town

will need to fund an additional \$8.06 million per annum in DC/Town funded assets and \$1.69 million for developer subdivision assets. As per the Town's Maintenance Reserve policy, these assets once constructed and assumed, will be included in the annual maintenance envelope calculation. For the purposes of the DC/Town funded assets, a two-year lag has been assumed and for the developer subdivision assets, an eight-year lag has been assumed.

The calculated cumulative ten-year total and annual funding provision should be considered within the context of the Town's projected growth; over the next ten years (to 2025) the Town is projecting an increase of 10,620 total private dwellings units, which represents a 25 per cent increase over the existing base as well as approximately 7,400 new employees. As shown in Table 13, this growth will have the effect of increasing the overall assessment base and will result in an additional \$106.82 million in cumulative assessment revenue over the ten-year period. In this respect, the additional assessment and user fee revenue can be utilized to offset the Town's total cost of growth.

TABLE 12 - PAGE 1

**TOWN OF WHITBY**  
**COST OF GROWTH ANALYSIS - 10-YEAR CAPITAL PLAN**

**TOTAL GROWTH-RELATED CAPITAL PROJECTS**  
**ALL COSTS ARE IN \$2016**

<b>Total Growth-Related Projects</b>	<b>2016-2025</b>
<b>A Total Project Costs</b>	
Gross Project Costs	\$ 482,151,983
<b>Subtotal</b>	<b>\$ 482,151,983</b>
<b>Capital Cost Analysis</b>	
<b>B Grants and Subsidies</b>	
Grants and Subsidies	\$ 9,056,906
<b>Subtotal</b>	<b>\$ 9,056,906</b>
<b>C Development Charges</b>	
Available DC Reserves	\$ 66,171,986
DC Collections 2016-2025 Net of DC Exemptions (1)	\$ 252,053,271
<b>Subtotal</b>	<b>\$ 318,225,257</b>
<b>D DC Deductions (Town Share of Growth)</b>	
Benefit-to-Existing/Replacement (2)	\$ 71,636,171
10% Statutory Deduction (2)	\$ 13,021,329
Ineligible Services (2)	\$ 22,370,000
Post-Period benefit (3)	\$ 35,019,461
<b>Subtotal</b>	<b>\$ 142,046,960</b>
<b>E DC Exemptions (Town Share of Growth)</b>	\$ -
Statutory Discounts (2)	\$ 7,736,793
Non-Statutory Discounts (2)	\$ 5,086,067
<b>Subtotal</b>	<b>\$ 12,822,859</b>
<b>TOTAL CAPITAL COSTS (B + C + D + E) (4)</b>	<b>\$ 482,151,983</b>

**Notes:**

- 1 Recovered through the development charge rates
- 2 Represents ineligible shares of development charge projects that must be funded from taxes
- 3 Assumed to be Tax funded but may be considered for recovery in future development charge by-law
- 4 Town's share of capital program equals DC deductions plus DC exemptions



TABLE 12 - PAGE 2

**TOWN OF WHITBY  
COST OF GROWTH ANALYSIS - 10-YEAR CAPITAL PLAN**

**OPERATING AND ASSET MANAGEMENT REQUIREMENTS ANALYSIS  
ALL COSTS ARE IN \$2016**

<b>Operating Cost Analysis (5)</b>	<b>2016-2025</b>
<b>F Direct and Indirect (Cumulative)</b>	
DC/Town Funded Projects	\$ 73,812,106
Assumed Projects	\$ 5,499,636
<b>Total Operating Cost Analysis</b>	<b>\$ 79,311,742</b>
<b>Additional Full Time Equivalents (FTEs) (6)</b>	
DC/Town Funded Projects	121.8
Assumed Projects	7.4
<b>Total FTEs</b>	<b>129.2</b>
<b>2025 Annual Operating Costs (Cumulative)</b>	
DC/Town Funded Projects	\$ 13,786,240
Assumed Projects	\$ 974,748
<b>Total Annual Provision in 2025</b>	<b>\$ 14,760,988</b>
<b>Capital Maintenance Costs (7)</b>	<b>2016-2025</b>
<b>G Asset Management (Cumulative)</b>	
DC/Town Funded Projects	\$ 31,517,637
Assumed Projects	\$ 9,509,682
<b>Total Capital Maintenance Costs</b>	<b>\$ 41,027,319</b>
<b>2025 Annual Asset Management Provision (Cumulative)</b>	
DC/Town Funded Projects	\$ 8,057,118
Assumed Projects	\$ 1,685,186
<b>Total Annual Provision in 2025</b>	<b>\$ 9,742,303</b>
<b>TOTAL ALL EXPENDITURES (B + C + D + E + F + G)</b>	<b>\$ 602,491,044</b>
<b>TAX SUPPORTED EXPENDITURES (D + E + F + G)</b>	<b>\$ 275,208,881</b>

**Notes:**

- 5 Direct and indirect operating impacts are net of user fee revenues.
- 6 Based on an average salary, wages and benefits of approximately \$99,000 per employee. Salaries relating to new FTEs are included in the operating costs.
- 7 Calculated using straight-line approach with interest. These are calculated contributions are higher than the Town's current contributions to asset replacement.

TABLE 13

**TOWN OF WHITBY  
COST OF GROWTH ANALYSIS - 10-YEAR CAPITAL PLAN**

**TAXATION REVENUE FROM NEW GROWTH  
ALL COSTS ARE IN \$2016**

<b>Taxation Revenue from New Growth</b>	<b>2016-2025</b>
<b>Taxation Revenue (Cumulative)</b>	
Residential Revenue	\$ 84,392,463
Non-Residential Revenue	\$ 22,422,873
<b>Subtotal</b>	<b>\$ 106,815,336</b>
<b>TOTAL TAX REVENUE</b>	<b>\$ 106,815,336</b>

## **D. Growth will Require Tax Rate Increases**

Table 14 summarizes the components of the development-related capital program that will require funding from property taxes and identifies the annual tax increase requirement. In total, \$195.90 million is related to the net capital funding requirements and \$79.31 million relates to the net operating expenditures over the 2016-2025 period that will be funded from non-development charge sources.

The Town currently maintains a Growth Reserve Fund which is used to pay for the Town's portion of capital growth projects as outlined in the Council approved Development Charges Background Study. Approximately \$3.15 million is contributed to this reserve annually, subject to Council approval. As of 2016, the Town had \$22.60 million available in the Growth Reserve Fund that has been applied to off-set the total net capital funding requirements. Over the ten-year period, the Town also anticipates to generate roughly \$106.82 million in additional taxation revenue from new growth. After these adjustments, the cumulative "gap" between tax related expenditures and tax revenue is used to determine the annual tax increase to balance the 10-year plan.

For the purposes of the analysis, two scenarios have been provided. A brief description of each scenario and the related tax rate impact is described below and summarized in Table 14.

### **Scenario 1: Base Case**

- No projects are funded through debentures
- All post-period shares are funded through taxes
- Considers Growth Reserve Fund balance and annual contributions to Growth Reserve Fund
- Total 10-year funding requirement after reserve adjustments and taxation revenue from new growth equals \$113.11 million
- Annual tax increase calculated to be 2.48 per cent over the ten-year period

### **Scenario 2: With Debt Considerations**

- Assumes \$63.87 million in Town share of projects are funded through debentures; associated principal and interest payments are considered
- All post-period shares are funded through taxes
- Considers Growth Reserve Fund balance and annual contributions to Growth Reserve Fund
- Total 10-year funding requirement after reserve adjustments, anticipated debentures and taxation revenue from new growth equals \$66.12 million
- Annual tax increase calculated to be 1.49 per cent over the ten-year period

**TABLE 14**

**TOWN OF WHITBY**

**COST OF GROWTH ANALYSIS - 10-YEAR CAPITAL PLAN**

**SCENARIO TESTING**

**ALL COSTS ARE IN \$2016**

<b>COST OF GROWTH ANALYSIS</b>	<b>2016-2025</b>
<b><u>Scenario 1: Base Case</u></b>	
Capital Funding Required (1)	\$ 195,897,139
<i>Less Growth Reserve Fund Balance</i>	\$ (22,604,660)
<i>Less Growth Reserve Fund Contribution</i>	\$ (32,683,086)
Operating Funding Required (2)	\$ 79,311,742
<b>Revised Capital + Operating Funding Required</b>	<b>\$ 219,921,134</b>
 <b>Taxation Revenue from New Growth</b>	 <b>\$ (106,815,336)</b>
<b>Revised Funding Requirement</b>	<b>\$ 113,105,798</b>
 <b>Annual Tax Increase to Balance 10-Year Plan</b>	 <b>2.48%</b>
<b><u>Scenario 2: With Debt Considerations</u></b>	
Capital Funding Required (1)	\$ 195,897,139
<i>Less Growth Reserve Fund Balance</i>	\$ (22,604,660)
<i>Less Growth Reserve Fund Contribution</i>	\$ (32,683,086)
<i>Less Debt Financed Capital Costs</i>	\$ (63,865,216)
<i>Plus Debt Principal and Interest</i>	\$ 16,879,398
Operating Funding Required (2)	\$ 79,311,742
<b>Revised Capital + Operating Funding Required After Debt</b>	<b>\$ 172,935,316</b>
 <b>Taxation Revenue from New Growth</b>	 <b>\$ (106,815,336)</b>
<b>Revised Funding Requirement</b>	<b>\$ 66,119,980</b>
 <b>Annual Tax Increase to Balance 10-Year Plan</b>	 <b>1.49%</b>

**Notes:**

- 1 Includes "DC Deductions", "DC Exemptions" and "Capital Maintenance Costs"
- 2 Includes direct and indirect operating costs

**E. Financing Mechanisms to Mitigate Tax Rate Impacts will be Examined Through the Long-Range Financial Plan**

As summarized in Table 14, the calculated funding requirements are considered to be financially sustainable as it is expected that the increased tax funded expenditure requirements, including long-term operating and capital asset management requirements, can be absorbed by the tax base over the long-term with increases.

The tax increase shown in Table 14 has been calculated on an average annual basis. In order to achieve this, the Town will need to use a number of mitigating measures including but not limited to transfers to/from reserves, timing of projects and use of debt. The Town's financing mechanisms for these projects will be further evaluated based on financial policies and thresholds that will be identified through a Long-Range Financial Plan (LRFP) analysis.

## **VIII Development Charges Administration**

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### **A. Development Charge Administration**

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

- As required under the DCA, the Town should codify any rules regarding the application of the by-laws and any exemptions within the development charges by-law 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 limited exemptions, other than those required in the DCA be formally adopted in the by-laws; and
- It is recommended that Council adopt the development-related capital program included in this background study, subject to annual review through the Town's normal capital budget process.

### **B. Local Service Definitions**

Appendix F of the study provides the definition of “local service” under the DCA for parkland development, active transportation and other engineered services by the Town of Whitby. The purpose in establishing these definitions is to determine the eligible capital costs for inclusion in the development charges calculation for the Town. 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.

## **Appendix A**

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### **Development Forecast**

## **Appendix A**

### **Development Forecast**

This appendix provides the details of the development forecast that will be used to prepare the 2016 Development Charges Background Study for the Town of Whitby. The forecast method and key assumptions are discussed and the results of the forecasts are presented in the following tables:

#### **Historical Development**

Table 1	Historical Population, Occupied Dwellings & Employment Summary
Table 2	Historical Annual Housing Completions (CMHC)
Table 3	Historical Occupied Households by Unit Type
Table 4	Historical Annual Growth in Occupied Households by Unit Type
Table 5	Historical Households by Period of Construction Showing Household Size
Table 6	Historical Place of Work Employment

#### **Forecast Development**

Table 7	Population, Household & Employment Forecast Summary
Table 8	Forecast of Occupied Households by Unit Type
Table 9	Forecast of Annual Growth in Occupied Households by Unit Type
Table 10	Forecast Population in New Households by Unit Type
Table 11	Forecast of Place of Work Employment
Table 12	Non-Residential Space Forecast
Table 13	Area-specific Residential Development Forecast

The forecasts of population and households are based on the 2031 targets for the Town identified in the Region of Durham Official Plan Amendment (ROPA) 128. The identified 2031 population and household targets were extended to 2036 to reflect recent development activity and new information since the adoption of ROPA 128. Additionally, the forecast of employment has been adjusted downward from the ROPA forecast to reflect the economic downturn during the 2006–2011 Census period. The residential and non-residential forecasts incorporate recent historical data and development applications provided by the Town's Planning and Development Department.



## **A. Forecast and Key Assumptions**

The Development Charges Act (DCA) requires the Town to estimate “the anticipated amount, type and location of development” for which development charges may be imposed. The development forecast must cover both residential and non-residential development and be specific enough with regards to quantum, type, location and timing of development to allow the Town to prepare a reasonable development-related capital program. A ten-year development forecast, from 2016 to 2025, has been used for all the development charge eligible general services in the Town. For Roads and Related and Stormwater Management services, a long-term forecast from 2016 to 2036 has been used.

The development forecast is based on estimates of growth occurring within the Town’s approved development areas, specifically within the areas of Brooklin and West Whitby and on a Town-wide basis. This is consistent with Provincial regulations that require development charges forecasts be based on areas approved for development in a municipality’s official plan.

The forecasts used in this DC Study have been informed by the long-term population and household and employment forecasts established for the Town of Whitby by the Region of Durham<sup>1</sup> as well as recent historical data and discussions with Town staff. It should be noted that due to recent development trends, the 2031 population and housing targets established in the long-term ROPA forecast has been extended to 2036.

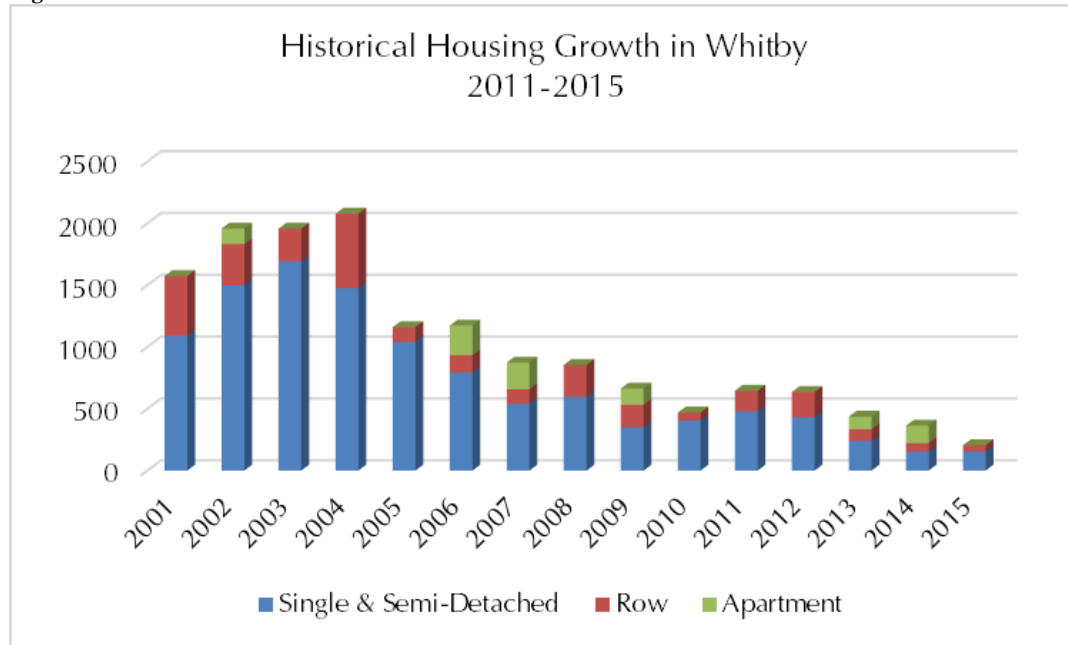
## **B. Historical Development in The Town**

The Town has experienced fluctuations in population, household and employment growth over the last fifteen years due to a number of factors. As shown in Figure 1, in the early 2000s the Town experienced substantial development which was fuelled by the available supply of greenfield land and rapid economic growth. As land supply diminished, residential development in the Town began to slow. At the same time, the

<sup>1</sup> That is, a population target of 192,860 a household target of 71,650, and an employment target of 71,310 for 2031 (see Durham Regional Official Plan, August 13, 2013, p.40) which has been extended to 2036. It is noted that this population forecast includes a Census undercoverage estimate of three per cent. The equivalent “Census” population is approximately 187,250.

Town's employment base experienced a slow down in the manufacturing sector which was followed by the financial crisis and recession in 2008 and 2009.

**Figure 1**



Source: Canada Mortgage and Housing Corporation (CMHC), Housing Market Information

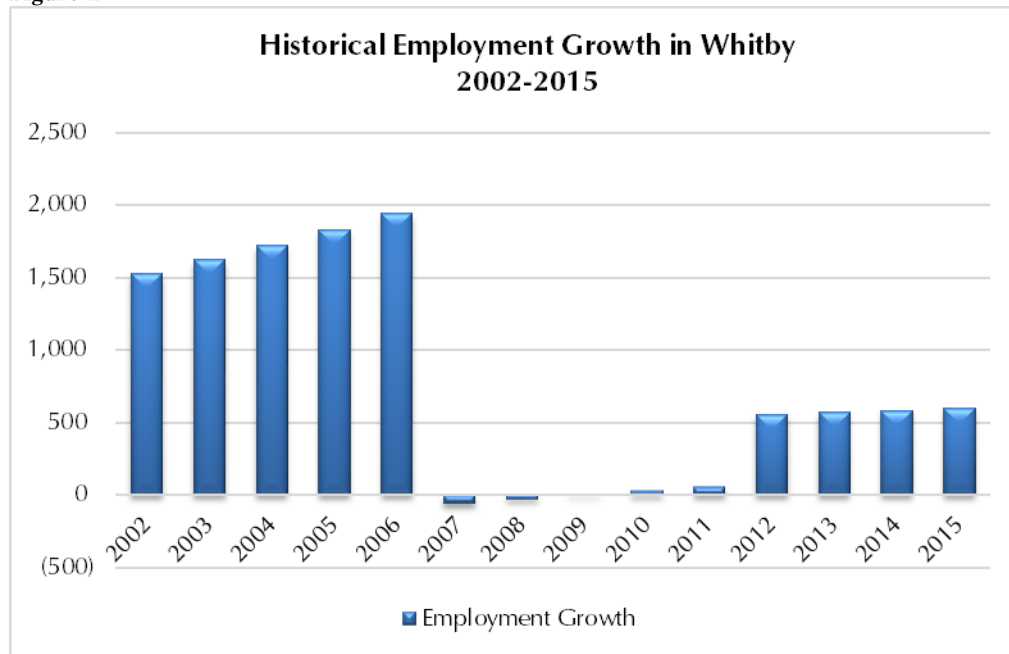
Historical growth and development figures presented in this appendix are based on Statistics Canada Census data, Canada Mortgage and Housing Corporation (CMHC) data and the Town's historical building permit data. A "Census-based" definition of population is used for the purposes of the development charges study. This definition does not include the Census net undercoverage which is typically included in the definition of "total" population used by the Town and the Region in their Official Plans. For development charges purposes, a ten-year historical period of 2006 to 2015 is used for calculating service levels. Since 2011 was the year of the last Census, figures for 2012 to 2015 are estimates.

Table 1 shows that the rate of population growth in the Town has fallen from a high of about 4.9 per cent per annum to about 1.9 per cent per annum between the 2006 and 2011 Census years. During this same period, the number of occupied dwellings in the Town increased at slightly higher rate than the population but still declined from a high of 5.4 per cent to 2.0 per cent in 2011.

Despite this slowdown, the Town of Whitby has continued to experience population and household growth over the last ten years. As shown in Table 1, the Town's population increased from approximately 105,960 people in 2005 to 127,080 in 2015. This represents an increase of 19 per cent. The number of occupied dwelling units in the Town also experienced an increase during the ten-year historical period, increasing from roughly 35,330 in 2005 to 43,020 occupied households in 2015, a 21 per cent increase. The difference between the rates of population and occupied dwelling unit growth is the result of a decline in the average number of persons residing in housing units.

Historical employment figures are also shown in Table 1 and are based on Statistics Canada place of work data. Place of work data records where people work rather than the place of residence. The employment figures used for development charges calculations includes employees with no fixed work place of work, but excludes work at home employment. After growing at a steady rate of 5 per cent per year over the 2001–2006 period, the Town's employment remained static over the 2006–2011 period as a result of the global economic slowdown. As shown in Figure 2, employment growth which has occurred since 2011 has partly included the reoccupying of existing employment space that was vacated during the recession. Overall, the Town's employment has increased over the last ten years from 36,090 in 2005 to 40,340 in 2015; this represents an increase of 11 per cent. The Town's activity rate (the ratio of employment to population) has also declined slightly from 34 per cent in 2005 to 32 per cent in 2015.

Figure 2



*Note: Employment Values Include No Fixed Place of Work Employment*  
*Source: Source: Statistics Canada, Census of Canada*

Details on historical housing unit growth in the Town are provided in Table 2, Historical Annual Housing Completions. This information is sourced from CMHC Market Information. Overall, the dominant type of new housing in Whitby constructed since 2001 has been single- and semi-detached units which represents 66 per cent of all housing completions from 2006–2015.

Table 3 summarizes all occupied households by unit type in the Town of Whitby based on Census data. Table 4 illustrates the annual changes in each type of unit since 2001. The overall market shares for single and semi-detached dwelling units has fluctuated over the period reaching a high of 75 per cent between 2007 to 2010. The share of row housing units constructed has increased over the last 15 years – a trend that is expected to continue.

Table 5 provide details on historical occupancy patterns in the Town. The overall average occupancy level in Whitby for single and semi-detached units is 3.19 persons per housing unit (PPU). Occupancy levels for recently constructed units, between 2001 and 2011, are higher than the overall average and are used in the development charges calculation since it better reflects the number of people that are likely to reside in new

developments. The average PPU of single and semi-detached units built in the Town in the period 2001 to 2011 is 3.35. Average PPUs for recently constructed row housing and apartments (excluding duplexes) are 2.63 and 1.46, respectively.

Table 6 summarizes the growth in historical employment by place of work by commercial and non-commercial non-residential sector in the Town of Whitby between 2001 and 2015. The decline in the employment land sector from 2006 to 2011 is largely attributable to significant employment losses in the industrial sector due to the global recession. Employment in this sector is growing again and is forecasted to continue to increase into the future. In contrast, the decline in the rural-based employment sector is anticipated to continue as Whitby continues to urbanize.

### **C. FORECAST METHOD AND RESULTS**

This section describes the method used to establish the development forecast for the periods of 2016 to 2025 and 2016 to 2036.

Development charges are levied on residential development as a charge per new unit. Therefore, for the residential forecast, a projection of both the population growth<sup>2</sup> as well as the population in new housing is required.

- The population growth determines the need for additional facilities and provides the foundation for the development-related capital program.
- When calculating the development charge, however, the development-related net capital costs are spread over the total additional population that occupies new dwelling units. This population in new units represents the population from which development charges will be collected.

Development charges are levied on non-residential development as a charge per unit of gross floor area (GFA). The non-residential forecast includes both a projection of employment growth as well as a projection of the floor space associated with employment growth in the Town.

<sup>2</sup> Commonly referred to as “net population growth” in the context of development charges.

## 1. Residential Forecast

The residential development forecast incorporates anticipated growth in population and occupied dwelling units by type. The residential forecast for the Town is anchored on the population target of 187,240 in 2036 (equivalent to about 192,860 persons with net undercoverage) and a household target of 70,970 in 2036 these are based on the Region of Durham's 2031 targets and adjusted to account for 2016 Census information<sup>3</sup>. As new greenfield land becomes available in Brooklin and West Whitby over the initial years of the forecast, the rate of growth in the Town will increase.

As detailed in Table 7, the Town's Census population is forecast to grow from approximately 127,080 in 2015 to 151,350 in 2025 and 187,240 in 2036. The ten-year population growth of 24,270 persons represents a 19 per cent increase over the existing base. The longer-term increase of 60,160 persons to 2036 represents a 47 per cent increase.

Over the ten-year planning period from 2016 to 2025, the number of occupied housing units is forecast to increase from 43,020 in 2015 to 53,640 in 2025. By 2036, this number is expected to reach 70,970 units. This reflects an average annual increase of approximately 840 occupied dwelling units per year from 2016 to 2020 (the first five years), which increases to approximately 1,780 new units per year at 2036. The overall ten-year growth represents a 25 per cent (10,620 units) increase in occupied dwelling units over the next ten years. The longer-term growth of 27,950 units represents a 65 per cent increase over the existing base in 2015.

A breakdown of anticipated housing in the Town by unit type is shown in Table 8. The housing forecast shows that the Town's housing market will continue to be characterized by a preference for single and semi-detached unit types, with an increasing share of the market being represented by higher density built forms (both row units and apartments). This pattern of housing unit growth would represent somewhat higher density housing than the pattern experienced in the Town over the last ten years. Such a pattern is, however, in keeping with Town and Regional policies aimed at promoting intensification.

As demonstrated in Table 9, over the ten-year period, the type of new housing in the Town is forecast to be composed largely of single and semi-detached units (49 per cent), followed by rows (26 per cent) and apartments (25 per cent). It should be noted that the initial increase in apartments units constructed in between 2016 and 2018 relates to two major apartment developments planned in Port Whitby.

<sup>3</sup> The Region's 2031 household target of 71,650 has been adjusted slightly to 70,970

Population growth in the new units is estimated by applying the following 2016 PPUs to the housing unit forecast: 3.33 for single and semi-detached units; 2.61 for rows; and 1.69 for apartments. These PPUs in new units are expected to decline slightly over time as the overall population ages.

The forecast of population expected to reside in new housing units over the 2016 to 2025 period is 28,360 additional persons. Over the longer-term planning period, 71,570 additional persons are anticipated. This population growth by unit type is shown in Table 10.

## 2. Non-Residential Forecast

Table 11 illustrates the forecast total employment growth in the Town of Whitby by employment category to 2036. Non-residential development charges are calculated on a per unit of gross floor area (GFA) basis. Therefore, as required by the DCA, a forecast of future non-residential building space has also been developed. As with the residential forecast, the employment and GFA forecasts cover the ten-year period from 2016 to 2025 for general services and the long-term period from 2016 to 2036 for engineered services.

As detailed in Table 11 and 12, five categories of employment are distinguished for the purposes of determining non-residential employment and floorspace growth:

- **Retail Commercial employment** is employment that primarily serves the residential population and includes retail. The rate of growth of this category is generally linked to the rate of population growth in the Town.
- **Institutional employment** refers to employment accommodated in education, health care, local government employment and informational and cultural industries.
- **Employment land employment** refers to employment accommodated primarily in low-rise industrial-type buildings located within the Town's business parks and industrial areas.
- **Office employment** refers to office type employment contained within free standing buildings relating professional uses including but not limited to finance and insurance, scientific and technical, health care etc.
- **Rural-based employment** refers to jobs scattered throughout rural areas and includes agricultural and primary industries plus uses typically found in urban employment areas, but not located on urban land designated for industrial or commercial use.

An assumed floorspace per worker (FSW) for each category is applied to the employment forecast in order to estimate the amount of associated GFA. The following FSW assumptions are used:

Retail Commercial	43 m <sup>2</sup> per employee
Institutional	65 m <sup>2</sup> per employee
Employment Land	100 m <sup>2</sup> per employee
Office	27 m <sup>2</sup> per employee
Rural-Based	0 m <sup>2</sup> per employee

The non-residential floorspace forecast for the Town is summarized in Table 12. The total floorspace growth is forecast at 553,030 square metres over the ten-year period and 1,293,190 square metres over the long-term to 2036. Although the largest component of floorspace growth over the 10-year period relates to employment land employment (361,700 square metres or 65 per cent) the rate of growth of retail commercial and office employment is anticipated to be greater than the rate of employment land growth.

### **3. Area-Specific Forecast for Brooklin and West Whitby**

Table 13 describes the ten-year and longer-term forecast of new dwelling units for Brooklin, West Whitby and the remaining areas of the Town. Over the initial 2016 to 2025 planning period, the majority of residential development is anticipated to occur within the West Whitby area with a growth of 4,800 units. In contrast, over the long-term planning period to 2036, the majority of growth is anticipated to occur in Brooklin with over 12,040 units constructed. The remaining growth of roughly 11,110 units over the 2016 to 2036 period will occur within the Town's existing Urban Boundary and will primarily relate to intensification.

### **4. Consideration for Area-Rated Services**

In accordance with the recent changes to s.10(2) of the DCA, a development charge background study must give consideration for "the use of more than one development charge by-law to reflect different needs for services in different areas". Following consultation with Town staff, and in review of the Town's relevant master planning documents, it was determined that a municipal-wide approach continues to be most appropriate for the nature of the works and services provided in Whitby, and as such, only a Town-wide charge has been proposed.

For all of the development charge eligible services that the Town provides, the full range of capital facilities, land, equipment and infrastructure is available throughout the Town. All residents therefore have access to all facilities. 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 Town.



The table below provides a summary of the needs for servicing in different areas.

<b>Town Services Considered</b>	<b>Needs for Servicing in Different Areas</b>
General Services	<ul style="list-style-type: none"> <li>• Services such as Library and Parks &amp; Recreation are open and accessible to all residents in the Town and are driven and planned for based on Town-wide population growth.</li> <li>• For Non-Administrative Operational Facilities, Fire, Operations and Parking &amp; By-law these services are provided to all residents and employees in the Town and are driven and planned for based on Town-wide population or population and employment growth.</li> <li>• For Waste Management, this service is provided to residences Town-wide (with the exception of high-rise residential development that are responsible for their own Waste Management collection) and is driven and planned for based on Town-wide population and household growth.</li> </ul>
Engineered Services	<ul style="list-style-type: none"> <li>• Services such as Roads &amp; Related are provided through a Town-wide network and is planned based on Town-wide population and employment growth.</li> <li>• For Stormwater Management services, a network of stormwater management ponds and facilities are used to provide services to Town-wide population and employees growth.</li> </ul>

APPENDIX A - TABLE 1  
TOWN OF WHITBY  
HISTORICAL POPULATION, OCCUPIED DWELLINGS & EMPLOYMENT SUMMARY

Mid-Year	Census Population	Annual Growth	Occupied Households	Annual Growth	Av. Household Size (PPU)	Place of Work Employment	Annual Growth	Activity Rate
<b>2001</b>	<b>87,413</b>		<b>28,640</b>		<b>3.05</b>	<b>29,397</b>		<b>33.6%</b>
2002	91,721	4,308	30,184	1,544	3.04	30,924	1,527	33.7%
2003	96,241	4,520	31,811	1,627	3.03	32,545	1,621	33.8%
2004	100,984	4,743	33,526	1,715	3.01	34,266	1,721	33.9%
2005	105,961	4,977	35,334	1,808	3.00	36,094	1,828	34.1%
<b>2006</b>	<b>111,184</b>	<b>5,223</b>	<b>37,240</b>	<b>1,906</b>	<b>2.99</b>	<b>38,033</b>	<b>1,939</b>	<b>34.2%</b>
2007	113,272	2,088	37,967	727	2.98	37,974	(59)	33.5%
2008	115,399	2,127	38,708	741	2.98	37,946	(28)	32.9%
2009	117,566	2,167	39,464	756	2.98	37,946	0	32.3%
2010	119,774	2,208	40,235	771	2.98	37,975	29	31.7%
<b>2011</b>	<b>122,022</b>	<b>2,248</b>	<b>41,021</b>	<b>786</b>	<b>2.97</b>	<b>38,030</b>	<b>55</b>	<b>31.2%</b>
2012	123,267	1,245	41,511	490	2.96	38,585	555	31.3%
2013	124,525	1,258	42,007	496	2.95	39,156	570	31.4%
2014	125,796	1,271	42,509	502	2.94	39,740	584	31.5%
2015	127,080	1,284	43,017	508	2.93	40,339	599	31.6%
Growth 2006-2015		21,119		7,683			4,245	

Source: Statistics Canada, Census of Canada, Hemson estimates

APPENDIX A - TABLE 2  
TOWN OF WHITBY  
HISTORICAL ANNUAL HOUSING COMPLETIONS (CMHC)

Year	CMHC Annual Housing Completions				Shares By Unit Type			
	Singles/Semis	Rows	Apartments	Total	Singles/Semis	Rows	Apartments	Total
2003	1,692	266	0	1,958	86%	14%	0%	100%
2004	1,476	602	0	2,078	71%	29%	0%	100%
2005	1,041	119	0	1,160	90%	10%	0%	100%
2006	794	139	240	1,173	68%	12%	20%	100%
2007	540	118	215	873	62%	14%	25%	100%
2008	596	259	0	855	70%	30%	0%	100%
2009	351	181	131	663	53%	27%	20%	100%
2010	404	66	0	470	86%	14%	0%	100%
2011	479	167	0	646	74%	26%	0%	100%
2012	431	205	0	636	68%	32%	0%	100%
2013	241	93	102	436	55%	21%	23%	100%
2014	154	68	141	363	42%	19%	39%	100%
2015	154	52	0	206	75%	25%	0%	100%
Growth 2011-2015	1,459	585	243	2,287	64%	26%	11%	100%
Growth 2006-2015	4,144	1,348	829	6,321	66%	21%	13%	100%

Source: Canada Mortgage and Housing Corporation (CMHC), Housing Market Information

APPENDIX A - TABLE 3  
TOWN OF WHITBY  
HISTORICAL OCCUPIED HOUSEHOLDS BY UNIT TYPE

Mid-Year	Occupied Households				Shares By Unit Type			
	Singles/Semis	Rows	Apartments	Total	Singles/Semis	Rows	Apartments	Total
2001	21,775	2,435	4,430	28,640	76%	9%	15%	100%
2002	22,863	2,689	4,618	30,170	76%	9%	15%	100%
2003	24,005	2,970	4,814	31,789	76%	9%	15%	100%
2004	25,204	3,280	5,019	33,503	75%	10%	15%	100%
2005	26,463	3,622	5,232	35,317	75%	10%	15%	100%
2006	27,785	4,000	5,455	37,240	75%	11%	15%	100%
2007	28,329	4,158	5,474	37,961	75%	11%	14%	100%
2008	28,884	4,322	5,493	38,699	75%	11%	14%	100%
2009	29,450	4,493	5,512	39,455	75%	11%	14%	100%
2010	30,027	4,670	5,531	40,228	75%	12%	14%	100%
2011	30,616	4,855	5,550	41,021	75%	12%	14%	100%
2012	31,047	5,060	5,550	41,657	75%	12%	13%	100%
2013	31,288	5,153	5,652	42,093	74%	12%	13%	100%
2014	31,442	5,221	5,793	42,456	74%	12%	14%	100%
2015	31,596	5,273	5,793	42,662	74%	12%	14%	100%

Source: Statistics Canada, Census of Canada and Canada Mortgage and Housing Corporation (CMHC), Housing Market Information

APPENDIX A - TABLE 4  
TOWN OF WHITBY  
HISTORICAL ANNUAL GROWTH IN OCCUPIED HOUSEHOLDS BY UNIT TYPE

Mid-Year	Annual Growth in Occupied Households				Shares By Unit Type			
	Singles/Semis	Rows	Apartments	Total	Singles/Semis	Rows	Apartments	Total
2001								
2002	1,088	254	188	1,530	71%	17%	12%	100%
2003	1,142	281	196	1,619	71%	17%	12%	100%
2004	1,199	310	205	1,714	70%	18%	12%	100%
2005	1,259	342	213	1,814	69%	19%	12%	100%
2006	1,322	378	223	1,923	69%	20%	12%	100%
2007	544	158	19	721	75%	22%	3%	100%
2008	555	164	19	738	75%	22%	3%	100%
2009	566	171	19	756	75%	23%	3%	100%
2010	577	177	19	773	75%	23%	2%	100%
2011	589	185	19	793	74%	23%	2%	100%
2012	431	205	0	636	68%	32%	0%	100%
2013	241	93	102	436	55%	21%	23%	100%
2014	154	68	141	363	42%	19%	39%	100%
2015	154	52	0	206	75%	25%	0%	100%
Growth 2006-2015	5,133	1,651	561	7,345	70%	22%	8%	100%

Source: Statistics Canada, Census of Canada and Canada Mortgage and Housing Corporation (CMHC), Housing Market Information

APPENDIX A - TABLE 5  
TOWN OF WHITBY  
HISTORICAL HOUSEHOLDS BY PERIOD OF CONSTRUCTION SHOWING HOUSEHOLD SIZE

Dwelling Unit Type	Period of Construction										Period of Construction Summaries		
	Pre 1945	1946-1960	1961-1970	1971-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2011	Pre-2001	2001-2011	Total
<b><i>Singles &amp; Semis</i></b>													
Household Population	1,995	5,100	4,375	9,640	8,860	12,730	8,395	13,635	22,720	9,730	64,730	32,450	97,180
Households	750	2,135	1,580	3,360	2,855	3,700	2,370	4,040	6,695	2,980	20,790	9,675	30,465
Household Size	2.66	2.39	2.77	2.87	3.10	3.44	3.54	3.38	3.39	3.27	3.11	3.35	3.19
<b><i>Rows</i></b>													
Household Population	55	60	120	730	405	1,245	1,305	1,850	4,940	2,125	5,770	7,065	12,835
Households	30	20	45	310	145	475	545	720	1,830	855	2,290	2,685	4,975
Household Size	1.83	3.00	2.67	2.35	2.79	2.62	2.39	2.57	2.70	2.49	2.52	2.63	2.58
<b><i>Apartments (excl. Duplexes): Bachelor or 1BR</i></b>													
Household Population	110	255	340	450	325	190	320	75	35	190	2,065	225	2,290
Households	75	175	255	360	235	135	280	55	20	155	1,570	175	1,745
Household Size	1.47	1.46	1.33	1.25	1.38	1.41	1.14	1.36	1.75	1.23	1.32	1.29	1.31
<b><i>Apartments (excl. Duplexes): 2BR or more</i></b>													
Household Population	170	360	680	1,725	675	605	580	150	190	500	4,945	690	5,635
Households	100	210	340	750	345	280	330	95	120	330	2,450	450	2,900
Household Size	1.70	1.71	2.00	2.30	1.96	2.16	1.76	1.58	1.58	1.52	2.02	1.53	1.94
<b><i>Apartments (excl. Duplexes) - Total</i></b>													
Household Population	280	615	1,020	2,175	1,000	795	900	225	225	690	7,010	915	7,925
Households	175	385	595	1,110	580	415	610	150	140	485	4,020	625	4,645
Household Size	1.60	1.60	1.71	1.96	1.72	1.92	1.48	1.50	1.61	1.42	1.74	1.46	1.71
<b><i>Duplexes</i></b>													
Household Population	75	330	245	465	345	260	25	50	0	0	1,795	0	1,795
Households	40	140	110	160	115	110	15	30	0	0	720	0	720
Household Size	1.88	2.36	2.23	2.91	3.00	2.36	1.67	1.67	n/a	n/a	2.49	n/a	2.49
<b><i>All Units</i></b>													
Household Population	2,405	6,105	5,760	13,010	10,610	15,030	10,625	15,760	27,885	12,545	79,305	40,430	119,735
Households	995	2,680	2,330	4,940	3,695	4,700	3,540	4,940	8,665	4,320	27,820	12,985	40,805
Household Size	2.42	2.28	2.47	2.63	2.87	3.20	3.00	3.19	3.22	2.90	2.85	3.11	2.93

Note: Population and household values in this table are based on National Household Survey response rates and may differ from Census values  
Source: Statistics Canada, 2011 National Household Survey Special Run.

APPENDIX A - TABLE 6  
TOWN OF WHITBY  
HISTORICAL PLACE OF WORK EMPLOYMENT

	Retail Commercial				Other Non-Residential															
Mid-Year	Retail Commercial	Annual Growth	Subtotal	Annual Growth	Institutional	Annual Growth	Employment Land	Annual Growth	Office	Annual Growth	Rural	Annual Growth	Subtotal	Annual Growth	Total For DC Study	Annual Growth	Work at Home	Annual Growth	Total w/ Work At Home	Annual Growth
2001	5,674		5,674		6,055		14,525		2,543		600		23,723		29,397		2,875		32,272	
2002	5,863	189	5,863	189	6,257	202	15,488	963	2,627	84	689	89	25,061	1,338	30,924	1,527	3,040	165	33,964	1,692
2003	6,058	195	6,058	195	6,466	209	16,515	1,027	2,715	88	791	102	26,487	1,426	32,545	1,621	3,214	174	35,759	1,795
2004	6,260	202	6,260	202	6,682	216	17,610	1,095	2,806	91	908	117	28,006	1,519	34,266	1,721	3,398	184	37,664	1,905
2005	6,469	209	6,469	209	6,905	223	18,777	1,167	2,900	94	1,043	135	29,625	1,619	36,094	1,828	3,593	195	39,687	2,023
2006	6,685	216	6,685	216	7,134	229	20,021	1,244	2,996	96	1,198	155	31,348	1,723	38,033	1,939	3,800	207	41,833	2,146
2007	6,802	117	6,802	117	7,307	173	19,648	(373)	3,133	137	1,084	(114)	31,172	(176)	37,974	(59)	3,939	139	41,913	80
2008	6,921	119	6,921	119	7,484	177	19,282	(366)	3,277	144	982	(102)	31,025	(147)	37,946	(28)	4,083	144	42,029	116
2009	7,042	121	7,042	121	7,665	181	18,923	(359)	3,427	150	889	(93)	30,904	(121)	37,946	0	4,233	150	42,179	150
2010	7,165	123	7,165	123	7,850	185	18,571	(352)	3,584	157	805	(84)	30,810	(94)	37,975	29	4,388	155	42,363	184
2011	7,289	124	7,289	124	8,039	189	18,225	(346)	3,748	164	729	(76)	30,742	(68)	38,030	55	4,550	162	42,580	217
2012	7,360	72	7,360	72	8,174	135	18,538	313	3,840	92	673	(56)	31,225	483	38,585	555	4,628	78	43,213	633
2013	7,433	72	7,433	72	8,311	137	18,856	318	3,934	94	622	(51)	31,723	498	39,156	570	4,707	79	43,863	649
2014	7,506	73	7,506	73	8,450	139	19,180	324	4,030	96	574	(48)	32,234	511	39,740	584	4,787	80	44,527	664
2015	7,580	74	7,580	74	8,592	142	19,509	329	4,128	98	530	(44)	32,759	525	40,339	599	4,869	82	45,208	681
Growth 2006-2015		1,111		1,111		1,687		732		1,228		(513)			4,245		1,276		5,521	

Note: Employment Values Include No Fixed Place of Work Employment

Source: Statistics Canada, Census of Canada

APPENDIX A - TABLE 7  
TOWN OF WHITBY  
POPULATION, HOUSEHOLD & EMPLOYMENT FORECAST SUMMARY

Mid-Year	Census Population	Annual Growth	Total Occupied Households	Annual Growth	Av. Household Size (PPU)	Place of Work Employment	Annual Growth	Activity Rate
2011	122,022		41,021		2.97	38,030		31.2%
2012	123,267	1,245	41,511	490	2.97	38,585	555	31.3%
2013	124,525	1,258	42,007	496	2.96	39,156	570	31.4%
2014	125,796	1,271	42,509	502	2.96	39,740	584	31.6%
2015	127,080	1,284	43,017	508	2.95	40,339	599	31.7%
2016	128,377	1,297	43,529	512	2.95	40,953	615	31.9%
2017	129,447	1,070	44,041	512	2.94	41,567	614	32.1%
2018	131,607	2,161	44,929	888	2.93	42,257	690	32.1%
2019	134,369	2,762	46,029	1,100	2.92	42,995	738	32.0%
2020	137,400	3,031	47,229	1,200	2.91	43,764	768	31.9%
2021	140,084	2,684	48,447	1,218	2.89	44,525	761	31.8%
2022	142,820	2,736	49,696	1,249	2.87	45,304	778	31.7%
2023	145,610	2,790	50,977	1,281	2.86	46,099	796	31.7%
2024	148,454	2,844	52,291	1,314	2.84	46,911	812	31.6%
2025	151,354	2,900	53,639	1,348	2.82	47,740	829	31.5%
2026	154,310	2,956	55,022	1,383	2.80	48,587	847	31.5%
2027	157,324	3,014	56,440	1,418	2.79	49,451	864	31.4%
2028	160,397	3,073	57,895	1,455	2.77	50,333	882	31.4%
2029	163,530	3,133	59,388	1,493	2.75	51,235	901	31.3%
2030	166,724	3,194	60,919	1,531	2.74	52,153	919	31.3%
2031	169,981	3,257	62,489	1,570	2.72	53,091	937	31.2%
2032	173,301	3,320	64,100	1,611	2.70	54,046	955	31.2%
2033	176,686	3,385	65,752	1,652	2.69	55,020	974	31.1%
2034	180,137	3,451	67,447	1,695	2.67	56,012	993	31.1%
2035	183,656	3,519	69,186	1,739	2.65	57,024	1,012	31.0%
2036	187,243	3,587	70,970	1,784	2.64	58,054	1,030	31.0%
Growth 2016-2025		24,274		10,622			7,401	
Growth 2016-2031		42,901		19,472			12,752	
Growth 2016-2036		60,163		27,953			17,716	

Source: Hemson Consulting



APPENDIX A - TABLE 8  
TOWN OF WHITBY  
FORECAST OF OCCUPIED HOUSEHOLDS BY UNIT TYPE

Mid-Year	Occupied Households				Shares By Unit Type			
	Singles/Semis	Rows	Apartments	Total	Singles/Semis	Rows	Apartments	Total
2011	30,616	4,855	5,550	41,021	75%	12%	14%	100%
2012	30,929	4,980	5,602	41,511	75%	12%	13%	100%
2013	31,245	5,107	5,655	42,007	74%	12%	13%	100%
2014	31,565	5,236	5,708	42,509	74%	12%	13%	100%
2015	31,889	5,366	5,762	43,017	74%	12%	13%	100%
2016	32,063	5,488	5,977	43,529	74%	13%	14%	100%
2017	32,246	5,613	6,182	44,041	73%	13%	14%	100%
2018	32,603	5,834	6,493	44,929	73%	13%	14%	100%
2019	33,194	6,111	6,724	46,029	72%	13%	15%	100%
2020	33,832	6,418	6,979	47,229	72%	14%	15%	100%
2021	34,470	6,735	7,242	48,447	71%	14%	15%	100%
2022	35,116	7,064	7,516	49,696	71%	14%	15%	100%
2023	35,769	7,408	7,800	50,977	70%	15%	15%	100%
2024	36,430	7,765	8,096	52,291	70%	15%	15%	100%
2025	37,099	8,137	8,403	53,639	69%	15%	16%	100%
2026	37,775	8,524	8,723	55,022	69%	15%	16%	100%
2027	38,458	8,927	9,055	56,440	68%	16%	16%	100%
2028	39,149	9,346	9,399	57,895	68%	16%	16%	100%
2029	39,848	9,782	9,758	59,388	67%	16%	16%	100%
2030	40,554	10,235	10,130	60,919	67%	17%	17%	100%
2031	41,267	10,706	10,516	62,489	66%	17%	17%	100%
2032	41,987	11,196	10,917	64,100	66%	17%	17%	100%
2033	42,714	11,705	11,333	65,752	65%	18%	17%	100%
2034	43,448	12,234	11,766	67,447	64%	18%	17%	100%
2035	44,188	12,783	12,214	69,186	64%	18%	18%	100%
2036	44,936	13,354	12,680	70,970	63%	19%	18%	100%

Source: Region of Durham & Hemson Estimates

APPENDIX A - TABLE 9  
TOWN OF WHITBY  
FORECAST OF ANNUAL GROWTH IN OCCUPIED HOUSEHOLDS BY UNIT TYPE

Mid-Year	Annual Growth in Occupied Households				Shares By Unit Type			
	Singles/Semis	Rows	Apartments	Total	Singles/Semis	Rows	Apts.	Total
2011								
2012	313	125	52	490	64%	26%	11%	100%
2013	316	127	53	496	64%	26%	11%	100%
2014	320	128	53	502	64%	26%	11%	100%
2015	324	130	54	508	64%	26%	11%	100%
2016	174	123	215	512	34%	24%	42%	100%
2017	182	125	205	512	36%	24%	40%	100%
2018	357	220	311	888	40%	25%	35%	100%
2019	592	277	231	1,100	54%	25%	21%	100%
2020	637	307	256	1,200	53%	26%	21%	100%
2021	638	317	263	1,218	52%	26%	22%	100%
2022	646	330	274	1,249	52%	26%	22%	100%
2023	653	343	284	1,281	51%	27%	22%	100%
2024	661	357	296	1,314	50%	27%	23%	100%
2025	669	372	307	1,348	50%	28%	23%	100%
2026	676	387	319	1,383	49%	28%	23%	100%
2027	683	403	332	1,418	48%	28%	23%	100%
2028	691	419	345	1,455	48%	29%	24%	100%
2029	699	436	358	1,493	47%	29%	24%	100%
2030	706	453	372	1,531	46%	30%	24%	100%
2031	713	471	386	1,570	45%	30%	25%	100%
2032	720	490	401	1,611	45%	30%	25%	100%
2033	727	509	416	1,652	44%	31%	25%	100%
2034	734	529	432	1,695	43%	31%	26%	100%
2035	741	550	449	1,739	43%	32%	26%	100%
2036	747	571	466	1,784	42%	32%	26%	100%
Growth 2016-2025	5,209	2,772	2,641	10,622	49%	26%	25%	100%
Growth 2016-2031	9,377	5,341	4,754	19,472	48%	27%	24%	100%
Growth 2016-2036	13,047	7,989	6,918	27,953	47%	29%	25%	100%

Source: Region of Durham & Hemson Estimates

APPENDIX A - TABLE 10  
TOWN OF WHITBY  
FORECAST POPULATION IN NEW HOUSEHOLDS BY UNIT TYPE

Mid-Year	Assumed Average Occupancies (PPU)				Forecast Population in New Households			
	Singles/Semis	Rows	Apartments	Total	Singles/Semis	Rows	Apartments	Total
2011	3.35	2.63	1.71					
2012	3.35	2.63	1.70	2.99				
2013	3.34	2.62	1.70	2.98				
2014	3.34	2.62	1.70	2.98				
2015	3.33	2.61	1.69	2.97				
2016	3.33	2.61	1.69	2.47	579	321	364	1,263
2017	3.31	2.60	1.69	2.49	604	325	345	1,274
2018	3.30	2.59	1.68	2.56	1,179	571	522	2,272
2019	3.29	2.58	1.67	2.77	1,948	716	387	3,051
2020	3.28	2.57	1.67	2.76	2,090	791	427	3,307
2021	3.26	2.56	1.66	2.73	2,081	810	436	3,327
2022	3.24	2.54	1.65	2.71	2,092	838	451	3,382
2023	3.22	2.53	1.64	2.68	2,104	867	466	3,437
2024	3.20	2.51	1.63	2.66	2,116	898	481	3,495
2025	3.18	2.50	1.62	2.64	2,127	929	497	3,553
2026	3.16	2.48	1.61	2.61	2,139	961	514	3,613
2027	3.14	2.47	1.60	2.59	2,148	993	530	3,672
2028	3.12	2.45	1.59	2.57	2,159	1,027	548	3,734
2029	3.10	2.44	1.58	2.54	2,169	1,062	566	3,797
2030	3.09	2.42	1.57	2.52	2,178	1,097	584	3,859
2031	3.07	2.41	1.56	2.50	2,186	1,133	603	3,922
2032	3.05	2.39	1.55	2.48	2,195	1,171	622	3,989
2033	3.03	2.38	1.54	2.45	2,202	1,209	642	4,053
2034	3.01	2.36	1.53	2.43	2,210	1,249	662	4,122
2035	2.99	2.35	1.52	2.41	2,217	1,290	683	4,191
2036	2.97	2.33	1.51	2.39	2,224	1,332	705	4,261
Growth 2016-2025	3.25	2.55	1.66	2.67	16,920	7,064	4,376	28,361
Growth 2016-2031	3.19	2.50	1.62	2.62	29,900	13,337	7,721	50,958
Growth 2016-2036	3.14	2.45	1.60	2.56	40,948	19,590	11,035	71,573

Source: Statistics Canada, 2011 National Household Survey Special Run.

APPENDIX A - TABLE 11  
TOWN OF WHITBY  
FORECAST OF PLACE OF WORK EMPLOYMENT

	Retail Commercial				Other Non-Residential															
	Retail Commercial	Annual Growth	Subtotal	Annual Growth	Institutional	Annual Growth	Employment Land	Annual Growth	Office	Annual Growth	Rural	Annual Growth	Subtotal	Annual Growth	Total For DC Study	Annual Growth	Work at Home	Annual Growth	Total w/ Work At Home	Annual Growth
2011	7,289		7,289		8,039		18,225		3,748		729		30,742		38,030		4,550		42,580	
2012	7,360	72	7,360	72	8,174	135	18,538	313	3,840	92	673	(56)	31,225	483	38,585	555	4,628	78	43,213	633
2013	7,433	72	7,433	72	8,311	137	18,856	318	3,934	94	622	(51)	31,723	498	39,156	570	4,707	79	43,863	649
2014	7,506	73	7,506	73	8,450	139	19,180	324	4,030	96	574	(48)	32,234	511	39,740	584	4,787	80	44,527	664
2015	7,580	74	7,580	74	8,592	142	19,509	329	4,128	98	530	(44)	32,759	525	40,339	599	4,869	82	45,208	681
2016	7,654	75	7,654	75	8,736	144	19,844	335	4,229	101	490	(40)	33,299	540	40,953	615	4,952	83	45,905	698
2017	7,716	62	7,716	62	8,882	146	20,184	340	4,332	103	453	(37)	33,851	552	41,567	614	5,036	84	46,603	698
2018	7,840	124	7,840	124	9,031	149	20,530	346	4,438	106	418	(35)	34,417	566	42,257	690	5,122	86	47,379	776
2019	7,999	159	7,999	159	9,182	151	20,882	352	4,546	108	386	(32)	34,996	579	42,995	738	5,209	87	48,204	825
2020	8,174	174	8,174	174	9,336	154	21,240	358	4,657	111	357	(29)	35,590	594	43,764	768	5,298	89	49,062	857
2021	8,328	154	8,328	154	9,492	156	21,604	364	4,771	114	330	(27)	36,197	607	44,525	761	5,388	90	49,913	851
2022	8,486	157	8,486	157	9,651	159	21,975	371	4,887	116	305	(25)	36,818	621	45,304	778	5,480	92	50,784	870
2023	8,646	161	8,646	161	9,813	162	22,352	377	5,006	119	282	(23)	37,453	635	46,099	796	5,574	94	51,673	890
2024	8,810	164	8,810	164	9,977	164	22,736	384	5,128	122	260	(22)	38,101	648	46,911	812	5,669	95	52,580	907
2025	8,977	167	8,977	167	10,144	167	23,126	390	5,253	125	240	(20)	38,763	662	47,740	829	5,766	97	53,506	926
2026	9,147	170	9,147	170	10,314	170	23,523	397	5,381	128	222	(18)	39,440	677	48,587	847	5,864	98	54,451	945
2027	9,320	173	9,320	173	10,487	173	23,927	404	5,512	131	205	(17)	40,131	691	49,451	864	5,964	100	55,415	964
2028	9,497	177	9,497	177	10,663	176	24,338	411	5,646	134	189	(16)	40,836	705	50,333	882	6,066	102	56,399	984
2029	9,678	180	9,678	180	10,842	179	24,756	418	5,784	138	175	(14)	41,557	721	51,235	901	6,170	104	57,405	1,005
2030	9,861	184	9,861	184	11,024	182	25,181	425	5,925	141	162	(13)	42,292	735	52,153	919	6,275	105	58,428	1,024
2031	10,049	187	10,049	187	11,209	185	25,613	432	6,070	145	150	(12)	43,042	750	53,091	937	6,382	107	59,473	1,044
2032	10,240	191	10,240	191	11,397	188	26,052	439	6,218	148	139	(11)	43,806	764	54,046	955	6,491	109	60,537	1,064
2033	10,435	195	10,435	195	11,588	191	26,499	447	6,370	152	128	(11)	44,585	779	55,020	974	6,602	111	61,622	1,085
2034	10,633	199	10,633	199	11,782	194	26,954	455	6,525	155	118	(10)	45,379	794	56,012	993	6,715	113	62,727	1,106
2035	10,836	203	10,836	203	11,979	197	27,416	462	6,684	159	109	(9)	46,188	809	57,024	1,012	6,830	115	63,854	1,127
2036	11,042	206	11,042	206	12,179	200	27,886	470	6,846	162	100	(9)	47,012	824	58,054	1,030	6,946	116	65,000	1,146
Growth 2016-2025		1,397		1,397		1,552		3,617		1,125		(290)		6,004		7,401		897		8,298
Growth 2016-2031		2,469		2,469		2,617		6,104		1,942		(380)		10,283		12,752		1,513		14,265
Growth 2016-2036		3,462		3,462		3,587		8,377		2,718		(430)		14,253		17,716		2,077		19,792

Note: Includes No Fixed Place of Work Employment

APPENDIX A - TABLE 12  
TOWN OF WHITBY  
NON-RESIDENTIAL SPACE FORECAST

Employment Density Assumptions	
Commercial	43.0 m <sup>2</sup> per employee
Institutional	65.0 m <sup>2</sup> per employee
Employment Land	100.0 m <sup>2</sup> per employee
Office	27.0 m <sup>2</sup> per employee
Rural	- m <sup>2</sup> per employee

Mid-Year	Non-Residential Space in m <sup>2</sup>							Total For DC Study
	Retail Commercial		Other Non-Residential					
	Commercial	Subtotal Commercial	Institutional	Employment Land	Office	Rural	Subtotal Non-Comm.	
2016	3,210	3,210	9,360	33,500	2,727	0	45,587	48,797
2017	2,647	2,647	9,490	34,000	2,781	0	46,271	48,918
2018	5,347	5,347	9,685	34,600	2,862	0	47,147	52,494
2019	6,835	6,835	9,815	35,200	2,916	0	47,931	54,766
2020	7,500	7,500	10,010	35,800	2,997	0	48,807	56,307
2021	6,642	6,642	10,140	36,400	3,078	0	49,618	56,260
2022	6,771	6,771	10,335	37,100	3,132	0	50,567	57,338
2023	6,904	6,904	10,530	37,700	3,213	0	51,443	58,347
2024	7,038	7,038	10,660	38,400	3,294	0	52,354	59,392
2025	7,177	7,177	10,855	39,000	3,375	0	53,230	60,407
2026	7,315	7,315	11,050	39,700	3,456	0	54,206	61,521
2027	7,459	7,459	11,245	40,400	3,537	0	55,182	62,641
2028	7,605	7,605	11,440	41,100	3,618	0	56,158	63,763
2029	7,753	7,753	11,635	41,800	3,726	0	57,161	64,914
2030	7,904	7,904	11,830	42,500	3,807	0	58,137	66,041
2031	8,060	8,060	12,025	43,200	3,915	0	59,140	67,200
2032	8,216	8,216	12,220	43,900	3,996	0	60,116	68,332
2033	8,377	8,377	12,415	44,700	4,104	0	61,219	69,596
2034	8,540	8,540	12,610	45,500	4,185	0	62,295	70,835
2035	8,709	8,709	12,805	46,200	4,293	0	63,298	72,007
2036	8,876	8,876	13,026	47,024	4,385	0	64,435	73,311
Growth 2016-2025	60,071	60,071	100,880	361,700	30,375	0	492,955	553,026
Growth 2016-2031	106,168	106,168	170,105	610,400	52,434	0	832,939	939,107
Growth 2016-2036	148,886	148,886	233,181	837,724	73,397	0	1,144,302	1,293,188

Source: Hemson Estimates

APPENDIX A - TABLE 13  
TOWN OF WHITBY  
AREA-SPECIFIC RESIDENTIAL DEVELOPMENT FORECAST

Development Location	Total Units at 2015	Residential Growth			
		2016-2025		2016-2036	
		Growth 2016 to 2025	Total Units at 2025	Growth 2016 to 2036	Total Units at 2036
Brooklin	5,808	4,600	10,408	12,042	17,850
West Whitby	80	4,800	4,880	4,800	4,880
Town-wide (Residual)	37,129	4,613	41,742	11,111	48,240
Total	43,017	14,013	57,030	27,953	70,970

## **Appendix B**

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### **General Services Technical Appendix**

## Appendix B

### General Services Technical Appendix Introduction and Overview

The following appendix provides the detailed analysis undertaken to establish the development charge rates for each of the general services in the Town of Whitby. In total, eight general services have been analysed as part of the development charges study:

Appendix B.1	General Government
Appendix B.2	Non-Administrative Operational Facilities
Appendix B.3	Fire Services
Appendix B.4	Operations
Appendix B.5	Parks & Recreation
Appendix B.6	Libraries
Appendix B.7	Parking & By-law
Appendix B.8	Waste Management

Every service, with the exception of General Government, contain a set of three tables. The tables provide the background data and analysis undertaken to arrive at the calculated development charge rates for that particular service. An overview of the content and purpose of each of the tables is given below.

#### **Table 1      Historical Service Levels**

Table 1 presents the data used to determine the ten-year historical service level. The DCA and O. Reg. 82/98 require that development charges be set at a level no higher than the average service level provided in the Town over the ten-year period immediately preceding the preparation of the background study, on a service-by-service basis. For the purpose of this study, the historical inventory period has been defined as 2006 to 2015.

O. Reg. 82/98 requires that when defining and determining historical service levels both the quantity and quality of service be taken into consideration. In most cases, the service levels are initially established in quantitative terms. For example, service levels for



buildings are presented in terms of square feet. For most services, the typically approach to addressing the qualitative aspect is introduced by considering the monetary value of the facility or service. In the case of buildings, for example, the cost would be shown in terms of cost per square foot to replace or construct a facility of the same quality. This approach helps to ensure that the growth-related capital facilities that are to be funded by new growth reflect not only the quantity (number and size) but also the quality (replacement value or cost) of service provided by the Town in the past. Both the quantitative and qualitative aspects of service levels used in the current analysis are based on information provided by Town staff and have also been informed by an independent appraisal report completed by Suncorp Valuations<sup>1</sup>. This information is generally based on historical records and experience with costs to acquire or construct similar facilities, equipment and infrastructure.

The approach used to calculate service levels and maximum funding envelopes is described as follows: for those services with only a residential impact (General Government, Parks & Recreation, Libraries and Waste Management), the service level measure of net population has been utilized. For the remaining services that levy both a residential and non-residential charge, the service level measure of net population and employment has been utilized.

There is also a requirement in the DCA to consider “excess capacity” within the Town’s existing infrastructure that may be available to partially meet the future servicing requirements. If Council has expressed its intent before or at the time the capacity was created to recoup the cost of providing the capacity from new development, it is considered “committed excess capacity” under the DCA, and the associated capital cost is eligible for recovery. For the most part, the issue of available excess capacity is addressed through the capital program; namely the need for new facilities and servicing capacity, and is determined in the context of existing infrastructure. Should uncommitted excess capacity exist, it is determined whether or not this capacity will be available to service new development and, if so, deductions to maximum allowable funding envelopes are required.

Table 1 shows the calculation of the maximum allowable funding envelope, net of uncommitted excess capacity and the legislated ten per cent reduction (for all applicable

<sup>1</sup> The Suncorp Report was completed in June 2015 and included details on the market value of land and replacement costs, site improvements, buildings and contents for Town facilities. All values have been indexed to reflect 2016 dollars

services). The maximum allowable funding envelope is defined as the ten-year historical service level (expressed as either \$/capita or \$/population & employment) multiplied by the forecast increase in net population growth, or net population and employment growth, over the planning period. The resulting figure is the value of capital infrastructure that must be constructed for that particular service so that the ten-year historical service level is maintained.

**Table 2            2016 – 2025 Development-Related Capital Program & Calculation of the “Unadjusted” Development Charge**

The DCA requires that Council express its intent to provide future capital facilities to support future growth. Based on the growth forecasts presented in Appendix A, Hemson Consulting in collaboration with Town staff has developed a development-related capital program which sets out the projects required to service anticipated growth for the ten-year period from 2016 to 2025. The projects identified in the capital program include all “growth-related” capital projects including projects that are ineligible for recovery under the current provisions of the DCA. While any ineligible costs are shown, they are removed from the total development charge eligible costs and are not included in the calculation.

To determine the share of the program that is eligible for recovery through development charges, the project costs are reduced by any anticipated grants, “replacement” shares and the legislated “ten per cent reduction” for any eligible services.

A replacement share occurs when a new facility will, at least in part, replace a facility that is demolished, redeployed or will otherwise not be available to serve its former function. The replacement share of the capital program is not deemed to be development-related and is therefore removed from the development charge calculation. The capital cost for replacement will require funding from non-development charge sources, typically property taxes or user fees.

When calculating development charges, the development-related net capital cost must be reduced by ten per cent for all services with the exception of protection services and engineered services (DCA s.5.(1)8). In addition, under the Development Charges Act, 1997, services related to a highway as defined in subsection 1(1) of the Municipal Act, 2001, need not to be reduced by the legislated ten per cent (as with other general services). The services and capital assets of Operations are considered to be related to a

highway and are therefore not reduced. The ten per cent discount is applied to all general services considered in this appendix with the exception of Fire Services and Operations. As with replacement shares, the ten per cent mandatory reduction must be funded from non-development charge sources

The capital program, less any replacement or benefit to existing shares, ten per cent discount, yields the development related costs. Although deemed development-related, not all of the net development-related capital program may be recoverable from development charges in the period from 2016 to 2025. For some of the services, a portion of the capital program will service growth that will not occur until after 2025. This portion of the capital program is deemed “pre-built” service capacity to be considered as committed excess capacity to be considered in future development charge background studies for recovery against future development.

The remaining portion of the net capital program represents the development-related cost that may be included in the development charge. In all cases, as required, this amount is equal to or less than the maximum allowable capital amount as calculated on the final page of Table 1. The result is the discounted development-related net capital cost that is eligible for recovery against growth over the period from 2016 to 2025.

### **Calculation of the Unadjusted Development Charge Rates**

The section below the capital program displays the calculation of the “unadjusted” development charge rates. The term “unadjusted” development charge is used to distinguish the charge that is calculated prior to cash flow financing considerations. The cash flow analysis is shown in Table 3.

The first step when determining the unadjusted development charge rate is to allocate the growth-related net capital cost between the residential and non-residential sectors. For all general services with the exception of Parks & Recreation, Libraries and Waste Management, the development-related costs have been apportioned as 79 per cent residential and 21 per cent non-residential. The non-residential share is then allocated further between retail commercial (4 per cent) and other non-residential uses (17 per cent). This apportionment is based on the anticipated shares of population in new units and employment growth over the ten-year forecast period.

The development-related costs associated with the Parks & Recreation, Libraries and Waste Management have been allocated 100 per cent to the residential sector because the need for these services is generally driven by residential development.

The residential share of the 2016-2025 DC eligible costs are then divided by the forecast population growth in new units. This gives the unadjusted residential development charge per capita. The non-residential growth-related net capital costs are divided by the forecast increase in non-residential gross floor area (GFA). This yields a charge per square metre of new non-residential GFA.

### **Table 3           Cash Flow Analysis**

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 accounted for in the calculation as allowed under the DCA. Based on the growth forecast, the analysis calculates the development charges rate that is required to finance the net development-related capital spending plan including provisions for any borrowing costs or interest earnings on the reserve funds. The cash flow analysis is designed so that the closing cash balance at the end of the planning period is as close to nil as possible.

In order to determine appropriate development charges rates reflecting borrowing and earnings necessary to support the net development-related funding requirement, assumptions are used for the inflation rate and interest rate. An inflation rate of 2.0 per cent is used for the funding requirements, an interest rate of 3.5 per cent is used for positive opening balances, and a rate of 5.5 per cent is used for negative opening balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per square metre (of GFA) non-residential development charges.

## **Appendix B.1**

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### **General Government**

## Appendix B.1

### General Government

The DCA allows the cost of development-related studies to be included in the calculation of the development charges as long as they are permitted under the legislation. Consistent with s.5(1)7 of the DCA, the eligible development-related capital costs for the provision of studies and permitted general government expenditures are reduced by ten per cent when calculating the development charges.

**Table 1          2016 – 2025 Development-Related Capital Program and Calculation of the Unadjusted Development Charges**

As shown on Table 1, the 2016–2025 development-related gross cost for administration is \$16.68 million. The program includes for the recovery of a negative reserve fund balance of \$1.20 million and a number of development-related studies relating to Corporate, Downtown, Library, Official Plan and Related, Parks and Operations. An overview of these categories is provided below:

- **Corporate:** Ward Boundary Reviews, Corporate Engagement Strategies, DC Study Preparation, DC Studies and Long Range Financial Plans, Economic Development, Records Management etc.
- **Downtown:** Secondary Plans, Community Improvement Plans, Urban Design Studies, Zoning By-law Reviews etc.
- **Library:** Library Strategic Plans
- **Official Plan and Related:** Comprehensive Zoning By-law, Official Plan (Major and Minor), Brooklin Deferred Growth Areas etc.
- **Parks:** Urban Forestry Analysis and Strategy, Parks and Open Space Master Plans, Brooklin Memorial Park Master Plan, Fees Studies, Woodlot Management Plan etc.
- **Operations:** Fleet Maintenance, Fleet Strategic Master Plan, Emerging Technology

No grant, subsidies or other recoveries have been identified for this service. In total, an amount of \$590,000 has been identified as ineligible for development charge recovery and an additional \$5.06 million is considered to a benefit to existing share and is removed from the total development charge eligible costs. The legislated ten per cent discount is then applied, and amounts to \$982,650. After these adjustments, the

remaining amount of \$10.05 million is eligible for development charges funding in the ten-year planning period. This amount is included in the development charge calculation.

The total costs eligible for DC recovery amounts to \$10.05 million and is allocated 79 per cent, or \$7.97 million to the residential sector, 4 per cent, or \$392,470 to the retail commercial sector and 17 per cent, or \$1.69 million, to the other non-residential sector based on shares of ten-year growth in population in new units and employment. The resulting unadjusted per capita residential charge is \$280.93 before cash flow adjustments. The non-residential retail commercial unadjusted charge is \$6.53 per square metre and the other non-residential charge is \$3.42 per square meter.

## **Table 2      Cash Flow Analysis**

After cash flow analysis, the residential charge increases to \$296.51 per capita and the non-residential retail commercial charge increases to \$6.86 per square metre and the other non-residential charge increases to \$3.53 per square metre.

The following table summarizes the calculation of the General Government development charge.

<b>GENERAL GOVERNMENT SUMMARY</b>							
2016 - 2025		Unadjusted Development Charge			Adjusted Development Charge		
Development-Related Capital Program		Residential	Retail	Other Non-Res	Residential	Retail	Other Non-Res
Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/sq.m	\$/capita	\$/sq.m	\$/sq.m
\$16,679,865	\$10,046,728	\$280.93	\$6.53	\$3.42	<b>\$296.51</b>	<b>\$6.86</b>	<b>\$3.53</b>

APPENDIX B.1  
TABLE 1  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
GENERAL GOVERNMENT

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	Available DC Reserves	DC Eligible Costs	
					DC Eligible Services	Ineligible Services	Replacement & BTE Shares	10% Reduction			2016- 2025	Post 2025
1.0 GENERAL GOVERNMENT												
Recovery of Negative Reserve Fund Balance												
1.1.1 Balance as of December 31, 2015	2016 - 2016	\$ 1,202,865	\$ -	\$ 1,202,865	Y	\$ -	\$ -	\$ -	\$ 1,202,865	\$ -	\$ 1,202,865	\$ -
Subtotal Recovery of Negative Reserve Fund Balance		\$ 1,202,865	\$ -	\$ 1,202,865		\$ -	\$ -	\$ -	\$ 1,202,865	\$ -	\$ 1,202,865	\$ -
Development Related Studies: Corporate												
11132301 Ward Boundary Review	2016 - 2016	\$ 60,000	\$ -	\$ 60,000	Y	\$ -	\$ 30,000	\$ 3,000	\$ 27,000	\$ -	\$ 27,000	\$ -
13167501 PS 3260 Liability for Contaminated Sites Analysis	2016 - 2016	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -
81152301 Town Accessible Signage Standards (Interior & Exterior)	2016 - 2016	\$ 130,000	\$ -	\$ 130,000	Y	\$ -	\$ 65,000	\$ 6,500	\$ 58,500	\$ -	\$ 58,500	\$ -
83167501 DAAP Review	2016 - 2016	\$ 100,000	\$ -	\$ 100,000	N	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13177501 Corporate Public Engagement Strategy and Tools	2017 - 2017	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 42,045	\$ 796	\$ 7,160	\$ -	\$ 7,160	\$ -
84178002 Feasibility Study - District Energy	2017 - 2017	\$ 75,000	\$ -	\$ 75,000	N	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
75168001 Tourism Strategy	2017 - 2017	\$ 30,000	\$ -	\$ 30,000	N	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10177501 Information Technology Master Plan	2017 - 2017	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ 63,068	\$ 1,193	\$ 10,739	\$ -	\$ 10,739	\$ -
84178001 Community Sustainability and Energy Plan	2017 - 2017	\$ 300,000	\$ -	\$ 300,000	Y	\$ -	\$ 252,271	\$ 4,773	\$ 42,956	\$ -	\$ 42,956	\$ -
13132301 Cost of Development Model/Study	2017 - 2017	\$ 110,000	\$ -	\$ 110,000	Y	\$ -	\$ -	\$ 11,000	\$ 99,000	\$ -	\$ 99,000	\$ -
30207501 Feasibility Study - Public Works Satellite Location	2018 - 2018	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ -	\$ 10,000	\$ 90,000	\$ -	\$ 90,000	\$ -
13177501 Corporate Public Engagement Strategy and Tools	2019 - 2019	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 42,045	\$ 796	\$ 7,160	\$ -	\$ 7,160	\$ -
84198001 Corporate Energy and Emissions Management Plan Update	2019 - 2019	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ 63,068	\$ 1,193	\$ 10,739	\$ -	\$ 10,739	\$ -
90197501 DC Study Prep - Library Archives Replacement Cost Ana	2019 - 2019	\$ 40,000	\$ -	\$ 40,000	Y	\$ -	\$ -	\$ 4,000	\$ 36,000	\$ -	\$ 36,000	\$ -
13207502 DC Study Prep - Facility Replacement Cost Analysis	2019 - 2019	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ -	\$ 5,000	\$ 45,000	\$ -	\$ 45,000	\$ -
50197501 Whitby Strategic Plan & Goals Update	2019 - 2019	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 42,045	\$ 796	\$ 7,160	\$ -	\$ 7,160	\$ -
83167501 DAAP Review	2020 - 2020	\$ 100,000	\$ -	\$ 100,000	N	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13207501 DC Background Study and Long Range Financial Plan	2020 - 2020	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ -	\$ 25,000	\$ 225,000	\$ -	\$ 225,000	\$ -
70202301 Economic Development Strategy Update	2020 - 2020	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ 75,000	\$ 7,500	\$ 67,500	\$ -	\$ 67,500	\$ -
10177501 Information Technology Master Plan	2020 - 2020	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ 63,068	\$ 1,193	\$ 10,739	\$ -	\$ 10,739	\$ -
13177501 Corporate Public Engagement Strategy and Tools	2021 - 2021	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 42,045	\$ 796	\$ 7,160	\$ -	\$ 7,160	\$ -
83167501 DAAP Review	2023 - 2023	\$ 100,000	\$ -	\$ 100,000	N	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
50197501 Whitby Strategic Plan & Goals Update	2023 - 2023	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 42,045	\$ 796	\$ 7,160	\$ -	\$ 7,160	\$ -
13177501 Corporate Public Engagement Strategy and Tools	2023 - 2023	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 42,045	\$ 796	\$ 7,160	\$ -	\$ 7,160	\$ -
10177501 Information Technology Master Plan	2023 - 2023	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ 63,068	\$ 1,193	\$ 10,739	\$ -	\$ 10,739	\$ -
13207502 DC Study Prep - Facility Replacement Cost Analysis	2024 - 2024	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ -	\$ 5,000	\$ 45,000	\$ -	\$ 45,000	\$ -
13177501 Corporate Public Engagement Strategy and Tools	2025 - 2025	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 42,045	\$ 796	\$ 7,160	\$ -	\$ 7,160	\$ -
13207501 DC Background Study and Long Range Financial Plan	2025 - 2025	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ -	\$ 25,000	\$ 225,000	\$ -	\$ 225,000	\$ -
11132301 Ward Boundary Review	2025 - 2025	\$ 60,000	\$ -	\$ 60,000	Y	\$ -	\$ 30,000	\$ 3,000	\$ 27,000	\$ -	\$ 27,000	\$ -
13177502 Future Prov / Fed Mandated Asset Management Analysis, Expansion	2017 - 2025	\$ 1,350,000	\$ -	\$ 1,350,000	Y	\$ -	\$ 1,135,221	\$ 21,478	\$ 193,301	\$ -	\$ 193,301	\$ -
51167501 Records Management Program - Expansion	2016 - 2020	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ 420,452	\$ 7,955	\$ 71,593	\$ -	\$ 71,593	\$ -
Subtotal Development Related Studies: Corporate		\$ 4,505,000	\$ -	\$ 4,505,000		\$ 405,000	\$ 2,604,531	\$ 149,547	\$ 1,345,922	\$ -	\$ 1,345,922	\$ -



APPENDIX B.1  
TABLE 1  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
GENERAL GOVERNMENT

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs				
					DC Eligible Services	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016-2025	Post 2025		
Development-Related Studies: Downtown														
81167801	Downtown Whitby Secondary Plan Update	2016 - 2016	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ -	\$ 50,000	\$ 450,000	\$ -	\$ 450,000	\$ -	
80178001	Brooklin HCD Plan and Guidelines Update	2017 - 2017	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ 12,500	\$ 1,250	\$ 11,250	\$ -	\$ 11,250	\$ -	
81177803	Community Improvement Plan - Downtown Whitby	2017 - 2017	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 50,000	\$ 5,000	\$ 45,000	\$ -	\$ 45,000	\$ -	
81177802	Downtown Urban Design - Whitby	2017 - 2017	\$ 300,000	\$ -	\$ 300,000	Y	\$ -	\$ 60,000	\$ 24,000	\$ 216,000	\$ -	\$ 216,000	\$ -	
80168001	Downtown Whitby Perry's Plan HCD Plan and Guildlines	2017 - 2017	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 25,000	\$ 2,500	\$ 22,500	\$ -	\$ 22,500	\$ -	
40132301	Parking Lot Master Plan - Downtowns	2017 - 2017	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ -	\$ 15,000	\$ 135,000	\$ -	\$ 135,000	\$ -	
81177804	Zoning Study - Downtown Whitby	2017 - 2017	\$ 300,000	\$ -	\$ 300,000	Y	\$ -	\$ 60,000	\$ 24,000	\$ 216,000	\$ -	\$ 216,000	\$ -	
81187802	Downtown Urban Design - Dundas/Thickson	2018 - 2018	\$ 80,000	\$ -	\$ 80,000	Y	\$ -	\$ -	\$ 8,000	\$ 72,000	\$ -	\$ 72,000	\$ -	
80188001	Downtown Whitby Four Corners HCD Plan and Guidelines	2018 - 2018	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 25,000	\$ 2,500	\$ 22,500	\$ -	\$ 22,500	\$ -	
81187801	Zoning Study - Dundas / Thickson	2018 - 2018	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ 100,000	\$ 10,000	\$ 90,000	\$ -	\$ 90,000	\$ -	
81162301	Downtown Urban Design - Brooklin	2019 - 2019	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ -	\$ 20,000	\$ 180,000	\$ -	\$ 180,000	\$ -	
Subtotal Development-Related Studies: Downtown			\$ 1,955,000	\$ -	\$ 1,955,000		\$ -	\$ 332,500	\$ 162,250	\$ 1,460,250	\$ -	\$ 1,460,250	\$ -	
Development-Related Studies: Library														
90187501	Library Strategic Plan	2018 - 2018	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ 5,000	\$ 2,000	\$ 18,000	\$ -	\$ 18,000	\$ -	
90187501	Library Strategic Plan	2023 - 2023	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ 5,000	\$ 2,000	\$ 18,000	\$ -	\$ 18,000	\$ -	
Subtotal Development-Related Studies: Library			\$ 50,000	\$ -	\$ 50,000		\$ -	\$ 10,000	\$ 4,000	\$ 36,000	\$ -	\$ 36,000	\$ -	
Development-related Studies: Official Plan and Related														
81167802	Zoning By-Law Update - Port Whitby	2016 - 2016	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ 40,000	\$ 16,000	\$ 144,000	\$ -	\$ 144,000	\$ -	
80060308	Comprehensive Zoning By-Law	2017 - 2017	\$ 1,530,000	\$ -	\$ 1,530,000	Y	\$ -	\$ 306,000	\$ 122,400	\$ 1,101,600	\$ -	\$ 1,101,600	\$ -	
81177801	Zoning Study - Brooklin Industrial	2018 - 2018	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ 30,000	\$ 12,000	\$ 108,000	\$ -	\$ 108,000	\$ -	
81187803	Community Improvement Plan - Future Plans	2018 - 2018	\$ 300,000	\$ -	\$ 300,000	Y	\$ -	\$ 150,000	\$ 15,000	\$ 135,000	\$ -	\$ 135,000	\$ -	
81132301	Comprehensive Urban Design Guidelines	2019 - 2019	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ 100,000	\$ 40,000	\$ 360,000	\$ -	\$ 360,000	\$ -	
81207801	Brooklin Deferred Growth Areas	2020 - 2020	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ -	\$ 20,000	\$ 180,000	\$ -	\$ 180,000	\$ -	
80142301	Official Plan (Minor Review)	2021 - 2021	\$ 510,000	\$ -	\$ 510,000	Y	\$ -	\$ 102,000	\$ 40,800	\$ 367,200	\$ -	\$ 367,200	\$ -	
80192301	Official Plan (Major Review)	2024 - 2024	\$ 2,900,000	\$ -	\$ 2,900,000	Y	\$ -	\$ 580,000	\$ 232,000	\$ 2,088,000	\$ -	\$ 2,088,000	\$ -	
81257801	Zoning By-Law Update	2025 - 2025	\$ 400,000	\$ -	\$ 400,000	Y	\$ -	\$ 80,000	\$ 32,000	\$ 288,000	\$ -	\$ 288,000	\$ -	
81227801	Future Growth Related Planning Studies	2022 - 2025	\$ 1,000,000	\$ -	\$ 1,000,000	Y	\$ -	\$ 200,000	\$ 80,000	\$ 720,000	\$ -	\$ 720,000	\$ -	
Subtotal Development-related Studies: Official Plan and Related			\$ 7,690,000	\$ -	\$ 7,690,000		\$ -	\$ 1,588,000	\$ 610,200	\$ 5,491,800	\$ -	\$ 5,491,800	\$ -	

APPENDIX B.1  
TABLE 1  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
GENERAL GOVERNMENT

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016-2025	Post 2025
Dev.-Related Studies: Parks, Parks Maintenance & Recreation												
70152301 Urban Forestry Analysis and Strategy	2016 - 2016	\$ 80,000	\$ -	\$ 80,000	Y	\$ -	\$ 67,170	\$ 1,283	\$ 11,547	\$ -	\$ 11,547	\$ -
70132303 Parks Trails Wayfinding Signage Design	2016 - 2016	\$ 30,000	\$ -	\$ 30,000	Y	\$ -	\$ 15,000	\$ 1,500	\$ 13,500	\$ -	\$ 13,500	\$ -
70132302 Cullen Master Plan - Phase I	2017 - 2017	\$ 12,000	\$ -	\$ 12,000	Y	\$ -	\$ 2,400	\$ 960	\$ 8,640	\$ -	\$ 8,640	\$ -
70177901 Parks and Open Space Master Plan	2017 - 2017	\$ 10,000	\$ -	\$ 10,000	Y	\$ -	\$ 2,000	\$ 800	\$ 7,200	\$ -	\$ 7,200	\$ -
70142301 Cultural Plan	2017 - 2017	\$ 110,000	\$ -	\$ 110,000	N	\$ 110,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
72080101 Brooklin Memorial Park Master Plan	2018 - 2018	\$ 90,000	\$ -	\$ 90,000	Y	\$ -	\$ 45,000	\$ 4,500	\$ 40,500	\$ -	\$ 40,500	\$ -
70132302 Cullen Master Plan - Phase II	2018 - 2018	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 10,000	\$ 4,000	\$ 36,000	\$ -	\$ 36,000	\$ -
30187703 Invasive Species Management Strategy	2018 - 2018	\$ 80,000	\$ -	\$ 80,000	Y	\$ -	\$ 67,170	\$ 1,283	\$ 11,547	\$ -	\$ 11,547	\$ -
71217901 LVMA - Repurpose Study and Design	2019 - 2019	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 50,000	\$ 5,000	\$ 45,000	\$ -	\$ 45,000	\$ -
75207901 Fees Study	2019 - 2019	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 41,981	\$ 802	\$ 7,217	\$ -	\$ 7,217	\$ -
70152302 CPROS Update	2020 - 2020	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 62,500	\$ 18,750	\$ 168,750	\$ -	\$ 168,750	\$ -
71062301 Preliminary Site Assessment - Charles St	2020 - 2020	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ 75,000	\$ 7,500	\$ 67,500	\$ -	\$ 67,500	\$ -
30207701 Woodlot Management Plan	2020 - 2020	\$ 10,000	\$ -	\$ 10,000	Y	\$ -	\$ 8,396	\$ 160	\$ 1,444	\$ -	\$ 1,444	\$ -
30167701 Parks Forestry Management Study	2021 - 2021	\$ 20,000	\$ -	\$ 20,000	Y	\$ -	\$ 16,792	\$ 321	\$ 2,887	\$ -	\$ 2,887	\$ -
75207901 Fees Study	2023 - 2023	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 42,045	\$ 796	\$ 7,160	\$ -	\$ 7,160	\$ -
Subtotal Development-Related Studies: Parks, Parks Maintenance & Recreation		\$ 1,092,000	\$ -	\$ 1,092,000		\$ 110,000	\$ 505,454	\$ 47,655	\$ 428,891	\$ -	\$ 428,891	\$ -
Dev.-Related Studies: Operations												
30167702 Operational Study - Fleet Maintenance	2016 - 2016	\$ 75,000	\$ -	\$ 75,000	N	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30197702 Fleet Strategic Master Plan	2017 - 2017	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 20,000	\$ 8,000	\$ 72,000	\$ -	\$ 72,000	\$ -
30187702 Emerging Technology Study Roads	2018 - 2018	\$ 10,000	\$ -	\$ 10,000	Y	\$ -	\$ -	\$ 1,000	\$ 9,000	\$ -	\$ 9,000	\$ -
Subtotal Development-Related Studies: Operations		\$ 185,000	\$ -	\$ 185,000		\$ 75,000	\$ 20,000	\$ 9,000	\$ 81,000	\$ -	\$ 81,000	\$ -
TOTAL GENERAL GOVERNMENT		\$ 16,679,865	\$ -	\$ 16,679,865		\$ 590,000	\$ 5,060,485	\$ 982,652	\$ 10,046,728	\$ -	\$ 10,046,728	\$ -

<b>Residential Development Charge Calculation</b>					
Residential Share of 2016 - 2025 DC Eligible Costs	79.3%	\$7,967,546			
10-Year Growth in Population in New Units		28,361			
Unadjusted Development Charge Per Capita		<b>\$280.93</b>			
<b>Non-Residential Development Charge Calculation</b>					
<i>Retail Commercial</i>					
Non-Residential Share of 2016 - 2025 DC Eligible Costs	3.9%	\$392,465			
10-Year Growth in Square Metres		60,071			
Unadjusted Development Charge Per Square Metre		<b>\$6.53</b>			
<i>Other Non-Residential</i>					
Non-Residential Share of 2016 - 2025 DC Eligible Costs	16.8%	\$1,686,718			
10-Year Growth in Square Metres		492,955			
Unadjusted Development Charge Per Square Metre		<b>\$3.42</b>			

Reserve Fund Balance Balance as at December 31, 2015	(\$1,202,865)
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APPENDIX B.1  
TABLE 2 - PAGE 1

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
GENERAL GOVERNMENT  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

GENERAL GOVERNMENT	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.0	(\$1,181.1)	(\$2,538.0)	(\$2,525.6)	(\$2,316.5)	(\$2,024.8)	(\$1,383.1)	(\$493.3)	\$437.5	(\$528.5)	
2016 - 2025 RESIDENTIAL FUNDING REQUIREMENTS											
- General Government: Non Inflated	\$1,524.0	\$1,610.6	\$530.0	\$582.2	\$600.1	\$316.2	\$159.8	\$199.6	\$1,851.4	\$593.7	\$7,967.5
- General Government: Inflated	\$1,524.0	\$1,642.8	\$551.4	\$617.8	\$649.6	\$349.1	\$179.9	\$229.3	\$2,169.2	\$709.5	\$8,622.7
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,263	1,274	2,272	3,051	3,307	3,327	3,382	3,437	3,495	3,553	28,361
REVENUE											
- DC Receipts: Inflated	\$374.6	\$385.4	\$700.8	\$959.9	\$1,061.5	\$1,089.2	\$1,129.2	\$1,170.8	\$1,214.1	\$1,259.1	\$9,344.5
INTEREST											
- Interest on Opening Balance	\$0.0	(\$65.0)	(\$139.6)	(\$138.9)	(\$127.4)	(\$111.4)	(\$76.1)	(\$27.1)	\$15.3	(\$29.1)	(\$699.2)
- Interest on In-year Transactions	(\$31.6)	(\$34.6)	\$2.6	\$6.0	\$7.2	\$13.0	\$16.6	\$16.5	(\$26.3)	\$9.6	(\$21.0)
TOTAL REVENUE	\$342.9	\$285.8	\$563.9	\$827.0	\$941.3	\$990.8	\$1,069.7	\$1,160.1	\$1,203.1	\$1,239.7	\$8,624.3
CLOSING CASH BALANCE	(\$1,181.1)	(\$2,538.0)	(\$2,525.6)	(\$2,316.5)	(\$2,024.8)	(\$1,383.1)	(\$493.3)	\$437.5	(\$528.5)	\$1.7	

2016 Adjusted Charge Per Capita	\$296.51
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Allocation of Capital Program	
Residential Sector	79.3%
Non-Residential Sector	20.7%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX B.1  
TABLE 2 - PAGE 2

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
GENERAL GOVERNMENT  
RETAIL COMMERCIAL DEVELOPMENT CHARGE  
(in \$000)

GENERAL GOVERNMENT	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.00	(\$54.51)	(\$121.61)	(\$117.10)	(\$103.86)	(\$85.45)	(\$56.45)	(\$15.33)	\$27.70	(\$22.97)	
2016 - 2025 COMMERCIAL-INSTITUTIONAL FUNDING REQUIREMENTS											
- General Government: Non Inflated	\$75.1	\$79.3	\$26.1	\$28.7	\$29.6	\$15.6	\$7.9	\$9.8	\$91.2	\$29.2	\$392.5
- General Government: Inflated	\$75.1	\$80.9	\$27.2	\$30.4	\$32.0	\$17.2	\$8.9	\$11.3	\$106.8	\$35.0	\$424.7
COMMERCIAL-INSTITUTIONAL SPACE GROWTH											
- Growth in Square Metres	3,210	2,647	5,347	6,835	7,500	6,642	6,771	6,904	7,038	7,177	60,071
REVENUE											
- DC Receipts: Inflated	\$22.0	\$18.5	\$38.2	\$49.8	\$55.7	\$50.3	\$52.3	\$54.4	\$56.6	\$58.9	\$456.7
INTEREST											
- Interest on Opening Balance	\$0.0	(\$3.0)	(\$6.7)	(\$6.4)	(\$5.7)	(\$4.7)	(\$3.1)	(\$0.8)	\$1.0	(\$1.3)	(\$30.8)
- Interest on In-year Transactions	(\$1.5)	(\$1.7)	\$0.2	\$0.3	\$0.4	\$0.6	\$0.8	\$0.8	(\$1.4)	\$0.4	(\$1.1)
TOTAL REVENUE	\$20.6	\$13.8	\$31.7	\$43.7	\$50.4	\$46.2	\$50.0	\$54.3	\$56.2	\$58.0	\$424.8
CLOSING CASH BALANCE	(\$54.5)	(\$121.6)	(\$117.1)	(\$103.9)	(\$85.4)	(\$56.4)	(\$15.3)	\$27.7	(\$23.0)	\$0.1	

2016 Adjusted Charge Per Square Metre	\$6.86
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX B.1  
TABLE 2 - PAGE 3

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
GENERAL GOVERNMENT  
OTHER NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

GENERAL GOVERNMENT	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.00	(\$165.98)	(\$361.07)	(\$323.34)	(\$291.30)	(\$257.29)	(\$149.66)	\$8.11	\$171.48	(\$71.62)	
2016 - 2025 INDUSTRIAL FUNDING REQUIREMENTS											
- General Government: Non Inflated	\$322.6	\$341.0	\$112.2	\$123.2	\$127.0	\$66.9	\$33.8	\$42.3	\$391.9	\$125.7	\$1,686.7
- General Government: Inflated	\$322.6	\$347.8	\$116.7	\$130.8	\$137.5	\$73.9	\$38.1	\$48.5	\$459.2	\$150.2	\$1,825.4
INDUSTRIAL SPACE GROWTH											
- Growth in Square Metres	45,587	46,271	47,147	47,931	48,807	49,618	50,567	51,443	52,354	53,230	492,955
REVENUE											
- DC Receipts: Inflated	\$161.1	\$166.8	\$173.3	\$179.7	\$186.7	\$193.6	\$201.2	\$208.8	\$216.8	\$224.8	\$1,912.9
INTEREST											
- Interest on Opening Balance	\$0.0	(\$9.1)	(\$19.9)	(\$17.8)	(\$16.0)	(\$14.2)	(\$8.2)	\$0.3	\$6.0	(\$3.9)	(\$82.8)
- Interest on In-year Transactions	(\$4.4)	(\$5.0)	\$1.0	\$0.9	\$0.9	\$2.1	\$2.9	\$2.8	(\$6.7)	\$1.3	(\$4.3)
TOTAL REVENUE	\$156.7	\$152.7	\$154.5	\$162.8	\$171.5	\$181.5	\$195.9	\$211.9	\$216.1	\$222.2	\$1,825.7
CLOSING CASH BALANCE	(\$166.0)	(\$361.1)	(\$323.3)	(\$291.3)	(\$257.3)	(\$149.7)	\$8.1	\$171.5	(\$71.6)	\$0.3	

2016 Adjusted Charge Per Square Metre	\$3.53
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

## **Appendix B.2**

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### **Non-Administrative Operational Facilities**

## Appendix B.2

### Non-Administrative Operational Facilities

As the Town continues to grow, so will the need to provide non-administrative functions for DC eligible services such as engineering, planning, emergency services etc. through the expansion of operational services and facility space. The Town currently provides for these services in its existing Municipal Building located on Rossland Road East in Whitby.

**Table 1            2006-2015 Historical Service Levels**

The ten-year historical inventory of capital assets for the Non-Administrative Operational Facilities includes 17,590 square feet of building space with a replacement value of \$7.09 million. The total size of the Whitby Municipal Building is 45,650 square feet, with the remaining 27,970 square feet not included in the historical inventory as it relates to Council and public spaces as well as offices that provide an administrative function. The building occupies 2.10 hectares of land, 0.81 of which is related to non-administrative functions, and is valued at \$1.41 million. The Non-Administrative Operational Facilities inventory also includes \$965,000 in furniture and equipment, \$372,600 of which is related to non-administrative functions and included in the inventory.

The current value of the Non-Administrative Operational Facilities capital infrastructure including building, land, vehicle, and equipment is valued at approximately \$8.87 million and has provided the Town with a ten-year average historical service level of \$56.00 per population and employment. The calculated maximum allowable recoverable through development charges is \$1.77 million (31,675 net population and employment growth X historical service level of \$56.00/capita and employment).

Non-Administrative Operational Facilities must also be reduced by ten per cent as required under the DCA. The ten per cent legislated reduction totals \$177,380 and has been deducted from the funding envelope calculation. No excess capacity is identified for this service and therefore, no deduction has been made. After adjustments, the resulting net maximum allowable funding envelope brought forward to the development charges calculation is reduced to \$1.60 million.

**Table 2            2016 – 2025 Development-Related Capital Program & Calculation of the Unadjusted Development Charge**

The most significant project in the Non-Administrative Operational Facilities DC capital program is the expansion of the Whitby Municipal Building. In total, the project is estimated to cost \$21.73 million and includes the design, construction and related acquisition of furniture and equipment. Recognizing that a portion of the building of the building will relate to ineligible non-administrative services, \$13.04 million or approximately 60 per cent of the total project costs are considered to be ineligible and will be recovered from non-DC revenues. After the statutory ten per cent deduction of \$869,000, the remaining \$7.82 million is deemed to be related to development. A portion of the facility, \$50,330 will be funded from available DC reserve funds and has been removed from the development charges calculation. A significant portion of the expansion, \$6.97 million, is deemed a post-period benefit and will be considered for recovery under subsequent development charges studies. The other facility identified in the capital program, the 400 Centre Interior Conversion, is considered ineligible and is not included in the development charges calculation.

In addition to the expansion of the Whitby Municipal Building, several growth-related business solutions, electronic service delivery and management information system projects are identified in the capital program. A significant number of these projects are deemed to be ineligible and are not included in the development charge calculation. For all eligible projects, a benefit to existing share of 84 per cent has been applied.

Of the total \$30.04 million gross capital program cost, \$16.23 million has been identified as ineligible services and will be recovered from non-DC sources. An additional \$3.93 million is considered to a benefit to existing share and is removed from the total development charge eligible costs. The legislated ten per cent discount is then applied, and amounts to \$988,300. After these adjustments, the remaining amount of \$8.89 million is eligible for development charges funding in the ten-year planning period.

Of the \$8.89 million in DC eligible costs, \$104,020 will be paid through existing DC reserves collected through previous DC by-laws. Approximately \$1.60 million of the costs are eligible for recovery under the new DC by-law as this recovery is limited to the ten-year historical service level limitation as discussed in the previous section. The remaining DC eligible costs, \$7.19 million, represents a future service level increase and will be considered for recovery in subsequent development charges by-laws.



The development-related cost is allocated 79 per cent, or \$1.27 million to the residential sector, 4 per cent, or \$62,360 to the retail commercial sector and 17 per cent, or \$268,020, to the other non-residential sector based on shares of ten-year growth in population in new units and employment. This yields an adjusted development charge of \$44.64 per capita, a retail commercial unadjusted charge of \$1.04 per square metre and an other non-residential charge of \$0.54 per square meter.

### **Table 3          Cash Flow Analysis**

After cash flow analysis, the residential charge increases to \$47.83 per capita and the non-residential retail commercial charge increases to \$1.11 per square metre and the other non-residential charge increases to \$0.57 per square metre.

The following table summarizes the calculation of the Non-Administration Operational Facilities development charge.

<b>NON-ADMINISTRATIVE OPERATIONAL FACILITIES SUMMARY</b>								
10-year Hist. Service Level per pop & emp	2016 - 2025		Unadjusted Development Charge			Adjusted Development Charge		
	Development-Related Capital Program		Residential	Retail	Other Non-Res	Residential	Retail	Other Non-Res
	Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/sq.m	\$/capita	\$/sq.m	\$/sq.m
\$56.00	\$30,036,000	\$1,596,420	\$44.64	\$1.04	\$0.54	<b>\$47.83</b>	<b>\$1.11</b>	<b>\$0.57</b>

APPENDIX B.2  
TABLE 1 - PAGE 1

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS

NON-ADMINISTRATIVE OPERATIONAL FACILITIES

BUILDINGS Branch Name	# of Square Feet										UNIT COST (\$/sq.ft.)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Whitby Municipal Building (1)	17,590	17,590	17,590	17,590	17,590	17,590	17,590	17,590	17,590	17,590	\$403
Total (sq.ft.)	17,590	17,590	17,590	17,590	17,590	17,590	17,590	17,590	17,590	17,590	
Total (\$000)	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	

1 Total area of Whitby Municipal Building is 45,650 sq.ft. Only the portion of the building that relates to non-admin services (17,590 sq.ft.) has been included.

LAND Branch Name	# of Hectares										UNIT COST (\$/ha)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Whitby Municipal Building (2)	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	\$1,734,700
Total (ha)	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	
Total (\$000)	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	

2 Total land area of Whitby Municipal Building is 2.10 ha. Only the portion of the land that relates to the non-admin services (0.81 ha) has been included.

FURNITURE AND EQUIPMENT Branch Name	Total Value of Furniture and Equipment (\$)									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Whitby Municipal Building (3)	\$372,600	\$372,600	\$372,600	\$372,600	\$372,600	\$372,600	\$372,600	\$372,600	\$372,600	\$372,600
Total (\$000)	\$372.6	\$372.6	\$372.6	\$372.6	\$372.6	\$372.6	\$372.6	\$372.6	\$372.6	\$372.6

3 Total value of furniture and equipment only reflects non-admin portion of Whitby Municipal Building. Total value of furniture and equipment equals \$965,000.

APPENDIX B.2  
TABLE 1 - PAGE 2

TOWN OF WHITBY  
CALCULATION OF SERVICE LEVELS

NON-ADMINISTRATIVE OPERATIONAL FACILITIES

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Historical Population	111,184	113,272	115,399	117,566	119,774	122,022	123,267	124,525	125,796	127,080
Histoical Employment	<u>38,033</u>	<u>37,974</u>	<u>37,946</u>	<u>37,946</u>	<u>37,975</u>	<u>38,030</u>	<u>38,585</u>	<u>39,156</u>	<u>39,740</u>	<u>40,339</u>
Total	149,217	151,246	153,345	155,512	157,749	160,052	161,852	163,681	165,536	167,419

INVENTORY SUMMARY (\$000)

Buildings	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8	\$7,088.8
Land	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1	\$1,405.1
Furniture And Equipment	\$372.6	\$372.6	\$372.6	\$372.6	\$372.6	\$372.6	\$372.6	\$372.6	\$372.6	\$372.6
Total (\$000)	\$8,866.5	\$8,866.5	\$8,866.5	\$8,866.5	\$8,866.5	\$8,866.5	\$8,866.5	\$8,866.5	\$8,866.5	\$8,866.5

SERVICE LEVEL (\$/pop+empl)											Average Service Level
Buildings	\$47.51	\$46.87	\$46.23	\$45.58	\$44.94	\$44.29	\$43.80	\$43.31	\$42.82	\$42.34	\$44.77
Land	\$9.42	\$9.29	\$9.16	\$9.04	\$8.91	\$8.78	\$8.68	\$8.58	\$8.49	\$8.39	\$8.87
Furniture And Equipment	\$2.50	\$2.46	\$2.43	\$2.40	\$2.36	\$2.33	\$2.30	\$2.28	\$2.25	\$2.23	\$2.35
Total (\$/pop+empl)	\$59.42	\$58.62	\$57.82	\$57.01	\$56.21	\$55.40	\$54.78	\$54.17	\$53.56	\$52.96	\$56.00

TOWN OF WHITBY  
CALCULATION OF MAXIMUM ALLOWABLE

NON-ADMINISTRATIVE OPERATIONAL FACILITIES

<b>10-Year Funding Envelope Calculation</b>	
10 Year Average Service Level 2006 - 2015	\$56.00
Net Population & Employment Growth 2016 - 2025	31,675
Maximum Allowable Funding Envelope	\$1,773,800
Less: Uncommitted Excess Capacity	\$0
Less: 10% Legislated Reduction	\$177,380
<b>Discounted Maximum Allowable Funding Envelope</b>	<b>\$1,596,420</b>

<b>Excess Capacity Calculation</b>	
Total Value of Inventory in 2015	\$8,866,477
Inventory Using Average Service Level	\$9,375,453
Excess Capacity	\$0
Excess Capacity:	Uncommitted

APPENDIX B.2  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
NON-ADMINISTRATIVE OPERATIONAL FACILITIES

Project Description		Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs			
						Eligible Services	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016-2025	Post 2025	
2.0 NON-ADMINISTRATIVE OPERATIONAL FACILITIES														
2.1 Buildings, Land and Materials														
15142501	400 Centre - C1010 Interior Conversion	2016 - 2016	\$ 1,300,000	\$ -	\$ 1,300,000	N	\$ 1,300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
71163304	Whitby Municipal Building - New Employee Furniture / Equipment	2016 - 2016	\$ 15,000	\$ -	\$ 15,000	P	\$ 9,000	\$ -	\$ 600	\$ 5,400	\$ 5,400	\$ -	\$ -	\$ -
11120701	Whitby Municipal Building - Building Expansion - Design Development	2019 - 2019	\$ 500,000	\$ -	\$ 500,000	P	\$ 300,000	\$ -	\$ 20,000	\$ 180,000	\$ 44,930	\$ 135,070	\$ -	\$ -
11120701	Whitby Municipal Building - Building Expansion - Design Development	2020 - 2020	\$ 750,000	\$ -	\$ 750,000	P	\$ 450,000	\$ -	\$ 30,000	\$ 270,000	\$ -	\$ 270,000	\$ -	\$ -
11120701	Whitby Municipal Building Building Expansion - Construction and F&E	2021 - 2021	\$ 19,360,000	\$ -	\$ 19,360,000	P	\$ 11,616,000	\$ -	\$ 774,400	\$ 6,969,600	\$ -	\$ 392,484	\$ 6,577,116	\$ -
11120701	Whitby Municipal Building Building Expansion - Construction and F&E	2022 - 2022	\$ 1,100,000	\$ -	\$ 1,100,000	P	\$ 660,000	\$ -	\$ 44,000	\$ 396,000	\$ -	\$ -	\$ 396,000	\$ -
Subtotal Buildings, Land and Materials			\$ 23,025,000	\$ -	\$ 23,025,000		\$ 14,335,000	\$ -	\$ 869,000	\$ 7,821,000	\$ 50,330	\$ 797,554	\$ 6,973,116	\$ -
2.2 Business Solutions - Growth														
10174704	Public Engagement Budget Tools / Software / Program	2016 - 2016	\$ 15,000	\$ -	\$ 15,000	N	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10122401	Application Software - Growth	2016 - 2016	\$ 10,000	\$ -	\$ 10,000	N	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10122403	Asset Preservation/Management System	2016 - 2016	\$ 375,000	\$ -	\$ 375,000	Y	\$ -	\$ 315,339	\$ 5,966	\$ 53,695	\$ 53,695	\$ -	\$ -	\$ -
10174502	Document Management System Expansion	2017 - 2017	\$ 50,000	\$ -	\$ 50,000	N	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10140502	Financial System Application / ERP	2017 - 2017	\$ 1,500,000	\$ -	\$ 1,500,000	Y	\$ -	\$ 1,261,356	\$ 23,864	\$ 214,780	\$ -	\$ 214,780	\$ -	\$ -
10174704	Public Engagement Budget Tools / Software / Program	2017 - 2017	\$ 25,000	\$ -	\$ 25,000	N	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10174703	Public Portals Expansion	2017 - 2017	\$ 95,000	\$ -	\$ 95,000	N	\$ 95,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10174702	HRIS System	2017 - 2017	\$ 30,000	\$ -	\$ 30,000	N	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10174701	Vailtech Enhancement / Upgrade	2017 - 2017	\$ 75,000	\$ -	\$ 75,000	N	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10122401	Application Software - Growth	2017 - 2017	\$ 10,000	\$ -	\$ 10,000	N	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10184701	Amanda System Expansion	2018 - 2018	\$ 40,000	\$ -	\$ 40,000	N	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10184605	HR Learning Management System	2018 - 2018	\$ 100,000	\$ -	\$ 100,000	N	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10174703	Public Portals Expansion	2018 - 2018	\$ 25,000	\$ -	\$ 25,000	N	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10122401	Application Software - Growth	2018 - 2018	\$ 20,000	\$ -	\$ 20,000	N	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

APPENDIX B.2  
TABLE 2  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
NON-ADMINISTRATIVE OPERATIONAL FACILITIES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Eligible Services	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016-2025	Post 2025
2.3 Business Solutions - Growth - Continued												
10142401 License Applications / Renewals Module Implementation	2019 - 2019	\$ 85,000	\$ -	\$ 85,000	N	\$ 85,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10194701 Procurement System Expansion / Integration	2019 - 2019	\$ 20,000	\$ -	\$ 20,000	N	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10132406 Risk Management	2019 - 2019	\$ 100,000	\$ -	\$ 100,000	N	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10194702 Work Order Module	2019 - 2019	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ 126,136	\$ 2,386	\$ 21,478	\$ -	\$ 21,478	\$ -
10122401 Application Software - Growth	2019 - 2019	\$ 20,000	\$ -	\$ 20,000	N	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10122403 Asset Preservation/Management System	2019 - 2019	\$ 40,000	\$ -	\$ 40,000	Y	\$ -	\$ 33,636	\$ 636	\$ 5,728	\$ -	\$ 5,728	\$ -
10140502 Financial System Application / ERP	2020 - 2020	\$ 750,000	\$ -	\$ 750,000	Y	\$ -	\$ 630,678	\$ 11,932	\$ 107,390	\$ -	\$ 107,390	\$ -
10174702 HRIS System	2020 - 2020	\$ 30,000	\$ -	\$ 30,000	N	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10184701 Amanda System Expansion	2020 - 2020	\$ 40,000	\$ -	\$ 40,000	N	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10122401 Application Software - Growth	2020 - 2020	\$ 20,000	\$ -	\$ 20,000	N	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10122401 Application Software - Growth	2021 - 2021	\$ 20,000	\$ -	\$ 20,000	N	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10142401 License Applications / Renewals Module Implementation	2021 - 2021	\$ 75,000	\$ -	\$ 75,000	N	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10184701 Amanda System Expansion	2022 - 2022	\$ 40,000	\$ -	\$ 40,000	N	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10174702 HRIS System	2022 - 2022	\$ 50,000	\$ -	\$ 50,000	N	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10194701 Procurement System Expansion / Integration	2022 - 2022	\$ 20,000	\$ -	\$ 20,000	N	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10122401 Application Software - Growth	2022 - 2022	\$ 20,000	\$ -	\$ 20,000	N	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10122403 Asset Preservation/Management System	2022 - 2022	\$ 40,000	\$ -	\$ 40,000	Y	\$ -	\$ 33,636	\$ 636	\$ 5,728	\$ -	\$ -	\$ 5,728
10132406 Risk Management	2023 - 2023	\$ 100,000	\$ -	\$ 100,000	N	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10140502 Financial System Application / ERP	2023 - 2023	\$ 750,000	\$ -	\$ 750,000	Y	\$ -	\$ 630,678	\$ 11,932	\$ 107,390	\$ -	\$ -	\$ 107,390
10122401 Application Software - Growth	2023 - 2023	\$ 25,000	\$ -	\$ 25,000	N	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10184701 Amanda System Expansion	2024 - 2024	\$ 40,000	\$ -	\$ 40,000	N	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10122401 Application Software - Growth	2024 - 2024	\$ 25,000	\$ -	\$ 25,000	N	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10142401 License Applications / Renewals Module Implementation	2024 - 2024	\$ 85,000	\$ -	\$ 85,000	N	\$ 85,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10194702 Work Order Module	2024 - 2024	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ 126,136	\$ 2,386	\$ 21,478	\$ -	\$ -	\$ 21,478
10174702 HRIS System	2024 - 2024	\$ 30,000	\$ -	\$ 30,000	N	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10122403 Asset Preservation/Management System	2025 - 2025	\$ 40,000	\$ -	\$ 40,000	Y	\$ -	\$ 33,636	\$ 636	\$ 5,728	\$ -	\$ -	\$ 5,728
10122401 Application Software - Growth	2025 - 2025	\$ 25,000	\$ -	\$ 25,000	N	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10194701 Procurement System Expansion / Integration	2025 - 2025	\$ 20,000	\$ -	\$ 20,000	N	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Business Solutions - Growth		\$ 5,180,000	\$ -	\$ 5,180,000		\$ 1,385,000	\$ 3,191,231	\$ 60,377	\$ 543,392	\$ 53,695	\$ 349,375	\$ 140,323

APPENDIX B.2  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
NON-ADMINISTRATIVE OPERATIONAL FACILITIES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Eligible Services	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016-2025	Post 2025
Electronic Service Delivery - Growth												
10174501 Systems Integration	2017 - 2017	\$ 25,000	\$ -	\$ 25,000	N	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10174501 Systems Integration	2019 - 2019	\$ 25,000	\$ -	\$ 25,000	N	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10174501 Systems Integration	2021 - 2021	\$ 25,000	\$ -	\$ 25,000	N	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10174501 Systems Integration	2023 - 2023	\$ 25,000	\$ -	\$ 25,000	N	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10174501 Systems Integration	2025 - 2025	\$ 25,000	\$ -	\$ 25,000	N	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10174503 Town Website Enhancement	2017 - 2017	\$ 50,000	\$ -	\$ 50,000	N	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10174503 Town Website Enhancement	2020 - 2020	\$ 50,000	\$ -	\$ 50,000	N	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10174503 Town Website Enhancement	2023 - 2023	\$ 50,000	\$ -	\$ 50,000	N	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10132404 eServices Modules	2017 - 2018	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ 168,181	\$ 3,182	\$ 28,637	\$ -	\$ 28,637	\$ -
10132404 eServices Modules	2019 - 2025	\$ 175,000	\$ -	\$ 175,000	Y	\$ -	\$ 147,158	\$ 2,784	\$ 25,058	\$ -	\$ 25,058	\$ -
Subtotal Electronic Service Delivery - Growth		\$ 650,000	\$ -	\$ 650,000		\$ 275,000	\$ 315,339	\$ 5,966	\$ 53,695	\$ -	\$ 53,695	\$ -

APPENDIX B.2  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
NON-ADMINISTRATIVE OPERATIONAL FACILITIES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Eligible Services	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016-2025	Post 2025
Management Information Systems Infrastructure - Growth												
83174601 Building - New Staff Computing / Communcation Devices	2017 - 2017	\$ 11,000	\$ -	\$ 11,000	N	\$ 11,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10152401 IT Infrastructure Prep	2016 - 2017	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ -	\$ 10,000	\$ 90,000	\$ -	\$ 90,000	\$ -
10120401 Computing Devices TCA	2016 - 2017	\$ 30,000	\$ -	\$ 30,000	N	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10120401 Computing Devices TCA	2018 - 2020	\$ 60,000	\$ -	\$ 60,000	N	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10152401 IT Infrastructure Prep	2018 - 2018	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ -	\$ 15,000	\$ 135,000	\$ -	\$ 135,000	\$ -
10120401 Computing Devices TCA	2021 - 2024	\$ 100,000	\$ -	\$ 100,000	N	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10184702 Future Technology Impacts	2018 - 2018	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 210,226	\$ 3,977	\$ 35,797	\$ -	\$ 35,797	\$ -
10152401 IT Infrastructure Prep	2019 - 2019	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ -	\$ 10,000	\$ 90,000	\$ -	\$ 90,000	\$ -
10152401 IT Infrastructure Prep	2021 - 2021	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ -	\$ 5,000	\$ 45,000	\$ -	\$ 45,000	\$ -
10184702 Future Technology Impacts	2022 - 2022	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 210,226	\$ 3,977	\$ 35,797	\$ -	\$ -	\$ 35,797
10152401 IT Infrastructure Prep	2024 - 2024	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ -	\$ 5,000	\$ 45,000	\$ -	\$ -	\$ 45,000
10120401 Computing Devices TCA	2025 - 2025	\$ 30,000	\$ -	\$ 30,000	N	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Management Information Systems Infrastructure - Growth		\$ 1,181,000	\$ -	\$ 1,181,000		\$ 231,000	\$ 420,452	\$ 52,955	\$ 476,593	\$ -	\$ 395,797	\$ 80,797
TOTAL NON-ADMINISTRATIVE OPERATIONAL FACILITIES		\$ 30,036,000	\$ -	\$ 30,036,000		\$ 16,226,000	\$ 3,927,022	\$ 988,298	\$ 8,894,680	\$ 104,025	\$ 1,596,420	\$ 7,194,235

Residential Development Charge Calculation		
Residential Share of 2016 - 2025 DC Eligible Costs	79.3%	\$1,266,039
10-Year Growth in Population in New Units		28,361
Unadjusted Development Charge Per Capita		\$44.64
Non-Residential Development Charge Calculation		
Retail Commercial		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	3.9%	\$62,362
10-Year Growth in Square Metres		60,071
Unadjusted Development Charge Per Square Metre		\$1.04
Other Non-Residential		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	16.8%	\$268,019
10-Year Growth in Square Metres		492,955
Unadjusted Development Charge Per Square Metre		\$0.54

2016 - 2025 Net Funding Envelope	\$1,596,420
Reserve Fund Balance	
Balance as at December 31, 2015	\$104,025

APPENDIX B.2  
TABLE 3

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
NON-ADMINISTRATIVE OPERATIONAL FACILITIES  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

NON-ADMINISTRATIVE OPERATIONAL FACILITIES	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.0	\$25.2	(\$137.9)	(\$186.2)	(\$258.6)	(\$432.9)	(\$673.0)	(\$527.9)	(\$368.1)	(\$192.5)	
2016 - 2025 RESIDENTIAL FUNDING REQUIREMENTS											
- Non-Administrative Operational Facilities: Non Inflated	\$35.7	\$217.4	\$146.8	\$202.9	\$302.1	\$349.8	\$2.8	\$2.8	\$2.8	\$2.8	\$1,266.0
- Non-Administrative Operational Facilities: Inflated	\$35.7	\$221.7	\$152.7	\$215.3	\$327.0	\$386.2	\$3.2	\$3.3	\$3.3	\$3.4	\$1,351.9
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,263	1,274	2,272	3,051	3,307	3,327	3,382	3,437	3,495	3,553	28,361
REVENUE											
- DC Receipts: Inflated	\$60.4	\$62.2	\$113.1	\$154.8	\$171.2	\$175.7	\$182.2	\$188.9	\$195.9	\$203.1	\$1,507.4
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.9	(\$7.6)	(\$10.2)	(\$14.2)	(\$23.8)	(\$37.0)	(\$29.0)	(\$20.2)	(\$10.6)	(\$151.9)
- Interest on In-year Transactions	\$0.4	(\$4.4)	(\$1.1)	(\$1.7)	(\$4.3)	(\$5.8)	\$3.1	\$3.2	\$3.4	\$3.5	(\$3.5)
TOTAL REVENUE	\$60.9	\$58.7	\$104.4	\$142.9	\$152.7	\$146.1	\$148.3	\$163.1	\$179.0	\$196.0	\$1,352.0
CLOSING CASH BALANCE	\$25.2	(\$137.9)	(\$186.2)	(\$258.6)	(\$432.9)	(\$673.0)	(\$527.9)	(\$368.1)	(\$192.5)	\$0.2	

1 Principle payment not inflated

2016 Adjusted Charge Per Capita \$47.83

Allocation of Capital Program  
Residential Sector 79.3%  
Non-Residential Sector 20.7%

Rates for 2016  
Inflation Rate 2.0%  
Interest Rate on Positive Balances 3.5%  
Interest Rate on Negative Balances 5.5%



APPENDIX B.2  
TABLE 3 - PAGE 2

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
NON-ADMINISTRATIVE OPERATIONAL FACILITIES  
RETAIL COMMERCIAL DEVELOPMENT CHARGE  
(in \$000)

NON-ADMINISTRATIVE OPERATIONAL FACILITIES	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.00	\$1.83	(\$6.26)	(\$8.01)	(\$11.10)	(\$19.03)	(\$31.28)	(\$24.58)	(\$17.16)	(\$8.99)	
2016 - 2025 COMMERCIAL-INSTITUTIONAL FUNDING REQUIREMENTS											
- Non-Administrative Operational Facilities: Non Inflated	\$1.8	\$10.7	\$7.2	\$10.0	\$14.9	\$17.2	\$0.1	\$0.1	\$0.1	\$0.1	\$62.4
- Non-Administrative Operational Facilities: Inflated	\$1.8	\$10.9	\$7.5	\$10.6	\$16.1	\$19.0	\$0.2	\$0.2	\$0.2	\$0.2	\$66.6
NEW COMMERCIAL-INSTITUTIONAL DEVELOPMENT											
- Growth in Square Metres	3,210	2,647	5,347	6,835	7,500	6,642	6,771	6,904	7,038	7,177	60,071
REVENUE											
- DC Receipts: Inflated	\$3.6	\$3.0	\$6.2	\$8.0	\$9.0	\$8.1	\$8.4	\$8.8	\$9.1	\$9.5	\$73.7
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.1	(\$0.3)	(\$0.4)	(\$0.6)	(\$1.0)	(\$1.7)	(\$1.4)	(\$0.9)	(\$0.5)	(\$6.9)
- Interest on In-year Transactions	\$0.0	(\$0.2)	(\$0.0)	(\$0.1)	(\$0.2)	(\$0.3)	\$0.1	\$0.2	\$0.2	\$0.2	(\$0.2)
TOTAL REVENUE	\$3.6	\$2.8	\$5.8	\$7.5	\$8.2	\$6.8	\$6.9	\$7.6	\$8.3	\$9.2	\$66.6
CLOSING CASH BALANCE	\$1.8	(\$6.3)	(\$8.0)	(\$11.1)	(\$19.0)	(\$31.3)	(\$24.6)	(\$17.2)	(\$9.0)	\$0.0	

2016 Adjusted Charge Per Square Metre	\$1.11
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX B.2  
TABLE 3 - PAGE 3

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
NON-ADMINISTRATIVE OPERATIONAL FACILITIES  
OTHER NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

NON-ADMINISTRATIVE OPERATIONAL FACILITIES	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.00	\$18.78	(\$1.11)	(\$5.64)	(\$22.96)	(\$64.38)	(\$119.81)	(\$94.02)	(\$65.58)	(\$34.29)	
2016 - 2025 INDUSTRIAL FUNDING REQUIREMENTS											
- Non-Administrative Operational Facilities: Non Inflated	\$7.6	\$46.0	\$31.1	\$43.0	\$64.0	\$74.0	\$0.6	\$0.6	\$0.6	\$0.6	\$268.0
- Non-Administrative Operational Facilities: Inflated	\$7.6	\$46.9	\$32.3	\$45.6	\$69.2	\$81.8	\$0.7	\$0.7	\$0.7	\$0.7	\$286.2
INDUSTRIAL SPACE GROWTH											
- Growth in Square Metres	45,587	46,271	47,147	47,931	48,807	49,618	50,567	51,443	52,354	53,230	492,955
REVENUE											
- DC Receipts: Inflated	\$26.0	\$26.9	\$28.0	\$29.0	\$30.1	\$31.3	\$32.5	\$33.7	\$35.0	\$36.3	\$308.9
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.7	(\$0.1)	(\$0.3)	(\$1.3)	(\$3.5)	(\$6.6)	(\$5.2)	(\$3.6)	(\$1.9)	(\$21.8)
- Interest on In-year Transactions	\$0.3	(\$0.6)	(\$0.1)	(\$0.5)	(\$1.1)	(\$1.4)	\$0.6	\$0.6	\$0.6	\$0.6	(\$0.9)
TOTAL REVENUE	\$26.3	\$27.0	\$27.8	\$28.3	\$27.8	\$26.3	\$26.5	\$29.1	\$32.0	\$35.0	\$286.2
CLOSING CASH BALANCE	\$18.8	(\$1.1)	(\$5.6)	(\$23.0)	(\$64.4)	(\$119.8)	(\$94.0)	(\$65.6)	(\$34.3)	\$0.0	

2016 Adjusted Charge Per Square Metre	\$0.57
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

## **Appendix B.3**

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### **Fire Services**

## Appendix B.3

### Fire Services

The Whitby Fire Department provides for fire suppression, emergency preparedness, fire prevention and public education throughout the Town. The department consists of Suppression staff, Public Education and Fire Prevention staff, Training Officers, Administration and Logistics staff, Deputy Fire Chiefs, and Fire Chief. The department operates from five halls located throughout the Town.

**Table 1            2006-2015 Historical Service Levels**

The Fire Services inventory of capital assets includes five fire stations for a combined area of 58,810 square feet, valued at approximately \$22.18 million. Land related to the delivery of Fire Services occupies roughly 4.00 hectares of land which is valued at \$8.80 million. Personal firefighting equipment, station equipment and gear and communication equipment amount to \$2.06 million. The 27 vehicles associated with the fire stations in the Town have a replacement value of \$13.28 million.

The current value of the capital infrastructure including building, land, vehicles, furniture and equipment is approximately \$46.31 million and provides the Town with a ten-year average historical service level of \$292.58 per capita and employee.

The calculated maximum allowable recoverable through development charges is \$9.27 million (31,675 net population and employment growth X historical service level of \$292.58). No excess capacity is identified for this service and, in accordance with the DCA, there is no legislated reduction. As such, the full maximum allowable funding envelope of \$9.27 million is brought forward to the development charges calculation.

**Table 2            2016 – 2025 Development-Related Capital Program & Calculation of the Unadjusted Development Charge**

The 2016 to 2025 development-related capital program provides for a number of new and expanded facilities including the interior renovation of additional space in Fire Hall #5, land acquisition, design development and construction of Fire Hall #7 and a new Fire Training Complex, the expansion and rehabilitation of Fire Hall #2 and a new Dry Hydrant connection. In total, the cost of the new facilities amounts to \$12.07 million. As the program includes for the expansion and rehabilitation of Fire Hall #2, 86 per

cent or \$860,000, of the total project costs has been deemed a replacement share relating to the existing facility and is removed from the total DC eligible cost. In addition, approximately \$3.78 million of the Fire Training Complex costs, or 78 per cent, has been deemed a benefit to existing share and is removed from the calculation.

The capital program also includes for the acquisition of a number of fire trucks and vehicles. The first project is the acquisition of a new aerial/pumper tanker for \$1.40 million in 2017. The program also includes two Training Officer Vehicles, valued at \$35,000 each, four Public Education Officer Vehicles, at \$30,000 each, and a Rescue Truck Upgrade for a cost of \$850,000. As the Rescue Trunk will be replaced with a new vehicle that will provide additional capacity, \$263,500 has been identified as a replacement share and is removed from the development charge eligible cost.

In addition, various equipment including a utility vehicle with skid mount pump/tank and new suppression equipment for staff totals \$105,500. A provision for additional fire mobile data terminals, valued at \$120,000 has also been identified.

Altogether, the ten-year capital forecast for the Fire Services amounts to \$14.73 million. No grants, subsidies or other recoveries have been identified for this service and there are no ineligible projects. The replacement shares, relating to the replacement of existing buildings, vehicles and equipment, totals \$5.01 million. In total, \$0.44 million is the amount by which the DC eligible costs exceed the maximum allowable funding envelope, and is deemed to provide benefit to development beyond 2025. This share will be eligible for funding under subsequent development charge studies.

A portion of this cost, \$17,630, will be paid for by existing funds in the Fire Services DC reserve fund and is applied to projects occurring in the initial years of the planning period. The remaining \$9.27 million is related to development between 2016 and 2025 and, given that Fire Services is exempt from the ten per cent reduction of capital costs imposed by the DCA, the full amount is included in the present calculation.

The development-related cost is allocated 79 per cent, or \$7.35 million to the residential sector, 4 per cent, or \$362,020 to the retail commercial sector and 17 per cent, or \$1.56 million, to the other non-residential sector based on shares of ten-year growth in population in new units and employment. This yields an adjusted development charge of \$259.14 per capita, a retail commercial unadjusted charge of \$6.03 per square metre and an other non-residential charge of \$3.16 per square meter.

**Table 3      Cash Flow Analysis**

After cash flow analysis, the residential charge increases to \$274.75 per capita and the non-residential retail commercial charge increases to \$6.36 per square metre and the other non-residential charge increases to \$3.28 per square metre.

The following table summarizes the calculation of the Fire Services charge.

<b>FIRE SERVICES SUMMARY</b>								
10-year Hist. Service Level per pop & emp	2016 - 2025		Unadjusted Development Charge			Adjusted Development Charge		
	Development-Related Total	Capital Program Net DC Recoverable	Residential \$/capita	Retail \$/sq.m	Other Non-Res \$/sq.m	Residential \$/capita	Retail \$/sq.m	Other Non-Res \$/sq.m
\$292.58	\$14,730,500	\$9,267,474	\$259.14	\$6.03	\$3.16	<b>\$274.75</b>	<b>\$6.36</b>	<b>\$3.28</b>

**APPENDIX B.3**  
**TABLE 1 - PAGE**

## TOWN OF WHITBY

### INVENTORY OF CAPITAL ASSETS

## FIRE SERVICES

[illegible][illegible]

APPENDIX B.3  
TABLE 1 - PAGE 2

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS

FIRE SERVICES

FURNITURE AND EQUIPMENT Description	Total Value of Furniture & Equipment (\$)										UNIT COST (\$/unit)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Number of Fire Fighters	112	112	112	112	112	112	112	112	112	112	
Personal clothing	\$425,600	\$425,600	\$425,600	\$425,600	\$425,600	\$425,600	\$425,600	\$425,600	\$425,600	\$425,600	\$3,800
Station Furniture & Equipment											
Air Cylinders	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	\$12,500	
Communications Equipment	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	
Dorm Furniture (murphy beds)	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	
Dryer	\$25,500	\$25,500	\$25,500	\$25,500	\$25,500	\$25,500	\$25,500	\$25,500	\$25,500	\$25,500	
Drying units - Bunker gear	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	
Extractor	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	
Fridge	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	
General Station Tools	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	\$159,000	
Hazmat/ Training Equipment	\$5,500	\$5,500	\$5,500	\$5,500	\$5,500	\$5,500	\$5,500	\$5,500	\$5,500	\$5,500	
Lounge Furniture	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	
Pre Alert System	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	
SCBA Air Compressor / Casscade System	\$164,000	\$164,000	\$164,000	\$164,000	\$164,000	\$164,000	\$164,000	\$164,000	\$164,000	\$164,000	
Stove	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	\$49,000	
Washing Machine	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	
Water Equipment	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	
Regional Radio System	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	
Regional Radio (Fire Share) <sup>1</sup>	\$363,940	\$363,940	\$363,940	\$363,940	\$363,940	\$363,940	\$363,940	\$ 363,940	\$ 606,570	\$ 606,570	



APPENDIX B.3  
TABLE 1 - PAGE 3

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS

FIRE SERVICES

FURNITURE AND EQUIPMENT Description	Total Value of Furniture & Equipment (\$)									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Communications Equipment										
Battery, Li-ion, 2000MAH	\$27,740	\$27,740	\$27,740	\$27,740	\$27,740	\$27,740	\$27,740	\$ 27,740	\$ 27,740	\$ 27,740
Belt Clip Standard	\$62,676	\$62,676	\$62,676	\$62,676	\$62,676	\$62,676	\$62,676	\$ 62,676	\$ 62,676	\$ 62,676
Charge, 6 Bay	\$238,150	\$238,150	\$238,150	\$238,150	\$238,150	\$238,150	\$238,150	\$ 238,150	\$ 238,150	\$ 238,150
Charge, Single	\$6,350	\$6,350	\$6,350	\$6,350	\$6,350	\$6,350	\$6,350	\$ 6,350	\$ 6,350	\$ 6,350
Fire Dash Mount Radio	\$13,350	\$13,350	\$13,350	\$13,350	\$13,350	\$13,350	\$13,350	\$ 13,350	\$ 13,350	\$ 13,350
Fire Portables	\$11,266	\$11,266	\$11,266	\$11,266	\$11,266	\$11,266	\$11,266	\$ 11,266	\$ 11,266	\$ 11,266
Speaker Mic, Rugged, Coiled	\$180	\$180	\$180	\$180	\$180	\$180	\$180	\$ 180	\$ 180	\$ 180
Vehicle Repeater	\$6,520	\$6,520	\$6,520	\$6,520	\$6,520	\$6,520	\$6,520	\$ 6,520	\$ 6,520	\$ 6,520
Total (\$000)	\$1,816.3	\$1,816.3	\$1,816.3	\$1,816.3	\$1,816.3	\$1,816.3	\$1,816.3	\$1,816.3	\$2,058.9	\$2,058.9

1 Radio system is shared between Operations & Fire Services



APPENDIX B.3  
TABLE 1 - PAGE 5

TOWN OF WHITBY  
CALCULATION OF SERVICE LEVELS  
  
FIRE SERVICES

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Historic Population	111,184	113,272	115,399	117,566	119,774	122,022	123,267	124,525	125,796	127,080
Historic Employment	<u>38,033</u>	<u>37,974</u>	<u>37,946</u>	<u>37,946</u>	<u>37,975</u>	<u>38,030</u>	<u>38,585</u>	<u>39,156</u>	<u>39,740</u>	<u>40,339</u>
Total Historic Population & Employment	149,217	151,246	153,345	155,512	157,749	160,052	161,852	163,681	165,536	167,419

INVENTORY SUMMARY (\$000)

Buildings	\$22,176.9	\$22,176.9	\$22,176.9	\$22,176.9	\$22,176.9	\$22,176.9	\$22,176.9	\$22,176.9	\$22,176.9	\$22,176.9
Land	\$8,795.5	\$8,795.5	\$8,795.5	\$8,795.5	\$8,795.5	\$8,795.5	\$8,795.5	\$8,795.5	\$8,795.5	\$8,795.5
Furniture And Equipment	\$1,816.3	\$1,816.3	\$1,816.3	\$1,816.3	\$1,816.3	\$1,816.3	\$1,816.3	\$1,816.3	\$2,058.9	\$2,058.9
Vehicles	\$14,419.9	\$14,523.9	\$13,083.2	\$13,083.2	\$13,283.2	\$13,283.2	\$13,283.2	\$13,283.2	\$13,283.2	\$13,283.2
Total (\$000)	\$47,208.6	\$47,312.6	\$45,871.9	\$45,871.9	\$46,071.9	\$46,071.9	\$46,071.9	\$46,071.9	\$46,314.5	\$46,314.5

SERVICE LEVEL (\$/pop+empl)											Average Service Level
Buildings	\$148.62	\$146.63	\$144.62	\$142.61	\$140.58	\$138.56	\$137.02	\$135.49	\$133.97	\$132.46	\$140.06
Land	\$58.94	\$58.15	\$57.36	\$56.56	\$55.76	\$54.95	\$54.34	\$53.74	\$53.13	\$52.54	\$55.55
Furniture And Equipment	\$12.17	\$12.01	\$11.84	\$11.68	\$11.51	\$11.35	\$11.22	\$11.10	\$12.44	\$12.30	\$11.76
Vehicles	\$96.64	\$96.03	\$85.32	\$84.13	\$84.20	\$82.99	\$82.07	\$81.15	\$80.24	\$79.34	\$85.21
Total (\$/pop+empl)	\$316.37	\$312.82	\$299.14	\$294.97	\$292.06	\$287.85	\$284.65	\$281.47	\$279.79	\$276.64	\$292.58

TOWN OF WHITBY  
CALCULATION OF MAXIMUM ALLOWABLE  
  
FIRE SERVICES

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2006 - 2015	\$292.58
Net Population and Employment Growth 2016 - 2025	31,675
Maximum Allowable Funding Envelope	\$9,267,474
Less: Uncommitted Excess Capacity	\$0
Less: 10% Legislated Reduction	\$0
Discounted Maximum Allowable Funding Envelope	\$9,267,474

Excess Capacity Calculation	
Total Value of Inventory in 2015	\$46,314,532
Inventory Using Average Service Level	\$48,983,393
Excess Capacity	\$0
Excess Capacity:	Uncommitted

APPENDIX B.3  
TABLE 2  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
FIRE SERVICES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Eligible Services	Ineligible Services	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016-2025	Post 2025
3.0 FIRE SERVICES												
Buildings, Land and Equipment												
20163501 Fire Hall #5 - Interior Reno Additional Crew Accomodation	2016 - 2016	\$ 55,000	\$ -	\$ 55,000	Y	\$ -	\$ -	\$ -	\$ 55,000	\$ 17,628	\$ 37,372	\$ -
20174104 Land Acquisition (2 Acres) - Fire Hall #7	2017 - 2017	\$ 1,400,000	\$ -	\$ 1,400,000	Y	\$ -	\$ -	\$ -	\$ 1,400,000	\$ -	\$ 1,400,000	\$ -
20174101 Land Acquisition (3 Acres) - Fire Training Complex	2017 - 2017	\$ 2,100,000	\$ -	\$ 2,100,000	Y	\$ -	\$ 1,638,000	\$ -	\$ 462,000	\$ -	\$ 462,000	\$ -
20174102 Dry Hydrant Connection at Mud Lake	2017 - 2017	\$ 10,000	\$ -	\$ 10,000	Y	\$ -	\$ -	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -
20193501 Fire Hall #2 - Expansion and Rehabilitation	2019 - 2019	\$ 1,000,000	\$ -	\$ 1,000,000	Y	\$ -	\$ 860,000	\$ -	\$ 140,000	\$ -	\$ 140,000	\$ -
20160701 Fire Hall #7 - Design Development	2021 - 2021	\$ 450,000	\$ -	\$ 450,000	Y	\$ -	\$ -	\$ -	\$ 450,000	\$ -	\$ 450,000	\$ -
20183501 Fire Training Complex - Design Development	2021 - 2021	\$ 275,000	\$ -	\$ 275,000	Y	\$ -	\$ 214,500	\$ -	\$ 60,500	\$ -	\$ 60,500	\$ -
20160701 Firehall #7 - Construction and F&E	2022 - 2022	\$ 4,300,000	\$ -	\$ 4,300,000	Y	\$ -	\$ -	\$ -	\$ 4,300,000	\$ -	\$ 4,300,000	\$ -
20183501 Fire Training Complex - Construction and F&E	2022 - 2022	\$ 2,475,000	\$ -	\$ 2,475,000	Y	\$ -	\$ 1,930,500	\$ -	\$ 544,500	\$ -	\$ 136,510	\$ 407,990
Subtotal Buildings, Land and Equipment		\$ 12,065,000	\$ -	\$ 12,065,000		\$ -	\$ 4,643,000	\$ -	\$ 7,422,000	\$ 17,628	\$ 6,996,382	\$ 407,990
Fire Trucks and Vehicles - Additional												
20180901 Aerial / Pumper Truck (West Whitby / Hwy 412)	2017 - 2017	\$ 1,400,000	\$ -	\$ 1,400,000	Y	\$ -	\$ -	\$ -	\$ 1,400,000	\$ -	\$ 1,400,000	\$ -
20130901 Fire Prevention Captain / Training Officer Vehicle	2017 - 2017	\$ 35,000	\$ -	\$ 35,000	Y	\$ -	\$ -	\$ -	\$ 35,000	\$ -	\$ 35,000	\$ -
20130902 Fire Prevention / Public Education Officer Vehicle	2018 - 2018	\$ 30,000	\$ -	\$ 30,000	Y	\$ -	\$ -	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -
20150901 Fire Prevention / Public Education Officer Vehicle	2018 - 2018	\$ 30,000	\$ -	\$ 30,000	Y	\$ -	\$ -	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -
20190901 Fire Prevention Captain / Training Officer Vehicle	2019 - 2019	\$ 35,000	\$ -	\$ 35,000	Y	\$ -	\$ -	\$ -	\$ 35,000	\$ -	\$ 35,000	\$ -
20188501 Fire Rescue Truck - Upgrade	2018 - 2018	\$ 850,000	\$ -	\$ 850,000	Y	\$ -	\$ 263,500	\$ -	\$ 586,500	\$ -	\$ 586,500	\$ -
20208401 Fire Prevention / Public Education Officer Vehicle	2021 - 2021	\$ 30,000	\$ -	\$ 30,000	Y	\$ -	\$ -	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -
20258401 Fire Prevention / Public Education Officer Vehicle	2025 - 2025	\$ 30,000	\$ -	\$ 30,000	Y	\$ -	\$ -	\$ -	\$ 30,000	\$ -	\$ -	\$ 30,000
Subtotal Fire Trucks and Vehicles - Additional		\$ 2,440,000	\$ -	\$ 2,440,000		\$ -	\$ 263,500	\$ -	\$ 2,176,500	\$ -	\$ 2,146,500	\$ 30,000

TABLE 2  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
FIRE SERVICES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Eligible Services	Ineligible Services	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016-2025	Post 2025
<b>Equipment - Additional</b>												
20171401 Utility Vehicle with a Skid Mount Pump/Tank	2017 - 2017	\$ 30,000	\$ -	\$ 30,000	Y	\$ -	\$ -	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -
20181302 New Suppression Staff Equipment	2016 - 2016	\$ 75,500	\$ -	\$ 75,500	Y	\$ -	\$ -	\$ -	\$ 75,500	\$ -	\$ 75,500	\$ -
Subtotal Equipment - Additional		\$ 105,500	\$ -	\$ 105,500		\$ -	\$ -	\$ -	\$ 105,500	\$ -	\$ 105,500	\$ -
<b>Business Solutions - Growth</b>												
20178501 Fire Mobile Data Terminals / Turn Out Technology	2017 - 2017	\$ 120,000	\$ -	\$ 120,000	Y	\$ -	\$ 100,908	\$ -	\$ 19,092	\$ -	\$ 19,092	\$ -
Subtotal Business Solutions - Growth		\$ 120,000	\$ -	\$ 120,000		\$ -	\$ 100,908	\$ -	\$ 19,092	\$ -	\$ 19,092	\$ -
<b>TOTAL FIRE SERVICES - ALL PROJECTS</b>		<b>\$ 14,730,500</b>	<b>\$ -</b>	<b>\$ 14,730,500</b>		<b>\$ -</b>	<b>\$ 5,007,408</b>	<b>\$ -</b>	<b>\$ 9,723,092</b>	<b>\$ 17,628</b>	<b>\$ 9,267,474</b>	<b>\$ 437,990</b>

<b>Residential Development Charge Calculation</b>		
Residential Share of 2016 - 2025 DC Eligible Costs	79.3%	\$7,349,559
10-Year Growth in Population in New Units		28,361
Unadjusted Development Charge Per Capita		<b>\$259.14</b>
<b>Non-Residential Development Charge Calculation</b>		
<i>Retail Commercial</i>		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	3.9%	\$362,024
10-Year Growth in Square Metres		60,071
Unadjusted Development Charge Per Square Metre		<b>\$6.03</b>
<i>Other Non-Residential</i>		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	16.8%	\$1,555,891
10-Year Growth in Square Metres		492,955
Unadjusted Development Charge Per Square Metre		<b>\$3.16</b>

2016 - 2025 Net Funding Envelope	\$9,267,474
Reserve Fund Balance	
Balance as at December 31, 2015	\$17,628

APPENDIX B.3  
TABLE 3 - PAGE 1

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
FIRE SERVICES  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

FIRE SERVICES	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.0	\$262.1	(\$2,151.3)	(\$2,151.6)	(\$1,514.8)	(\$597.4)	(\$84.9)	(\$3,085.7)	(\$2,151.6)	(\$1,125.2)	
2016 - 2025 RESIDENTIAL FUNDING REQUIREMENTS											
- Fire Services: Non Inflated	\$89.5	\$2,661.5	\$512.7	\$138.8	\$0.0	\$428.6	\$3,518.4	\$0.0	\$0.0	\$0.0	\$7,349.6
- Fire Services: Inflated	\$89.5	\$2,714.8	\$533.4	\$147.3	\$0.0	\$473.3	\$3,962.3	\$0.0	\$0.0	\$0.0	\$7,920.5
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,263	1,274	2,272	3,051	3,307	3,327	3,382	3,437	3,495	3,553	28,361
REVENUE											
- DC Receipts: Inflated	\$347.1	\$357.1	\$649.4	\$889.4	\$983.6	\$1,009.3	\$1,046.3	\$1,084.9	\$1,125.0	\$1,166.7	\$8,658.6
INTEREST											
- Interest on Opening Balance	\$0.0	\$9.2	(\$118.3)	(\$118.3)	(\$83.3)	(\$32.9)	(\$4.7)	(\$169.7)	(\$118.3)	(\$61.9)	(\$698.3)
- Interest on In-year Transactions	\$4.5	(\$64.8)	\$2.0	\$13.0	\$17.2	\$9.4	(\$80.2)	\$19.0	\$19.7	\$20.4	(\$39.8)
TOTAL REVENUE	\$351.6	\$301.4	\$533.1	\$784.1	\$917.5	\$985.8	\$961.4	\$934.1	\$1,026.3	\$1,125.2	\$7,920.5
CLOSING CASH BALANCE	\$262.1	(\$2,151.3)	(\$2,151.6)	(\$1,514.8)	(\$597.4)	(\$84.9)	(\$3,085.7)	(\$2,151.6)	(\$1,125.2)	\$0.0	

2016 Adjusted Charge Per Capita \$274.75

Allocation of Capital Program  
Residential Sector 79.3%  
Non-Residential Sector 20.7%

Rates for 2016  
Inflation Rate 2.0%  
Interest Rate on Positive Balances 3.5%  
Interest Rate on Negative Balances 5.5%

APPENDIX B.3  
TABLE 3 - PAGE 2

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
FIRE SERVICES  
RETAIL COMMERCIAL DEVELOPMENT CHARGE  
(in \$000)

FIRE SERVICES	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.00	\$16.29	(\$102.90)	(\$99.29)	(\$65.19)	(\$16.24)	\$6.61	(\$143.87)	(\$100.45)	(\$52.61)	
2016 - 2025 COMMERCIAL-INSTITUTIONAL FUNDING REQUIREMENTS											
- Fire Services: Non Inflated	\$4.41	\$131.1	\$25.3	\$6.8	\$0.0	\$21.1	\$173.3	\$0.0	\$0.0	\$0.0	\$362.0
- Fire Services: Inflated	\$4.4	\$133.7	\$26.3	\$7.3	\$0.0	\$23.3	\$195.2	\$0.0	\$0.0	\$0.0	\$390.1
NEW COMMERCIAL-INSTITUTIONAL DEVELOPMENT											
- Growth in Square Metres	3,210	2,647	5,347	6,835	7,500	6,642	6,771	6,904	7,038	7,177	60,071
REVENUE											
- DC Receipts: Inflated	\$20.4	\$17.2	\$35.4	\$46.1	\$51.6	\$46.6	\$48.5	\$50.4	\$52.4	\$54.6	\$423.3
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.6	(\$5.7)	(\$5.5)	(\$3.6)	(\$0.9)	\$0.2	(\$7.9)	(\$5.5)	(\$2.9)	(\$31.1)
- Interest on In-year Transactions	\$0.3	(\$3.2)	\$0.2	\$0.7	\$0.9	\$0.4	(\$4.0)	\$0.9	\$0.9	\$1.0	(\$2.1)
TOTAL REVENUE	\$20.7	\$14.5	\$29.9	\$41.4	\$49.0	\$46.2	\$44.7	\$43.4	\$47.8	\$52.6	\$390.1
CLOSING CASH BALANCE	\$16.3	(\$102.9)	(\$99.3)	(\$65.2)	(\$16.2)	\$6.6	(\$143.9)	(\$100.5)	(\$52.6)	\$0.0	

2016 Adjusted Charge Per Square Metre	\$6.36
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX B.3  
TABLE 3 - PAGE 3

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
FIRE SERVICES  
OTHER NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

FIRE SERVICES	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.00	\$132.96	(\$293.74)	(\$260.98)	(\$137.19)	\$31.69	\$113.81	(\$552.03)	(\$385.05)	(\$201.37)	
2016 - 2025 INDUSTRIAL FUNDING REQUIREMENTS											
- Fire Services: Non Inflated	\$18.9	\$563.4	\$108.5	\$29.4	\$0.0	\$90.7	\$744.8	\$0.0	\$0.0	\$0.0	\$1,555.9
- Fire Services: Inflated	\$18.9	\$574.7	\$112.9	\$31.2	\$0.0	\$100.2	\$838.8	\$0.0	\$0.0	\$0.0	\$1,676.8
INDUSTRIAL SPACE GROWTH											
- Growth in Square Metres	45,587	46,271	47,147	47,931	48,807	49,618	50,567	51,443	52,354	53,230	492,955
REVENUE											
- DC Receipts: Inflated	\$149.6	\$154.9	\$161.0	\$166.9	\$173.4	\$179.8	\$186.9	\$193.9	\$201.3	\$208.8	\$1,776.7
INTEREST											
- Interest on Opening Balance	\$0.0	\$4.7	(\$16.2)	(\$14.4)	(\$7.5)	\$1.1	\$4.0	(\$30.4)	(\$21.2)	(\$11.1)	(\$90.9)
- Interest on In-year Transactions	\$2.3	(\$11.5)	\$0.8	\$2.4	\$3.0	\$1.4	(\$17.9)	\$3.4	\$3.5	\$3.7	(\$9.0)
TOTAL REVENUE	\$151.9	\$148.0	\$145.7	\$155.0	\$168.9	\$182.3	\$173.0	\$167.0	\$183.7	\$201.4	\$1,676.8
CLOSING CASH BALANCE	\$133.0	(\$293.7)	(\$261.0)	(\$137.2)	\$31.7	\$113.8	(\$552.0)	(\$385.0)	(\$201.4)	\$0.0	

2016 Adjusted Charge Per Square Metre	\$3.28
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%



## **Appendix B.4**

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### **Operations**

## Appendix B.4

### Operations

The Town of Whitby Operational Division of the Public Works Department is responsible for all roads within the Town, including sidewalks, streetlights, storm sewers and stormwater management ponds, and road and driveway culverts. In addition, the department is also responsible for the winter maintenance of the Town's roads.

**Table 1      2006-2015 Historical Service Levels**

The ten-year historical inventory of capital assets for Operations include 54,540 square feet of building space related to the Town's Operation Centre (shared with Parks), Salt & Sand Domes and a Vehicle Cold Storage Building. In total, the replacement value of these facilities \$10.19 million. The 51.57 hectares of land associated with the Operations buildings are valued at \$6.89 million. In total, approximately \$6.96 million relates to various furniture and equipment including a portion of the communication equipment shared with Fire Services. Finally, the Operations fleet comprises of 52 vehicles and adds an additional \$5.62 million to the value of the capital assets.

The total value of the Operations capital infrastructure is estimated to be \$29.66 million. The ten-year historical average service level is \$185.51 per capita and employment and this, multiplied by the ten-year forecast net population and employment growth, results in a ten-year maximum allowable of \$5.88 million (31,675 net population and employment growth X historical service level of \$185.51).

No uncommitted excess capacity has been identified, and as such, no deductions are made from the funding envelope. Under the Development Charges Act, 1997, services related to a highway as defined in subsection 1(1) of the Municipal Act, 2001, need not to be reduced by the legislated ten per cent (as with other general services). The services and capital assets of Operations services are considered to be related to a highway, and as such, the maximum allowable funding envelope is not required to be reduced by ten per cent. The resulting net maximum allowable funding envelope brought forward to the development charges calculation is \$5.88 million.

**Table 2            2016 – 2025 Development-Related Capital Program and Calculation of the Unadjusted Development Charges**

The ten-year development-related capital plan for Operations is comprised of the recovery of a reserve fund deficit in the amount of \$409,200. The public works new and expanded facilities project in the capital program relates to the acquisition of furniture and equipment for a new employee in 2016 at a cost of \$7,500. The most significant project included in the capital program is for the expansion of the Operations Centre. As the facility is, and will continue to be shared with Parks services, only 55 per cent of the total costs have been identified in the Operations capital program. The capital program includes two phases for the expansion of the depot, the first occurring in 2016-2017 for \$2.92 million, and the second in 2020-2021 for \$3.03 million. In addition, the program includes for the acquisition of land related to a future satellite facility, a parking lot expansion for the Operations Centre, and a new salt and sand dome.

The program also includes for a number of vehicles and new equipment. In total, the gross capital cost of the vehicles amounts to \$3.82 million and includes for the acquisition of new plows, pick-up trucks, single axel dumps, hook lifts, street sweepers etc. With respect to equipment, the capital program includes for \$2.42 million relating to new power washers, portable traffic signs, sprayers, trailers, sidewalk plows and sanders, vehicle routing optimization, front end loaders etc.

Altogether, the ten-year capital forecast for Operations amounts to \$15.56 million. No grants, subsidies or other recoveries have been identified and as such, no reductions are made. Approximately \$54,000 has been identified as ineligible costs and are removed from the total DC recoverable share. In addition, minor replacement shares relating to the repurposing of space in the existing Operations Centre have been identified for a total of \$145,800. An additional \$147,100 in replacement shares that relate to the vehicle routing optimization equipment have also been removed. After these deductions the total DC eligible costs amount to \$15.22 million. Of these eligible costs, \$9.34 million, is deemed to benefit as a post-2025 benefit and will be considered in subsequent development charges studies. As no legislated ten per cent discount is required, no deduction has been applied.

The development-related cost is allocated 79 per cent, or \$4.66 million to the residential sector, 4 per cent, or \$229,540 to the retail commercial sector and 17 per cent, or \$986,510, to the other non-residential sector based on shares of ten-year growth in population in new units and employment. This yields an adjusted development

charge of \$164.31 per capita, a retail commercial unadjusted charge of \$3.82 per square metre and other non-residential charge amounts to \$2.00 per square meter.

**Table 3      Cash Flow Analysis**

After cash flow analysis, the residential charge increases to \$191.28 per capita and the non-residential retail commercial charge increases to \$4.43 per square metre and the other non-residential charge increases to \$2.28 per square metre.

The following table summarizes the calculation of the Operations development charge.

<b>OPERATIONS SUMMARY</b>								
10-year Hist. Service Level per pop & emp	2016 - 2025		Unadjusted Development Charge			Adjusted Development Charge		
	Development-Related Capital Program		Residential	Retail	Other Non-Res	Residential	Retail	Other Non-Res
	Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/sq.m	\$/capita	\$/sq.m	\$/sq.m
\$185.51	\$15,562,605	\$5,876,031	\$164.31	\$3.82	\$2.00	<b>\$191.28</b>	<b>\$4.43</b>	<b>\$2.28</b>

**APPENDIX B.4**  
**TABLE 1 - PAGE 1**

**TOWN OF WHITBY**  
**INVENTORY OF CAPITAL ASSETS**  
**OPERATIONS**

**OPERATIONS SERVICES**

<b>BUILDINGS</b>	<b># of Square Feet</b>										<b>UNIT COST</b>
<b>Station Name</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>(\$/sq. ft.)</b>
<b>Operations Centre (Operation % Share)</b>	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	
Operations Centre (share of 64,070 sq.ft.)	35,239	35,239	35,239	35,239	35,239	35,239	35,239	35,239	35,239	35,239	\$268
<b>Other Operations Buildings</b>											
Salt & Sand Domes	15,450	15,450	15,450	15,450	15,450	15,450	15,450	15,450	15,450	15,450	\$37
Vehicle Cold Storage Building	-	-	-	-	-	-	3,850	3,850	3,850	3,850	\$46
<b>Total (sq.ft.)</b>	<b>50,689</b>	<b>50,689</b>	<b>50,689</b>	<b>50,689</b>	<b>50,689</b>	<b>50,689</b>	<b>54,539</b>	<b>54,539</b>	<b>54,539</b>	<b>54,539</b>	
<b>Total (\$000)</b>	<b>\$10,015.6</b>	<b>\$10,015.6</b>	<b>\$10,015.6</b>	<b>\$10,015.6</b>	<b>\$10,015.6</b>	<b>\$10,015.6</b>	<b>\$10,192.7</b>	<b>\$10,192.7</b>	<b>\$10,192.7</b>	<b>\$10,192.7</b>	

1 Brine Storage Tanks, Soils Storage Building, Decanting Facility and Storage Bins are included in site improvements relating to Operations Centre

<b>LAND</b>	<b># of Hectares</b>										<b>UNIT COST</b>
<b>Station Name</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>(\$/ha)</b>
<b>Operations Centre (Operation % Share)</b>	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	
Operations Centre (share of 6.94 ha) (2)	3.82	3.82	3.82	3.82	3.82	3.82	3.82	3.82	3.82	3.82	\$1,541,900
<b>Other Facilities</b>											
Whitby Gravel Pit	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	\$21,000
<b>Total (ha)</b>	<b>51.57</b>	<b>51.57</b>	<b>51.57</b>	<b>51.57</b>	<b>51.57</b>	<b>51.57</b>	<b>51.57</b>	<b>51.57</b>	<b>51.57</b>	<b>51.57</b>	
<b>Total (\$000)</b>	<b>\$6,888.5</b>	<b>\$6,888.5</b>	<b>\$6,888.5</b>	<b>\$6,888.5</b>	<b>\$6,888.5</b>	<b>\$6,888.5</b>	<b>\$6,888.5</b>	<b>\$6,888.5</b>	<b>\$6,888.5</b>	<b>\$6,888.5</b>	

2 Land relating to Salt & Sand Domes and Cold Vehicle Storage Building is included under the Operations Centre Land.

**APPENDIX B.4  
TABLE 1 - PAGE 2**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
OPERATIONS**

**OPERATIONS SERVICES**

FURNITURE AND EQUIPMENT Description	Total Value of Equipment (\$)										UNIT COST (\$/unit)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
<b>Operation Centre Facility Equipment</b>	55%	55%	55%	55%	55%	55%	55%	55%	55%	55%	
Operations Centre (share of \$1.26M)	\$695,200	\$695,200	\$695,200	\$695,200	\$695,200	\$695,200	\$695,200	\$695,200	\$695,200	\$695,200	
<b>Regional Radio System</b>	45%	45%	45%	45%	45%	45%	45%	45%	45%	45%	
Regional Radio System (Ops Share) (1)	\$294,800	\$294,800	\$294,800	\$294,800	\$294,800	\$294,800	\$294,800	\$294,800	\$491,300	\$491,300	
<b>Misc. Equipment</b>											
FLEE - Fork Lift	1	1	1	1	1	1	1	1	1	1	\$50,000
FLEE - HOIST	3	3	3	3	3	3	3	3	3	3	\$25,000
FLEE - Crane	1	1	1	1	1	1	1	1	1	1	\$30,000
FLEE - Combined Small Equipment	1	1	1	1	1	1	1	1	1	1	\$15,000
OPER - Fuel Monitoring System	1	1	1	1	1	1	1	1	1	1	\$15,000
OPER - Fuel Pumps	3	3	3	3	3	3	3	3	3	3	\$10,000
OPER - Generator	1	1	1	1	1	1	1	1	1	1	\$23,000
OPER - Air Compressor	2	2	2	2	2	2	2	2	2	2	\$40,000
OPER - Floor Scrubber/Sweeper	1	1	1	1	1	1	1	1	1	1	\$65,000
OPER - Hotsy Pressure Washer	2	2	2	2	2	2	2	2	2	2	\$20,000
RDSR - Boom Mower	1	1	1	1	1	1	1	1	1	1	\$210,000
RDSR - Chipper	1	1	1	1	1	1	1	1	1	1	\$65,000
RSDR - Front End Loader	3	3	3	3	3	3	3	3	3	3	\$260,000
RDSR - Gradall	1	1	1	1	1	1	1	1	1	1	\$350,000

1 Radion System is shared between Operations & Fire Services.

**APPENDIX B.4  
TABLE 1 - PAGE 3**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
OPERATIONS**

**OPERATIONS SERVICES**

<b>FURNITURE AND EQUIPMENT CONT. Description</b>	<b>Total Value of Equipment (\$)</b>										<b>UNIT COST</b>
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>(\$/unit)</b>
RDSR - Grader	1	1	1	1	1	1	1	1	1	1	\$200,000
RDSR - Grader V-Plow	1	1	1	1	1	1	1	1	1	1	\$20,000
RDSR - Hotsy Pressuer Waster	1	1	1	1	1	1	1	1	1	1	\$20,000
RDSR - Patcher Trailer	1	1	1	1	1	1	1	1	1	1	\$40,000
RDSR - Snow Blower	1	1	1	1	1	1	1	1	1	1	\$200,000
RDSR - Tractor	1	1	1	1	1	1	1	1	1	1	\$115,000
RDSR - Wobble Wheel Compactor	1	1	1	1	1	1	1	1	1	1	\$50,000
RDSU - 2 Ton Compaction Roller	1	1	1	1	1	1	1	1	1	1	\$30,000
RDSU - Backhoe	1	1	1	1	1	1	1	1	1	1	\$100,000
RDSU - Compressor	1	1	1	1	1	1	1	1	1	1	\$30,000
RDSU - Debri Vacuum	2	2	2	2	2	2	2	2	2	2	\$40,000
RDSU - Tandem Trailer	4	4	4	4	4	4	4	4	4	4	\$20,000
RDSU - John Deere Gator	1	1	1	1	1	1	1	1	1	1	\$20,000
RDSU - Skid Steer Loader	1	1	1	1	1	1	1	1	1	1	\$60,000
TRAF - Tandem Trailer	2	2	2	2	2	2	2	2	2	2	\$25,000
TRAF - Pavement Marker	2	2	2	2	2	2	2	2	2	2	\$10,000
TRAF - Portable Vacuum	1	1	1	1	1	1	1	1	1	1	\$50,000
TRAF - Sidewalk Plow (Bombardier)	15	15	15	15	15	10	10	10	10	10	\$160,000
TRAF - Sidewalk Plow - Tractors (Replaced Bombardier)	-	-	-	-	-	5	5	5	5	5	\$60,000
TRAF - Sidewalk Plower and Sander	1	1	1	1	1	1	1	2	2	2	\$160,000
TRAF - Trackless Sidewalk Snow Plow	3	3	3	3	3	3	3	3	3	3	\$160,000
ROADS - Arrow Boards	2	2	2	2	2	2	2	2	2	2	\$10,000
ROADS - Portable Traffic Signs									2	2	\$23,000
ROADS - Combined Small Equipment	1	1	1	1	1	1	1	1	1	1	\$15,000
<b>Total (#)</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>67</b>	<b>68</b>	<b>70</b>	<b>70</b>	
<b>Total (\$000)</b>	<b>\$7,058.0</b>	<b>\$7,058.0</b>	<b>\$7,058.0</b>	<b>\$7,058.0</b>	<b>\$7,058.0</b>	<b>\$6,558.0</b>	<b>\$6,558.0</b>	<b>\$6,718.0</b>	<b>\$6,960.5</b>	<b>\$6,960.5</b>	

**APPENDIX B.4  
TABLE 1 - PAGE 4**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
OPERATIONS**

**OPERATIONS SERVICES**

<b>VEHICLES</b> <b>Vehicle Type</b>	<b># of Vehicles</b>										<b>UNIT COST</b> <b>(\$/vehicle)</b>
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	
CONS - 1/2 Ton Truck	-	-	-	-	-	-	3	3	3	3	\$24,000
STRM - 3/4 Ton Truck	-	-	-	-	-	-	1	1	1	1	\$28,000
FLEE - 3/4 Ton Truck	1	1	1	1	1	1	1	1	1	1	\$32,000
OPER - 1/2 Ton Truck	4	4	4	4	5	5	5	5	5	5	\$32,000
OPER - Hybrid SUV				1	1	1	1	1	1	1	\$41,000
RDSR - Truck	5	5	5	5	5	5	5	5	6	6	\$42,000
RDSR - Single Axle Dump Truck	3	3	3	3	3	3	3	3	3	3	\$195,000
RDSR - Tandem Dump	8	8	8	8	8	8	8	8	8	8	\$250,000
RDSR - Water Truck	1	1	1	1	1	1	1	1	1	1	\$215,000
RDSU - Truck	4	4	4	4	4	4	4	4	4	4	\$45,000
RDSU - 1 ton Dump Truck with Crane	1	1	1	1	1	1	1	1	1	1	\$85,000
RDSU - 2 Ton Dump with plow/sander	1	1	1	1	1	1	1	1	1	1	\$72,000
RDSU - 2 Ton Dump	1	1	1	1	1	1	1	1	1	1	\$50,000
RDSU - Cab/Chassis for Hot Patcher	1	1	1	1	1	1	1	1	1	1	\$155,000
RDSU - Cub Van	1	1	1	1	1	1	1	1	1	1	\$72,000
RDSU - Sewer Cleaner	1	1	1	1	1	1	1	1	1	1	\$400,000
RDSU - Single Axle Dump with Plow/Wing	1	1	1	1	1	1	1	1	1	1	\$220,000
RDSU - Street Sweeper	1	1	1	1	1	1	1	1	1	1	\$275,000
RDSU - Truck with Van Body	1	1	1	1	1	1	1	1	1	1	\$76,000
TRAF - Truck with Crane	4	4	4	4	4	4	4	4	4	4	\$80,000
TRAF - Truck	5	5	5	5	5	5	5	5	5	5	\$45,000
TRAF - Truck with Van Body	1	1	1	1	1	1	1	1	1	1	\$100,000
<b>Total (#)</b>	<b>45</b>	<b>45</b>	<b>45</b>	<b>46</b>	<b>47</b>	<b>47</b>	<b>51</b>	<b>51</b>	<b>52</b>	<b>52</b>	
<b>Total (\$000)</b>	<b>\$5,400.0</b>	<b>\$5,400.0</b>	<b>\$5,400.0</b>	<b>\$5,441.0</b>	<b>\$5,473.0</b>	<b>\$5,473.0</b>	<b>\$5,573.0</b>	<b>\$5,573.0</b>	<b>\$5,615.0</b>	<b>\$5,615.0</b>	



APPENDIX B.4  
TABLE 1 - PAGE 5

TOWN OF WHITBY  
CALCULATION OF SERVICE LEVELS

OPERATIONS

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Historic Population	111,184	113,272	115,399	117,566	119,774	122,022	123,267	124,525	125,796	127,080
Historic Employment	38,033	37,974	37,946	37,946	37,975	38,030	38,585	39,156	39,740	40,339
Total Historic Population & Employment	149,217	151,246	153,345	155,512	157,749	160,052	161,852	163,681	165,536	167,419

INVENTORY SUMMARY (\$000)

Buildings	\$10,015.6	\$10,015.6	\$10,015.6	\$10,015.6	\$10,015.6	\$10,015.6	\$10,192.7	\$10,192.7	\$10,192.7	\$10,192.7
Land	\$6,888.5	\$6,888.5	\$6,888.5	\$6,888.5	\$6,888.5	\$6,888.5	\$6,888.5	\$6,888.5	\$6,888.5	\$6,888.5
Furniture And Equipment	\$7,058.0	\$7,058.0	\$7,058.0	\$7,058.0	\$7,058.0	\$6,558.0	\$6,558.0	\$6,718.0	\$6,960.5	\$6,960.5
Vehicles	\$5,400.0	\$5,400.0	\$5,400.0	\$5,441.0	\$5,473.0	\$5,473.0	\$5,573.0	\$5,573.0	\$5,615.0	\$5,615.0
Total (\$000)	\$29,362.1	\$29,362.1	\$29,362.1	\$29,403.1	\$29,435.1	\$28,935.1	\$29,212.2	\$29,372.2	\$29,656.7	\$29,656.7

SERVICE LEVEL (\$/pop+empl)											Average Service Level
Buildings	\$67.12	\$66.22	\$65.31	\$64.40	\$63.49	\$62.58	\$62.98	\$62.27	\$61.57	\$60.88	\$63.68
Land	\$46.16	\$45.55	\$44.92	\$44.30	\$43.67	\$43.04	\$42.56	\$42.09	\$41.61	\$41.15	\$43.50
Furniture And Equipment	\$47.30	\$46.67	\$46.03	\$45.39	\$44.74	\$40.97	\$40.52	\$41.04	\$42.05	\$41.58	\$43.63
Vehicles	\$36.19	\$35.70	\$35.21	\$34.99	\$34.69	\$34.20	\$34.43	\$34.05	\$33.92	\$33.54	\$34.69
Total (\$/pop+empl)	\$196.77	\$194.13	\$191.48	\$189.07	\$186.59	\$180.79	\$180.49	\$179.45	\$179.16	\$177.14	\$185.51

TOWN OF WHITBY  
CALCULATION OF MAXIMUM ALLOWABLE

OPERATIONS

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2006 - 2015	\$185.51
Net Population & Employment Growth 2016 - 2025	31,675
Maximum Allowable Funding Envelope	\$5,876,031
Less: Uncommitted Excess Capacity	\$0
Less: 10% Legislated Reduction	\$0
Discounted Maximum Allowable Funding Envelope	\$5,876,031

Excess Capacity Calculation	
Total Value of Inventory in 2015	\$29,656,716
Inventory Using Average Service Level	\$31,057,862
Excess Capacity	\$0
Excess Capacity:	Uncommitted

APPENDIX B.4  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
OPERATIONS

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Ineligible Services	Ineligible Services	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2025	Post 2025
4.0 OPERATIONS												
Recovery of Negative Reserve Fund Balance												
4.1.1 Balance as of December 31, 2015	2016 - 2016	\$ 409,205	\$ -	\$ 409,205	Y	\$ -	\$ -	\$ -	\$ 409,205	\$ -	\$ 409,205	\$ -
Subtotal Balance as of December 31, 2015		\$ 409,205	\$ -	\$ 409,205		\$ -	\$ -	\$ -	\$ 409,205	\$ -	\$ 409,205	\$ -
Public Works Facilities - New and Expanded												
30163301 Operations Centre Expansion - New Employee Furniture / Equipment	2016 - 2016	\$ 7,500	\$ -	\$ 7,500	Y	\$ -	\$ -	\$ -	\$ 7,500	\$ -	\$ 7,500	\$ -
30140601 Operations Centre Expansion Phase 1 - Design Development	2016 - 2016	\$ 165,000	\$ -	\$ 165,000	Y	\$ -	\$ 8,250	\$ -	\$ 156,750	\$ -	\$ 156,750	\$ -
30140601 Operations Centre Expansion Phase 1 - Construction and F&E	2017 - 2017	\$ 2,750,000	\$ -	\$ 2,750,000	Y	\$ -	\$ 137,500	\$ -	\$ 2,612,500	\$ -	\$ 2,612,500	\$ -
30221201 Land Acquisition for Future Satellite Facility	2017 - 2017	\$ 2,000,000	\$ -	\$ 2,000,000	Y	\$ -	\$ -	\$ -	\$ 2,000,000	\$ -	\$ 2,000,000	\$ -
30130601 Parking Lot - Operations Centre	2017 - 2017	\$ 165,000	\$ -	\$ 165,000	Y	\$ -	\$ -	\$ -	\$ 165,000	\$ -	\$ 165,000	\$ -
30180601 Operations Centre Expansion Phase 2- Design Development	2020 - 2020	\$ 275,000	\$ -	\$ 275,000	Y	\$ -	\$ -	\$ -	\$ 275,000	\$ -	\$ -	\$ 275,000
30180601 Operations Centre Expansion Phase 2 - Construction and F&E	2021 - 2021	\$ 2,750,000	\$ -	\$ 2,750,000	Y	\$ -	\$ -	\$ -	\$ 2,750,000	\$ -	\$ -	\$ 2,750,000
30244101 Salt Dome	2024 - 2024	\$ 400,000	\$ -	\$ 400,000	Y	\$ -	\$ -	\$ -	\$ 400,000	\$ -	\$ -	\$ 400,000
30240701 Sand Dome	2024 - 2024	\$ 400,000	\$ -	\$ 400,000	Y	\$ -	\$ -	\$ -	\$ 400,000	\$ -	\$ -	\$ 400,000
Subtotal Public Works Facilities - New and Expanded		\$ 8,912,500	\$ -	\$ 8,912,500		\$ -	\$ 145,750	\$ -	\$ 8,766,750	\$ -	\$ 4,941,750	\$ 3,825,000

APPENDIX B.4  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
OPERATIONS

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Ineligible Services	Ineligible Services	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2025	Post 2025
Operations Vehicles - Additional												
83178401 Building Dept. - New Staff Vehicle	2017 - 2017	\$ 27,000	\$ -	\$ 27,000	N	\$ 27,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
83178402 Building Dept. - New Staff Vehicle	2017 - 2017	\$ 27,000	\$ -	\$ 27,000	N	\$ 27,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30170902 4x4 Truck with Plow	2017 - 2017	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ 50,000	\$ -
30130908 Single Axle Dump Truck	2017 - 2017	\$ 218,500	\$ -	\$ 218,500	Y	\$ -	\$ -	\$ -	\$ 218,500	\$ -	\$ 218,500	
30130907 Street Sweeper	2017 - 2017	\$ 273,000	\$ -	\$ 273,000	Y	\$ -	\$ -	\$ -	\$ 273,000	\$ -	\$ 212,576	\$ 60,424
30178801 Construction Truck	2017 - 2017	\$ 35,000	\$ -	\$ 35,000	Y	\$ -	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ 35,000
30178401 Construction Vehicle	2017 - 2017	\$ 27,000	\$ -	\$ 27,000	Y	\$ -	\$ -	\$ -	\$ 27,000	\$ -	\$ -	\$ 27,000
30130905 1/2 Ton Pickup Truck	2018 - 2018	\$ 32,000	\$ -	\$ 32,000	Y	\$ -	\$ -	\$ -	\$ 32,000	\$ -	\$ -	\$ 32,000
30160901 1/2 Ton Pickup Truck	2019 - 2019	\$ 32,000	\$ -	\$ 32,000	Y	\$ -	\$ -	\$ -	\$ 32,000	\$ -	\$ -	\$ 32,000
30190901 Crane Truck (5 Ton)	2019 - 2019	\$ 130,000	\$ -	\$ 130,000	Y	\$ -	\$ -	\$ -	\$ 130,000	\$ -	\$ -	\$ 130,000
30130903 Extended Cab Pickup	2019 - 2019	\$ 32,000	\$ -	\$ 32,000	Y	\$ -	\$ -	\$ -	\$ 32,000	\$ -	\$ -	\$ 32,000
30160904 Single Axle Dump Truck	2019 - 2019	\$ 218,500	\$ -	\$ 218,500	Y	\$ -	\$ -	\$ -	\$ 218,500	\$ -	\$ -	\$ 218,500
30140902 Utility Truck with Lift/Winch/Racking	2019 - 2019	\$ 60,000	\$ -	\$ 60,000	Y	\$ -	\$ -	\$ -	\$ 60,000	\$ -	\$ -	\$ 60,000
30190903 1/2 Ton Pickup Truck	2020 - 2020	\$ 32,000	\$ -	\$ 32,000	Y	\$ -	\$ -	\$ -	\$ 32,000	\$ -	\$ -	\$ 32,000

APPENDIX B.4  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
OPERATIONS

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Ineligible Services	Ineligible Services	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2025	Post 2025
Operations Vehicles - Additional - Continued												
30140905 2 Ton Crane Truck	2020 - 2020	\$ 125,000	\$ -	\$ 125,000	Y	\$ -	\$ -	\$ -	\$ 125,000	\$ -	\$ -	\$ 125,000
30130904 3/4 Ton Pickup Truck with Dump	2020 - 2020	\$ 60,000	\$ -	\$ 60,000	Y	\$ -	\$ -	\$ -	\$ 60,000	\$ -	\$ -	\$ 60,000
30160902 Extended Cab Pickup Truck	2020 - 2020	\$ 32,000	\$ -	\$ 32,000	Y	\$ -	\$ -	\$ -	\$ 32,000	\$ -	\$ -	\$ 32,000
30190904 Hook Lift	2020 - 2020	\$ 125,000	\$ -	\$ 125,000	Y	\$ -	\$ -	\$ -	\$ 125,000	\$ -	\$ -	\$ 125,000
30150902 3/4 Ton Pickup Truck with Dump	2021 - 2021	\$ 60,000	\$ -	\$ 60,000	Y	\$ -	\$ -	\$ -	\$ 60,000	\$ -	\$ -	\$ 60,000
30170901 3/4 Ton Pickup Truck with Dump	2021 - 2021	\$ 60,000	\$ -	\$ 60,000	Y	\$ -	\$ -	\$ -	\$ 60,000	\$ -	\$ -	\$ 60,000
30160903 Hook Lift	2021 - 2021	\$ 125,000	\$ -	\$ 125,000	Y	\$ -	\$ -	\$ -	\$ 125,000	\$ -	\$ -	\$ 125,000
30170902 4x4 Truck with Plow	2022 - 2022	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ 50,000
30180901 Single Axle Dump Truck	2022 - 2022	\$ 218,500	\$ -	\$ 218,500	Y	\$ -	\$ -	\$ -	\$ 218,500	\$ -	\$ -	\$ 218,500
30200902 Tandem Dump (with Plow, Wing and Sander)	2022 - 2022	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ -	\$ 250,000
30190902 3/4 Ton Pickup Truck with Dump	2023 - 2023	\$ 60,000	\$ -	\$ 60,000	Y	\$ -	\$ -	\$ -	\$ 60,000	\$ -	\$ -	\$ 60,000
30150904 Catchbasin Cleaner	2023 - 2023	\$ 400,000	\$ -	\$ 400,000	Y	\$ -	\$ -	\$ -	\$ 400,000	\$ -	\$ -	\$ 400,000
30238702 Single Axle Dump Truck	2023 - 2023	\$ 218,500	\$ -	\$ 218,500	Y	\$ -	\$ -	\$ -	\$ 218,500	\$ -	\$ -	\$ 218,500
30200903 Street Sweeper	2023 - 2023	\$ 273,000	\$ -	\$ 273,000	Y	\$ -	\$ -	\$ -	\$ 273,000	\$ -	\$ -	\$ 273,000
30150905 Water Truck / Flusher	2023 - 2023	\$ 186,900	\$ -	\$ 186,900	Y	\$ -	\$ -	\$ -	\$ 186,900	\$ -	\$ -	\$ 186,900
30210904 Extended Cab Pickup Truck	2024 - 2024	\$ 32,000	\$ -	\$ 32,000	Y	\$ -	\$ -	\$ -	\$ 32,000	\$ -	\$ -	\$ 32,000
30200901 2 Ton Van with Man Lift Bucket	2025 - 2025	\$ 130,000	\$ -	\$ 130,000	Y	\$ -	\$ -	\$ -	\$ 130,000	\$ -	\$ -	\$ 130,000
30258707 Single Axle Dump Truck	2025 - 2025	\$ 218,500	\$ -	\$ 218,500	Y	\$ -	\$ -	\$ -	\$ 218,500	\$ -	\$ -	\$ 218,500
Subtotal Operations Vehicles - Additional		\$ 3,818,400	\$ -	\$ 3,818,400		\$ 54,000	\$ -	\$ -	\$ 3,764,400	\$ -	\$ 481,076	\$ 3,283,324

APPENDIX B.4  
TABLE 2  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
OPERATIONS

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Ineligible Services	Ineligible Services	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2025	Post 2025
Operations Equipment - Additional												
40161806 Portable Radar Message Boards	2016 - 2016	\$ 6,500	\$ -	\$ 6,500	Y	\$ -	\$ -	\$ -	\$ 6,500	\$ -	\$ 6,500	\$ -
30160402 Sewer Camera System	2016 - 2016	\$ 12,000	\$ -	\$ 12,000	Y	\$ -	\$ -	\$ -	\$ 12,000	\$ -	\$ 12,000	\$ -
30170403 Aquacide Spayer	2017 - 2017	\$ 25,500	\$ -	\$ 25,500	Y	\$ -	\$ -	\$ -	\$ 25,500	\$ -	\$ 25,500	\$ -
30171801 Power Washer	2017 - 2017	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ -	\$ -	\$ 25,000	\$ -	\$ -	\$ 25,000
30150401 Trailer with Water Pump	2017 - 2017	\$ 10,000	\$ -	\$ 10,000	Y	\$ -	\$ -	\$ -	\$ 10,000	\$ -	\$ -	\$ 10,000
10132403 Vehicle Routing Optimization	2019 - 2020	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 84,090	\$ -	\$ 15,910	\$ -	\$ -	\$ 15,910
30150403 Portable Traffic Signs	2018 - 2018	\$ 46,000	\$ -	\$ 46,000	Y	\$ -	\$ -	\$ -	\$ 46,000	\$ -	\$ -	\$ 46,000
30140402 Sidewalk Plow and Sander	2018 - 2018	\$ 160,000	\$ -	\$ 160,000	Y	\$ -	\$ -	\$ -	\$ 160,000	\$ -	\$ -	\$ 160,000
30190402 Portable Traffic Signs	2019 - 2019	\$ 8,000	\$ -	\$ 8,000	Y	\$ -	\$ -	\$ -	\$ 8,000	\$ -	\$ -	\$ 8,000
30160403 Sidewalk Plow and Sander	2019 - 2019	\$ 160,000	\$ -	\$ 160,000	Y	\$ -	\$ -	\$ -	\$ 160,000	\$ -	\$ -	\$ 160,000
30170402 Trackless Side and Rear Mower	2019 - 2019	\$ 45,000	\$ -	\$ 45,000	Y	\$ -	\$ -	\$ -	\$ 45,000	\$ -	\$ -	\$ 45,000
30170401 Tri-Axle Trailer	2020 - 2020	\$ 20,000	\$ -	\$ 20,000	Y	\$ -	\$ -	\$ -	\$ 20,000	\$ -	\$ -	\$ 20,000
30190401 Portable Vactor	2021 - 2021	\$ 70,000	\$ -	\$ 70,000	Y	\$ -	\$ -	\$ -	\$ 70,000	\$ -	\$ -	\$ 70,000
30200402 Trailer with Water Pump	2021 - 2021	\$ 10,000	\$ -	\$ 10,000	Y	\$ -	\$ -	\$ -	\$ 10,000	\$ -	\$ -	\$ 10,000

APPENDIX B.4  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
OPERATIONS

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Ineligible Services	Ineligible Services	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2025	Post 2025
Operations Equipment - Additional - Continued												
30180402 Sidewalk Plow and Sander	2022 - 2022	\$ 160,000	\$ -	\$ 160,000	Y	\$ -	\$ -	\$ -	\$ 160,000	\$ -	\$ -	\$ 160,000
30200401 Sidewalk Plow / Multipurpose Trail Sweeper	2022 - 2022	\$ 160,000	\$ -	\$ 160,000	Y	\$ -	\$ -	\$ -	\$ 160,000	\$ -	\$ -	\$ 160,000
30180401 Snow Melter	2022 - 2022	\$ 750,000	\$ -	\$ 750,000	Y	\$ -	\$ -	\$ -	\$ 750,000	\$ -	\$ -	\$ 750,000
10132403 Vehicle Routing Optimization	2023 - 2023	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ 63,068	\$ -	\$ 11,932	\$ -	\$ -	\$ 11,932
30231403 Aquacide Sprayer	2023 - 2023	\$ 25,500	\$ -	\$ 25,500	Y	\$ -	\$ -	\$ -	\$ 25,500	\$ -	\$ -	\$ 25,500
30231404 Power Washer	2023 - 2023	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ -	\$ -	\$ 25,000	\$ -	\$ -	\$ 25,000
30231405 Trailer with Water Pump	2023 - 2023	\$ 10,000	\$ -	\$ 10,000	Y	\$ -	\$ -	\$ -	\$ 10,000	\$ -	\$ -	\$ 10,000
30241408 Portable Traffic Signs	2024 - 2024	\$ 46,000	\$ -	\$ 46,000	Y	\$ -	\$ -	\$ -	\$ 46,000	\$ -	\$ -	\$ 46,000
30250401 Front End Loader	2025 - 2025	\$ 260,000	\$ -	\$ 260,000	Y	\$ -	\$ -	\$ -	\$ 260,000	\$ -	\$ -	\$ 260,000
30251402 Portable Traffic Signs	2025 - 2025	\$ 8,000	\$ -	\$ 8,000	Y	\$ -	\$ -	\$ -	\$ 8,000	\$ -	\$ -	\$ 8,000
30251403 Sidewalk Plow and Sander	2025 - 2025	\$ 160,000	\$ -	\$ 160,000	Y	\$ -	\$ -	\$ -	\$ 160,000	\$ -	\$ -	\$ 160,000
30251404 Trackless Side and Rear Mower	2025 - 2025	\$ 45,000	\$ -	\$ 45,000	Y	\$ -	\$ -	\$ -	\$ 45,000	\$ -	\$ -	\$ 45,000
Subtotal Operations Equipment - Additional		\$ 2,422,500	\$ -	\$ 2,422,500		\$ -	\$ 147,158	\$ -	\$ 2,275,342	\$ -	\$ 44,000	\$ 2,231,342
TOTAL OPERATIONS		\$ 15,562,605	\$ -	\$ 15,562,605		\$ 54,000	\$ 292,908	\$ -	\$ 15,215,697	\$ -	\$ 5,876,031	\$ 9,339,666

Residential Development Charge Calculation		
Residential Share of 2016 - 2025 DC Eligible Costs	79.3%	\$4,659,979
10-Year Growth in Population in New Units		28,361
Unadjusted Development Charge Per Capita		\$164.31
Non-Residential Development Charge Calculation		
Retail Commercial		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	3.9%	\$229,541
10-Year Growth in Square Metres		60,071
Unadjusted Development Charge Per Square Metre		\$3.82
Other Non-Residential		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	16.8%	\$986,511
10-Year Growth in Square Metres		492,955
Unadjusted Development Charge Per Square Metre		\$2.00

2016 - 2025 Net Funding Envelope	\$5,876,031
Reserve Fund Balance	
Balance as at December 31, 2015	(\$409,205)

APPENDIX B.4  
TABLE 3 - PAGE 1

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
OPERATIONS  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

OPERATIONS	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.0	(\$234.1)	(\$4,383.4)	(\$4,164.5)	(\$3,763.5)	(\$3,273.7)	(\$2,738.8)	(\$2,148.3)	(\$1,497.9)	(\$783.4)	
2016 - 2025 RESIDENTIAL FUNDING REQUIREMENTS											
- Operations: Non Inflated	\$469.4	\$4,190.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4,660.0
- Operations: Inflated	\$469.4	\$4,274.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4,743.8
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,263	1,274	2,272	3,051	3,307	3,327	3,382	3,437	3,495	3,553	28,361
REVENUE											
- DC Receipts: Inflated	\$241.6	\$248.6	\$452.1	\$619.2	\$684.8	\$702.7	\$728.4	\$755.3	\$783.2	\$812.3	\$6,028.2
INTEREST											
- Interest on Opening Balance	\$0.0	(\$12.9)	(\$241.1)	(\$229.0)	(\$207.0)	(\$180.1)	(\$150.6)	(\$118.2)	(\$82.4)	(\$43.1)	(\$1,264.3)
- Interest on In-year Transactions	(\$6.3)	(\$110.7)	\$7.9	\$10.8	\$12.0	\$12.3	\$12.7	\$13.2	\$13.7	\$14.2	(\$20.1)
TOTAL REVENUE	\$235.4	\$125.0	\$218.9	\$401.0	\$489.8	\$534.9	\$590.5	\$650.3	\$714.5	\$783.4	\$4,743.8
CLOSING CASH BALANCE	(\$234.1)	(\$4,383.4)	(\$4,164.5)	(\$3,763.5)	(\$3,273.7)	(\$2,738.8)	(\$2,148.3)	(\$1,497.9)	(\$783.4)	\$0.0	

2016 Adjusted Charge Per Capita

\$191.28

Allocation of Capital Program

Residential Sector 79.3%  
Non-Residential Sector 20.7%

Rates for 2016

Inflation Rate 2.0%  
Interest Rate on Positive Balances 3.5%  
Interest Rate on Negative Balances 5.5%

APPENDIX B.4  
TABLE 3 - PAGE 2

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
OPERATIONS  
RETAIL COMMERCIAL DEVELOPMENT CHARGE  
(in \$000)

OPERATIONS	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.00	(\$9.17)	(\$213.73)	(\$200.43)	(\$178.80)	(\$152.08)	(\$127.42)	(\$100.10)	(\$69.89)	(\$36.61)	
2016 - 2025 COMMERCIAL-INSTITUTIONAL FUNDING REQUIREMENTS											
- Operations: Non Inflated	\$23.12	\$206.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$229.5
- Operations: Inflated	\$23.1	\$210.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$233.7
COMMERCIAL-INSTITUTIONAL SPACE GROWTH											
- Growth in Square Metres	3,210	2,647	5,347	6,835	7,500	6,642	6,771	6,904	7,038	7,177	60,071
REVENUE											
- DC Receipts: Inflated	\$14.2	\$11.9	\$24.6	\$32.1	\$35.9	\$32.5	\$33.7	\$35.1	\$36.5	\$38.0	\$294.5
INTEREST											
- Interest on Opening Balance	\$0.0	(\$0.5)	(\$11.8)	(\$11.0)	(\$9.8)	(\$8.4)	(\$7.0)	(\$5.5)	(\$3.8)	(\$2.0)	(\$59.9)
- Interest on In-year Transactions	(\$0.2)	(\$5.5)	\$0.4	\$0.6	\$0.6	\$0.6	\$0.6	\$0.6	\$0.6	\$0.7	(\$1.0)
TOTAL REVENUE	\$14.0	\$6.0	\$13.3	\$21.6	\$26.7	\$24.7	\$27.3	\$30.2	\$33.3	\$36.6	\$233.7
CLOSING CASH BALANCE	(\$9.2)	(\$213.7)	(\$200.4)	(\$178.8)	(\$152.1)	(\$127.4)	(\$100.1)	(\$69.9)	(\$36.6)	(\$0.0)	

2016 Adjusted Charge Per Square Metre	\$4.43
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%



APPENDIX B.4  
TABLE 3 - PAGE 3

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
OPERATIONS  
OTHER NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

OPERATIONS	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.00	\$4.54	(\$814.59)	(\$745.70)	(\$668.82)	(\$583.16)	(\$488.26)	(\$383.12)	(\$267.24)	(\$139.76)	
2016 - 2025 INDUSTRIAL FUNDING REQUIREMENTS											
- Operations: Non Inflated	\$99.38	\$887.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$986.5
- Operations: Inflated	\$99.4	\$904.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,004.3
INDUSTRIAL SPACE GROWTH											
- Growth in Square Metres	45,587	46,271	47,147	47,931	48,807	49,618	50,567	51,443	52,354	53,230	492,955
REVENUE											
- DC Receipts: Inflated	\$103.8	\$107.5	\$111.7	\$115.9	\$120.3	\$124.8	\$129.7	\$134.6	\$139.7	\$144.9	\$1,233.1
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.2	(\$44.8)	(\$41.0)	(\$36.8)	(\$32.1)	(\$26.9)	(\$21.1)	(\$14.7)	(\$7.7)	(\$224.8)
- Interest on In-year Transactions	\$0.1	(\$21.9)	\$2.0	\$2.0	\$2.1	\$2.2	\$2.3	\$2.4	\$2.4	\$2.5	(\$4.0)
TOTAL REVENUE	\$103.9	\$85.7	\$68.9	\$76.9	\$85.7	\$94.9	\$105.1	\$115.9	\$127.5	\$139.8	\$1,004.3
CLOSING CASH BALANCE	\$4.5	(\$814.6)	(\$745.7)	(\$668.8)	(\$583.2)	(\$488.3)	(\$383.1)	(\$267.2)	(\$139.8)	\$0.0	

2016 Adjusted Charge Per Square Metre	\$2.28
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

## **Appendix B.5**

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### **Parks & Recreation**

## Appendix B.5

### Parks & Recreation

The Town of Whitby offers its residents a range of parks and recreation opportunities through various parks, arenas, swimming pools, community centres, health club etc. The Town's Parks and Recreation Department is responsible for the delivery of the service.

**Table 1            2006-2015 Historical Service Levels**

The Town of Whitby offers indoor recreation services to its residents through a number of facilities including community centres, senior activity centres, clubhouses etc. The total square footage of these facilities amounts to approximately 608,400 square feet and these facilities are valued at over \$190.92 million. The buildings occupy 41.1 hectares of land worth \$43.89 million. Indoor recreation services also include various furniture and equipment related to these facilities for a total replacement cost of \$5.05 million.

The Town has roughly 387.69 hectares of parkland and 63.9 kilometres of trails located throughout the community which is valued at \$94.02 million. The Parks and Recreation department is also responsible for park facilities including soccer pitches, artificial turf, playgrounds, splash pads, shade structures, tennis courts, baseball diamonds, courts, stakeboard parks and parking spaces. These facilities have a combined total of \$39.42 million. Park buildings and related furniture and equipment, washrooms, pavilions, other equipment and vehicles are also used to provide park services and add a further \$26.19 million to the Parks and Recreation inventory.

The combined value of capital assets for park development and related facilities is \$399.50 million. The ten-year historical service level is \$3,180.55 per capita, and this, multiplied by the ten-year forecast net population growth, results in a maximum allowable of \$77.20 million (24,270 net population growth X \$3,180.55 per capita). No excess capacity has been calculated and as such no reduction has been made to the maximum allowable funding envelope. Parks and Recreation services must be reduced by ten per cent as required under the DCA. The resulting net maximum allowable funding envelope brought forward to the development charges calculation is reduced to \$69.48 million.

**Table 2            2016 – 2025 Development-Related Capital Program & Calculation of the Unadjusted Development Charge**

The ten-year development-related capital plan for Parks and Recreation amounts to \$100.71 million. The first project related to indoor recreation in the capital program relates to the construction of the Operations Centre Expansion. As the facility is, and will continue to be shared with Operations services, only 45 per cent of the total costs have been identified in the Parks & Recreation capital program. The capital program includes two phases for the expansion of the depot, the first occurring in 2016-2017 for \$2.39 million, and the second in 2020-2021 for \$2.48 million. A parking lot expansion for the Operations Centre is also anticipated to cost \$135,000 in 2017. The program includes projects relating to the development of new and the expansion of existing indoor recreation facilities including the Civic Recreational Complex, expansion of the winter area at the Marina, and the construction of a garbage storage building at the Iroquois Parks Sports Complex. In addition, a number of facilities were identified through the sport facility strategy recommendations which include the design and construction of a new soccer dome, Brooklin Indoor Recreation facility, skate zones, multi-use field development, the repurpose conversion and development of the Luther Vipond Memorial Arena, multi-use field development etc.

With respect to outdoor recreation, the capital program includes various park development, redevelopment and expansion across the Town and within new development areas in West Whitby and along the waterfront. The program also includes for the expansion of the Town's existing park trail system. Finally, the program includes for various parks equipment and vehicles to undertake ground maintenance, horticulture and forestry related services.

The total gross cost of the Parks and Recreation projects amount to \$100.71 million. In total, \$325,000 in anticipated grants have been identified for this service, and as such, have been reduced from the total DC eligible costs. In total, \$5.50 million of the capital program has been identified as ineligible and is not included in the development charge calculation. This consists of \$1.50 million relating to the Whitby Station Gallery Expansion and \$4.00 million for the construction of a new Soccer Dome that will be paid in-full by a private sports club.

The first phase of the Operations Centre expansion will result in the replacement of a portion of the existing space and also expand the current facility. To account for the replacement, a benefit to existing share of \$119,250 is deemed to be non-DC eligible

and removed from the recoverable costs. The proposed program room renovation at the Civic Recreational Complex will result in additional programming capacity. Recognizing that the existing community will benefit from the current space, a benefit to existing share based on population growth of \$562,550, or 84 per cent, has been applied. Benefit to existing and/or replacement shares have also been applied to various parks projects where a park facility, or portion thereof, is proposed to be replaced. In total, \$9.63 million in benefit to existing shares have been removed from the DC eligible costs and will be required to be funded from non-DC sources. After this adjustment, all of the projects in the capital program are reduced by the legislated ten per cent discount which totals \$8.53 million. After netting off the project costs that are ineligible for recovery through development charges, the total DC eligible costs amount to \$76.73 million.

A portion of this cost, \$26.18 million, will be paid for by existing funds in the Parks and Recreation DC reserve fund. After this adjustment, \$50.55 million is considered to be the 2016-2025 development-related DC eligible costs. This entire amount is allocated to the residential sector as Parks and Recreation will benefit the future residential population and is recovered by the forecast of approximately 28,360 persons in new housing units. This yields an unadjusted charge of \$1,782.38 per capita.

### **Table 3      Cash Flow Analysis**

After cash flow and reserve fund consideration, the residential calculated charge increases to \$1,840.58 per capita. This is a reflection of the timing of the capital program and development charges revenues.

The following table summarizes the calculation of the Parks & Recreation development charge:

<b>PARKS &amp; RECREATION SUMMARY</b>								
10-year Hist. Service Level per capita	2016 - 2025		Unadjusted Development Charge			Adjusted Development Charge		
	Development-Related Capital Program		Residential	Retail	Other Non-Res	Residential	Retail	Other Non-Res
	Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/sq.m	\$/capita	\$/sq.m	\$/sq.m
	\$3,180.55	\$100,712,702	\$50,550,217	\$1,782.38	\$0.00	\$0.00	<b>\$1,840.58</b>	<b>\$0.00</b>
							<b>\$0.00</b>	<b>\$0.00</b>

**APPENDIX B.5  
TABLE 1 - PAGE 1**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
INDOOR RECREATION**

MAJOR FACILITIES Facility Name	# of Square Feet										UNIT COST (\$/sq. ft.)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Abilities Centre (Walking Track)	-	-	-	-	-	-	5,319	5,319	5,319	5,319	\$200
Asburn Community Centre	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	1,575	\$446
Brock Street South Activity Centre (1)	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150	\$364
Brooklin Community Centre	5,914	5,914	5,914	5,914	5,914	5,914	5,914	5,914	5,914	5,914	\$320
Brooklin Community Centre & Library (2)	-	-	-	-	29,970	29,970	29,970	29,970	29,970	29,970	\$377
Boat Storage Facility (Portion Used by Marina)	-	-	-	-	1,500	1,500	1,500	1,500	1,500	1,500	\$112
Community Schools	13,005	13,005	13,005	13,005	13,005	13,005	13,005	13,005	13,005	13,005	\$160
Cullen Central Park	18,776	18,776	18,776	18,776	18,776	18,776	18,776	-	-	-	\$234
Cullen Log Cabin	1,524	1,524	1,524	1,524	1,524	1,524	1,524	1,524	1,524	1,524	\$99
Cullen Cabin	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	\$76
Heydenshore Pavillion	7,075	7,075	7,075	7,075	7,075	7,075	7,075	7,075	7,075	7,075	\$326
Iroquois Park Sports Centre (3)	235,260	235,260	235,260	235,260	235,260	244,485	244,485	244,485	244,485	244,485	\$295
Luther Vipond Memorial Arena	29,700	29,700	29,700	29,700	29,700	29,700	29,700	29,700	29,700	29,700	\$254
McKinney Centre Arena	100,640	100,640	100,640	100,640	100,640	100,640	100,640	100,640	100,640	100,640	\$265
Port Whitby Marina Clubhouse (4)	6,050	6,050	6,050	6,050	6,050	6,050	6,050	6,050	6,050	6,050	\$2,326
Spencer Community Centre	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	\$413
Whitby Centennial Building (5)	27,750	27,750	27,750	27,750	27,750	27,750	27,750	27,750	27,750	27,750	\$377
Whitby Civic Recreation Complex	54,925	54,925	54,925	54,925	54,925	54,925	54,925	54,925	54,925	54,925	\$429
Whitby Seniors Activity Centre	17,210	17,210	17,210	17,210	17,210	17,210	17,210	17,210	17,210	17,210	\$340
Whitby Iroquois Soccer Dome	-	-	-	55,725	55,725	55,725	55,725	55,725	55,725	55,725	\$169
Whitby Lawn Bowling Clubhouse	840	840	840	840	840	840	840	840	840	840	\$242
<b>Total (sq.ft.)</b>	<b>525,434</b>	<b>525,434</b>	<b>525,434</b>	<b>581,159</b>	<b>612,629</b>	<b>621,854</b>	<b>627,173</b>	<b>608,397</b>	<b>608,397</b>	<b>608,397</b>	
<b>Total (\$000)</b>	<b>\$170,658.7</b>	<b>\$170,658.7</b>	<b>\$170,658.7</b>	<b>\$180,062.0</b>	<b>\$191,532.2</b>	<b>\$194,253.2</b>	<b>\$195,317.0</b>	<b>\$190,923.4</b>	<b>\$190,923.4</b>	<b>\$190,923.4</b>	

1 Brock Street South Activity Centre was combined with Lynde House Activity Centre in late 2015. Facility will be updated in next DC By-law update.

2 Only includes portion of facility related to Recreation. Total GFA of facility is 41,550 sq.ft.

3 2011 GFA increase of 9,225 sq.ft. relates to increased floor area from expansion.

4 Includes marina site development costs.

5 Total size of facility (30,250 sq.ft.) has been reduced by 2,500 sq.ft. that is attributable to the Theatre and Auditorium (deemed to be Cultural space).

**APPENDIX B.5  
TABLE 1 - PAGE 2**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
INDOOR RECREATION**

LAND Facility Name	# of Hectares										UNIT COST (\$/ha)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Asburn Community Centre	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	\$771,000
Brock Street South Activity Centre	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	\$1,220,700
Brooklin Community Centre	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	\$1,156,500
Brooklin Community Centre & Library (1)	-	-	-	-	1.28	1.28	1.28	1.28	1.28	1.28	\$1,284,900
Brooklin Community Centre & Library - Additional Par	-	-	-	-	0.07	0.07	0.07	0.07	0.07	0.07	\$1,284,900
Community Schools	8.29	8.29	8.29	8.29	8.29	8.29	8.29	8.29	8.29	8.29	\$1,220,700
Heydenshore Pavillion	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	\$642,500
Iroquois Park Sports Centre	8.34	8.34	8.34	8.34	8.34	8.34	8.34	8.34	8.34	8.34	\$1,284,900
Luther Vipond Memorial Arena	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	\$1,220,700
McKinney Centre Arena	2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.95	2.95	\$1,156,500
Port Whitby Marina Clubhouse	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	4.49	\$514,000
Spencer Community Centre	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	\$771,000
Whitby Centennial Building (2)	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.66	\$1,220,700
Whitby Civic Recreation Complex	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	\$1,734,700
Whitby Seniors Activity Centre	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	\$1,220,700
Whitby Iroquois Soccer Dome	-	-	-	9.69	9.69	9.69	9.69	9.69	9.69	9.69	\$771,000
<b>Total (ha)</b>	<b>30.0</b>	<b>30.0</b>	<b>30.0</b>	<b>39.7</b>	<b>41.1</b>	<b>41.1</b>	<b>41.1</b>	<b>41.1</b>	<b>41.1</b>	<b>41.1</b>	
<b>Total (\$000)</b>	<b>\$34,621.2</b>	<b>\$34,621.2</b>	<b>\$34,621.2</b>	<b>\$42,092.2</b>	<b>\$43,826.8</b>	<b>\$43,826.8</b>	<b>\$43,826.8</b>	<b>\$43,826.8</b>	<b>\$43,826.8</b>	<b>\$43,893.4</b>	

1 Only includes portion of land related to Recreation. Total size of site, including additional parking area, is 1.88 ha.

2 Total land (0.66 ha) has been reduced by 0.05 ha attributable to the Theater and Auditorium (deemed to be Cultural space).

APPENDIX B.5  
TABLE 1 - PAGE 3

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
INDOOR RECREATION

FURNITURE & EQUIPMENT Facility Name	Total Value of Furniture & Equipment (\$)									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Asburn Community Centre	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000
Brock Street South Activity Centre	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
Brooklin Community Centre	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000	\$23,000
Brooklin Community Centre & Library	\$0	\$0	\$0	\$0	\$433,000	\$433,000	\$433,000	\$433,000	\$433,000	\$433,000
Heydenshore Pavillion	\$69,000	\$69,000	\$69,000	\$69,000	\$69,000	\$69,000	\$69,000	\$69,000	\$69,000	\$69,000
Iroquois Park Sports Centre	\$1,918,000	\$1,918,000	\$1,918,000	\$1,918,000	\$1,918,000	\$1,993,000	\$1,993,000	\$1,993,000	\$1,993,000	\$1,993,000
Luther Vipond Memorial Arena	\$175,000	\$175,000	\$175,000	\$175,000	\$175,000	\$175,000	\$175,000	\$175,000	\$175,000	\$175,000
McKinney Centre Arena	\$525,000	\$525,000	\$525,000	\$525,000	\$525,000	\$525,000	\$525,000	\$525,000	\$525,000	\$525,000
Port Whitby Marina Clubhouse	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000
Spencer Community Centre	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Whitby Centennial Building	\$267,000	\$267,000	\$267,000	\$267,000	\$267,000	\$267,000	\$267,000	\$267,000	\$267,000	\$267,000
Whitby Civic Recreation Complex	\$965,000	\$965,000	\$965,000	\$965,000	\$965,000	\$965,000	\$965,000	\$965,000	\$965,000	\$965,000
Whitby Seniors Activity Centre	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000
Whitby Iroquois Soccer Dome	\$0	\$0	\$0	\$278,625	\$278,625	\$278,625	\$278,625	\$278,625	\$278,625	\$278,625
Total (\$000)	\$4,261.0	\$4,261.0	\$4,261.0	\$4,539.6	\$4,972.6	\$5,047.6	\$5,047.6	\$5,047.6	\$5,047.6	\$5,047.6



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TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION

PARKLAND DEVELOPMENT

COMMUNITY PARKS Park Name	# of Hectares of Developed Parkland										UNIT COST (\$/ha)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Ashburn Community Centre	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	\$200,000
Brock Street Activity Centre Park	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	\$200,000
Brooklin Community Centre	-	-	-	-	0.75	0.75	0.75	0.75	0.75	0.75	\$200,000
Spencer Community Centre	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	\$200,000
Total (#)	0.5	0.5	0.5	0.5	1.2	1.2	1.2	1.2	1.2	1.2	
Total (\$000)	\$90.5	\$90.5	\$90.5	\$90.5	\$240.2	\$240.2	\$240.2	\$240.2	\$240.2	\$240.2	

**APPENDIX B.5**  
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**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

## PARKLAND DEVELOPMENT

[illegible]

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**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

## PARKLAND DEVELOPMENT

[illegible]

**APPENDIX B.5**  
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**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

## PARKLAND DEVELOPMENT

[illegible]

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**TABLE 1 - PAGE 8**

**TOWN OF WHITBY**  
**INVENTORY OF CAPITAL ASSETS**  
**PARKS & RECREATION**

**PARKLAND DEVELOPMENT**

<b>LOCAL PARKS CONT.</b> <b>Park Name</b>	<b># of Hectares of Developed Parkland</b>										<b>UNIT COST</b>
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>(\$/ha)</b>
Prince of Wales Park	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	\$150,000
Regency Park	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	\$150,000
Robinson Park	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	\$150,000
Ronald C. Deeth Park											\$150,000
Rolling Acres Park	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	\$150,000
Rosedale Park	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	\$150,000
Rotary Centennial Park	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	\$150,000
Selkirk Park	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	\$150,000
St. Thomas Park	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	\$150,000
Tom Edwards Park	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	\$150,000
Vanier Park	-	-	-	-	-	-	-	0.6	0.6	0.6	\$150,000
Vipond Park	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	\$150,000
Whitburn Park	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	\$150,000
Whitby Civic Gardens	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	\$150,000
Willowbrook Park	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	\$150,000
Windsor Bay Park	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	\$150,000
<b>Total (#)</b>	<b>123.6</b>	<b>125.3</b>	<b>125.3</b>	<b>125.3</b>	<b>126.0</b>	<b>126.0</b>	<b>126.0</b>	<b>126.6</b>	<b>126.6</b>	<b>128.6</b>	
<b>Total (\$000)</b>	<b>\$18,545.7</b>	<b>\$18,794.6</b>	<b>\$18,794.6</b>	<b>\$18,794.6</b>	<b>\$18,896.6</b>	<b>\$18,896.6</b>	<b>\$18,896.6</b>	<b>\$18,988.2</b>	<b>\$18,988.2</b>	<b>\$19,291.2</b>	

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**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

## PARKLAND DEVELOPMENT

[illegible]

**APPENDIX B.5**  
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**TOWN OF WHITBY**  
**INVENTORY OF CAPITAL ASSETS**  
**PARKS & RECREATION**

**PARKLAND DEVELOPMENT**

<b>PARKETTES CONT.</b>	<b># of Hectares of Developed Parkland</b>										<b>UNIT COST</b>
<b>Park Name</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>(\$/ha)</b>
Longueuil Place (Longueuil Sqaure)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	\$250,000
Majestic Park	-	-	-	-	-	-	-	0.5	0.5	0.5	\$250,000
Manning Parkette	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	\$250,000
Myrtle Community Park	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	\$250,000
Myrtle Station Parkette	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	\$250,000
Nicole Park	-	-	-	-	-	-	-	-	-	0.6	\$250,000
Pilkington Parkette	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	\$250,000
Robmar Park	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	\$250,000
Rivers Edge Park	-	-	-	-	-	-	0.4	0.4	0.4	0.4	\$250,000
Rotary Sunrise Lake Park	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	\$250,000
Suse Eggert Parkette	-	-	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	\$250,000
Stockton Parkette	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	\$250,000
Sato Parkette	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	\$250,000
Sugar Maple Parkette	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	\$250,000
Valleywood Parkette	-	-	-	0.3	0.3	0.3	0.3	0.3	0.3	0.3	\$250,000
Teddington Park	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	\$250,000
Wallace Parkette	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	\$250,000
Watson Park	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	\$250,000
Wyndfield Parkette	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	\$250,000
<b>Total (#)</b>	<b>14.7</b>	<b>15.2</b>	<b>15.8</b>	<b>16.0</b>	<b>16.0</b>	<b>16.0</b>	<b>16.4</b>	<b>17.1</b>	<b>17.1</b>	<b>17.8</b>	
<b>Total (\$000)</b>	<b>\$3,237.5</b>	<b>\$3,331.4</b>	<b>\$3,481.1</b>	<b>\$3,555.0</b>	<b>\$3,555.0</b>	<b>\$3,555.0</b>	<b>\$3,644.0</b>	<b>\$3,817.2</b>	<b>\$3,817.2</b>	<b>\$3,970.0</b>	

APPENDIX B.5  
TABLE 1 - PAGE 11

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION

PARKLAND DEVELOPMENT

TOWN PARKS Park Name	# of Hectares of Developed Parkland										UNIT COST
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	(\$/ha)
Cullen Central Park	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	\$250,000
Iroquois Park	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	\$250,000
Whitby Harbour Town Park (1)	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	\$250,000
Total (#)	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	
Total (\$000)	\$22,705.9	\$22,705.9	\$22,705.9	\$22,705.9	\$22,705.9	\$22,705.9	\$22,705.9	\$22,705.9	\$22,705.9	\$22,705.9	

1 Includes Victoria Fields and Gordon Street



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**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

**PARKLAND DEVELOPMENT**

<b>PARK TRAILS Park Name</b>	<b># of Km of Developed Parkland</b>										<b>UNIT COST (\$/km)</b>
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	
Ash Creek Channel Trail	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	\$159,000
Bio-Diversity Trail	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	\$159,000
Brooklin Lions Trail	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	\$159,000
Forest Heights Trail	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	\$159,000
Holiday Drive Trail	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	\$159,000
Hydro Corridor Trail	2.06	2.06	2.06	2.06	2.06	2.06	2.06	3.18	3.18	3.22	\$159,000
Lynde Creek Trail	-	-	-	-	-	-	-	1.70	1.70	1.70	\$159,000
Lynde Creek Valley Trail	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	\$159,000
Manning Bassett Trail	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	\$159,000
Nichol Park Trail	-	-	-	-	-	-	-	-	-	0.32	\$159,000
Oshawa Creek Trail	-	-	-	0.90	1.58	1.58	1.58	1.58	1.58	1.58	\$159,000
Otter Creek Trail	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	\$159,000
Pipeline Trail	0.72	0.72	0.72	0.72	0.72	0.72	0.72	1.49	1.49	1.49	\$159,000
Pringle Creek Trail	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	\$159,000
Scott Trail	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	1.73	\$159,000
St. Thomas Trail	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.66	0.66	\$159,000
Waterfront Trail	7.04	7.04	7.11	7.11	7.11	7.31	7.31	7.31	7.31	7.31	\$254,000
Park Walkways	28.56	29.41	30.64	32.46	34.04	36.46	36.57	37.03	37.98	38.93	\$159,000
<b>Total (#)</b>	<b>47.6</b>	<b>48.5</b>	<b>49.8</b>	<b>52.5</b>	<b>54.7</b>	<b>57.4</b>	<b>57.5</b>	<b>61.5</b>	<b>62.6</b>	<b>63.9</b>	
<b>Total (\$000)</b>	<b>\$8,238.8</b>	<b>\$8,373.9</b>	<b>\$8,587.3</b>	<b>\$9,019.8</b>	<b>\$9,379.1</b>	<b>\$9,814.7</b>	<b>\$9,832.2</b>	<b>\$10,476.1</b>	<b>\$10,643.1</b>	<b>\$10,851.4</b>	

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TABLE 1 - PAGE 13**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

**PARK FACILITIES**

<b>SENIOR SOCCER FIELDS</b> <b>Park Name</b>	<b># of Facilities</b>										<b>UNIT COST (\$/unit)</b>
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	
<b>Senior Artificial Turf</b>											
Rossland Soccer Complex	-	-	-	-	-	-	-	-	1	1	\$1,100,000
<b>Senior</b>											
Annes Park	1	1	1	1	1	1	1	1	1	1	\$128,030
Baycliffe Park	-	1	1	1	1	1	1	1	1	1	\$174,590
Brooklin Optimist Park	1	1	1	1	1	1	1	1	1	1	\$128,030
Carnwith Park	-	2	2	2	2	2	2	2	2	2	\$174,590
Consumers Soccer Fields	2	2	2	2	2	2	2	2	2	2	\$174,590
Darren Park	-	-	-	1	1	1	1	1	1	1	\$174,590
Forest Heights Park	2	2	2	2	2	2	2	2	2	2	\$128,030
Guthrie Park	1	1	1	1	1	1	1	1	1	1	\$128,030
Huron Park	1	1	1	1	1	1	1	1	1	1	\$128,030
Iroquois Park	1	1	1	1	1	1	1	1	1	1	\$174,590
Jack Wilson Park	2	2	2	2	2	2	2	2	2	2	\$128,030
Jeffery Park	2	2	2	2	2	2	2	2	2	2	\$128,030
Medland Park	1	1	1	1	1	1	1	1	1	1	\$128,030
Palmerston Park	1	1	1	1	1	1	1	1	1	1	\$128,030
Peel Park	-	-	-	-	1	1	1	1	1	1	\$174,590
Pringle Creek Park	1	1	1	1	1	1	1	1	1	1	\$128,030
Rossland Road Soccer Complex	3	3	3	3	3	3	3	3	3	3	\$128,030
Victoria St Soccer Fields	2	2	2	2	2	2	2	2	2	2	\$128,030
<b>Total (#)</b>	<b>21</b>	<b>24</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>27</b>	<b>27</b>	
<b>Total (\$000)</b>	<b>\$2,828.3</b>	<b>\$3,352.1</b>	<b>\$3,352.1</b>	<b>\$3,526.7</b>	<b>\$3,701.3</b>	<b>\$3,701.3</b>	<b>\$3,701.3</b>	<b>\$3,701.3</b>	<b>\$4,801.3</b>	<b>\$4,801.3</b>	

**APPENDIX B.5  
TABLE 1 - PAGE 14**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

**PARK FACILITIES**

<b>JUNIOR SOCCER FIELDS</b>	<b># of Facilities</b>										<b>UNIT COST (\$/unit)</b>
<b>Park Name</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	
<b>Junior</b>											
Cullen Central Park	-	-	1	1	1	1	1	1	1	1	\$104,750
Divine Park	1	1	1	1	1	1	1	1	1	1	\$104,750
Guthrie Park	1	1	1	1	1	1	1	1	1	1	\$104,750
Lady May Park	1	1	1	1	1	1	1	1	1	1	\$104,750
Lupin Park	1	1	1	1	1	1	1	1	1	1	\$104,750
Portage Park	1	1	1	1	1	1	1	1	1	1	\$104,750
Selkirk Park	1	1	1	1	1	1	1	1	1	1	\$104,750
Whitby Optimist Park	1	1	1	1	1	1	1	1	1	1	\$104,750
Victoria St Soccer Fields	1	1	1	1	1	1	1	1	1	1	\$104,750
<b>Mini</b>											
Fallingbrook Park	3	3	3	3	3	3	3	3	3	3	\$48,880
Prince of Wales Park	2	2	2	2	2	2	2	2	2	2	\$48,880
Rolling Acres Park	2	2	2	2	2	2	2	2	2	2	\$48,880
Victoria St Soccer Fields	8	8	8	8	8	8	8	8	8	8	\$48,880
Willow Park	-	-	-	-	-	-	-	-	3	3	\$48,880
<b>Practice Fields</b>											
Victoria St Soccer Fields	2	2	2	2	2	2	2	2	2	2	\$104,750
<b>Total (#)</b>	<b>25</b>	<b>25</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>29</b>	<b>29</b>	
<b>Total (\$000)</b>	<b>\$1,780.7</b>	<b>\$1,780.7</b>	<b>\$1,885.5</b>	<b>\$1,885.5</b>	<b>\$1,885.5</b>	<b>\$1,885.5</b>	<b>\$1,885.5</b>	<b>\$1,885.5</b>	<b>\$2,032.1</b>	<b>\$2,032.1</b>	

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TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION

PARK FACILITIES

PARKETTE PLAYGROUNDS	# of Playgrounds										UNIT COST (\$/unit)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Ashburn Community Centre	1	1	1	1	1	1	1	1	1	1	\$101,260
Birch Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Calais Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Cathedral Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Davies Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Elmer Lick Park	-	-	-	-	-	-	-	-	-	1	\$101,260
Ennisclare Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Glen Hill Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Greenfield Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Harold Park	-	1	1	1	1	1	1	1	1	1	\$101,260
Heard Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Hobbs Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Iona Park	-	1	1	1	1	1	1	1	1	1	\$101,260
Lynde House Museum	1	1	1	1	1	1	1	1	1	1	\$101,260
Majestic Park	-	-	-	-	-	-	-	1	1	1	\$101,260
Myrtle Station Park	1	1	1	1	1	1	1	1	1	1	\$101,260
River's Edge Parkette	-	-	-	-	-	-	1	1	1	1	\$101,260
Sato Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Spencer Community Centre	1	1	1	1	1	1	1	1	1	1	\$101,260
Stockton Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Teddington Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Wallace Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Wyndfield Park	1	1	1	1	1	1	1	1	1	1	\$101,260
Total (#)	18	20	20	20	20	20	21	22	22	23	
Total (\$000)	\$1,822.7	\$2,025.2	\$2,025.2	\$2,025.2	\$2,025.2	\$2,025.2	\$2,126.5	\$2,227.7	\$2,227.7	\$2,329.0	

**APPENDIX B.5**  
**TABLE 1 - PAGE 16**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

## PARK FACILITIES

[illegible]

APPENDIX B.5  
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TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION

PARK FACILITIES

LOCAL PARK PLAYGROUNDS CONT Park Name	# of Playgrounds										UNIT COST (\$/unit)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Myrtle Community Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Nichol Park	-	-	-	-	-	-	-	-	-	1	\$140,830
Norista Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Oceanpearl Park	-	-	-	-	1	1	1	1	1	1	\$140,830
Otter Creek Park	1	1	1	1	1	1	1	1	1	1	\$140,830
PhillipsKozaroff Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Pinecone Park	-	-	-	-	-	-	-	-	-	1	\$140,830
Powell Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Prince of Wales Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Robinson Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Robmar Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Rolling Acres Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Rosedale Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Rotary Centennial Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Selkirk Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Tom Edwards Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Vipond Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Watson Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Whitburn Park	-	-	-	-	-	-	-	1	1	1	\$140,830
Whitby Kinsmen Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Willowbrook Park	1	1	1	1	1	1	1	1	1	1	\$140,830
Iroquois Park	-	-	-	-	1	1	1	1	1	1	\$140,830
Vanier Park	-	-	-	-	-	-	-	1	1	1	\$140,830
Total (#)	37	39	39	39	41	41	41	44	44	47	
Total (\$000)	\$5,210.7	\$5,492.4	\$5,492.4	\$5,492.4	\$5,774.0	\$5,774.0	\$5,774.0	\$6,196.5	\$6,196.5	\$6,619.0	



**APPENDIX B.5**  
**TABLE 1 - PAGE 19**

**TOWN OF WHITBY**  
**INVENTORY OF CAPITAL ASSETS**  
**PARKS & RECREATION**

**PARK FACILITIES**

<b>SPLASH PADS</b>	<b># of Facilities</b>										<b>UNIT COST</b>
<b>Park Name</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>(\$/unit)</b>
Baycliffe Park	-	1	1	1	1	1	1	1	1	1	\$226,961
Cachet Park	1	1	1	1	1	1	1	1	1	1	\$226,961
Carnwith Park	-	1	1	1	1	1	1	1	1	1	\$226,961
Country Lane Park	1	1	1	1	1	1	1	1	1	1	\$226,961
Darren Park	-	-	-	1	1	1	1	1	1	1	\$226,961
Folkstone Park	-	1	1	1	1	1	1	1	1	1	\$226,961
Norista Park	1	1	1	1	1	1	1	1	1	1	\$226,961
Peel Park	-	-	-	-	1	1	1	1	1	1	\$226,961
Portage Park	1	1	1	1	1	1	1	1	1	1	\$226,961
Vanier Park	-	-	-	-	-	-	-	1	1	1	\$226,961
Willow Park	1	1	1	1	1	1	1	1	1	1	\$226,961
Kiwanis Heydenshore Park	1	1	1	1	1	1	1	1	1	1	\$226,961
Kinsmen Park	1	1	1	1	1	1	1	1	1	1	\$226,961
Rotary Centennial Park	1	1	1	1	1	1	1	1	1	1	\$226,961
Watson Park	1	1	1	1	1	1	1	1	1	1	\$226,961
<b>Total (#)</b>	<b>9</b>	<b>12</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>15</b>	<b>15</b>	<b>15</b>	
<b>Total (\$000)</b>	<b>\$2,042.6</b>	<b>\$2,723.5</b>	<b>\$2,723.5</b>	<b>\$2,950.5</b>	<b>\$3,177.5</b>	<b>\$3,177.5</b>	<b>\$3,177.5</b>	<b>\$3,404.4</b>	<b>\$3,404.4</b>	<b>\$3,404.4</b>	



## PARK FACILITIES

[illegible]

APPENDIX B.5  
TABLE 1 - PAGE 21

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION

PARK FACILITIES

SHADE STRUCTURES CONT.	# of Facilities										UNIT COST
Park Name	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	(\$/unit)
Picnic Shelter											
Brooklin Kinsmen Park	1	1	1	1	1	1	1	1	1	1	\$57,470
Kiwanis Heydenshore Park	2	2	2	2	2	2	2	2	2	2	\$57,470
Phillips Kozaroff Park	1	1	1	1	1	1	1	1	1	1	\$57,470
Port Whitby Marina	4	4	4	4	4	4	4	4	4	4	\$57,470
Cullen Central Park	-	-	-	-	1	1	1	1	1	1	\$57,470
Total (#)	23	26	26	27	30	30	30	31	31	33	
Total (\$000)	\$2,008.1	\$2,224.6	\$2,224.6	\$2,304.8	\$2,401.8	\$2,401.8	\$2,401.8	\$2,482.0	\$2,482.0	\$2,764.6	

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TABLE 1 - PAGE 22

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION

PARK FACILITIES

TENNIS COURTS Park Name	# of Courts										UNIT COST (\$/unit)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Brooklin Memorial Park	2	2	2	2	2	2	2	2	2	2	\$50,600
Central Park	2	2	2	2	2	2	2	2	2	2	\$50,600
D'Hillier Park	-	-	-	-	-	-	-	2	2	2	\$50,600
Folkstone Park	-	2	2	2	2	2	2	2	2	2	\$68,100
Huron Park	2	2	2	2	2	2	2	2	2	2	\$50,600
Iroquois Park	-	-	-	-	6	6	6	6	6	6	\$68,100
Kelloryn Park	3	3	3	3	3	3	3	3	3	3	\$50,600
Lupin Park	2	2	2	2	2	2	2	2	2	2	\$50,600
Palmerston Park	2	2	2	2	2	2	2	2	2	2	\$50,600
Peel Park	-	-	-	-	3	3	3	3	3	3	\$68,100
Willow Park	-	-	-	-	-	-	2	2	2	2	\$50,600
Total (#)	13	15	15	15	24	24	26	28	28	28	
Total (\$000)	\$657.8	\$794.0	\$794.0	\$794.0	\$1,406.9	\$1,406.9	\$1,508.1	\$1,609.3	\$1,609.3	\$1,609.3	

**APPENDIX B.5**  
**TABLE 1 - PAGE 23**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

## PARK FACILITIES

[illegible]

APPENDIX B.5  
TABLE 1 - PAGE 24

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION

PARK FACILITIES

BASEBALL DIAMONDS CONT. Park Name	# of Diamonds										UNIT COST (\$/unit)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Minor Softball											
Ash Park	1	1	1	1	1	1	1	1	1	1	\$111,000
Ashburn Park	1	1	1	1	1	1	1	1	1	1	\$111,000
Brooklin Memorial Park	1	1	1	1	1	1	1	1	1	1	\$111,000
Brooklin Optimist Park	1	1	1	1	1	1	1	1	1	1	\$111,000
Cachet Park	-	-	-	-	1	1	1	1	1	1	\$111,000
Carson Park	1	1	1	1	1	1	1	1	1	1	\$111,000
Country Lane Park	2	2	2	2	2	2	2	2	2	2	\$157,000
Iroquois Park	1	1	1	1	1	1	1	2	2	2	\$157,000
Kelloryn Park	2	2	2	2	2	2	2	2	2	2	\$157,000
Kinross Park	1	1	1	1	1	1	1	1	1	1	\$111,000
Kirby Park	1	1	1	1	1	1	1	1	1	1	\$111,000
Palmerston Park	1	1	1	1	1	1	1	1	1	1	\$111,000
Peel Park	-	-	-	-	3	3	3	3	3	3	\$111,000
Rosedale Park	1	1	1	1	1	1	1	1	1	1	\$111,000
Tom Edwards Park	1	1	1	1	1	1	1	1	1	1	\$111,000
Whitburn Park	1	1	1	1	1	1	1	1	1	1	\$111,000
Willowbrook Park	1	1	1	1	1	1	1	1	1	1	\$111,000
Total (#)	28	28	28	28	32	32	32	34	34	34	
Total (\$000)	\$4,849.0	\$4,849.0	\$4,849.0	\$4,849.0	\$5,293.0	\$5,293.0	\$5,293.0	\$5,736.0	\$5,736.0	\$5,736.0	

**APPENDIX B.5**  
**TABLE 1 - PAGE 25**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

## PARK FACILITIES

[illegible]

**APPENDIX B.5  
TABLE 1 - PAGE 26**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

**PARK FACILITIES**

<b>COURTS CONT. Park Name</b>	<b># of Fields</b>										<b>UNIT COST (\$/unit)</b>
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	
<b>Basketball Full Court</b>											
Annes Park	1	1	1	1	1	1	1	1	1	1	\$46,560
Ashburn Park	1	1	1	1	1	1	1	1	1	1	\$46,560
Cachet Park	1	1	1	1	1	1	1	1	1	1	\$46,560
Carnwith Park	-	1	1	1	1	1	1	1	1	1	\$46,560
Country Lane Park	1	1	1	1	1	1	1	1	1	1	\$46,560
Folkstone Park	-	1	1	1	1	1	1	1	1	1	\$46,560
Norista Park	1	1	1	1	1	1	1	1	1	1	\$46,560
Phillips -Kozaroff Park	1	1	1	1	1	1	1	1	1	1	\$46,560
Whitburn Park	1	1	1	1	1	1	1	1	1	1	\$46,560
<b>Bocce Courts</b>											
Cullen Central Park	-	-	-	-	-	-	1	1	1	1	\$139,670
<b>Horseshoe Pits</b>											
Whitby Kinsmen Park	1	1	1	1	1	1	1	1	1	1	\$4,070
<b>Lacrosse Boxes</b>											
Peel Park	-	-	-	-	2	2	2	2	2	2	\$194,953
Willow Park	-	-	-	-	2	2	2	2	2	2	\$194,953
<b>Total (#)</b>	<b>25</b>	<b>29</b>	<b>29</b>	<b>30</b>	<b>35</b>	<b>35</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>37</b>	
<b>Total (\$000)</b>	<b>\$853.8</b>	<b>\$1,121.5</b>	<b>\$1,121.5</b>	<b>\$1,168.0</b>	<b>\$1,994.4</b>	<b>\$1,994.4</b>	<b>\$2,134.1</b>	<b>\$2,134.1</b>	<b>\$2,134.1</b>	<b>\$2,157.4</b>	

**APPENDIX B.5**  
**TABLE 1 - PAGE 27**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

## PARK FACILITIES

[illegible]



**APPENDIX B.5**  
**TABLE 1 - PAGE 28**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

## PARK FACILITIES

[illegible]

APPENDIX B.5  
TABLE 1 - PAGE 29

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION

PARK FACILITIES

PARKING CONTINUED Park Name	# of Spaces										UNIT COST (\$/unit)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Parkette											
Front/Brock Street	10	10	10	10	10	10	10	10	10	10	\$640
Rotary Sunrise Lake Park	12	12	12	12	12	12	12	12	12	12	\$1,050
Watson Park	4	4	4	4	4	4	4	4	4	4	\$1,050
Town											
Iroquois Park	213	213	213	213	213	213	213	213	213	213	\$1,050
Cullen Central Park	224	225	226	227	228	229	230	231	232	233	\$1,050
Whitby Harbour Town Park	398	398	398	398	398	398	398	398	398	398	\$1,050
Total (#)	2,005	2,069	2,071	2,115	2,117	2,119	2,121	2,123	2,125	2,127	
Total (\$000)	\$2,069.6	\$2,129.8	\$2,131.9	\$2,178.1	\$2,180.2	\$2,182.3	\$2,184.4	\$2,186.5	\$2,188.6	\$2,190.7	

## PARK BUILDINGS & EQUIPMENT

[illegible]

**APPENDIX B.5**  
**TABLE 1 - PAGE 31**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

## PARK BUILDINGS & EQUIPMENT

[illegible]

## PARK BUILDINGS & EQUIPMENT

[illegible]

**APPENDIX B.5  
TABLE 1 - PAGE 33**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

**PARK BUILDINGS & EQUIPMENT**

<b>WASHROOM FACILITIES CONT. Description</b>	<b># of Facilities</b>										<b>UNIT COST (\$/facility)</b>
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	
<b>Portable Toilets - Standard</b>											
Annes Park	1	1	1	1	1	1	1	1	1	1	\$420
Ashburn Park	1	1	1	1	1	1	1	1	1	1	\$420
Brooklin Optimist Park	1	1	1	1	1	1	1	1	1	1	\$420
Carnwith Park	-	-	2	2	2	2	2	2	2	2	\$420
Consumers Soccer Fields	2	2	2	2	2	2	2	2	2	2	\$420
Country Lane Park	1	1	1	1	1	1	1	1	1	1	\$420
D'Hillier Park	1	1	1	1	1	1	1	1	1	1	\$420
Fallingbrook Park	-	-	-	-	-	-	-	1	1	1	\$420
Forest Heights Park	1	1	1	1	1	1	1	1	1	1	\$420
Guthrie Park	1	1	1	1	1	1	1	1	1	1	\$420
Jack Wilson Park	1	1	1	1	1	1	1	1	1	1	\$420
Jeffery Park	1	1	1	1	1	1	1	1	1	1	\$420
Kelloryn Park	2	2	2	2	2	2	2	2	2	2	\$420
Kinross Park	1	1	1	1	1	1	1	1	1	1	\$420
Kirby Park	1	1	1	1	1	1	1	1	1	1	\$420
Lupin Park	1	1	1	1	1	1	1	1	1	1	\$420
Palmerston Park	1	1	1	1	1	1	1	1	1	1	\$420
Prince of Wales Park	-	-	-	1	1	1	1	1	1	1	\$420
Rolling Acres Park	1	1	1	1	1	1	1	1	1	1	\$420
Rotary Sunrise Lake Park	-	-	-	-	-	1	1	1	1	1	\$420
Victoria St Soccer Fields	4	4	4	4	4	4	4	4	4	4	\$420
Whitby Optimist Park	1	1	1	1	1	1	1	1	1	1	\$420
<b>Total (#)</b>	<b>33</b>	<b>34</b>	<b>36</b>	<b>38</b>	<b>40</b>	<b>43</b>	<b>44</b>	<b>46</b>	<b>46</b>	<b>46</b>	
<b>Total (\$000)</b>	<b>\$1,210.7</b>	<b>\$1,211.5</b>	<b>\$1,212.4</b>	<b>\$1,213.6</b>	<b>\$1,811.8</b>	<b>\$1,813.7</b>	<b>\$2,112.8</b>	<b>\$2,114.0</b>	<b>\$2,114.0</b>	<b>\$2,114.0</b>	

**APPENDIX B.5**  
**TABLE 1 - PAGE 34**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION**

## PARK BUILDINGS & EQUIPMENT

[illegible]

APPENDIX B.5  
TABLE 1 - PAGE 35

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION

PARK BUILDINGS & EQUIPMENT

EQUIPMENT CONTINUED Description	# of Units										UNIT COST
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	(\$/unit)
HORT - Turf Trailer	1	1	1	1	1	1	1	1	1	1	\$25,000
HORT - Small Trailer	1	1	1	1	1	1	1	1	1	1	\$5,000
HORT - Ball Diamond Groomer	1	1	1	1	1	1	1	1	1	1	\$10,000
HORT - Tractor	4	4	4	4	4	4	4	4	4	4	\$40,000
HORT - Overseeder	1	1	1	1	1	1	1	1	1	1	\$14,000
HORT - Radial Arc Sprayer	1	1	1	1	1	1	1	1	1	1	\$16,000
HORT - Wide Cut Mower	1	1	1	1	1	1	1	1	1	1	\$93,000
PKSG - Trailer	5	5	5	5	5	5	5	5	5	5	\$15,000
PKSG - Alamo Mott Mower	1	1	1	1	1	1	1	1	1	1	\$10,000
PKSG - Front Mount Mower	7	7	7	7	7	7	7	7	7	7	\$30,000
PKSG - Kut Kwick Mower	1	1	1	1	1	1	1	1	1	1	\$30,000
PKSG - Walk Behind Mower	3	3	3	3	3	3	3	3	3	3	\$6,000
PKSG - Wide Cut Mower	5	5	5	5	5	5	5	5	5	5	\$60,000
PKSG - Wide Cut Mower 16"	2	2	2	2	2	2	2	2	2	2	\$91,000
PKSG - Highway Sander	2	2	2	2	2	2	2	2	2	2	\$10,000
PKSG - Case Loader	1	1	1	1	1	1	1	1	1	1	\$125,000
PKSM - Case Loader	1	1	1	1	1	1	1	1	1	1	\$98,000
PKSM - Sand Cleaner	1	1	1	1	1	1	1	1	1	1	\$15,000
PKSM - Playground Rake	1	1	1	1	1	1	1	1	1	1	\$20,000
PKSM - Trailer	3	3	3	3	3	3	3	4	4	4	\$10,000
PKSM - Utility Trailer										1	\$18,000
PKSM - Utility	1	1	1	1	1	1	1	1	1	1	\$15,000
PKSM - Lift Truck										1	\$26,000
PARKS - Combined Small Equipment	1	1	1	1	1	1	1	1	1	1	\$26,000
Total (#)	78	78	78	78	78	78	78	79	80	83	
Total (\$000)	\$3,508.2	\$3,508.2	\$3,508.2	\$3,508.2	\$3,508.2	\$3,508.2	\$3,508.2	\$3,518.2	\$3,539.2	\$3,608.2	



APPENDIX B.5  
TABLE 1 - PAGE 36

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
  
PARK BUILDINGS & EQUIPMENT

VEHICLES Description	# of Units										UNIT COST
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	(\$/unit)
FACI - 1/2 Ton Truck	2	2	2	2	2	2	2	2	2	2	\$32,000
MECH - Van	2	3	3	3	3	3	3	3	3	3	\$32,000
MECH - 3/4 Ton Truck	-	-	-	-	-	-	-	1	1	1	\$32,000
FORE - 1/2 Ton Truck	1	1	1	1	1	1	1	1	1	1	\$32,000
FORE - 3/4 Truck	2	2	2	2	2	2	2	2	2	2	\$50,000
FORE - Chipper Truck	2	2	2	2	2	2	2	2	2	2	\$120,000
FORE - Dump Truck with Crane	1	1	1	1	1	1	1	1	1	1	\$130,000
FORE - Bucket Truck	1	1	1	1	1	1	1	1	1	1	\$140,000
FORE - 2 Ton Truck with Manlift	-	-	-	-	-	-	-	-	-	1	\$115,000
HORT - 1/2 Ton Truck	2	2	2	2	2	2	2	2	2	2	\$32,000
HORT - 3/4 Ton Truck	2	2	2	2	2	2	3	3	3	3	\$50,000
HORT - 1 Ton Truck	1	1	1	1	1	1	1	1	1	1	\$75,000
HORT - 2 Ton Truck	2	2	2	2	2	2	2	2	2	2	\$50,000
PKSG - 1/2 Ton Truck	2	2	2	2	2	2	2	2	2	2	\$32,000
PKSG - 4X4 Truck with Plow	1	1	1	1	1	1	1	1	1	1	\$50,000
PKSG - Dump Truck	1	1	1	1	1	1	1	1	1	1	\$98,000
PKSM - 1/2 Ton Truck	1	1	1	1	1	1	1	1	1	1	\$32,000
PKSM - 3/4 Ton Truck with Plow	1	1	1	1	1	1	1	1	1	1	\$50,000
PKSM - 1 Ton Truck	1	1	1	1	1	1	1	1	1	1	\$70,000
PKSM - 2 Ton Dump Truck with Crane	1	1	1	1	1	1	1	1	1	1	\$80,000
PKSM - 2 Ton Garbage Truck/Litter Loader	2	2	2	2	2	2	2	2	2	2	\$160,000
PKSM - Utility Truck	2	2	2	2	2	2	2	2	2	2	\$60,000
WSAC - Van	1	1	1	1	1	1	1	1	1	1	\$95,000
Total (#)	31	32	32	32	32	32	33	34	34	35	
Total (\$000)	\$2,088.0	\$2,120.0	\$2,120.0	\$2,120.0	\$2,120.0	\$2,120.0	\$2,170.0	\$2,202.0	\$2,202.0	\$2,317.0	

APPENDIX B.5  
TABLE 1 - PAGE 37

TOWN OF WHITBY  
CALCULATION OF SERVICE LEVELS  
PARKS & RECREATION

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Historic Population	111,184	113,272	115,399	117,566	119,774	122,022	123,267	124,525	125,796	127,080

INVENTORY SUMMARY (\$000)

Indoor Recreation	\$209,541.0	\$209,541.0	\$209,541.0	\$226,693.9	\$240,331.7	\$243,127.6	\$244,191.4	\$239,797.8	\$239,797.8	\$239,864.4
Parkland	\$86,861.6	\$89,358.9	\$89,722.0	\$91,124.7	\$91,735.7	\$92,171.3	\$92,277.8	\$93,186.7	\$93,353.6	\$94,017.7
Park Facilities	\$27,889.8	\$31,354.5	\$31,461.4	\$32,494.4	\$35,618.6	\$35,620.7	\$35,965.0	\$37,342.1	\$38,590.8	\$39,422.6
Park Buildings & Equipment	\$24,962.2	\$24,995.0	\$24,995.8	\$24,997.0	\$25,595.2	\$25,597.2	\$25,946.3	\$25,989.5	\$26,010.5	\$26,194.5
Total (\$000)	\$349,254.5	\$355,249.4	\$355,720.2	\$375,310.0	\$393,281.3	\$396,516.9	\$398,380.5	\$396,316.1	\$397,752.8	\$399,499.2

SERVICE LEVEL (\$/capita)

Service  
Level

Indoor Recreation	\$1,884.63	\$1,849.89	\$1,815.80	\$1,928.23	\$2,006.54	\$1,992.49	\$1,981.00	\$1,925.70	\$1,906.24	\$1,887.51	\$1,917.80
Parkland	\$781.24	\$788.89	\$777.49	\$775.09	\$765.91	\$755.37	\$748.60	\$748.34	\$742.10	\$739.83	\$762.29
Park Facilities	\$250.84	\$276.81	\$272.63	\$276.39	\$297.38	\$291.92	\$291.76	\$299.88	\$306.77	\$310.22	\$287.46
Park Buildings & Equipment	\$224.51	\$220.66	\$216.60	\$212.62	\$213.70	\$209.78	\$210.49	\$208.71	\$206.77	\$206.13	\$213.00
Total (\$/capita)	\$3,141.23	\$3,136.25	\$3,082.52	\$3,192.33	\$3,283.53	\$3,249.55	\$3,231.85	\$3,182.62	\$3,161.89	\$3,143.68	\$3,180.55

TOWN OF WHITBY  
CALCULATION OF MAXIMUM ALLOWABLE  
PARKS & RECREATION

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2006 - 2015	\$3,180.55
Net Population Growth 2016 - 2025	24,274
Maximum Allowable Funding Envelope	\$77,204,671
Less: Uncommitted Excess Capacity	\$0
Less: 10% Legislated Reduction	\$7,720,467
Discounted Maximum Allowable Funding Envelope	\$69,484,204

Excess Capacity Calculation	
Total Value of Inventory in 2015	\$399,499,238
Inventory Using Average Service Level	\$404,184,294
Excess Capacity	\$0
Excess Capacity	Uncommitted

APPENDIX B.5  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
PARKS & RECREATION

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Eligible DC Service	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016-2025	Post 2025
5.0 PARKS & RECREATION												
Indoor Recreation: Shared Facilities												
30140601 Operations Centre Expansion Phase 1 - Design Development	2016 - 2016	\$ 135,000	\$ -	\$ 135,000	Y	\$ -	\$ 6,750	\$ 12,825	\$ 115,425	\$ 115,425	\$ -	\$ -
30140601 Operations Centre Expansion Phase 1 - Construction and F&E	2017 - 2017	\$ 2,250,000	\$ -	\$ 2,250,000	Y	\$ -	\$ 112,500	\$ 213,750	\$ 1,923,750	\$ 1,923,750	\$ -	\$ -
30130601 Operations Centre - Parking Lot Expansion	2017 - 2017	\$ 135,000	\$ -	\$ 135,000	Y	\$ -	\$ -	\$ 13,500	\$ 121,500	\$ 121,500	\$ -	\$ -
30180601 Operations Centre Expansion Phase 2 - Design Development	2020 - 2020	\$ 225,000	\$ -	\$ 225,000	Y	\$ -	\$ -	\$ 22,500	\$ 202,500	\$ 202,500	\$ -	\$ -
30180601 Operations Centre Expansion Phase 2 - Construction and F&E	2021 - 2021	\$ 2,250,000	\$ -	\$ 2,250,000	Y	\$ -	\$ -	\$ 225,000	\$ 2,025,000	\$ -	\$ 2,025,000	\$ -
15210601 Whitby Station Gallery - Expansion	2024 - 2024	\$ 1,500,000	\$ -	\$ 1,500,000	N	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Indoor Recreation: Shared Facilities		\$ 6,495,000	\$ -	\$ 6,495,000		\$ 1,500,000	\$ 119,250	\$ 487,575	\$ 4,388,175	\$ 2,363,175	\$ 2,025,000	\$ -
Indoor Recreation: New & Expanded Facilities												
71173402 Civic Recreational Complex - Public Lobby Space Furniture (Additional)	2017 - 2017	\$ 8,000	\$ -	\$ 8,000	Y	\$ -	\$ -	\$ 800	\$ 7,200	\$ 7,200	\$ -	\$ -
71142503 Civic Recreational Complex - Family Changeroom (S) - Design Development	2017 - 2017	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ -	\$ 10,000	\$ 90,000	\$ 90,000	\$ -	\$ -
74173701 Marina Expansion of Winter Storage Area	2017 - 2017	\$ 30,000	\$ -	\$ 30,000	Y	\$ -	\$ -	\$ 3,000	\$ 27,000	\$ 27,000	\$ -	\$ -
71142503 Civic Recreational Complex - Family Changeroom (S) - Construction and F&E	2018 - 2018	\$ 1,200,000	\$ -	\$ 1,200,000	Y	\$ -	\$ -	\$ 120,000	\$ 1,080,000	\$ 1,080,000	\$ -	\$ -
72130601 Civic Recreational Complex - Program Room Renovation - Design Development	2019 - 2019	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 41,981	\$ 802	\$ 7,217	\$ 7,217	\$ -	\$ -
72130601 Civic Recreational Complex - Program Room Renovation - Construction and F&E	2020 - 2020	\$ 620,000	\$ -	\$ 620,000	Y	\$ -	\$ 520,565	\$ 9,944	\$ 89,492	\$ 89,492	\$ -	\$ -
71143504 Iroquois Park Sports Complex - Garage and Garbage Storage Building Construction	2021 - 2021	\$ 350,000	\$ -	\$ 350,000	Y	\$ -	\$ -	\$ 35,000	\$ 315,000	\$ -	\$ 315,000	\$ -
Subtotal Indoor Recreation: New & Expanded Facilities		\$ 2,358,000	\$ -	\$ 2,358,000		\$ -	\$ 562,546	\$ 179,545	\$ 1,615,909	\$ 1,300,909	\$ 315,000	\$ -

APPENDIX B.5  
TABLE 2  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
PARKS & RECREATION

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Eligible DC Service	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016- 2025	Post 2025
Indoor Recreation: Sports Facility Strategy Recommendations												
71163502 Soccer Dome (in Partnership) - Phase I	2016 - 2016	\$ 1,400,000	\$ -	\$ 1,400,000	N	\$ 1,400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
71163502 Soccer Dome (in Partnership) - Phase II	2017 - 2017	\$ 2,600,000	\$ -	\$ 2,600,000	N	\$ 2,600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
71120601 Brooklin Town Park - Indoor Recreation Facility - Design Development	2017 - 2017	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ 10,000	\$ 19,000	\$ 171,000	\$ 171,000	\$ -	\$ -
70175501 Skate Zones	2017 - 2017	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ -	\$ 7,500	\$ 67,500	\$ 67,500	\$ -	\$ -
71120601 Brooklin Town Park - Indoor Recreation Facility - Design Development	2018 - 2018	\$ 3,600,000	\$ -	\$ 3,600,000	Y	\$ -	\$ 180,000	\$ 342,000	\$ 3,078,000	\$ 3,078,000	\$ -	\$ -
71120601 Brooklin Town Park - Indoor Recreation Facility - Land Aquisition	2018 - 2018	\$ 2,500,000	\$ -	\$ 2,500,000	Y	\$ -	\$ 125,000	\$ 237,500	\$ 2,137,500	\$ 2,137,500	\$ -	\$ -
70091602 Brooklin Memorial Park - Design	2019 - 2019	\$ 462,500	\$ -	\$ 462,500	Y	\$ -	\$ 300,625	\$ 16,188	\$ 145,688	\$ 145,688	\$ -	\$ -
71120601 Brooklin Town Park - Indoor Recreation Facility - Construction and F&E	2020 - 2020	\$ 23,900,000	\$ -	\$ 23,900,000	Y	\$ -	\$ 1,195,000	\$ 2,270,500	\$ 20,434,500	\$ 6,825,566	\$ 13,608,934	\$ -
70091602 Brooklin Memorial Park - Construction and F&E	2020 - 2020	\$ 2,351,000	\$ -	\$ 2,351,000	Y	\$ -	\$ 1,528,150	\$ 82,285	\$ 740,565	\$ -	\$ 740,565	\$ -
70141601 Soccer Field Relocation - Design Development	2020 - 2020	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -
71120601 Brooklin Town Park - Indoor Recreation Facility - Construction and F&E	2021 - 2021	\$ 18,100,000	\$ -	\$ 18,100,000	Y	\$ -	\$ -	\$ 1,810,000	\$ 16,290,000	\$ -	\$ 16,290,000	\$ -
70175501 Skate Zones	2021 - 2021	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ -	\$ 7,500	\$ 67,500	\$ -	\$ 67,500	\$ -
70215501 Multi-Use Field Development	2021 - 2021	\$ 600,000	\$ -	\$ 600,000	Y	\$ -	\$ -	\$ 60,000	\$ 540,000	\$ -	\$ 540,000	\$ -
70141601 Soccer Field Relocation - Construction	2022 - 2022	\$ 3,500,000	\$ -	\$ 3,500,000	Y	\$ -	\$ 3,500,000	\$ -	\$ -	\$ -	\$ -	\$ -
71227901 Luther Vipond Memorial Arena - Repurpose Conversion / Development	2022 - 2022	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ 250,000	\$ 25,000	\$ 225,000	\$ -	\$ 225,000	\$ -
70175501 Skate Zones	2025 - 2025	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ -	\$ 7,500	\$ 67,500	\$ -	\$ 67,500	\$ -
Subtotal Indoor Recreation: Sports Facility Strategy Recommendations		\$ 60,438,500	\$ -	\$ 60,438,500		\$ 4,000,000	\$ 7,588,775	\$ 4,884,973	\$ 43,964,753	\$ 12,425,253	\$ 31,539,499	\$ -

APPENDIX B.5  
TABLE 2  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
PARKS & RECREATION

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Eligible DC Service	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016-2025	Post 2025
Indoor Recreation: Equipment												
71173301 Walk Behind Floor Scrubber	2016 - 2016	\$ 8,000	\$ -	\$ 8,000	Y	\$ -	\$ -	\$ 800	\$ 7,200	\$ 7,200	\$ -	\$ -
Subtotal Indoor Recreation: Equipment		\$ 8,000	\$ -	\$ 8,000		\$ -	\$ -	\$ 800	\$ 7,200	\$ 7,200	\$ -	\$ -
Outdoor Recreation: Park Development - New												
70071608 Minthollow Parkette	2016 - 2016	\$ 230,000	\$ -	\$ 230,000	Y	\$ -	\$ -	\$ 23,000	\$ 207,000	\$ 207,000	\$ -	\$ -
70091601 Upperview Park – Design and Construction	2017 - 2017	\$ 280,000	\$ -	\$ 280,000	Y	\$ -	\$ -	\$ 28,000	\$ 252,000	\$ 252,000	\$ -	\$ -
70175101 Vanier Park (Phase 2)	2017 - 2017	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ -	\$ 5,000	\$ 45,000	\$ 45,000	\$ -	\$ -
70121602 Leash Free Park Areas	2020 - 2020	\$ 180,000	\$ -	\$ 180,000	Y	\$ -	\$ -	\$ 18,000	\$ 162,000	\$ -	\$ 162,000	\$ -
70101602 Brooklin - Future District Park Development	2023 - 2023	\$ 1,830,000	\$ -	\$ 1,830,000	Y	\$ -	\$ -	\$ 183,000	\$ 1,647,000	\$ -	\$ 1,647,000	\$ -
70245103 Brooklin - Future Local Park Development	2024 - 2024	\$ 530,000	\$ -	\$ 530,000	Y	\$ -	\$ -	\$ 53,000	\$ 477,000	\$ -	\$ 477,000	\$ -
Subtotal Outdoor Recreation: Park Development - New		\$ 3,100,000	\$ -	\$ 3,100,000		\$ -	\$ -	\$ 310,000	\$ 2,790,000	\$ 504,000	\$ 2,286,000	\$ -
Outdoor Recreation: Parks Growth Related Redevelopment / Expansion												
70141501 Cullen Park Redevelopment (Bocce and Pickleball)	2016 - 2016	\$ 332,000	\$ -	\$ 332,000	Y	\$ -	\$ -	\$ 33,200	\$ 298,800	\$ 298,800	\$ -	\$ -
70131504 Dundas West Splashpad (Jeffrey Park)	2016 - 2016	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ -	\$ 15,000	\$ 135,000	\$ 135,000	\$ -	\$ -
70165402 IPSC Ball Diamonds Shade Structures	2016 - 2016	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ 20,991	\$ 401	\$ 3,608	\$ 3,608	\$ -	\$ -
70175303 Jeffery Park Playground Redevelopment	2016 - 2016	\$ 210,000	\$ -	\$ 210,000	Y	\$ -	\$ 210,000	\$ -	\$ -	\$ -	\$ -	\$ -
70111505 Kelloryn Park - Redevelopment	2016 - 2016	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
70165401 Willow Park Shade Structure	2016 - 2016	\$ 35,000	\$ -	\$ 35,000	Y	\$ -	\$ 29,387	\$ 561	\$ 5,052	\$ 5,052	\$ -	\$ -
70121504 Country Lane Tennis Courts	2017 - 2017	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ -	\$ 20,000	\$ 180,000	\$ 180,000	\$ -	\$ -
70175303 Jeffery Park Playground Redevelopment	2017 - 2017	\$ 360,000	\$ -	\$ 360,000	Y	\$ -	\$ 210,000	\$ 15,000	\$ 135,000	\$ 135,000	\$ -	\$ -
70111505 Kelloryn Park - Redevelopment	2017 - 2017	\$ 182,000	\$ -	\$ 182,000	Y	\$ -	\$ 182,000	\$ -	\$ -	\$ -	\$ -	\$ -
70161502 Prince of Wales - Soccer or Baseball Field Addition	2018 - 2018	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ -	\$ 50,000	\$ 450,000	\$ 450,000	\$ -	\$ -
70071505 Whitby Optimist Park - Soccer Field Addition	2018 - 2018	\$ 225,000	\$ -	\$ 225,000	Y	\$ -	\$ -	\$ 22,500	\$ 202,500	\$ 202,500	\$ -	\$ -
70215201 Cullen Park Redevelopment (Phase 2)	2021 - 2021	\$ 1,350,000	\$ -	\$ 1,350,000	Y	\$ -	\$ -	\$ 135,000	\$ 1,215,000	\$ -	\$ 1,215,000	\$ -
Subtotal Outdoor Recreation: Parks Growth Related Redevelopment / Expansion		\$ 3,669,000	\$ -	\$ 3,669,000		\$ -	\$ 752,378	\$ 291,662	\$ 2,624,960	\$ 1,409,960	\$ 1,215,000	\$ -

APPENDIX B.5  
TABLE 2

TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
PARKS & RECREATION

Project Description		Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
						Eligible DC Service	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016-2025	Post 2025
Outdoor Recreation: Waterfront Park Development													
70227904	Pump House Design	2016 - 2016	\$ 80,000	\$ -	\$ 80,000	Y	\$ -	\$ -	\$ 8,000	\$ 72,000	\$ 72,000	\$ -	\$ -
70121503	Lion's Promenade - Parking Lot Expansion	2017 - 2017	\$ 162,000	\$ -	\$ 162,000	Y	\$ -	\$ -	\$ 16,200	\$ 145,800	\$ 145,800	\$ -	\$ -
70151505	Pump House Waterfront Facility	2017 - 2017	\$ 997,000	\$ -	\$ 997,000	Y	\$ -	\$ -	\$ 99,700	\$ 897,300	\$ 897,300	\$ -	\$ -
70181501	Waterfront Lighting	2018 - 2018	\$ 369,000	\$ -	\$ 369,000	Y	\$ -	\$ -	\$ 36,900	\$ 332,100	\$ 332,100	\$ -	\$ -
70151503	Heydenshore Redevelopment	2019 - 2019	\$ 326,000	\$ -	\$ 326,000	Y	\$ -	\$ -	\$ 32,600	\$ 293,400	\$ 293,400	\$ -	\$ -
70121502	Thickson/Water Street Park - Parking Lot	2019 - 2019	\$ 147,600	\$ -	\$ 147,600	Y	\$ -	\$ -	\$ 14,760	\$ 132,840	\$ 132,840	\$ -	\$ -
70161501	Victoria Fields Urban Park - Design Development	2020 - 2020	\$ 85,000	\$ -	\$ 85,000	Y	\$ -	\$ -	\$ 8,500	\$ 76,500	\$ -	\$ 76,500	\$ -
70181501	Waterfront Lighting	2020 - 2020	\$ 369,000	\$ -	\$ 369,000	Y	\$ -	\$ -	\$ 36,900	\$ 332,100	\$ -	\$ 332,100	\$ -
70161501	Victoria Fields Urban Park - Construction	2021 - 2021	\$ 7,761,000	\$ -	\$ 7,761,000	Y	\$ -	\$ -	\$ 776,100	\$ 6,984,900	\$ -	\$ 6,984,900	\$ -
70131501	Waterfront Master Plan Capital Improvements	2017 - 2023	\$ 875,000	\$ -	\$ 875,000	Y	\$ -	\$ -	\$ 87,500	\$ 787,500	\$ -	\$ 787,500	\$ -
Subtotal Outdoor Recreation: Waterfront Park Development			\$ 11,171,600	\$ -	\$ 11,171,600		\$ -	\$ -	\$ 1,117,160	\$ 10,054,440	\$ 1,873,440	\$ 8,181,000	\$ -
Outdoor Recreation: West Whitby Area - New Park Development													
70185101	Heathwood - District Park	2018 - 2018	\$ 1,830,000	\$ -	\$ 1,830,000	Y	\$ -	\$ -	\$ 183,000	\$ 1,647,000	\$ 1,647,000	\$ -	\$ -
70215101	Monarch - District Park	2019 - 2019	\$ 1,830,000	\$ -	\$ 1,830,000	Y	\$ -	\$ -	\$ 183,000	\$ 1,647,000	\$ 1,647,000	\$ -	\$ -
70205101	Lazy Dolphin - Local Park	2020 - 2020	\$ 530,000	\$ -	\$ 530,000	Y	\$ -	\$ -	\$ 53,000	\$ 477,000	\$ -	\$ 477,000	\$ -
70235101	TFP Whitby - District Park	2020 - 2020	\$ 1,830,000	\$ -	\$ 1,830,000	Y	\$ -	\$ -	\$ 183,000	\$ 1,647,000	\$ -	\$ 1,647,000	\$ -
70215102	Chelseahill - Local Park	2021 - 2021	\$ 530,000	\$ -	\$ 530,000	Y	\$ -	\$ -	\$ 53,000	\$ 477,000	\$ -	\$ 477,000	\$ -
Subtotal Outdoor Recreation: West Whitby Area - New Park Development			\$ 6,550,000	\$ -	\$ 6,550,000		\$ -	\$ -	\$ 655,000	\$ 5,895,000	\$ 3,294,000	\$ 2,601,000	\$ -

APPENDIX B.5  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
PARKS & RECREATION

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Eligible DC Service	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016-2025	Post 2025
Parks Trail System - Expansion												
70071614 HEPC NS Trail Crawford St to Manning R	2016 - 2016	\$ 183,250	\$ -	\$ 183,250	Y	\$ -	\$ 18,325	\$ 16,493	\$ 148,433	\$ 148,433	\$ -	\$ -
70141602 HEPC Trail (Glen Dhu to Will. Stephenson Dr.)	2016 - 2016	\$ 67,700	\$ -	\$ 67,700	Y	\$ -	\$ 6,770	\$ 6,093	\$ 54,837	\$ 54,837	\$ -	\$ -
70168301 HEPC Trail – Lofthouse South to Existing Paved Area	2016 - 2016	\$ 81,802	\$ -	\$ 81,802	Y	\$ -	\$ 8,180	\$ 7,362	\$ 66,260	\$ 66,260	\$ -	\$ -
70071517 Cullen Central Park Trail Connections	2017 - 2017	\$ 190,800	\$ -	\$ 190,800	Y	\$ -	\$ 95,400	\$ 9,540	\$ 85,860	\$ 85,860	\$ -	\$ -
70178302 Cullen to Heber Down (East Field Route) w/ Bridge	2017 - 2017	\$ 285,000	\$ -	\$ 285,000	Y	\$ -	\$ 28,500	\$ 25,650	\$ 230,850	\$ 230,850	\$ -	\$ -
70201602 HEPC Trail (Ashburn to St.Thomas)	2017 - 2017	\$ 321,600	\$ -	\$ 321,600	Y	\$ -	\$ 32,160	\$ 28,944	\$ 260,496	\$ 260,496	\$ -	\$ -
70178304 HEPC Trail (Heber Down to Spencers)	2017 - 2017	\$ 210,000	\$ 131,000	\$ 79,000	Y	\$ -	\$ 7,900	\$ 7,110	\$ 63,990	\$ 63,990	\$ -	\$ -
70178303 Heber Down to HEPC	2017 - 2017	\$ 187,000	\$ 85,000	\$ 102,000	Y	\$ -	\$ 10,200	\$ 9,180	\$ 82,620	\$ 82,620	\$ -	\$ -
70071523 Lynde Trail Cullen Heber Down	2017 - 2017	\$ 242,500	\$ 109,000	\$ 133,500	Y	\$ -	\$ 13,350	\$ 12,015	\$ 108,135	\$ 108,135	\$ -	\$ -
70132608 Rest Stop / Bench / Litter	2017 - 2017	\$ 70,000	\$ -	\$ 70,000	Y	\$ -	\$ 7,000	\$ 6,300	\$ 56,700	\$ 56,700	\$ -	\$ -
70132607 Trailhead Signs	2017 - 2017	\$ 70,000	\$ -	\$ 70,000	Y	\$ -	\$ 7,000	\$ 6,300	\$ 56,700	\$ 56,700	\$ -	\$ -
70061601 Brooklin Lions - Pathway Construction	2018 - 2018	\$ 95,500	\$ -	\$ 95,500	Y	\$ -	\$ 9,550	\$ 8,595	\$ 77,355	\$ 77,355	\$ -	\$ -
70161601 HEPC Trail (Dundas to Nichol)	2018 - 2018	\$ 71,600	\$ -	\$ 71,600	Y	\$ -	\$ 7,160	\$ 6,444	\$ 57,996	\$ 57,996	\$ -	\$ -
70188302 Heber Down to Country Lane	2018 - 2018	\$ 85,700	\$ -	\$ 85,700	Y	\$ -	\$ 8,570	\$ 7,713	\$ 69,417	\$ 69,417	\$ -	\$ -
70188303 Lynde Creek Trail (Burns St W to Michael Blvd Opening)	2018 - 2018	\$ 112,000	\$ -	\$ 112,000	Y	\$ -	\$ 11,200	\$ 10,080	\$ 90,720	\$ 90,720	\$ -	\$ -
70132604 Lynde Creek Trail (Henry to Brock)	2018 - 2018	\$ 90,000	\$ -	\$ 90,000	Y	\$ -	\$ 9,000	\$ 8,100	\$ 72,900	\$ 72,900	\$ -	\$ -
70188301 Lynde Creek Trail (Twin Streams to Rossland)	2018 - 2018	\$ 222,300	\$ -	\$ 222,300	Y	\$ -	\$ 22,230	\$ 20,007	\$ 180,063	\$ 180,063	\$ -	\$ -
70101504 McClintock Trail	2018 - 2018	\$ 138,700	\$ -	\$ 138,700	Y	\$ -	\$ 13,870	\$ 12,483	\$ 112,347	\$ 112,347	\$ -	\$ -
70162602 Pringle Creek Open Space (Bradley Dr to Pringle Creek Pk)	2018 - 2018	\$ 78,000	\$ -	\$ 78,000	Y	\$ -	\$ 7,800	\$ 7,020	\$ 63,180	\$ 63,180	\$ -	\$ -
70162601 Pringle Creek Open Space (Wyndfield Pk to Garden)	2018 - 2018	\$ 92,600	\$ -	\$ 92,600	Y	\$ -	\$ 9,260	\$ 8,334	\$ 75,006	\$ 75,006	\$ -	\$ -
70198301 Lynde Creek Trail (Bonacord to Dundas)	2019 - 2019	\$ 190,900	\$ -	\$ 190,900	Y	\$ -	\$ 19,090	\$ 17,181	\$ 154,629	\$ 154,629	\$ -	\$ -
70198302 Lynde Creek Trail (Rossland to Bonacord)	2019 - 2019	\$ 157,100	\$ -	\$ 157,100	Y	\$ -	\$ 15,710	\$ 14,139	\$ 127,251	\$ 127,251	\$ -	\$ -
70208302 Country Lane to Coronation	2020 - 2020	\$ 153,300	\$ -	\$ 153,300	Y	\$ -	\$ 15,330	\$ 13,797	\$ 124,173	\$ -	\$ 124,173	\$ -
70142602 HEPC Crawford to Dundas	2020 - 2020	\$ 49,800	\$ -	\$ 49,800	Y	\$ -	\$ 4,980	\$ 4,482	\$ 40,338	\$ -	\$ 40,338	\$ -
70171601 HEPC Trail (Longwood Park to Thicksen)	2020 - 2020	\$ 119,500	\$ -	\$ 119,500	Y	\$ -	\$ 11,950	\$ 10,755	\$ 96,795	\$ -	\$ 96,795	\$ -
70208301 Lynde Creek Trail (Taunton to Twin Streams)	2020 - 2020	\$ 140,100	\$ -	\$ 140,100	Y	\$ -	\$ 14,010	\$ 12,609	\$ 113,481	\$ -	\$ 113,481	\$ -
70132607 Trailhead Signs	2021 - 2021	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ 2,500	\$ 2,250	\$ 20,250	\$ -	\$ 20,250	\$ -
70212602 Deverell Park to Thicksen Road	2022 - 2022	\$ 107,300	\$ -	\$ 107,300	Y	\$ -	\$ 10,730	\$ 9,657	\$ 86,913	\$ -	\$ 86,913	\$ -
70071201 Manning Trail Land Acquisition	2022 - 2022	\$ 64,000	\$ -	\$ 64,000	Y	\$ -	\$ 6,400	\$ 5,760	\$ 51,840	\$ -	\$ 51,840	\$ -
70172601 Manning Trail Open Space (Bassett Pk to Anderson)	2022 - 2022	\$ 115,000	\$ -	\$ 115,000	Y	\$ -	\$ 11,500	\$ 10,350	\$ 93,150	\$ -	\$ 93,150	\$ -
70201601 Hannam Trail (Solmar Ave. to Brooklin)	2023 - 2023	\$ 507,800	\$ -	\$ 507,800	Y	\$ -	\$ 50,780	\$ 45,702	\$ 411,318	\$ -	\$ 411,318	\$ -
Subtotal Parks Trail System - Expansion		\$ 4,525,852	\$ 325,000	\$ 4,200,852		\$ -	\$ 496,405	\$ 370,445	\$ 3,334,002	\$ 2,295,744	\$ 1,038,258	\$ -

APPENDIX B.5  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
PARKS & RECREATION

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Eligible DC Service	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016- 2025	Post 2025
<b>Waterfront Trail Development</b>												
70178301 Waterfront Trail - Gordon to South Blair	2017 - 2017	\$ 504,000	\$ -	\$ 504,000	Y	\$ -	\$ 50,400	\$ 45,360	\$ 408,240	\$ 408,240	\$ -	\$ -
70228301 Waterfront Trail - South Blair to Thickson	2022 - 2022	\$ 301,000	\$ -	\$ 301,000	Y	\$ -	\$ 30,100	\$ 27,090	\$ 243,810	\$ -	\$ 243,810	\$ -
70238301 Waterfront Trail - Thickson to Boundary Road	2023 - 2023	\$ 270,000	\$ -	\$ 270,000	Y	\$ -	\$ 27,000	\$ 24,300	\$ 218,700	\$ -	\$ 218,700	\$ -
Subtotal Waterfront Trail Development		\$ 1,075,000	\$ -	\$ 1,075,000		\$ -	\$ 107,500	\$ 96,750	\$ 870,750	\$ 408,240	\$ 462,510	\$ -
<b>Parks Operations Equipment - Additional</b>												
30210401 Horticulture - Water Trailer	2017 - 2017	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ -	\$ 2,500	\$ 22,500	\$ 22,500	\$ -	\$ -
30130407 Horticulture - Wide Front Mount Mower	2018 - 2018	\$ 107,000	\$ -	\$ 107,000	Y	\$ -	\$ -	\$ 10,700	\$ 96,300	\$ 96,300	\$ -	\$ -
30200406 Parks Grounds Maintenance - Front Mount Mower	2018 - 2018	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ -	\$ 2,500	\$ 22,500	\$ 22,500	\$ -	\$ -
30200403 Parks Grounds Maintenance- Maintenance Trailer	2018 - 2018	\$ 14,000	\$ -	\$ 14,000	Y	\$ -	\$ -	\$ 1,400	\$ 12,600	\$ 12,600	\$ -	\$ -
30200405 Parks Grounds Maintenance - Wide Cut Mower	2018 - 2018	\$ 58,250	\$ -	\$ 58,250	Y	\$ -	\$ -	\$ 5,825	\$ 52,425	\$ 52,425	\$ -	\$ -
30180403 Parks Grounds Maintenance- Wide Front Mount Mower	2019 - 2019	\$ 107,000	\$ -	\$ 107,000	Y	\$ -	\$ -	\$ 10,700	\$ 96,300	\$ 96,300	\$ -	\$ -
30200404 Forestry - Chipper	2022 - 2022	\$ 40,000	\$ -	\$ 40,000	Y	\$ -	\$ -	\$ 4,000	\$ 36,000	\$ -	\$ 36,000	\$ -
30221806 Parks Grounds Maintenance - Wide Front Mount Mower	2022 - 2022	\$ 107,000	\$ -	\$ 107,000	Y	\$ -	\$ -	\$ 10,700	\$ 96,300	\$ -	\$ 96,300	\$ -
30180404 Parks General Maintenance - Front End Loader	2022 - 2022	\$ 97,500	\$ -	\$ 97,500	Y	\$ -	\$ -	\$ 9,750	\$ 87,750	\$ -	\$ 87,750	\$ -
30150402 Parks General Maintenance - Shoulder Box	2022 - 2022	\$ 95,000	\$ -	\$ 95,000	Y	\$ -	\$ -	\$ 9,500	\$ 85,500	\$ -	\$ 85,500	\$ -
30231809 Horticulture - Water Trailer	2023 - 2023	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ -	\$ 2,500	\$ 22,500	\$ -	\$ 22,500	\$ -
30231810 Horticulture - Wide Front Mount Mower	2023 - 2023	\$ 107,000	\$ -	\$ 107,000	Y	\$ -	\$ -	\$ 10,700	\$ 96,300	\$ -	\$ 96,300	\$ -
Subtotal Parks Operations Equipment - Additional		\$ 807,750	\$ -	\$ 807,750		\$ -	\$ -	\$ 80,775	\$ 726,975	\$ 302,625	\$ 424,350	\$ -



APPENDIX B.5  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
PARKS & RECREATION

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Eligible DC Service	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016- 2025	Post 2025
Parks Operations Vehicles - Additional												
30160906 Parks General Maintenance - 1 Ton Truck	2020 - 2020	\$ 42,000	\$ -	\$ 42,000	Y	\$ -	\$ -	\$ 4,200	\$ 37,800	\$ -	\$ 37,800	\$ -
30150906 Parks General Maintenance - Garbage Truck	2020 - 2020	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ -	\$ 15,000	\$ 135,000	\$ -	\$ 135,000	\$ -
30190905 Horticulture - 2 Ton Dump Truck	2021 - 2021	\$ 70,000	\$ -	\$ 70,000	Y	\$ -	\$ -	\$ 7,000	\$ 63,000	\$ -	\$ 63,000	\$ -
30160905 Horticulture - 3/4 Ton Truck and Plow	2021 - 2021	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ -	\$ 5,000	\$ 45,000	\$ -	\$ 45,000	\$ -
30210902 Forestry - 1 Ton Truck	2022 - 2022	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ -	\$ 5,000	\$ 45,000	\$ -	\$ 45,000	\$ -
30200905 Forestry - Chipper Truck	2022 - 2022	\$ 120,000	\$ -	\$ 120,000	Y	\$ -	\$ -	\$ 12,000	\$ 108,000	\$ -	\$ 108,000	\$ -
30210903 Parks General Maintenance - 1/2 Ton Truck	2022 - 2022	\$ 32,000	\$ -	\$ 32,000	Y	\$ -	\$ -	\$ 3,200	\$ 28,800	\$ -	\$ 28,800	\$ -
Subtotal Parks Operations Vehicles - Additional		\$ 514,000	\$ -	\$ 514,000		\$ -	\$ -	\$ 51,400	\$ 462,600	\$ -	\$ 462,600	\$ -
TOTAL PARKS & RECREATION		\$ 100,712,702	\$ 325,000	\$ 100,387,702		\$ 5,500,000	\$ 9,626,854	\$ 8,526,085	\$ 76,734,763	\$ 26,184,546	\$ 50,550,217	\$ -

Residential Development Charge Calculation		
Residential Share of 2016 - 2025 DC Eligible Costs	100.0%	\$50,550,217
10-Year Growth in Population in New Units		28,361
Unadjusted Development Charge Per Capita		\$1,782.38
Non-Residential Development Charge Calculation		
Retail Commercial		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	0.0%	\$0
10-Year Growth in Square Metres		60,071
Unadjusted Development Charge Per Square Metre		\$0.00
Other Non-Residential		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	0.0%	\$0
10-Year Growth in Square Metres		492,955
Unadjusted Development Charge Per Square Metre		\$0.00

2016 - 2025 Net Funding Envelope	\$69,484,204
Reserve Fund Balance	
Balance as at December 31, 2015	\$26,184,546

APPENDIX B.5  
TABLE 3

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
PARKS & RECREATION  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

PARKS & RECREATION	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.00	\$2,365.72	\$4,765.68	\$9,239.93	\$15,504.52	\$3,126.84	(\$21,757.01)	(\$17,312.01)	(\$13,801.06)	(\$7,460.43)	
2016 - 2025 RESIDENTIAL FUNDING REQUIREMENTS											
- Parks & Recreation: Non Inflated	\$0.00	\$112.5	\$112.5	\$112.5	\$17,704.2	\$28,155.2	\$1,300.6	\$2,508.3	\$477.0	\$67.5	\$50,550.2
- Parks & Recreation: Inflated	\$0.0	\$114.8	\$117.0	\$119.4	\$19,163.6	\$31,085.6	\$1,464.6	\$2,881.3	\$558.9	\$80.7	\$55,585.8
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,263	1,274	2,272	3,051	3,307	3,327	3,382	3,437	3,495	3,553	28,361
REVENUE											
- DC Receipts: Inflated	\$2,325.0	\$2,392.1	\$4,350.4	\$5,958.4	\$6,589.0	\$6,761.2	\$7,009.3	\$7,267.6	\$7,536.5	\$7,816.1	\$58,005.5
INTEREST											
- Interest on Opening Balance	\$0.0	\$82.8	\$166.8	\$323.4	\$542.7	\$109.4	(\$1,196.6)	(\$952.2)	(\$759.1)	(\$410.3)	(\$2,093.1)
- Interest on In-year Transactions	\$40.7	\$39.9	\$74.1	\$102.2	(\$345.8)	(\$668.9)	\$97.0	\$76.8	\$122.1	\$135.4	(\$326.6)
TOTAL REVENUE	\$2,365.7	\$2,514.7	\$4,591.3	\$6,384.0	\$6,785.9	\$6,201.7	\$5,909.6	\$6,392.2	\$6,899.5	\$7,541.1	\$55,585.8
CLOSING CASH BALANCE	\$2,365.7	\$4,765.7	\$9,239.9	\$15,504.5	\$3,126.8	(\$21,757.0)	(\$17,312.0)	(\$13,801.1)	(\$7,460.4)	\$0.0	

2016 Adjusted Charge Per Capita \$1,840.58

Allocation of Capital Program

Residential Sector 100.0%  
Non-Residential Sector 0.0%

Rates for 2016

Inflation Rate: 2.0%  
Interest Rate on Positive Balances 3.5%  
Interest Rate on Negative Balances 5.5%

## **Appendix B.6**

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### **Libraries**

## Appendix B.6

### Libraries

The Town of Whitby operates Libraries from three branches and is responsible for the associated buildings, collection material and land. Library Services provides a wide-range of resources in a variety of formats as well as a number of programs to Town residents.

**Table 1            2006-2015 Historical Service Levels**

Table 1 displays Libraries ten-year historical inventory for buildings and land. The building space for the branches amount to 67,340 square feet and is valued at \$31.94 million. Of the total, 63,200 square feet of space at the Central Library, 11,440 square feet relates to the recovery of an outstanding debenture and has been removed from the historical funding envelope calculation. The library buildings occupy 1.30 hectares of land worth \$2.90 million. Of the total land area relating to library facilities, 0.13 relates to the outstanding debenture for the Central Library and has been removed from the historical service level. A large number of collection items including books, CD's, DVDs, E-Books, games, magazines, achieved material etc. are included in the library inventory and amount to \$10.41 million. There is also approximately \$3.20 million in furniture and equipment related to the library facilities.

The 2015 full replacement value of the inventory of capital assets for Libraries amounts to \$48.45 million and the ten-year historical average service level is \$377.62 per capita. The historical service level multiplied by the ten-year forecast of net population growth results in a ten-year maximum allowable funding envelope of \$9.17 million (24,270 net population growth X historical service level of \$377.62/capita).

Uncommitted excess capacity is identified in the amount of \$77,980 and is netted out of the maximum allowable funding envelope. Library Services must also be reduced by ten per cent as required under the DCA. The ten per cent legislated reduction totals \$908,840 and has been deducted from the funding envelope calculation. After adjustments, the resulting net maximum allowable funding envelope brought forward to the development charges calculation is reduced to \$8.18 million.

**Table 2            2016 – 2025 Development-Related Capital Program & Calculation of the Unadjusted Development Charge**

The ten-year development-related capital plan for Libraries is comprised of the recovery of a reserve fund deficit in the amount of \$381,300. The program also includes for the recovery of the remaining principle payments for the Central Library Branch which totals \$5.63 million over the 2016-2024 period. In addition, \$30,000 has been identified for the conversion of a mobile kiosk to create additional floor space in 2017 and a makerspace conversion in 2018 for a cost of \$100,000. Both projects relate to the Central Library Branch. The relocation and expansion of the Rossland Branch for a cost of \$4.60 million in 2021 is also included in the capital program. In total, \$1.15 million has been identified as a replacement share relating to the relocation of the facility and is removed from the capital program. Finally, \$2.00 million in library collection materials is identified over the 2018-2025 period.

Since the capital costs of Library Services must be reduced by ten per cent as per the requirements of the Development Charges Act, \$1.12 million is deemed an ineligible cost and this amount must be paid by the Town through revenues other than development charges.

Of the \$10.47 million DC eligible costs, \$8.18 million of the costs are eligible for recovery under the new DC by-law as this recovery is limited to the ten-year historical service level limitations as discussed in the previous section. The remaining DC eligible costs, \$2.29 million, either relates to development beyond 2025 or represents a future service level increase, and will be considered for recovery in subsequent development charges by-laws.

The 2016–2025 DC costs eligible for recovery amount to \$8.18 million which is allocated entirely against future residential development in the Town of Whitby. This results in an unadjusted development charge of \$288.41 per capita.

**Table 3            Cash Flow Analysis**

After cash flow and reserve fund considerations, the residential calculated charge increases to \$326.25 per capita.

The following table summarizes the calculation of the Libraries development charge:

LIBRARIES SUMMARY								
10-year Hist. Service Level per pop & emp	2016 - 2025		Unadjusted Development Charge			Adjusted Development Charge		
	Development-Related Capital Program		Residential	Retail	Other Non-Res	Residential	Retail	Other Non-Res
	Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/sq.m	\$/capita	\$/sq.m	\$/sq.m
\$377.62	\$12,738,213	\$8,179,533	\$288.41	\$0.00	\$0.00	\$326.25	\$0.00	\$0.00

APPENDIX B.6  
TABLE 1 - PAGE 1

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS

LIBRARIES

BUILDINGS Facility Name	# of Square Feet										UNIT COST (\$/sq.ft.)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Brooklin	2,955	2,955	2,955	4,170	-	-	-	-	-	-	\$291
Brooklin Community Centre & Library (1)	-	-	-	-	11,580	11,580	11,580	11,580	11,580	11,580	\$461
Central (Main) Library	63,200	63,200	63,200	63,200	63,200	63,200	63,200	63,200	63,200	63,200	\$492
<i>Central (Main) Library Committed Excess Capacity</i>	<i>(11,437)</i>	<i>(11,437)</i>	<i>(11,437)</i>	<i>(11,437)</i>	<i>(11,437)</i>	<i>(11,437)</i>	<i>(11,437)</i>	<i>(11,437)</i>	<i>(11,437)</i>	<i>(11,437)</i>	\$492
Rossland	3,993	3,993	3,993	3,993	3,993	3,993	3,993	3,993	3,993	3,993	\$291
Total (#)	58,711	58,711	58,711	59,926	67,336	67,336	67,336	67,336	67,336	67,336	
Total (\$000)	\$27,467.4	\$27,467.4	\$27,467.4	\$27,821.0	\$31,941.1	\$31,941.1	\$31,941.1	\$31,941.1	\$31,941.1	\$31,941.1	

1 Only includes portion of facility related to Recreation. Total GFA of facility is 41,550 sq.ft.

LAND Facility Name	# of Hectares										UNIT COST (\$/ha)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Brooklin	1.19	1.19	1.19	0.50	-	-	-	-	-	-	\$1,284,948
Brooklin Community Centre & Library (2)	-	-	-	-	0.50	0.50	0.50	0.50	0.50	0.50	\$1,284,900
Brooklin Community Centre & Library - Additional Parking (2)	-	-	-	-	0.03	0.03	0.03	0.03	0.03	0.03	\$1,284,900
Central (Main) Library	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	\$3,212,400
<i>Central (Main) Library Committed Excess Capacity</i>	<i>(0.13)</i>	<i>(0.13)</i>	<i>(0.13)</i>	<i>(0.13)</i>	<i>(0.13)</i>	<i>(0.13)</i>	<i>(0.13)</i>	<i>(0.13)</i>	<i>(0.13)</i>	<i>(0.13)</i>	\$3,212,400
Rossland	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	\$1,734,700
Total (ha)	1.96	1.96	1.96	1.27	1.30	1.30	1.30	1.30	1.30	1.30	
Total (\$000)	\$3,751.4	\$3,751.4	\$3,751.4	\$2,864.8	\$2,903.3	\$2,903.3	\$2,903.3	\$2,903.3	\$2,903.3	\$2,903.3	

2 Only includes portion of land related to the Library. Total size, including additional parking area, is 1.88 ha.

APPENDIX B.6  
TABLE 1 - PAGE 2

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS

LIBRARIES

MATERIALS Type of Collection	# of Collection Materials										UNIT COST (\$/item)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Archieved Material											
Total Annual Value	\$20,000	\$35,000	\$85,020	\$133,057	\$192,052	\$254,314	\$348,694	\$390,404	\$452,683	\$473,917	
Collection Material											
Books	183,190	192,990	197,962	205,462	206,867	232,111	242,341	241,941	235,278	234,126	\$29
Books on Tape	3,558	4,166	4,678	4,920	5,073	6,599	7,429	7,616	7,681	7,712	\$49
CD's-Sound	3,203	3,353	4,031	4,327	4,629	3,934	4,879	4,757	5,062	5,062	\$23
DVD	3,232	4,462	7,782	9,467	11,402	14,533	23,594	25,531	27,718	29,343	\$39
E-Books	5,754	6,576	8,946	9,156	9,221	11,012	15,264	17,074	18,555	18,126	\$31
Electronic Magazine & Newspaper titles	10,509	10,509	11,914	13,985	15,630	16,077	15,176	14,665	15,100	15,100	\$5
Games	-	-	36	426	629	1,085	1,395	1,434	1,429	1,294	\$65
Magazines	9,418	10,724	10,364	7,139	6,889	6,883	7,080	6,967	6,099	5,859	\$8
Maps/Charts	347	367	380	381	383	384	381	386	355	189	\$11
Microfilm	1,278	1,353	1,404	1,431	1,458	1,503	1,529	1,526	1,543	1,550	\$141
Reference Books	5,109	5,410	6,261	5,824	5,317	3,805	4,891	4,596	4,289	4,056	\$125
Titles on CD Rom	448	455	555	536	580	557	507	467	219	215	\$35
Videos	3,559	3,488	2,313	205	-	-	-	-	-	-	\$23
Total (#)	229,605	243,853	256,626	263,259	268,078	298,483	324,466	326,960	323,328	322,632	
Total (\$000)	\$6,933.0	\$7,396.4	\$7,930.9	\$8,197.3	\$8,345.6	\$9,224.8	\$10,318.3	\$10,446.8	\$10,407.2	\$10,405.8	

FURNITURE AND EQUIPMENT Branch Name	Total Value of Furniture and Equipment (\$)									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Brooklin	\$14,775	\$14,775	\$14,775	\$20,850	\$0	\$0	\$0	\$0	\$0	\$0
Brooklin Community Centre & Library	\$0	\$0	\$0	\$0	\$371,000	\$371,000	\$371,000	\$371,000	\$371,000	\$371,000
Central (Main) Library	\$2,806,000	\$2,806,000	\$2,806,000	\$2,806,000	\$2,806,000	\$2,806,000	\$2,806,000	\$2,806,000	\$2,806,000	\$2,806,000
Rossland	\$19,965	\$19,965	\$19,965	\$19,965	\$19,965	\$19,965	\$19,965	\$19,965	\$19,965	\$19,965
Total (\$000)	\$2,840.7	\$2,840.7	\$2,840.7	\$2,846.8	\$3,197.0	\$3,197.0	\$3,197.0	\$3,197.0	\$3,197.0	\$3,197.0



APPENDIX B.6  
TABLE 1 - PAGE 3

TOWN OF WHITBY  
CALCULATION OF SERVICE LEVELS

LIBRARIES

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Historic Population	111,184	113,272	115,399	117,566	119,774	122,022	123,267	124,525	125,796	127,080

INVENTORY SUMMARY (\$000)

Buildings	\$27,467.4	\$27,467.4	\$27,467.4	\$27,821.0	\$31,941.1	\$31,941.1	\$31,941.1	\$31,941.1	\$31,941.1	\$31,941.1
Land	\$3,751.4	\$3,751.4	\$3,751.4	\$2,864.8	\$2,903.3	\$2,903.3	\$2,903.3	\$2,903.3	\$2,903.3	\$2,903.3
Materials	\$6,933.0	\$7,396.4	\$7,930.9	\$8,197.3	\$8,345.6	\$9,224.8	\$10,318.3	\$10,446.8	\$10,407.2	\$10,405.8
Furniture And Equipment	\$2,840.7	\$2,840.7	\$2,840.7	\$2,846.8	\$3,197.0	\$3,197.0	\$3,197.0	\$3,197.0	\$3,197.0	\$3,197.0
Total (\$000)	\$40,992.6	\$41,455.9	\$41,990.5	\$41,729.9	\$46,387.0	\$47,266.2	\$48,359.7	\$48,488.2	\$48,448.6	\$48,447.2

SERVICE LEVEL (\$/pop)											Average Service Level
Buildings	\$247.04	\$242.49	\$238.02	\$236.64	\$266.68	\$261.77	\$259.12	\$256.50	\$253.91	\$251.35	\$251.35
Land	\$33.74	\$33.12	\$32.51	\$24.37	\$24.24	\$23.79	\$23.55	\$23.32	\$23.08	\$22.85	\$26.46
Materials	\$62.36	\$65.30	\$68.73	\$69.72	\$69.68	\$75.60	\$83.71	\$83.89	\$82.73	\$81.88	\$74.36
Furniture And Equipment	\$25.55	\$25.08	\$24.62	\$24.21	\$26.69	\$26.20	\$25.94	\$25.67	\$25.41	\$25.16	\$25.45
Total (\$/pop)	\$368.69	\$365.99	\$363.87	\$354.95	\$387.29	\$387.36	\$392.32	\$389.39	\$385.14	\$381.23	\$377.62

TOWN OF WHITBY  
CALCULATION OF MAXIMUM ALLOWABLE

LIBRARIES

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2006 - 2015	\$377.62
Net Population Growth 2016 - 2025	24,274
Maximum Allowable Funding Envelope	\$9,166,348
Less: Uncommitted Excess Capacity	\$77,978
Less: 10% Legislated Reduction	\$908,837
Discounted Maximum Allowable Funding Envelope	\$8,179,533

Excess Capacity Calculation	
Total Value of Inventory in 2015	\$48,447,196
Inventory Using Average Service Level	\$47,987,950
Calculated Excess Capacity	\$459,246
Committed Excess Capacity (Negative Reserve Fund)	\$381,268
Net Uncommitted Excess Capacity	\$77,978

APPENDIX B.6  
TABLE 2  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
LIBRARIES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Ineligible Services	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016- 2025	Post 2025
6.0 LIBRARIES												
Recovery of Negative Reserve Fund Balance												
6.1.1 Balance as of December 31, 2015	2016 - 2016	\$ 381,268	\$ -	\$ 381,268	Y	\$ -	\$ -	\$ -	\$ 381,268	\$ -	\$ 381,268	\$ -
Subtotal Recovery of Negative Reserve Fund Balance		\$ 381,268	\$ -	\$ 381,268		\$ -	\$ -	\$ -	\$ 381,268	\$ -	\$ 381,268	\$ -
Recovery of Central Public Library Facility												
6.2.1 Principle Payment	2016 - 2016	\$ 511,531	\$ -	\$ 511,531	Y	\$ -	\$ -	\$ 51,153	\$ 460,377	\$ -	\$ 460,377	\$ -
6.2.2 Principle Payment	2017 - 2017	\$ 536,810	\$ -	\$ 536,810	Y	\$ -	\$ -	\$ 53,681	\$ 483,129	\$ -	\$ 483,129	\$ -
6.2.3 Principle Payment	2018 - 2018	\$ 563,338	\$ -	\$ 563,338	Y	\$ -	\$ -	\$ 56,334	\$ 507,005	\$ -	\$ 507,005	\$ -
6.2.4 Principle Payment	2019 - 2019	\$ 591,178	\$ -	\$ 591,178	Y	\$ -	\$ -	\$ 59,118	\$ 532,060	\$ -	\$ 532,060	\$ -
6.2.5 Principle Payment	2020 - 2020	\$ 620,393	\$ -	\$ 620,393	Y	\$ -	\$ -	\$ 62,039	\$ 558,354	\$ -	\$ 558,354	\$ -
6.2.6 Principle Payment	2021 - 2021	\$ 651,052	\$ -	\$ 651,052	Y	\$ -	\$ -	\$ 65,105	\$ 585,947	\$ -	\$ 585,947	\$ -
6.2.7 Principle Payment	2022 - 2022	\$ 683,227	\$ -	\$ 683,227	Y	\$ -	\$ -	\$ 68,323	\$ 614,904	\$ -	\$ 614,904	\$ -
6.2.8 Principle Payment	2023 - 2023	\$ 716,991	\$ -	\$ 716,991	Y	\$ -	\$ -	\$ 71,699	\$ 645,292	\$ -	\$ 645,292	\$ -
6.2.9 Principle Payment	2024 - 2024	\$ 752,424	\$ -	\$ 752,424	Y	\$ -	\$ -	\$ 75,242	\$ 677,182	\$ -	\$ 677,182	\$ -
Subtotal Recovery of Central Public Library Facility		\$ 5,626,944	\$ -	\$ 5,626,944		\$ -	\$ -	\$ 562,694	\$ 5,064,250	\$ -	\$ 5,064,250	\$ -
Buildings, Land and Equipment												
90173401 Central Branch - Mobile Kiosk Conversion to Increase Floor Space by 960 sq	2017 - 2017	\$ 30,000	\$ -	\$ 30,000	Y	\$ -	\$ -	\$ 3,000	\$ 27,000	\$ -	\$ 27,000	\$ -
90183501 Central Branch - Makerspace Conversion	2018 - 2018	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ -	\$ 10,000	\$ 90,000	\$ -	\$ 90,000	\$ -
90223501 Rossland Branch Relocation / Expansion	2021 - 2021	\$ 4,600,000	\$ -	\$ 4,600,000	Y	\$ -	\$ 1,150,000	\$ 345,000	\$ 3,105,000	\$ -	\$ 817,015	\$ 2,287,985
Subtotal Buildings, Land and Equipment		\$ 4,730,000	\$ -	\$ 4,730,000		\$ -	\$ 1,150,000	\$ 358,000	\$ 3,222,000	\$ -	\$ 934,015	\$ 2,287,985

APPENDIX B.6  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
LIBRARIES

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Ineligible Services	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016- 2025	Post 2025
Library Collection Expansion												
90130401 Library Collection Expansion	2018 - 2018	\$ 110,000	\$ -	\$ 110,000	Y	\$ -	\$ -	\$ 11,000	\$ 99,000	\$ -	\$ 99,000	\$ -
90130401 Library Collection Expansion	2019 - 2019	\$ 145,000	\$ -	\$ 145,000	Y	\$ -	\$ -	\$ 14,500	\$ 130,500	\$ -	\$ 130,500	\$ -
90130401 Library Collection Expansion	2020 - 2020	\$ 190,000	\$ -	\$ 190,000	Y	\$ -	\$ -	\$ 19,000	\$ 171,000	\$ -	\$ 171,000	\$ -
90130401 Library Collection Expansion	2021 - 2021	\$ 230,000	\$ -	\$ 230,000	Y	\$ -	\$ -	\$ 23,000	\$ 207,000	\$ -	\$ 207,000	\$ -
90130401 Library Collection Expansion	2022 - 2022	\$ 280,000	\$ -	\$ 280,000	Y	\$ -	\$ -	\$ 28,000	\$ 252,000	\$ -	\$ 252,000	\$ -
90130401 Library Collection Expansion	2023 - 2023	\$ 320,000	\$ -	\$ 320,000	Y	\$ -	\$ -	\$ 32,000	\$ 288,000	\$ -	\$ 288,000	\$ -
90130401 Library Collection Expansion	2024 - 2024	\$ 350,000	\$ -	\$ 350,000	Y	\$ -	\$ -	\$ 35,000	\$ 315,000	\$ -	\$ 315,000	\$ -
90130401 Library Collection Expansion	2025 - 2025	\$ 375,000	\$ -	\$ 375,000	Y	\$ -	\$ -	\$ 37,500	\$ 337,500	\$ -	\$ 337,500	\$ -
Subtotal Library Collection Expansion		\$ 2,000,000	\$ -	\$ 2,000,000		\$ -	\$ -	\$ 200,000	\$ 1,800,000	\$ -	\$ 1,800,000	\$ -
TOTAL LIBRARIES		\$ 12,738,213	\$ -	\$ 12,738,213		\$ -	\$ 1,150,000	\$ 1,120,694	\$ 10,467,518	\$ -	\$ 8,179,533	\$ 2,287,985

Residential Development Charge Calculation		
Residential Share of 2016 - 2025 DC Eligible Costs	100.0%	\$8,179,533
10-Year Growth in Population in New Units		28,361
Unadjusted Development Charge Per Capita		\$288.41
Non-Residential Development Charge Calculation		
Retail Commercial		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	0.0%	\$0
10-Year Growth in Square Metres		60,071
Unadjusted Development Charge Per Square Metre		\$0.00
Other Non-Residential		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	0.0%	\$0
10-Year Growth in Square Metres		492,955
Unadjusted Development Charge Per Square Metre		\$0.00

2016 - 2025 Net Funding Envelope	\$8,179,533
Reserve Fund Balance	
Balance as at December 31, 2015	(\$381,268)

APPENDIX B.6  
TABLE 3 - PAGE 1

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
LIBRARIES  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

LIBRARIES	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.00	(\$683.03)	(\$1,028.59)	(\$1,211.56)	(\$1,055.85)	(\$825.73)	(\$1,519.60)	(\$1,340.60)	(\$1,153.54)	(\$947.19)	
2016 - 2025 RESIDENTIAL FUNDING REQUIREMENTS											
- Libraries: Non Inflated	\$381.3	\$27.0	\$189.0	\$130.5	\$171.0	\$1,024.0	\$252.0	\$288.0	\$315.0	\$337.5	\$3,115.3
- Central Library Debt Principle Payment (1)	\$460.4	\$483.1	\$507.0	\$532.1	\$558.4	\$585.9	\$614.9	\$645.3	\$677.2	\$0.0	\$5,064.2
- Libraries: Inflated	\$841.6	\$510.7	\$703.6	\$670.5	\$743.4	\$1,716.5	\$898.7	\$976.1	\$1,046.3	\$403.3	\$8,510.9
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,263	1,274	2,272	3,051	3,307	3,327	3,382	3,437	3,495	3,553	28,361
REVENUE											
- DC Receipts: Inflated	\$412.1	\$424.0	\$771.1	\$1,056.2	\$1,167.9	\$1,198.5	\$1,242.4	\$1,288.2	\$1,335.9	\$1,385.4	\$10,281.8
INTEREST											
- Interest on Opening Balance	\$0.0	(\$37.6)	(\$56.6)	(\$66.6)	(\$58.1)	(\$45.4)	(\$83.6)	(\$73.7)	(\$63.4)	(\$52.1)	(\$537.1)
- Interest on In-year Transactions	(\$11.8)	(\$2.4)	\$1.2	\$6.7	\$7.4	(\$14.2)	\$6.0	\$5.5	\$5.1	\$17.2	\$20.6
- Interest on Central Library Debt	(\$241.7)	(\$218.9)	(\$195.1)	(\$170.0)	(\$143.7)	(\$116.1)	(\$87.2)	(\$56.8)	(\$24.9)	\$0.0	(\$1,254.5)
TOTAL REVENUE	\$158.6	\$165.1	\$520.7	\$826.3	\$973.6	\$1,022.7	\$1,077.7	\$1,163.2	\$1,252.6	\$1,350.5	\$8,510.9
CLOSING CASH BALANCE	(\$683.0)	(\$1,028.6)	(\$1,211.6)	(\$1,055.9)	(\$825.7)	(\$1,519.6)	(\$1,340.6)	(\$1,153.5)	(\$947.2)	\$0.0	

1 Principle payments not inflated

2016 Adjusted Charge Per Capita	\$326.25
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Allocation of Capital Program	
Residential Sector	100.0%
Non-Residential Sector	0.0%
Rates for 2016	
Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

## **Appendix B.7**

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### **Parking & By-Law Services**

## Appendix B.7

### Parking & By-Law Services

Whitby provides Parking & By-law Services to the community in relation to municipal parking, by-law enforcement and animal services. These services are provided through two facilities, the Parking & By-law Office and the Whitby Animal Control building.

**Table 1            2006-2015 Historical Service Levels**

The ten-year historical inventory of capital assets includes 3,800 square feet of building space and is valued at \$1.13 million. The Parking & By-law Services buildings occupy 0.58 hectares of land worth \$399,500. The inventory also includes approximately 1,010 parking spaces valued at \$3.55 million and the land that relates to these spaces include 3.23 hectares valued at \$3.86 million. Parking & By-law Services also include various furniture and equipment related to parking, by-law and animal services for a total replacement cost of \$449,800. Finally, the inventory includes 11 vehicles valued at \$429,000.

The total value of the Parking & By-law capital infrastructure is estimated to be \$9.82 million. The ten-year historical average service level is \$59.45 per capita and employment, and multiplied by the ten-year forecast net population and employment growth, results in a ten-year maximum allowable of \$1.88 million (31,675 net population and employment growth X historical service level of \$59.45).

No uncommitted excess capacity is identified for this service and as such, no adjustment to the maximum permissible funding envelope has been made. Additionally, Parking & By-law Services must be reduced by ten per cent as required under the DCA which totals \$188,310. The resulting net maximum allowable funding envelope brought forward to the development charges calculation is reduced to \$1.69 million.

**Table 2            2016 – 2025 Development-Related Capital Program and Calculation of the Unadjusted Development Charges**

The ten-year development-related capital plan for Parking & By-law Services totals \$12.25 million and includes for the development a parking lots, a new municipal parking facility and the acquisition of additional vehicles and equipment for parking, by-law and animal services.

The most significant project in the capital program relates to the development of a new parking structure for \$10.00 million in 2025. After statutory adjustments, the total DC eligible cost of the project is reduced to \$9.00 million and is allocated entirely to growth occurring beyond 2025 and will be considered for recovery in subsequent development charge studies.

Altogether, the ten-year capital program for Parking & By-law Services amounts to \$12.25 million. The legislated ten per cent discount amounts to \$1.23 million and is netted off of the net municipal costs, leaving \$11.03 million as the total DC eligible costs. An amount of \$105,000 is available in the Parking & By-law DC reserve fund to fund a portion of the land acquisition project for a new parking lot in Brooklin and a parking ballistic vest. Most of the DC eligible costs are considered to be a post-period benefit beyond 2025, and as such, \$9.23 million will not be recovered under this new by-law and will be considered in future development charge background studies.

The remaining 2016-2025 development-related share, \$1.69 million is allocated 79 per cent, or \$1.34 million to the residential sector, 4 per cent, or \$66,200 to the retail commercial sector and 17 per cent, or \$284,530, to the other non-residential sector based on shares of ten-year growth in population in new units and employment. This yields an adjusted development charge of \$47.39 per capita, a retail commercial unadjusted charge of \$1.10 per square metre and an other non-residential charge is \$0.58 per square meter.

### **Table 3           Cash Flow Analysis**

After cash flow analysis, the residential charge increases to \$50.71 per capita and the non-residential retail commercial charge increases to \$1.17 per square metre and the other non-residential charge increases to \$0.61 per square metre.

The following table summarizes the calculation of the Parking & By-law Services development charge.

<b>PARKING &amp; BY-LAW SUMMARY</b>								
10-year Hist. Service Level per pop & emp	2016 - 2025		Unadjusted Development Charge			Adjusted Development Charge		
	Development-Related Capital Program		Residential	Retail	Other Non-Res	Residential	Retail	Other Non-Res
	Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/sq.m	\$/capita	\$/sq.m	\$/sq.m
\$59.45	\$12,254,000	\$1,694,771	\$47.39	\$1.10	\$0.58	<b>\$50.71</b>	<b>\$1.17</b>	<b>\$0.61</b>



**APPENDIX B.7**  
**TABLE 1 - PAGE 1**

## TOWN OF WHITBY

### INVENTORY OF CAPITAL ASSETS

## PARKING & BY-LAW

[illegible][illegible]

## PARKING & BY-LAW

[illegible]

**APPENDIX B.7  
TABLE 1 - PAGE 3**

**TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS**

**PARKING & BY-LAW**

FURNITURE & EQUIPMENT	# of Units										UNIT COST (\$/unit)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
<b>Parking Services</b>											
Ballistic vests	-	-	-	-	-	-	-	4	4	4	\$1,000
Cell phones	3	3	3	3	3	3	3	4	4	4	\$300
Uniforms	3	3	3	3	3	3	3	4	4	4	\$650
Cameras	2	2	2	2	2	2	2	2	2	2	\$200
Microwave	1	1	1	1	1	1	1	1	1	1	\$250
Meter covers	150	150	150	150	150	150	150	150	150	150	\$50
Coin Collection Equipment	-	-	-	-	-	-	-	1	1	1	\$8,500
Autocites	3	3	3	3	3	3	3	3	3	-	\$2,500
Blue tooth printers	-	-	-	-	-	-	-	-	-	5	\$750
On-Street Parking Meters/Housings	269	269	269	269	274	274	279	279	279	279	\$1,008
Pay-and-display Machines	9	9	9	10	10	10	10	10	10	10	\$8,400
<b>By-law Services</b>											
Ballistic Vests	-	-	-	-	-	-	-	7	7	7	\$1,000
Cell Phone/ Radio	4	4	5	5	5	5	7	7	7	7	\$350
Cameras	4	4	5	5	5	5	7	7	7	7	\$200
Uniforms	4	4	5	5	5	5	7	7	7	7	\$1,000
Bicycles	-	-	-	-	-	-	2	2	2	2	\$2,000

APPENDIX B.7  
TABLE 1 - PAGE 4

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS

PARKING LOTS - SPACES

FURINITURE & EQUIPMENT	# of Units										UNIT COST (\$/unit)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Animal Services											
Ballistic Vests	-	-	-	-	-	-	-	-	4	4	\$1,000
Cell Phone/ Radio	8	8	8	6	6	6	6	6	6	6	\$350
Cameras	1	1	1	1	1	1	1	1	1	1	\$200
Uniforms	4	4	5	5	5	5	5	5	5	5	\$1,000
Tranquilizer Guns	1	2	2	2	2	2	2	2	2	2	\$1,500
Animal Scanners	1	1	2	2	4	4	4	5	5	5	\$2,500
Power Washer	1	1	1	1	1	1	1	1	1	1	\$1,500
Animal Traps	10	10	10	10	8	7	6	5	5	5	\$350
Washer & Dryer	1	1	1	1	1	1	1	1	1	1	\$2,500
Microwave	1	1	1	1	1	1	1	1	1	1	\$250
Fridge	1	1	1	1	1	1	1	1	1	1	\$1,500
Animal Fridge	1	1	1	1	1	1	1	1	1	1	\$200
Total (#)	482	483	488	487	492	491	503	517	521	523	
Total (\$000)	\$391.9	\$393.4	\$398.5	\$406.2	\$415.5	\$415.1	\$426.9	\$449.5	\$453.5	\$449.8	

APPENDIX B.7  
TABLE 1 - PAGE 5

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS

PARKING & BY-LAW

VEHICLES	# of Units										UNIT COST (\$/unit)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Parking Enforcement Car	1	1	1	1	1	1	1	1	1	1	\$41,000
Parking Enforcement SUV	1	1	1	1	1	1	1	1	1	1	\$45,000
Parking Enforcement SUV	-	-	-	-	-	1	1	1	1	1	\$45,000
By-Law 1/2 Ton Truck	-	-	-	-	-	-	4	4	4	4	\$32,000
Animal Services 1/2 ton truck	1	1	1	1	1	1	1	1	1	1	\$35,000
Animal Services Van	3	3	3	3	3	3	3	3	3	3	\$45,000
Total (#)	6	6	6	6	6	7	11	11	11	11	
Total (\$000)	\$256.0	\$256.0	\$256.0	\$256.0	\$256.0	\$301.0	\$429.0	\$429.0	\$429.0	\$429.0	

APPENDIX B.7  
TABLE 1 - PAGE 6

TOWN OF WHITBY  
CALCULATION OF SERVICE LEVELS

PARKING & BY-LAW

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Historic Population	111,184	113,272	115,399	117,566	119,774	122,022	123,267	124,525	125,796	127,080
Historic Employment	38,033	37,974	37,946	37,946	37,975	38,030	38,585	39,156	39,740	40,339
Total Historic Population & Employmen	149,217	151,246	153,345	155,512	157,749	160,052	161,852	163,681	165,536	167,419

INVENTORY SUMMARY (\$000)

Buildings	\$1,126.8	\$1,126.8	\$1,126.8	\$1,126.8	\$1,126.8	\$1,126.8	\$1,126.8	\$1,126.8	\$1,126.8	\$1,126.8
Land	\$399.5	\$399.5	\$399.5	\$399.5	\$399.5	\$399.5	\$399.5	\$399.5	\$399.5	\$399.5
Parking Lots - Spaces	\$3,045.0	\$3,304.0	\$3,304.0	\$3,304.0	\$3,584.0	\$3,584.0	\$3,549.0	\$3,549.0	\$3,549.0	\$3,549.0
Parking Lots - Land	\$3,392.5	\$3,392.5	\$3,392.5	\$3,862.1	\$3,862.1	\$3,862.1	\$3,862.1	\$3,862.1	\$3,862.1	\$3,862.1
Furiniture & Equipment	\$391.9	\$393.4	\$398.5	\$406.2	\$415.5	\$415.1	\$426.9	\$449.5	\$453.5	\$449.8
Vehicles	\$256.0	\$256.0	\$256.0	\$256.0	\$256.0	\$301.0	\$429.0	\$429.0	\$429.0	\$429.0
Total (\$000)	\$8,611.7	\$8,872.2	\$8,877.2	\$9,354.5	\$9,643.9	\$9,688.5	\$9,793.3	\$9,815.9	\$9,819.9	\$9,816.1

SERVICE LEVEL (\$/pop+empl)											Average Service Level
Buildings	\$7.55	\$7.45	\$7.35	\$7.25	\$7.14	\$7.04	\$6.96	\$6.88	\$6.81	\$6.73	\$7.12
Land	\$2.68	\$2.64	\$2.61	\$2.57	\$2.53	\$2.50	\$2.47	\$2.44	\$2.41	\$2.39	\$2.52
Parking Lots - Spaces	\$20.41	\$21.85	\$21.55	\$21.25	\$22.72	\$22.39	\$21.93	\$21.68	\$21.44	\$21.20	\$21.64
Parking Lots - Land	\$22.74	\$22.43	\$22.12	\$24.83	\$24.48	\$24.13	\$23.86	\$23.60	\$23.33	\$23.07	\$23.46
Furiniture & Equipment	\$2.63	\$2.60	\$2.60	\$2.61	\$2.63	\$2.59	\$2.64	\$2.75	\$2.74	\$2.69	\$2.65
Vehicles	\$1.72	\$1.69	\$1.67	\$1.65	\$1.62	\$1.88	\$2.65	\$2.62	\$2.59	\$2.56	\$2.07
Total (\$/pop+empl)	\$57.71	\$58.66	\$57.89	\$60.15	\$61.13	\$60.53	\$60.51	\$59.97	\$59.32	\$58.63	\$59.45

TOWN OF WHITBY  
CALCULATION OF MAXIMUM ALLOWABLE

PARKING & BY-LAW

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2006 - 2015	\$59.45
Net Population and Employment Growth 2016 - 2025	31,675
Maximum Allowable Funding Envelope	\$1,883,079
Less: Uncommitted Excess Capacity	\$0
Less: 10% Legislated Reduction	\$188,308
Discounted Maximum Allowable Funding Envelope	\$1,694,771

Excess Capacity Calculation	
Total Value of Inventory in 2015	\$9,816,145
Inventory Using Average Service Level	\$9,953,048
Excess Capacity	\$0
Excess Capacity:	Uncommitted

APPENDIX B.7  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
PARKING & BY-LAW

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Ineligible Services	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016- 2025	Post 2025
7.0 PARKING & BY-LAW												
Parking: Municipal Parking Facilities												
35196401 Brooklin Parking Lot - Land Acquisition	2019 - 2019	\$ 1,000,000	\$ -	\$ 1,000,000	Y	\$ -	\$ -	\$ 100,000	\$ 900,000	\$ 104,090	\$ 795,910	\$ -
35206401 Port Whitby / Waterfront Parking Lot(s)	2020 - 2020	\$ 1,000,000	\$ -	\$ 1,000,000	Y	\$ -	\$ -	\$ 100,000	\$ 900,000	\$ -	\$ 824,162	\$ 75,838
35221401 Parking Structure	2025 - 2025	\$ 10,000,000	\$ -	\$ 10,000,000	Y	\$ -	\$ -	\$ 1,000,000	\$ 9,000,000	\$ -	\$ -	\$ 9,000,000
Subtotal Parking: Municipal Parking Facilities		\$ 12,000,000	\$ -	\$ 12,000,000		\$ -	\$ -	\$ 1,200,000	\$ 10,800,000	\$ 104,090	\$ 1,620,071	\$ 9,075,838
Parking: Vehicles and Equipment												
35181802 Parking Ballistic Vest (Additional)	2017 - 2017	\$ 1,000	\$ -	\$ 1,000	Y	\$ -	\$ -	\$ 100	\$ 900	\$ 900	\$ -	\$ -
35181802 Parking Ballistic Vest (Additional)	2020 - 2020	\$ 1,000	\$ -	\$ 1,000	Y	\$ -	\$ -	\$ 100	\$ 900	\$ -	\$ 900	\$ -
35181802 Parking Ballistic Vest (Additional)	2022 - 2022	\$ 1,000	\$ -	\$ 1,000	Y	\$ -	\$ -	\$ 100	\$ 900	\$ -	\$ -	\$ 900
35190901 Parking SUV Hybrid & Equipment	2022 - 2022	\$ 47,000	\$ -	\$ 47,000	Y	\$ -	\$ -	\$ 4,700	\$ 42,300	\$ -	\$ -	\$ 42,300
35228401 Parking SUV Hybrid & Equipment	2025 - 2025	\$ 47,000	\$ -	\$ 47,000	Y	\$ -	\$ -	\$ 4,700	\$ 42,300	\$ -	\$ -	\$ 42,300
Subtotal Parking: Vehicles and Equipment		\$ 97,000	\$ -	\$ 97,000		\$ -	\$ -	\$ 9,700	\$ 87,300	\$ 900	\$ 900	\$ 85,500

APPENDIX B.7  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
PARKING & BY-LAW

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Ineligible Services	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016-2025	Post 2025
By-Law: Vehicles and Equipment												
53181802 New Staff Ballistic Vests	2021 - 2021	\$ 1,000	\$ -	\$ 1,000	Y	\$ -	\$ -	\$ 100	\$ 900	\$ -	\$ 900	\$ -
35140901 New Staff Vehicle and Equipment	2021 - 2021	\$ 37,500	\$ -	\$ 37,500	Y	\$ -	\$ -	\$ 3,750	\$ 33,750	\$ -	\$ 33,750	\$ -
53181802 New Staff Ballistic Vests	2023 - 2023	\$ 1,000	\$ -	\$ 1,000	Y	\$ -	\$ -	\$ 100	\$ 900	\$ -	\$ 900	\$ -
35180901 New Staff Vehicle and Equipment	2023 - 2023	\$ 37,500	\$ -	\$ 37,500	Y	\$ -	\$ -	\$ 3,750	\$ 33,750	\$ -	\$ -	\$ 33,750
53248401 New Staff Vehicle with Equipment	2025 - 2025	\$ 37,500	\$ -	\$ 37,500	Y	\$ -	\$ -	\$ 3,750	\$ 33,750	\$ -	\$ -	\$ 33,750
Subtotal By-Law: Vehicles and Equipment		\$ 114,500	\$ -	\$ 114,500		\$ -	\$ -	\$ 11,450	\$ 103,050	\$ -	\$ 35,550	\$ 67,500
Animal Services: Facilities, Vehicles and Equipment												
12170901 New Staff Van with Equipment	2020 - 2020	\$ 42,500	\$ -	\$ 42,500	Y	\$ -	\$ -	\$ 4,250	\$ 38,250	\$ -	\$ 38,250	\$ -
Subtotal Animal Services: Facilities, Vehicles and Equipment		\$ 42,500	\$ -	\$ 42,500		\$ -	\$ -	\$ 4,250	\$ 38,250	\$ -	\$ 38,250	\$ -
TOTAL PARKING & BY-LAW		\$ 12,254,000	\$ -	\$ 12,254,000		\$ -	\$ -	\$ 1,225,400	\$ 11,028,600	\$ 104,990	\$ 1,694,771	\$ 9,228,838

<b>Residential Development Charge Calculation</b>		
Residential Share of 2016 - 2025 DC Eligible Costs	79.3%	\$1,344,036
10-Year Growth in Population in New Units		28,361
Unadjusted Development Charge Per Capita		<b>\$47.39</b>
<b>Non-Residential Development Charge Calculation</b>		
<i>Retail Commercial</i>		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	3.9%	\$66,204
10-Year Growth in Square Metres		60,071
Unadjusted Development Charge Per Square Metre		<b>\$1.10</b>
<i>Other Non-Residential</i>		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	16.8%	\$284,531
10-Year Growth in Square Metres		492,955
Unadjusted Development Charge Per Square Metre		<b>\$0.58</b>

2016 - 2025 Net Funding Envelope	\$1,694,771
Reserve Fund Balance	
Balance as at December 31, 2015	\$104,990



APPENDIX B.7  
TABLE 3 - PAGE 1

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
PARKING & BY-LAW  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

PARKING & BY-LAW	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.0	\$65.2	\$134.5	\$261.2	(\$249.3)	(\$837.9)	(\$725.3)	(\$568.7)	(\$397.1)	(\$207.7)	
2016 - 2025 RESIDENTIAL FUNDING REQUIREMENTS											
- Parking & By-Law: Non Inflated	\$0.0	\$0.0	\$0.0	\$631.2	\$684.6	\$27.5	\$0.0	\$0.7	\$0.0	\$0.0	\$1,344.0
- Parking & By-Law: Inflated	\$0.0	\$0.0	\$0.0	\$669.8	\$741.1	\$30.3	\$0.0	\$0.8	\$0.0	\$0.0	\$1,442.1
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,263	1,274	2,272	3,051	3,307	3,327	3,382	3,437	3,495	3,553	28,361
REVENUE											
- DC Receipts: Inflated	\$64.1	\$65.9	\$119.9	\$164.2	\$181.5	\$186.3	\$193.1	\$200.2	\$207.6	\$215.3	\$1,598.1
INTEREST											
- Interest on Opening Balance	\$0.0	\$2.3	\$4.7	\$9.1	(\$13.7)	(\$46.1)	(\$39.9)	(\$31.3)	(\$21.8)	(\$11.4)	(\$148.1)
- Interest on In-year Transactions	\$1.1	\$1.2	\$2.1	(\$13.9)	(\$15.4)	\$2.7	\$3.4	\$3.5	\$3.6	\$3.8	(\$7.9)
TOTAL REVENUE	\$65.2	\$69.3	\$126.7	\$159.4	\$152.4	\$142.9	\$156.6	\$172.4	\$189.4	\$207.7	\$1,442.1
CLOSING CASH BALANCE	\$65.2	\$134.5	\$261.2	(\$249.3)	(\$837.9)	(\$725.3)	(\$568.7)	(\$397.1)	(\$207.7)	\$0.0	

2016 Adjusted Charge Per Capita	\$50.71
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Allocation of Capital Program	
Residential Sector	79.3%
Non-Residential Sector	20.7%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX B.6  
TABLE 3 - PAGE 2

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
PARKING & BY-LAW  
RETAIL COMMERCIAL DEVELOPMENT CHARGE  
(in \$000)

PARKING & BY-LAW	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.00	\$3.83	\$7.19	\$14.09	(\$10.57)	(\$38.87)	(\$33.77)	(\$26.51)	(\$18.54)	(\$9.71)	
2016 - 2025 COMMERCIAL-INSTITUTIONAL FUNDING REQUIREMENTS											
- Parking & By-Law: Non Inflated	\$0.0	\$0.0	\$0.0	\$31.1	\$33.7	\$1.4	\$0.0	\$0.0	\$0.0	\$0.0	\$66.2
- Parking & By-Law: Inflated	\$0.0	\$0.0	\$0.0	\$33.0	\$36.5	\$1.5	\$0.0	\$0.0	\$0.0	\$0.0	\$71.0
COMMERCIAL-INSTITUTIONAL SPACE GROWTH											
- Growth in Square Metres	3,210	2,647	5,347	6,835	7,500	6,642	6,771	6,904	7,038	7,177	60,071
REVENUE											
- DC Receipts: Inflated	\$3.8	\$3.2	\$6.5	\$8.5	\$9.5	\$8.6	\$9.0	\$9.3	\$9.7	\$10.1	\$78.1
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.1	\$0.3	\$0.5	(\$0.6)	(\$2.1)	(\$1.9)	(\$1.5)	(\$1.0)	(\$0.5)	(\$6.7)
- Interest on In-year Transactions	\$0.1	\$0.1	\$0.1	(\$0.7)	(\$0.7)	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2	(\$0.4)
TOTAL REVENUE	\$3.8	\$3.4	\$6.9	\$8.3	\$8.2	\$6.6	\$7.3	\$8.0	\$8.8	\$9.7	\$71.0
CLOSING CASH BALANCE	\$3.8	\$7.2	\$14.1	(\$10.6)	(\$38.9)	(\$33.8)	(\$26.5)	(\$18.5)	(\$9.7)	\$0.0	

2016 Adjusted Charge Per Square Metre	\$1.17
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX B.6  
TABLE 3 - PAGE 3

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
PARKING & BY-LAW  
OTHER NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

PARKING & BY-LAW	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.00	\$28.20	\$58.38	\$90.76	(\$19.99)	(\$149.29)	(\$130.15)	(\$102.08)	(\$71.32)	(\$37.30)	
2016 - 2025 INDUSTRIAL FUNDING REQUIREMENTS											
- Parking & By-Law: Non Inflated	\$0.0	\$0.0	\$0.0	\$133.6	\$144.9	\$5.8	\$0.0	\$0.2	\$0.0	\$0.0	\$284.5
- Parking & By-Law: Inflated	\$0.0	\$0.0	\$0.0	\$141.8	\$156.9	\$6.4	\$0.0	\$0.2	\$0.0	\$0.0	\$305.3
INDUSTRIAL SPACE GROWTH											
- Growth in Square Metres	45,587	46,271	47,147	47,931	48,807	49,618	50,567	51,443	52,354	53,230	492,955
REVENUE											
- DC Receipts: Inflated	\$27.7	\$28.7	\$29.8	\$30.9	\$32.1	\$33.3	\$34.6	\$35.9	\$37.3	\$38.7	\$329.1
INTEREST											
- Interest on Opening Balance	\$0.0	\$1.0	\$2.0	\$3.2	(\$1.1)	(\$8.2)	(\$7.2)	(\$5.6)	(\$3.9)	(\$2.1)	(\$21.8)
- Interest on In-year Transactions	\$0.5	\$0.5	\$0.5	(\$3.0)	(\$3.4)	\$0.5	\$0.6	\$0.6	\$0.7	\$0.7	(\$1.9)
TOTAL REVENUE	\$28.2	\$30.2	\$32.4	\$31.0	\$27.6	\$25.6	\$28.1	\$30.9	\$34.0	\$37.3	\$305.3
CLOSING CASH BALANCE	\$28.2	\$58.4	\$90.8	(\$20.0)	(\$149.3)	(\$130.1)	(\$102.1)	(\$71.3)	(\$37.3)	\$0.0	

2016 Adjusted Charge Per Square Metre	\$0.61
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

## **Appendix B.8**

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### **Waste Management Services**

## Appendix B.8

### Waste Management Services

The Town of Whitby provides curbside residential waste collection services to Whitby residents. This includes residual garbage, green bin organics, yard waste, and a special collection program for metals, tires, and other bulky items. The Region of Durham provides blue box recycling collection service.

As of January 1, 2016, the Development Charges Act permits the inclusion of capital costs associated with all waste management operations with the exception of incineration and landfill activities. These shares have been removed from the development charges calculation, where applicable.

**Table 1            2006-2015 Historical Service Levels**

The ten-year historical service level includes vehicles relating to the collection of waste in the Town. No buildings or land have been included in the inventory as no facilities are used for the sole purpose of waste management. The Town currently owns and operates a fleet of 23 waste management vehicles including trucks, hook lifts, rear loaders and single and dual stream side loaders. The total replacement value of the fleet is \$5.92 million.

The total value of the inventory of capital assets for Waste Management Services in 2015 was \$5.92 million, resulting in a ten-year historical average service level of \$53.20 per capita. For the purposes of establishing the ten-year historical average service level, the historical population residing in dwelling units that are responsible for their own garbage collection has been removed from the calculation. Similarly, the forecast net population growth, used to arrive at the maximum permissible funding envelope calculation, has also been reduced by the associated population growth that will reside in dwelling units where no waste collection services are provided by the Town.

After this adjustment, the historical service level, multiplied by the ten-year net population growth, results in a ten-year maximum allowable funding envelope of \$1.13 million (21,220 adjusted net population growth X historical average service level of \$53.20). No uncommitted excess capacity has been identified for this services and as such, no reduction to the maximum allowable funding envelope is made. The ten per cent statutory reduction totals \$112,910 and must be netted out of the calculation. As

such, the maximum allowable funding envelope brought forward to the development charges calculation is reduced to \$1.02 million.

**Table 2            2016 – 2025 Development-Related Capital Program & Calculation of the “Unadjusted” Development Charges**

The ten-year development-related capital plan for Waste Management services includes a provision for eight additional collection trucks and other development-related vehicles for a total cost of \$1.78 million. No grant, subsidies or other recoveries are identified and as such, the total is carried forward to the net municipal costs.

No benefit to existing shares have been calculated as the projects in the capital program only relate to the increase in need for service relating to new development. The ten per cent deduction required by legislation total \$178,200, which reduces the DC eligible costs to \$1.60 million. As this is a new service proposed to be introduced as part of the 2016 DC update, there are no reserve funds available to fund a portion of the DC eligible costs. A portion of the development charge eligible costs, \$587,600, exceeds the historical service level restrictions and is considered to benefit development occurring after 2025. After this reduction, only \$1.02 million is eligible for recovery through development charges during the 2016-2025 planning period.

This amount is allocated entirely to the residential sector and yields an unadjusted development charges of \$41.61 per capita. Similar to the maximum permissible funding envelope calculation, the ten-year growth in population in new units has been reduced by the associated population growth that will reside in dwelling units where no waste collection services are provided by the Town.

**Table 3            Cash Flow Analysis**

After cash flow and reserve fund considerations, the residential calculated charge increases to \$46.18 per capita.

The following table summarizes the calculation of the Waste Management Services development charge:

WASTE MANAGEMENT SUMMARY								
10-year Hist.	2016 - 2025		Unadjusted Development Charge			Adjusted Development Charge		
Service Level	Development-Related Capital Program		Residential	Retail	Other Non-Res	Residential	Retail	Other Non-Res
per capita	Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/sq.m	\$/capita	\$/sq.m	\$/sq.m
\$53.20	\$1,782,000	\$1,016,200	\$41.61	\$0.00	\$0.00	<b>\$46.18</b>	<b>\$0.00</b>	<b>\$0.00</b>

**APPENDIX B.10**  
**TABLE 1 - PAGE 1**

## TOWN OF WHITBY INVENTORY OF CAPITAL ASSETS

## WASTE MANAGEMENT

[illegible]



APPENDIX B.10  
TABLE 1 - PAGE 2

TOWN OF WHITBY  
CALCULATION OF SERVICE LEVELS

WASTE MANAGEMENT

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Historical Population	102,486	104,508	106,616	108,764	110,954	113,185	114,488	115,795	116,901	117,938

INVENTORY SUMMARY (\$000)

Vehicles	\$5,870.0	\$5,870.0	\$5,870.0	\$5,915.0	\$5,915.0	\$5,915.0	\$5,915.0	\$5,915.0	\$5,915.0	\$5,915.0
Total (\$000)	\$5,870.0	\$5,870.0	\$5,870.0	\$5,915.0	\$5,915.0	\$5,915.0	\$5,915.0	\$5,915.0	\$5,915.0	\$5,915.0

SERVICE LEVEL (\$/pop)											Average Service Level
Vehicles	\$57.28	\$56.17	\$55.06	\$54.38	\$53.31	\$52.26	\$51.67	\$51.08	\$50.60	\$50.15	\$53.20
Total (\$/pop)	\$57.28	\$56.17	\$55.06	\$54.38	\$53.31	\$52.26	\$51.67	\$51.08	\$50.60	\$50.15	\$53.20

TOWN OF WHITBY  
CALCULATION OF MAXIMUM ALLOWABLE

WASTE MANAGEMENT

10-Year Funding Envelope Calculation	
10 Year Average Service Level 2006 - 2015	\$53.20
Net Population Growth 2016 - 2025	21,224
Maximum Allowable Funding Envelope	\$1,129,111
Less: Uncommitted Excess Capacity	\$0
Less: 10% Legislated Reduction	\$112,911
Discounted Maximum Allowable Funding Envelope	\$1,016,200

Excess Capacity Calculation	
Total Value of Inventory in 2015	\$5,915,000
Inventory Using Average Service Level	\$6,274,291
Excess Capacity	\$0
Excess Capacity:	Uncommitted

Note: Historical & forecast population excludes population related to high-rise apartment dwellings that provide their own waste management collection

APPENDIX B.8  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
WASTE MANAGEMENT

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					Ineligible Services	Ineligible Services	Replacement & BTE Shares	10% Reduction		Available DC Reserves	2016- 2025	Post 2025
8.0 WASTE MANAGEMENT												
Vehicles & Equipment												
30140904 Garbage Packer - Side Loader Organics & Waste	2016 - 2016	\$ 290,000	\$ -	\$ 290,000	Y	\$ -	\$ -	\$ 29,000	\$ 261,000	\$ -	\$ 261,000	\$ -
30140901 Garbage Packer - Side Loader Yard Waste	2017 - 2017	\$ 240,000	\$ -	\$ 240,000	Y	\$ -	\$ -	\$ 24,000	\$ 216,000	\$ -	\$ 216,000	\$ -
30150901 1/2 Ton Extended Cab - Solid Waste	2018 - 2018	\$ 32,000	\$ -	\$ 32,000	Y	\$ -	\$ -	\$ 3,200	\$ 28,800	\$ -	\$ 28,800	\$ -
30140903 Garbage Packer - Rear Loader	2018 - 2018	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ -	\$ 20,000	\$ 180,000	\$ -	\$ 180,000	\$ -
30210901 Garbage Packer - Rear Loader	2021 - 2021	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ -	\$ 20,000	\$ 180,000	\$ -	\$ 180,000	\$ -
30170903 Garbage Packer - Side Loader Organics & Waste	2022 - 2022	\$ 290,000	\$ -	\$ 290,000	Y	\$ -	\$ -	\$ 29,000	\$ 261,000	\$ -	\$ 150,400	\$ 110,600
30200904 Garbage Packer - Side Loader Organics & Waste	2022 - 2022	\$ 290,000	\$ -	\$ 290,000	Y	\$ -	\$ -	\$ 29,000	\$ 261,000	\$ -	\$ -	\$ 261,000
30228601 Garbage Packer - Side Loader Yard Waste	2022 - 2022	\$ 240,000	\$ -	\$ 240,000	Y	\$ -	\$ -	\$ 24,000	\$ 216,000	\$ -	\$ -	\$ 216,000
Subtotal Vehicles & Equipment		\$ 1,782,000	\$ -	\$ 1,782,000		\$ -	\$ -	\$ 178,200	\$ 1,603,800	\$ -	\$ 1,016,200	\$ 587,600
TOTAL WASTE MANAGEMENT		\$ 1,782,000	\$ -	\$ 1,782,000		\$ -	\$ -	\$ 178,200	\$ 1,603,800	\$ -	\$ 1,016,200	\$ 587,600

Residential Development Charge Calculation		
Residential Share of 2016 - 2025 DC Eligible Costs	100.0%	\$1,016,200
10-Year Growth in Population in New Units (Adjusted)		24,422
Unadjusted Development Charge Per Capita		\$41.61
Non-Residential Development Charge Calculation		
Retail Commercial		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	0.0%	\$0
10-Year Growth in Square Metres		60,071
Unadjusted Development Charge Per Square Metre		\$0.00
Other Non-Residential		
Non-Residential Share of 2016 - 2025 DC Eligible Costs	0.0%	\$0
10-Year Growth in Square Metres		492,955
Unadjusted Development Charge Per Square Metre		\$0.00

2016 - 2025 Net Funding Envelope	\$1,016,200
Reserve Fund Balance	
Balance as at December 31, 2015	\$0

APPENDIX B.8  
TABLE 3 - PAGE 1

TOWN OF WHITBY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
WASTE MANAGEMENT  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

WASTE MANAGEMENT	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL
OPENING CASH BALANCE	\$0.0	(\$223.8)	(\$415.8)	(\$573.0)	(\$469.7)	(\$346.9)	(\$416.4)	(\$454.3)	(\$316.4)	(\$165.3)	
2016 - 2025 RESIDENTIAL FUNDING REQUIREMENTS											
- Waste Management: Non Inflated	\$261.0	\$216.0	\$208.8	\$0.0	\$0.0	\$180.0	\$150.4	\$0.0	\$0.0	\$0.0	\$1,016.2
- Waste Management: Inflated	\$261.0	\$220.3	\$217.2	\$0.0	\$0.0	\$198.7	\$169.4	\$0.0	\$0.0	\$0.0	\$1,066.7
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	936	963	1,802	2,702	2,923	2,934	2,976	3,018	3,061	3,106	24,422
REVENUE											
- DC Receipts: Inflated	\$43.2	\$45.4	\$86.6	\$132.4	\$146.1	\$149.6	\$154.8	\$160.1	\$165.6	\$171.4	\$1,255.2
INTEREST											
- Interest on Opening Balance	\$0.0	(\$12.3)	(\$22.9)	(\$31.5)	(\$25.8)	(\$19.1)	(\$22.9)	(\$25.0)	(\$17.4)	(\$9.1)	(\$186.0)
- Interest on In-year Transactions	(\$6.0)	(\$4.8)	(\$3.6)	\$2.3	\$2.6	(\$1.4)	(\$0.4)	\$2.8	\$2.9	\$3.0	(\$2.6)
TOTAL REVENUE	\$37.2	\$28.3	\$60.1	\$103.2	\$122.9	\$129.2	\$131.4	\$137.9	\$151.1	\$165.3	\$1,066.7
CLOSING CASH BALANCE	(\$223.8)	(\$415.8)	(\$573.0)	(\$469.7)	(\$346.9)	(\$416.4)	(\$454.3)	(\$316.4)	(\$165.3)	\$0.0	

2016 Adjusted Charge Per Capita	\$46.18
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Allocation of Capital Program	
Residential Sector	100.0%
Non-Residential Sector	0.0%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

## **Appendix C**

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### **Engineering Services Technical Appendix**

## **Appendix C.1**

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### **Roads and Related Services**

## **Appendix C.1**

### **Roads and Related Services**

This appendix provides the detailed analysis undertaken to establish the development charge rates for Roads and Related services in the Town of Whitby. These established rate categories are as follows:

- Roads and Related Services – Town-wide Infrastructure; and
- Roads and Related Services – Alternative Route and Related Infrastructure

The “Roads and Related Services – Town-wide Infrastructure” service category includes the full range of capital infrastructure within, and related to, the road network including; road constriction and improvements, bridges and structures, pedestrian and cycling infrastructure, intersections and streetlighting. In contrast, the “Roads and Related – Alternative Route and Related Infrastructure” relates to property acquisition, utility relocation, roundabout construction and the construction of the Highway 7/12 Alternative Route.

The development-related Roads and Related infrastructure projects are required to service the demands of new development to 2036. The development forecast related to the 2016-2036 planning period is discussed in greater detail in Appendix A.

The projects identified in the Roads and Related capital programs are required to service the demands of new development between 2016 and 2036, 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 costs for the provision of roads and related infrastructure.

The following tables set out the 2016 to 2036 development-related capital program and the calculation of the development charges for Roads and Related. The development-related capital programs for Town-wide Infrastructure and Alternative Route and Related Infrastructure is based upon the Town’s Transportation Master Plan and updated information provided by staff. Maps have also been provided which identify the location and timing of the identified capital projects.

**Table 1            Historical Service Levels**

Table 1 displays the ten-year historical inventory for all Roads and Related infrastructure. The Town's existing 511 kilometres of roads were valued at \$895.10 million in 2015. There are currently 44 bridges and culverts in the Town that provide for a combined value of \$79.82 million. In addition, the 30 traffic signals add an additional \$7.2 million and the 505 kilometres of sidewalks add a further \$96.83 million to the total value of capital assets. The total value of all Roads and Related infrastructure is approximately \$1.08 billion. This results in a ten-year historical average service level of \$6,631.74 per population and employment. The historical service level, multiplied by the long-term net population and employment in growth of 77,880, results in a ten-year maximum allowable funding envelope of \$516.47 million. There is no required ten per cent discount and, as such, the full maximum allowable funding envelope is brought forward to the development charges calculation.

**Table 2            2016-2036 Development-Related Capital Programs**

**Roads and Related Capital Program – Town-wide Infrastructure**

The total cost of the 20-year Roads and Related – Town-wide Infrastructure capital program is \$329.42 million and provides for the undertaking of projects throughout the Town. In total, \$8.42 million in grants, subsidies and other contributions have been identified and are removed from the total capital program cost. No DC ineligible projects have been identified and as such, no reductions have been made.

Approximately \$71.11 million of the program has been identified as the benefit to existing share. The benefit to existing share for roads projects has been generally calculated in the following manner with some exceptions.

<b>Roads Project</b>	<b>Description</b>
Bridges and Culverts - New	<ul style="list-style-type: none"> <li>0% BTE, infrastructure is related to the increased need for service arising from new development and therefore is 100% attributable to new development</li> <li>10% BTE share has been applied to the Mary Street Extension and Annes Bridge Street – CNR/Go projects</li> </ul>
Bridges and Culverts Growth Related Improvements	<ul style="list-style-type: none"> <li>Where applicable, the BTE share matches the related roads project</li> <li>Need for upgrading sidewalks and barrier walls related to existing bridges will be required to service future growth</li> <li>A BTE share of 80% has been included for most bridges that do not relate to the reconstruction of a roads projects</li> </ul>
Pedestrian Bridges and Tunnels - New	<ul style="list-style-type: none"> <li>10% BTE share is applied to all projects</li> </ul>
Multi-Use Paths and Cycling Facilities - New	<ul style="list-style-type: none"> <li>10% BTE share is applied to all projects</li> </ul>
Highway 407 Related Infrastructure	<ul style="list-style-type: none"> <li>0% BTE, infrastructure is related to the increased need for service arising from new development and therefore is 100% attributable to new development</li> </ul>
Land Acquisition Roads Widening & Extensions	<ul style="list-style-type: none"> <li>0% BTE, infrastructure is related to the increased need for service arising from new development and therefore is 100% attributable to new development</li> </ul>
Major Road Growth Related Reconstruction	<ul style="list-style-type: none"> <li>15% BTE share applied to most projects to account for reconstruction of existing roads</li> <li>10% BTE share applied to Cochrane St - North of Taunton Rd</li> <li>9% BTE share applied to Brawley Road to match resurfacing costs</li> </ul>
Minor Road Growth Related Reconstruction	<ul style="list-style-type: none"> <li>15% BTE share applied to most projects to account for reconstruction of existing roads</li> <li>100% BTE share applied to Ontario Street – Baldwin Street to End</li> <li>68% BTE share applied to Colborne Street – Brock to Green</li> </ul>
Road Intersection Improvements	<ul style="list-style-type: none"> <li>50% BTE share to account for replacement/reconstruction of existing road infrastructure</li> </ul>
Road Widening & Extensions	<ul style="list-style-type: none"> <li>15% BTE share applied to certain projects to account for road widening's</li> <li>0% BTE share applied to new extensions</li> </ul>
Roads EA & Preliminary Design	<ul style="list-style-type: none"> <li>0% BTE, infrastructure is related to the increased need for service arising from new development and therefore is 100% attributable to new development</li> </ul>
Rural Arterial Road Growth Related Resurfacing	<ul style="list-style-type: none"> <li>90% BTE share to resurfacing of existing road infrastructure and marginal improvements required to service new development</li> </ul>



Surface Treated to Hot Mix Conversion Program	<ul style="list-style-type: none"> <li>13% BTE LBD rehabilitation and replacement costs</li> </ul>
Urban Arterial Road Growth Related Resurfacing	<ul style="list-style-type: none"> <li>90% BTE share to resurfacing of existing road infrastructure and marginal improvements required to service new development</li> </ul>
Sidewalks - New	<ul style="list-style-type: none"> <li>0% BTE share applied to most projects as the infrastructure is related to the increased need for service arising from new development and therefore is 100% attributable to new development</li> </ul>
Sidewalks - Highway 407 Related Infrastructure	<ul style="list-style-type: none"> <li>0% BTE share applied to most projects as the infrastructure is related to the increased need for service arising from new development and therefore is 100% attributable to new development</li> <li>25% BTE share applied to Ashburn – Winchester to 407 S. Limit</li> </ul>
Street Lighting - New	<ul style="list-style-type: none"> <li>BTE shares match Region's roads projects, where applicable</li> </ul>
Traffic Signals - New	<ul style="list-style-type: none"> <li>0% BTE, infrastructure is related to the increased need for service arising from new development and therefore is 100% attributable to new development</li> </ul>
Roads and Roads-Related Studies	<ul style="list-style-type: none"> <li>Varies based on scope of study</li> </ul>
Transportation Master Plan and Related Studies	<ul style="list-style-type: none"> <li>20% BTE applied in recognition that the studies will, in part, benefit existing development</li> <li>0% BTE share has been applied to Transportation Master Plan Study Updates as they are required to properly plan for and accommodate future development on the Town-wide road network</li> </ul>

After these adjustments, the total Roads and Related Town-wide Infrastructure capital program amounts to \$249.89 million. Available reserves in the amount of \$39.06 million have been applied to projects occurring in the initial years of the capital program. Approximately \$27.33 million has been deemed a post-2036 share that will be considered for recovery under future development charges. The remaining costs eligible for recovery through development charges during the planning period from 2016 to 2036 is thus reduced to \$183.50 million. This amount is included in the development charge calculation.

The total costs eligible for DC recovery amounts to \$183.50 million and is allocated 80 per cent, or \$147.09 million to the residential sector, 4 per cent, or \$7.12 million to the

retail commercial sector and 16 per cent, or \$29.29 million, to the other non-residential sector based on 2016-2036 shares of growth in population in new units and employment. The resulting unadjusted per capita residential charge is \$2,055.12 before cash flow adjustments. The non-residential retail commercial unadjusted charge is \$47.79 per square metre and the other non-residential charge is \$25.60 per square meter.

### **Roads and Related Capital Program – Alternative Route and Related Infrastructure**

The total cost of the 20-year Roads and Related – Alternative Route and Related Infrastructure capital program is \$58.00 million and provides for the undertaking of the Alternative Route Highway 7/12 related infrastructure. No grants or DC ineligible projects have been identified and as such, no reductions have been made.

As the Alternative Route and Related infrastructure is related to the increased need for service arising from new development no BTE share has been identified and therefore, the total \$58.00 million is 100% attributable to new development. In total, approximately \$5.94 million of the total project costs is deemed a post-2036 share and will be considered for recovery under future development charge studies.

The total costs eligible for DC recovery amounts to \$52.06 million and is allocated 80 per cent, or \$41.73 million to the residential sector, 4 per cent, or \$2.03 million to the retail commercial sector and 16 per cent, or \$8.31 million, to the other non-residential sector based on 2016-2036 shares of growth in population in new units and employment. The resulting unadjusted per capita residential charge is \$583.02 before cash flow adjustments. The non-residential retail commercial unadjusted charge is \$13.66 per square metre and the other non-residential charge is \$7.26 per square meter.

### **Table 3 Residential & Non-Residential Cash Flow Analysis**

The long term cash flow analysis, shown on Table 3 takes into consideration expenditure timing and revenue projections. The reason for the increase in the rates is the “front-ending” of the roads capital program. This relationship, between the timing of the infrastructure emplacement preceding the development, is normal and expected as the roads and related network needs to be in place prior to full-development of the benefiting lands.

### Roads and Related Capital Program – Town-wide Infrastructure

After cash flow analysis, the residential charge increases to \$2,322.95 per capita and the non-residential retail commercial charge increases to \$53.90 per square metre and the other non-residential charge increases to \$28.45 per square metre.

The following is a summary of the Roads and Related – Town-wide Infrastructure calculated unadjusted and cash flow adjusted development charge rates:

<b>ROADS &amp; RELATED - TOWN-WIDE INFRASTRUCTURE SUMMARY</b>							
2016 - 2036		Unadjusted Development Charge			Adjusted Development Charge		
Development-Related Capital Program		Residential	Retail	Other Non-Res	Residential	Retail	Other Non-Res
Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/sq.m	\$/capita	\$/sq.m	\$/sq.m
\$329,418,789	\$183,498,927	\$2,055.12	\$47.79	\$25.60	<b>\$2,322.95</b>	<b>\$53.90</b>	<b>\$28.45</b>

### Roads and Related Capital Program – Alternative Route and Related Infrastructure

After cash flow analysis, the residential charge increases to \$699.88 per capita and the non-residential retail commercial charge increases to \$16.23 per square metre and the other non-residential charge increases to \$8.58 per square metre.

The following is a summary of the Roads and Related – Alternative Route and Related Infrastructure calculated unadjusted and cash flow adjusted development charge rates:

<b>ROADS &amp; RELATED - ALTERNATE ROUTE AND RELATED INFRASTRUCTURE SUMMARY</b>							
2016 - 2036		Unadjusted Development Charge			Adjusted Development Charge		
Development-Related Capital Program		Residential	Retail	Other Non-Res	Residential	Retail	Other Non-Res
Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/sq.m	\$/capita	\$/sq.m	\$/sq.m
\$58,000,000	\$58,000,000	\$583.02	\$13.66	\$7.26	<b>\$699.88</b>	<b>\$16.23</b>	<b>\$8.58</b>

**APPENDIX C.1**  
**TABLE 1 - PAGE 1**

## TOWN OF WHITBY INVENTORY OF CAPITAL ASSETS

## ROADS & RELATED - TOWN-WIDE INFRASTRUCTURE

ROADS	# of Kilometres										UNIT COST (\$/km)
Type of Road	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
HCB1	9	9	9	12	12	12	12	12	12	12	\$4,530,986
HCB2	12	12	12	8	8	8	8	8	8	9	\$3,250,640
HCB3	109	110	112	117	122	122	125	126	137	137	\$1,969,223
HCB4	281	281	287	287	295	294	292	294	284	284	\$1,895,657
LCB	59	62	67	68	68	66	66	66	64	64	\$56,000
Gravel	15	11	7	6	6	6	6	6	6	5	\$11,400
<b>Total (km)</b>	<b>486</b>	<b>486</b>	<b>494</b>	<b>498</b>	<b>511</b>	<b>509</b>	<b>509</b>	<b>512</b>	<b>511</b>	<b>511</b>	
<b>Total (\$000)</b>	<b>\$832,373.0</b>	<b>\$835,032.6</b>	<b>\$848,828.2</b>	<b>\$859,481.2</b>	<b>\$884,192.8</b>	<b>\$884,318.0</b>	<b>\$884,859.0</b>	<b>\$890,240.4</b>	<b>\$892,664.9</b>	<b>\$895,095.6</b>	

[illegible]

APPENDIX C.1  
TABLE 1 - PAGE 2

TOWN OF WHITBY  
INVENTORY OF CAPITAL ASSETS

ROADS & RELATED - TOWN-WIDE INFRASTRUCTURE

TRAFFIC SIGNALS Description	# of Traffic Signals										UNIT COST (\$/unit)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Signal - 3	2	2	2	2	2	2	2	2	2	2	\$200,000
Signal - 4	22	22	22	23	24	24	24	24	24	24	\$250,000
IPS - 2	3	3	3	3	3	3	4	4	4	4	\$200,000
Warning Signal - 1	-	-	-	-	-	1	1	1	1	-	\$30,000
Total (#)	27	27	27	28	29	30	31	31	31	30	
Total (\$000)	\$6,500.0	\$6,500.0	\$6,500.0	\$6,750.0	\$7,000.0	\$7,030.0	\$7,230.0	\$7,230.0	\$7,230.0	\$7,200.0	

SIDEWALKS Description	# of Kilometres										UNIT COST (\$/km)
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
1.2-1.4m Wide, concrete	14	14	14	15	15	16	16	16	16	16	\$166,439
1.5m wide, concrete	432	441	449	453	456	459	461	463	465	465	\$192,045
1.5m wide, asphalt	0	0	0	0	0	0	0	0	0	0	\$52,020
3.0m wide, asphalt	0	0	3	3	3	3	3	4	5	5	\$52,020
1.6-1.8m wide, concrete	13	13	13	13	13	13	13	13	14	14	\$217,651
2.0-2.7m wide, concrete	1	1	1	2	2	2	2	2	2	2	\$300,871
> 2.7m wide, concrete	1	1	1	1	1	2	2	3	3	3	\$358,484
Total (#)	460	470	481	487	490	494	498	502	505	505	
Total (\$000)	\$88,496.3	\$90,312.4	\$92,120.4	\$93,209.2	\$93,895.2	\$94,827.7	\$95,640.3	\$96,361.2	\$96,827.3	\$96,827.3	

APPENDIX C.1  
TABLE 1 - PAGE 3

TOWN OF WHITBY  
CALCULATION OF SERVICE LEVELS

ROADS & RELATED - TOWN-WIDE INFRASTRUCTURE

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Historic Population	111,184	113,272	115,399	117,566	119,774	122,022	123,267	124,525	125,796	127,080
Historic Employment	<u>38,033</u>	<u>37,974</u>	<u>37,946</u>	<u>37,946</u>	<u>37,975</u>	<u>38,030</u>	<u>38,585</u>	<u>39,156</u>	<u>39,740</u>	<u>40,339</u>
Total Historic Population & Employment	149,217	151,246	153,345	155,512	157,749	160,052	161,852	163,681	165,536	167,419

INVENTORY SUMMARY (\$000)

Roads	\$832,373.0	\$835,032.6	\$848,828.2	\$859,481.2	\$884,192.8	\$884,318.0	\$884,859.0	\$890,240.4	\$892,664.9	\$895,095.6
Bridges & Culverts	\$77,236.9	\$79,820.2	\$79,820.2	\$79,820.2	\$79,820.2	\$79,820.2	\$79,820.2	\$79,820.2	\$79,820.2	\$79,820.2
Traffic Signals	\$6,500.0	\$6,500.0	\$6,500.0	\$6,750.0	\$7,000.0	\$7,030.0	\$7,230.0	\$7,230.0	\$7,230.0	\$7,200.0
Sidewalks	\$88,496.3	\$90,312.4	\$92,120.4	\$93,209.2	\$93,895.2	\$94,827.7	\$95,640.3	\$96,361.2	\$96,827.3	\$96,827.3
Total (\$000)	\$1,004,606.1	\$1,011,665.2	\$1,027,268.8	\$1,039,260.5	\$1,064,908.1	\$1,065,995.9	\$1,067,549.5	\$1,073,651.7	\$1,076,542.5	\$1,078,943.2

Average  
Service  
Level

SERVICE LEVEL (\$/pop+empl)

Roads	\$5,578.26	\$5,521.02	\$5,535.41	\$5,526.78	\$5,605.06	\$5,525.18	\$5,467.07	\$5,438.88	\$5,392.58	\$5,346.45	\$5,493.67
Bridges & Culverts	\$517.61	\$527.75	\$520.53	\$513.27	\$505.99	\$498.71	\$493.17	\$487.66	\$482.19	\$476.77	\$502.37
Traffic Signals	\$43.56	\$42.98	\$42.39	\$43.41	\$44.37	\$43.92	\$44.67	\$44.17	\$43.68	\$43.01	\$43.62
Sidewalks	\$593.07	\$597.12	\$600.74	\$599.37	\$595.22	\$592.48	\$590.91	\$588.71	\$584.93	\$578.35	\$592.09
Total (\$/pop+empl)	\$6,732.51	\$6,688.87	\$6,699.07	\$6,682.83	\$6,750.65	\$6,660.29	\$6,595.82	\$6,559.43	\$6,503.38	\$6,444.58	\$6,631.74

TOWN OF WHITBY  
CALCULATION OF MAXIMUM ALLOWABLE

ROADS & RELATED - TOWN-WIDE INFRASTRUCTURE

20-Year Funding Envelope Calculation	
10 Year Average Service Level 2006 - 2015	\$6,631.74
Net Population & Employment Growth 2016 - 2036	77,878
Maximum Allowable Funding Envelope	\$516,468,272
Less: Uncommitted Excess Capacity	\$0
Less: 10% Legislated Reduction	\$0
Discounted Maximum Allowable Funding Envelope	\$516,468,272

Excess Capacity Calculation	
Total Value of Inventory in 2015	\$1,078,943,186
Inventory Using Average Service Level	\$1,110,277,958
Excess Capacity	\$0
Excess Capacity:	Uncommitted

TABLE 2  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED - TOWN-WIDE INFRASTRUCTURE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016-2036	Post 2036
1.1 ROADS & RELATED - TOWN-WIDE INFRASTRUCTURE												
1.1.1 Bridges and Culverts - New												
40160401 Ashburn Culvert	2016 - 2016	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ -	\$ -	\$ 200,000	\$ 200,000	\$ -	\$ -
40130201 Coronation Road/CP Rail Grade Separation	2017 - 2017	\$ 9,400,000	\$ -	\$ 9,400,000	Y	\$ -	\$ -	\$ -	\$ 9,400,000	\$ 9,400,000	\$ -	\$ -
40160202 Mary Street Extension	2027 - 2027	\$ 14,600,500	\$ 416,995	\$ 14,183,505	Y	\$ -	\$ 1,418,351	\$ -	\$ 12,765,154	\$ -	\$ 12,765,154	\$ -
40160201 Annes Street Bridge - CNR/GO (New)	2030 - 2030	\$ 10,765,000	\$ -	\$ 10,765,000	Y	\$ -	\$ 1,076,500	\$ -	\$ 9,688,500	\$ -	\$ -	\$ 9,688,500
Subtotal Bridges and Culverts - New		\$ 34,965,500	\$ 416,995	\$ 34,548,505		\$ -	\$ 2,494,851	\$ -	\$ 32,053,654	\$ 9,600,000	\$ 12,765,154	\$ 9,688,500
1.1.2 Bridges and Culverts Growth Related Improvements												
40120203 Columbus Culvert (CU_A07_07)	2017 - 2017	\$ 35,000	\$ -	\$ 35,000	Y	\$ -	\$ 5,250	\$ -	\$ 29,750	\$ 29,750	\$ -	\$ -
40120203 Columbus Culvert (CU_A07_07)	2018 - 2018	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 37,500	\$ -	\$ 212,500	\$ 79,703	\$ 132,797	\$ -
40120205 Columbus Culvert (CU_A07_05)	2018 - 2018	\$ 600,000	\$ -	\$ 600,000	Y	\$ -	\$ 90,000	\$ -	\$ 510,000	\$ -	\$ 510,000	\$ -
40190402 Anderson Culvert (CU_B04_04)	2019 - 2019	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 80,000	\$ -	\$ 20,000	\$ -	\$ 20,000	\$ -
40100203 White's Bridge (BR_A08_02) Replacement / Upgrades	2019 - 2019	\$ 400,000	\$ -	\$ 400,000	Y	\$ -	\$ 273,006	\$ -	\$ 126,994	\$ -	\$ 126,994	\$ -
40100203 White's Bridge (BR_A08_02) Replacement / Upgrades	2020 - 2020	\$ 2,700,000	\$ -	\$ 2,700,000	Y	\$ -	\$ 1,842,789	\$ -	\$ 857,211	\$ -	\$ 857,211	\$ -
40210402 Garden Culvert (CU_C09_05)	2021 - 2021	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ 30,000	\$ -	\$ 170,000	\$ -	\$ 170,000	\$ -
40230301 Brawley Road Culvert (CU_A07_02)	2021 - 2021	\$ 35,000	\$ -	\$ 35,000	Y	\$ -	\$ 28,000	\$ -	\$ 7,000	\$ -	\$ 7,000	\$ -
40220301 Brawley Rd Culvert 2 (CU_A07_03)	2021 - 2021	\$ 35,000	\$ -	\$ 35,000	Y	\$ -	\$ 28,000	\$ -	\$ 7,000	\$ -	\$ 7,000	\$ -
40220301 Brawley Rd Culvert 2 (CU_A07_03)	2022 - 2022	\$ 650,000	\$ -	\$ 650,000	Y	\$ -	\$ 520,000	\$ -	\$ 130,000	\$ -	\$ 130,000	\$ -
40230301 Brawley Road Culvert (CU_A07_02)	2022 - 2022	\$ 600,000	\$ -	\$ 600,000	Y	\$ -	\$ 480,000	\$ -	\$ 120,000	\$ -	\$ 120,000	\$ -
40230401 Bonacord Bridge (BR_C04_02)	2023 - 2023	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 200,000	\$ -	\$ 50,000	\$ -	\$ 50,000	\$ -
40180202 Lynde Creek Bridge (BR_D07_02)	2023 - 2023	\$ 70,000	\$ -	\$ 70,000	Y	\$ -	\$ 56,000	\$ -	\$ 14,000	\$ -	\$ 14,000	\$ -
40180202 Lynde Creek Bridge (BR_D07_02)	2024 - 2024	\$ 850,000	\$ -	\$ 850,000	Y	\$ -	\$ 680,000	\$ -	\$ 170,000	\$ -	\$ 170,000	\$ -
Subtotal Bridges and Culverts Growth Related Improvements		\$ 6,775,000	\$ -	\$ 6,775,000		\$ -	\$ 4,350,545	\$ -	\$ 2,424,455	\$ 109,453	\$ 2,315,002	\$ -
1.1.3 Pedestrian Bridges and Tunnels - New												
40160205 Victoria Pedestrian Bridge at Victoria Fields	2022 - 2022	\$ 1,500,000	\$ -	\$ 1,500,000	Y	\$ -	\$ 150,000	\$ -	\$ 1,350,000	\$ -	\$ 1,350,000	\$ -
40220201 Rossland Rd Pedestrian Bridge at Hydro Corridor	2023 - 2023	\$ 1,500,000	\$ -	\$ 1,500,000	Y	\$ -	\$ 150,000	\$ -	\$ 1,350,000	\$ -	\$ 1,350,000	\$ -
40240201 Taunton Rd Pedestrian Tunnel at Hydro Corridor	2024 - 2024	\$ 736,500	\$ -	\$ 736,500	Y	\$ -	\$ 73,650	\$ -	\$ 662,850	\$ -	\$ 662,850	\$ -
40180201 Rossland Rd Pedestrian Tunnel at Lynde Creek	2025 - 2025	\$ 788,000	\$ -	\$ 788,000	Y	\$ -	\$ 78,800	\$ -	\$ 709,200	\$ -	\$ 709,200	\$ -
40200202 Taunton Rd Pedestrian Tunnel at Lynde Creek	2026 - 2026	\$ 788,000	\$ -	\$ 788,000	Y	\$ -	\$ 78,800	\$ -	\$ 709,200	\$ -	\$ 709,200	\$ -
Subtotal Pedestrian Bridges and Tunnels - New		\$ 5,312,500	\$ -	\$ 5,312,500		\$ -	\$ 531,250	\$ -	\$ 4,781,250	\$ -	\$ 4,781,250	\$ -

APPENDIX C.1  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED - TOWN-WIDE INFRASTRUCTURE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
1.1.4 Multi-Use Paths and Cycling Facilities - New												
40160701 RR 3 Winchester - Thickson to Cachet	2016 - 2016	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ 15,000	\$ -	\$ 135,000	\$ 135,000	\$ -	\$ -
40160704 RR4 Taunton - Anderson to E. Limit (SS)	2016 - 2016	\$ 375,000	\$ -	\$ 375,000	Y	\$ -	\$ 37,500	\$ -	\$ 337,500	\$ 337,500	\$ -	\$ -
40160703 RR4 Taunton - Garden to Anderson (BS)	2016 - 2016	\$ 245,000	\$ -	\$ 245,000	Y	\$ -	\$ 24,500	\$ -	\$ 220,500	\$ 220,500	\$ -	\$ -
40160702 RR4 Taunton - Valleywood to Garden (SS)	2016 - 2016	\$ 206,250	\$ -	\$ 206,250	Y	\$ -	\$ 20,625	\$ -	\$ 185,625	\$ 185,625	\$ -	\$ -
40160901 Ashburn - Hwy 407 to Spencers	2016 - 2016	\$ 514,426	\$ -	\$ 514,426	Y	\$ -	\$ 51,443	\$ -	\$ 462,983	\$ 462,983	\$ -	\$ -
40181802 Ashburn - Myrtle to Richard Butler	2016 - 2016	\$ 85,333	\$ -	\$ 85,333	Y	\$ -	\$ 8,533	\$ -	\$ 76,800	\$ 76,800	\$ -	\$ -
40181803 Ashburn - Richard Butler to Townline	2016 - 2016	\$ 235,122	\$ -	\$ 235,122	Y	\$ -	\$ 23,512	\$ -	\$ 211,610	\$ 211,610	\$ -	\$ -
40181801 Ashburn - Winchester to Columbus	2016 - 2016	\$ 52,805	\$ -	\$ 52,805	Y	\$ -	\$ 5,281	\$ -	\$ 47,524	\$ 47,524	\$ -	\$ -
40231801 Ashburn Rd - Columbus to Brawley	2016 - 2016	\$ 317,429	\$ -	\$ 317,429	Y	\$ -	\$ 31,743	\$ -	\$ 285,686	\$ 285,686	\$ -	\$ -
40071804 RR 28 Rossland - Brock to Garden	2016 - 2016	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 10,000	\$ -	\$ 90,000	\$ 90,000	\$ -	\$ -
40160801 Area 5	2018 - 2018	\$ 64,750	\$ -	\$ 64,750	Y	\$ -	\$ 6,475	\$ -	\$ 58,275	\$ 58,275	\$ -	\$ -
40151806 Area 7	2018 - 2018	\$ 35,000	\$ -	\$ 35,000	Y	\$ -	\$ 3,500	\$ -	\$ 31,500	\$ 31,500	\$ -	\$ -
40131806 Area 9	2018 - 2018	\$ 92,750	\$ -	\$ 92,750	Y	\$ -	\$ 9,275	\$ -	\$ 83,475	\$ 83,475	\$ -	\$ -
40150701 Garden - Dundas to Mary	2017 - 2017	\$ 450,000	\$ -	\$ 450,000	Y	\$ -	\$ 45,000	\$ -	\$ 405,000	\$ 405,000	\$ -	\$ -
40170701 RR 12 Brock - Rossland to Taunton	2017 - 2017	\$ 300,000	\$ -	\$ 300,000	Y	\$ -	\$ 30,000	\$ -	\$ 270,000	\$ 270,000	\$ -	\$ -
40171805 RR 25 Consumers - Thickson to Oshawa	2017 - 2017	\$ 228,250	\$ -	\$ 228,250	Y	\$ -	\$ 22,825	\$ -	\$ 205,425	\$ 205,425	\$ -	\$ -
40131813 RR 22 Victoria - Brock to South Blair	2018 - 2018	\$ 143,000	\$ -	\$ 143,000	Y	\$ -	\$ 14,300	\$ -	\$ 128,700	\$ 128,700	\$ -	\$ -



APPENDIX C.1  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED - TOWN-WIDE INFRASTRUCTURE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
1.1.4 Multi-Use Paths and Cycling Facilities - New - Continued												
40201701 Rossland - Des Newman to Brock	2017 - 2017	\$ 408,000	\$ 25,030	\$ 382,970	Y	\$ -	\$ 38,297	\$ -	\$ 344,673	\$ 344,673	\$ -	\$ -
40191809 Dryden - Brock to Oshawa	2018 - 2018	\$ 345,000	\$ -	\$ 345,000	Y	\$ -	\$ 34,500	\$ -	\$ 310,500	\$ 310,500	\$ -	\$ -
40071802 RR 22 Victoria - South Blair to Thicksn	2018 - 2018	\$ 175,000	\$ 89,474	\$ 85,526	Y	\$ -	\$ 8,553	\$ -	\$ 76,973	\$ 76,973	\$ -	\$ -
40151815 RR 22 Victoria - Home Depot to Oshawa	2019 - 2019	\$ 121,000	\$ 51,073	\$ 69,927	Y	\$ -	\$ 6,993	\$ -	\$ 62,934	\$ -	\$ 62,934	\$ -
40171806 RR 4 Taunton Rd - Coronation Rd to Baycliffe Dr	2019 - 2019	\$ 80,000	\$ -	\$ 80,000	Y	\$ -	\$ 8,000	\$ -	\$ 72,000	\$ -	\$ 72,000	\$ -
40151814 RR 3 Winchester - Baldwin to Thicksn	2019 - 2019	\$ 269,000	\$ 9,887	\$ 259,113	Y	\$ -	\$ 25,911	\$ -	\$ 233,202	\$ -	\$ 233,202	\$ -
40151817 RR 22 Victoria - Seaboard to Brock	2019 - 2019	\$ 310,000	\$ -	\$ 310,000	Y	\$ -	\$ 31,000	\$ -	\$ 279,000	\$ -	\$ 279,000	\$ -
40182401 Bicycle Shelters	2019 - 2019	\$ 32,000	\$ -	\$ 32,000	Y	\$ -	\$ 3,200	\$ -	\$ 28,800	\$ -	\$ 28,800	\$ -
40161804 RR 26 Thicksn - Wentworth to Victoria	2020 - 2020	\$ 140,000	\$ -	\$ 140,000	Y	\$ -	\$ 14,000	\$ -	\$ 126,000	\$ -	\$ 126,000	\$ -
40211802 Dundas - Kathleen to east Town limits	2020 - 2020	\$ 145,000	\$ -	\$ 145,000	Y	\$ -	\$ 14,500	\$ -	\$ 130,500	\$ -	\$ 130,500	\$ -
40200702 RR 23 Lakeridge - Victoria to Dundas	2020 - 2020	\$ 342,000	\$ -	\$ 342,000	Y	\$ -	\$ 34,200	\$ -	\$ 307,800	\$ -	\$ 307,800	\$ -
40200701 RR 12 Baldwin - Taunton to Winchester	2020 - 2020	\$ 748,000	\$ -	\$ 748,000	Y	\$ -	\$ 74,800	\$ -	\$ 673,200	\$ -	\$ 673,200	\$ -
40211803 Dundas - Lake Ridge to Henry	2020 - 2020	\$ 530,750	\$ -	\$ 530,750	Y	\$ -	\$ 53,075	\$ -	\$ 477,675	\$ -	\$ 477,675	\$ -
40171803 Anderson - Solmar to Utility ROW	2021 - 2021	\$ 168,250	\$ -	\$ 168,250	Y	\$ -	\$ 16,825	\$ -	\$ 151,425	\$ -	\$ 151,425	\$ -
40210701 RR 26 Thicksn - Burns to Consumers	2021 - 2021	\$ 102,000	\$ -	\$ 102,000	Y	\$ -	\$ 10,200	\$ -	\$ 91,800	\$ -	\$ 91,800	\$ -
40201801 Cochrane St - Winchester to Coulmbus	2022 - 2022	\$ 293,500	\$ -	\$ 293,500	Y	\$ -	\$ 29,350	\$ -	\$ 264,150	\$ -	\$ 264,150	\$ -
40220702 RR 26 Thicksn - Taunton to Winchester	2022 - 2022	\$ 714,000	\$ -	\$ 714,000	Y	\$ -	\$ 71,400	\$ -	\$ 642,600	\$ -	\$ 642,600	\$ -
40220703 RR 28 Rossland - Lakeridge to Des Newman	2022 - 2022	\$ 153,000	\$ -	\$ 153,000	Y	\$ -	\$ 15,300	\$ -	\$ 137,700	\$ -	\$ 137,700	\$ -
40220704 RR46 Brock – Water to Victoria (ES)	2022 - 2022	\$ 165,000	\$ -	\$ 165,000	Y	\$ -	\$ 16,500	\$ -	\$ 148,500	\$ -	\$ 148,500	\$ -
40220701 RR 23 Lakeridge - Dundas to Rossland	2022 - 2022	\$ 342,000	\$ -	\$ 342,000	Y	\$ -	\$ 34,200	\$ -	\$ 307,800	\$ -	\$ 307,800	\$ -
40211801 RR 12 Brock - Victoria to Consumers	2023 - 2023	\$ 128,750	\$ -	\$ 128,750	Y	\$ -	\$ 12,875	\$ -	\$ 115,875	\$ -	\$ 115,875	\$ -
40191802 Columbus - Lake Ridge to Cochrane	2025 - 2025	\$ 775,000	\$ -	\$ 775,000	Y	\$ -	\$ 77,500	\$ -	\$ 697,500	\$ -	\$ 697,500	\$ -
40181804 RR 36 Hopkins - Consumers to Dundas	2026 - 2026	\$ 255,500	\$ -	\$ 255,500	Y	\$ -	\$ 25,550	\$ -	\$ 229,950	\$ -	\$ 229,950	\$ -
40251801 RR 36 Hopkins - Victoria to Consumers	2026 - 2026	\$ 110,000	\$ -	\$ 110,000	Y	\$ -	\$ 11,000	\$ -	\$ 99,000	\$ -	\$ 99,000	\$ -
40182401 Bicycle Shelters	2027 - 2027	\$ 32,000	\$ -	\$ 32,000	Y	\$ -	\$ 3,200	\$ -	\$ 28,800	\$ -	\$ 28,800	\$ -
Subtotal Multi-Use Paths and Cycling Facilities - New		\$ 10,479,865	\$ 175,464	\$ 10,304,401		\$ -	\$ 1,030,441	\$ -	\$ 9,273,960	\$ 3,967,749	\$ 5,306,211	\$ -

APPENDIX C.1  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED - TOWN-WIDE INFRASTRUCTURE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
<b>1.1.5 Highway 407 Related Infrastructure</b>												
40166601 RR 12 Baldwin - Canary to Garden (ES)	2016 - 2016	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ -	\$ -	\$ 200,000	\$ 200,000	\$ -	\$ -
40166602 Hwy 12 Baldwin - Garden to Roybrook (ES)	2016 - 2016	\$ 425,000	\$ -	\$ 425,000	Y	\$ -	\$ -	\$ -	\$ 425,000	\$ 425,000	\$ -	\$ -
40301701 Hwy 407/Cochrane Interchange	2030 - 2030	\$ 10,300,000	\$ -	\$ 10,300,000	Y	\$ -	\$ -	\$ -	\$ 10,300,000	\$ -	\$ -	\$ 10,300,000
Subtotal Highway 407 Related Infrastructure		\$ 10,925,000	\$ -	\$ 10,925,000		\$ -	\$ -	\$ -	\$ 10,925,000	\$ 625,000	\$ -	\$ 10,300,000
<b>1.1.6 Land Acquisition Roads Widening &amp; Extensions</b>												
40181201 LA - Mid Block Conn. (Cochrane to Thickson)	2017 - 2017	\$ 1,351,500	\$ -	\$ 1,351,500	Y	\$ -	\$ -	\$ -	\$ 1,351,500	\$ 1,351,500	\$ -	\$ -
40171201 LA - Garden (Rob. Attersley to Mid Block Conn.)	2019 - 2019	\$ 955,000	\$ -	\$ 955,000	Y	\$ -	\$ -	\$ -	\$ 955,000	\$ -	\$ 955,000	\$ -
40161201 LA - Burns (Hopkins to Thickson)	2024 - 2024	\$ 112,500	\$ -	\$ 112,500	Y	\$ -	\$ -	\$ -	\$ 112,500	\$ -	\$ 112,500	\$ -
40201201 LA - Bonacord (Cochrane to Brock)	2026 - 2026	\$ 506,250	\$ -	\$ 506,250	Y	\$ -	\$ -	\$ -	\$ 506,250	\$ -	\$ 506,250	\$ -
Subtotal Land Acquisition Roads Widening & Extensions		\$ 2,925,250	\$ -	\$ 2,925,250		\$ -	\$ -	\$ -	\$ 2,925,250	\$ 1,351,500	\$ 1,573,750	\$ -
<b>1.1.7 Major Road Growth Related Reconstruction</b>												
40091730 Water St Realignment - Reconstruction - Design Development	2016 - 2016	\$ 300,000	\$ -	\$ 300,000	Y	\$ -	\$ 45,000	\$ -	\$ 255,000	\$ 255,000	\$ -	\$ -
40171724 Cochrane St - North of Taunton Rd	2018 - 2018	\$ 750,000	\$ -	\$ 750,000	Y	\$ -	\$ 75,000	\$ -	\$ 675,000	\$ 675,000	\$ -	\$ -
40091730 Water St Realignment - Reconstruction - Construction	2019 - 2019	\$ 3,650,000	\$ 9,916	\$ 3,640,084	Y	\$ -	\$ 546,013	\$ -	\$ 3,094,071	\$ -	\$ 3,094,071	\$ -
40101723 Columbus - Thickson to Cachet/East Limit	2019 - 2019	\$ 2,000,000	\$ 55,392	\$ 1,944,608	Y	\$ -	\$ 291,691	\$ -	\$ 1,652,917	\$ -	\$ 1,652,917	\$ -
40061724 Columbus E - Baldwin/Thickson	2019 - 2019	\$ 2,000,000	\$ -	\$ 2,000,000	Y	\$ -	\$ 300,000	\$ -	\$ 1,700,000	\$ -	\$ 1,700,000	\$ -
40151712 Columbus Rd - Cochrane to Ashburn	2019 - 2019	\$ 1,933,000	\$ -	\$ 1,933,000	Y	\$ -	\$ 289,950	\$ -	\$ 1,643,050	\$ -	\$ 1,643,050	\$ -
40121721 Columbus W -Ashburn to Baldwin	2019 - 2019	\$ 3,151,800	\$ 139,171	\$ 3,012,629	Y	\$ -	\$ 451,894	\$ -	\$ 2,560,735	\$ -	\$ 2,560,735	\$ -
40181702 Ashburn Road - Columbus to Brawley	2021 - 2021	\$ 5,473,700	\$ -	\$ 5,473,700	Y	\$ -	\$ 821,055	\$ -	\$ 4,652,645	\$ -	\$ 4,652,645	\$ -
40206302 Brawley Road	2022 - 2022	\$ 10,000,000	\$ -	\$ 10,000,000	Y	\$ -	\$ 900,000	\$ -	\$ 9,100,000	\$ -	\$ 9,100,000	\$ -
40251713 Cochrane - Columbus to Brawley	2024 - 2024	\$ 5,562,000	\$ -	\$ 5,562,000	Y	\$ -	\$ 834,300	\$ -	\$ 4,727,700	\$ -	\$ 4,727,700	\$ -
40231701 Cochrane - Hwy 7 to Columbus	2027 - 2027	\$ 5,673,240	\$ -	\$ 5,673,240	Y	\$ -	\$ 850,986	\$ -	\$ 4,822,254	\$ -	\$ 4,822,254	\$ -
Subtotal Major Road Growth Related Reconstruction		\$ 40,493,740	\$ 204,479	\$ 40,289,261		\$ -	\$ 5,405,889	\$ -	\$ 34,883,372	\$ 930,000	\$ 33,953,372	\$ -

APPENDIX C.1  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED - TOWN-WIDE INFRASTRUCTURE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
1.1.8 Minor Road Growth Related Reconstruction												
40151737 Country Lane - Taunton to 900m north	2016 - 2016	\$ 2,275,000	\$ -	\$ 2,275,000	Y	\$ -	\$ 341,250	\$ -	\$ 1,933,750	\$ 1,933,750	\$ -	\$ -
40165902 Price Street - Vipond to Way	2016 - 2016	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 7,500	\$ -	\$ 42,500	\$ 42,500	\$ -	\$ -
40165903 Way Street - Price to Baldwin	2016 - 2016	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ 3,750	\$ -	\$ 21,250	\$ 21,250	\$ -	\$ -
40091729 Trent W - Brock to Henry	2016 - 2016	\$ 840,500	\$ 28,504	\$ 811,996	Y	\$ -	\$ 121,799	\$ -	\$ 690,197	\$ 690,197	\$ -	\$ -
40151737 Country Lane - Taunton to 900m north	2017 - 2017	\$ 725,000	\$ -	\$ 725,000	Y	\$ -	\$ 108,750	\$ -	\$ 616,250	\$ 616,250	\$ -	\$ -
40165902 Price Street - Vipond to Way	2017 - 2017	\$ 400,000	\$ -	\$ 400,000	Y	\$ -	\$ 60,000	\$ -	\$ 340,000	\$ 340,000	\$ -	\$ -
40165903 Way Street - Price to Baldwin	2017 - 2017	\$ 300,000	\$ -	\$ 300,000	Y	\$ -	\$ 45,000	\$ -	\$ 255,000	\$ 255,000	\$ -	\$ -
40165904 Civic Centre - West Port to Rossland	2018 - 2018	\$ 92,300	\$ 2,705	\$ 89,595	Y	\$ -	\$ 13,439	\$ -	\$ 76,156	\$ 76,156	\$ -	\$ -
40165901 Kenneth Hobbs - Vanier to Civic Centre	2018 - 2018	\$ 37,000	\$ -	\$ 37,000	Y	\$ -	\$ 5,550	\$ -	\$ 31,450	\$ 31,450	\$ -	\$ -
40175904 Ontario Street – Baldwin Street to End	2018 - 2018	\$ 375,000	\$ -	\$ 375,000	Y	\$ -	\$ 375,000	\$ -	\$ -	\$ -	\$ -	\$ -
40195901 Colborne St - Brock to Green	2019 - 2019	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ 341,257	\$ -	\$ 158,743	\$ -	\$ 158,743	\$ -
40221701 Cedarbrook Trail - Columbus to 700m north	2022 - 2022	\$ 1,875,500	\$ -	\$ 1,875,500	Y	\$ -	\$ 281,325	\$ -	\$ 1,594,175	\$ -	\$ 1,594,175	\$ -
40255901 Spencers - Ashburn to Baldwin	2023 - 2023	\$ 800,000	\$ -	\$ 800,000	Y	\$ -	\$ 120,000	\$ -	\$ 680,000	\$ -	\$ 680,000	\$ -
40225901 Durham - Winchester to Cassells	2025 - 2025	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ 75,000	\$ -	\$ 425,000	\$ -	\$ 425,000	\$ -
40111761 Future Design	2016 - 2025	\$ 1,000,000	\$ -	\$ 1,000,000	Y	\$ -	\$ 150,000	\$ -	\$ 850,000	\$ -	\$ 850,000	\$ -
40111761 Future Design	2026 - 2028	\$ 300,000	\$ -	\$ 300,000	Y	\$ -	\$ 45,000	\$ -	\$ 255,000	\$ -	\$ 255,000	\$ -
40111761 Future Design	2029 - 2036	\$ 800,000	\$ -	\$ 800,000	Y	\$ -	\$ 120,000	\$ -	\$ 680,000	\$ -	\$ -	\$ 680,000
Subtotal Minor Road Growth Related Reconstruction		\$ 10,895,300	\$ 31,209	\$ 10,864,091		\$ -	\$ 2,214,620	\$ -	\$ 8,649,471	\$ 4,006,553	\$ 3,962,918	\$ 680,000

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ROADS AND RELATED - TOWN-WIDE INFRASTRUCTURE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
1.1.9 Road Intersection Improvements												
40141709 Brock St - LT Lanes Palmerston Ave	2016 - 2016	\$ 150,000	\$ 134,682	\$ 15,318	Y	\$ -	\$ 7,659	\$ -	\$ 7,659	\$ 7,659	\$ -	\$ -
40165801 Garrard/Dundas Intersection	2016 - 2016	\$ 450,000	\$ -	\$ 450,000	Y	\$ -	\$ 225,000	\$ -	\$ 225,000	\$ 225,000	\$ -	\$ -
40175801 Brock/Burns Turning Lanes	2017 - 2017	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 25,000	\$ -	\$ 25,000	\$ 25,000	\$ -	\$ -
40175803 Watford/Cassels - Intersection	2017 - 2017	\$ 450,000	\$ -	\$ 450,000	Y	\$ -	\$ 225,000	\$ -	\$ 225,000	\$ 225,000	\$ -	\$ -
40155803 Watford/Nathan - Intersection	2017 - 2017	\$ 450,000	\$ -	\$ 450,000	Y	\$ -	\$ 225,000	\$ -	\$ 225,000	\$ 225,000	\$ -	\$ -
40255802 Cachet / Carnwith Intersection	2017 - 2017	\$ 80,000	\$ -	\$ 80,000	Y	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ 40,000	\$ -	\$ -
40175906 Carnwith Curb Extension	2017 - 2017	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 25,000	\$ -	\$ 25,000	\$ 25,000	\$ -	\$ -
40155801 Montgomery/Carnwith - Roundabout	2017 - 2017	\$ 80,000	\$ -	\$ 80,000	Y	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ 40,000	\$ -	\$ -
40155801 Montgomery/Carnwith - Roundabout	2018 - 2018	\$ 550,000	\$ -	\$ 550,000	Y	\$ -	\$ 275,000	\$ -	\$ 275,000	\$ 275,000	\$ -	\$ -
40255802 Cachet / Carnwith Intersection	2018 - 2018	\$ 550,000	\$ -	\$ 550,000	Y	\$ -	\$ 275,000	\$ -	\$ 275,000	\$ 275,000	\$ -	\$ -
40175906 Carnwith Curb Extension	2018 - 2018	\$ 700,000	\$ -	\$ 700,000	Y	\$ -	\$ 350,000	\$ -	\$ 350,000	\$ 350,000	\$ -	\$ -
40141709 Brock St - LT Lanes Palmerston Ave	2018 - 2018	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ 250,000	\$ -	\$ 250,000	\$ 250,000	\$ -	\$ -
40175801 Brock/Burns Turning Lanes	2018 - 2018	\$ 412,000	\$ -	\$ 412,000	Y	\$ -	\$ 206,000	\$ -	\$ 206,000	\$ 206,000	\$ -	\$ -
40082101 Ashburn/Columbus - Roundabout	2019 - 2019	\$ 840,500	\$ -	\$ 840,500	Y	\$ -	\$ 420,250	\$ -	\$ 420,250	\$ -	\$ 420,250	\$ -
40191703 Ashburn/Townline - Roundabout	2019 - 2019	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -
40112101 Ashburn/Vipond - Roundabout	2019 - 2019	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -
40195801 Ashburn/Carnwith - Roundabout	2020 - 2020	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -
40215802 Cochrane/Carnwith - Roundabout	2021 - 2021	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -
40155804 Gordon/Scadding - Roundabout	2022 - 2022	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 25,000	\$ -	\$ 25,000	\$ -	\$ 25,000	\$ -
40155802 Montgomery/Vipond - Roundabout	2022 - 2022	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 25,000	\$ -	\$ 25,000	\$ -	\$ 25,000	\$ -
40235801 Annes/Burns - Roundabout	2023 - 2023	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -
40235802 Garden/Burns - Roundabout	2023 - 2023	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -
40155804 Gordon/Scadding - Roundabout	2023 - 2023	\$ 257,500	\$ -	\$ 257,500	Y	\$ -	\$ 128,750	\$ -	\$ 128,750	\$ -	\$ 128,750	\$ -
40235803 Gordon/W. Shores Green. - Roundabout	2023 - 2023	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -
40155802 Montgomery/Vipond - Roundabout	2023 - 2023	\$ 257,500	\$ -	\$ 257,500	Y	\$ -	\$ 128,750	\$ -	\$ 128,750	\$ -	\$ 128,750	\$ -
40245801 Garden/Mary - Roundabout	2024 - 2024	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -
40255801 Kendalwood/Burns - Roundabout	2025 - 2025	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -
40265802 Garrard/Dryden - Roundabout	2026 - 2026	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -
40275801 McQuay/Bonacord - Roundabout	2027 - 2027	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -
40295801 Civic Centre/Dryden - Roundabout	2029 - 2029	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ -	\$ 315,000
40305801 Baldwin/Cassels - Roundabout	2030 - 2030	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ -	\$ 315,000
40315801 Baldwin/George - Roundabout	2031 - 2031	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ -	\$ 315,000
40325801 Baldwin/Carnwith - Roundabout	2032 - 2032	\$ 630,000	\$ -	\$ 630,000	Y	\$ -	\$ 315,000	\$ -	\$ 315,000	\$ -	\$ -	\$ 315,000
Subtotal Road Intersection Improvements		\$ 15,377,500	\$ 134,682	\$ 15,242,818		\$ -	\$ 7,621,409	\$ -	\$ 7,621,409	\$ 2,168,659	\$ 4,192,750	\$ 1,260,000

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DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED - TOWN-WIDE INFRASTRUCTURE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
1.1.10 Road Widening & Extensions												
40141710 DGN - Dundas to Rossland	2016 - 2016	\$ 5,572,250	\$ 3,250,000	\$ 2,322,250	Y	\$ -	\$ -	\$ -	\$ 2,322,250	\$ 2,322,250	\$ -	\$ -
40121728 Rossland Rd W- Lake Ridge to McQuay - Phase I	2016 - 2016	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ 22,500	\$ -	\$ 127,500	\$ 127,500	\$ -	\$ -
40161701 Bonacord - Lynde Creek to DGN - Phase I	2016 - 2017	\$ 400,000	\$ -	\$ 400,000	Y	\$ -	\$ -	\$ -	\$ 400,000	\$ 400,000	\$ -	\$ -
40101722 DGN - Rossland to Taunton	2017 - 2017	\$ 5,572,250	\$ 3,250,000	\$ 2,322,250	Y	\$ -	\$ -	\$ -	\$ 2,322,250	\$ 2,322,250	\$ -	\$ -
40101728 Garden - Dryden to Taunton	2017 - 2017	\$ 400,000	\$ -	\$ 400,000	Y	\$ -	\$ 60,000	\$ -	\$ 340,000	\$ 340,000	\$ -	\$ -
40121728 Rossland Rd W- Lake Ridge to McQuay - Phase II	2017 - 2017	\$ 3,400,000	\$ -	\$ 3,400,000	Y	\$ -	\$ 510,000	\$ -	\$ 2,890,000	\$ 2,890,000	\$ -	\$ -
40081713 Dryden Boulevard - Deverell St. to Thick	2018 - 2018	\$ 1,479,500	\$ 79,932	\$ 1,399,568	Y	\$ -	\$ -	\$ -	\$ 1,399,568	\$ 1,399,568	\$ -	\$ -
40171703 DGN - Taunton to existing	2019 - 2019	\$ 1,529,750	\$ -	\$ 1,529,750	Y	\$ -	\$ -	\$ -	\$ 1,529,750	\$ -	\$ 1,529,750	\$ -
40161701 Bonacord - Lynde Creek to DGN - Phase II	2019 - 2019	\$ 4,662,250	\$ -	\$ 4,662,250	Y	\$ -	\$ -	\$ -	\$ 4,662,250	\$ -	\$ 4,662,250	\$ -
40101729 Garden - Dryden to Taunton	2019 - 2019	\$ 2,963,000	\$ -	\$ 2,963,000	Y	\$ -	\$ 444,450	\$ -	\$ 2,518,550	\$ -	\$ 2,518,550	\$ -
40101729 Garden-R Attersley/Baldwin	2020 - 2020	\$ 12,770,000	\$ -	\$ 12,770,000	Y	\$ -	\$ -	\$ -	\$ 12,770,000	\$ -	\$ 12,770,000	\$ -
40161710 Mid-block Ext. (Cochrane to Thickson)	2022 - 2022	\$ 17,208,000	\$ -	\$ 17,208,000	Y	\$ -	\$ -	\$ -	\$ 17,208,000	\$ -	\$ 17,208,000	\$ -
40171702 Twin Streams - Baycliffe to Coronation	2023 - 2023	\$ 4,131,750	\$ -	\$ 4,131,750	Y	\$ -	\$ -	\$ -	\$ 4,131,750	\$ -	\$ 4,131,750	\$ -
40141708 Burns Street - Michael to Dundas	2023 - 2023	\$ 6,511,750	\$ -	\$ 6,511,750	Y	\$ -	\$ -	\$ -	\$ 6,511,750	\$ -	\$ 6,511,750	\$ -
40151713 Carnwith Drive - Cochrane to Ashburn	2023 - 2023	\$ 2,432,000	\$ -	\$ 2,432,000	Y	\$ -	\$ -	\$ -	\$ 2,432,000	\$ -	\$ 2,432,000	\$ -
40171701 Anderson St. - Taunton to Clair	2026 - 2026	\$ 11,582,500	\$ 44,971	\$ 11,537,529	Y	\$ -	\$ 1,730,629	\$ -	\$ 9,806,900	\$ -	\$ 9,806,900	\$ -
40131706 Burns St E - Hopkins/Thickson	2027 - 2027	\$ 10,822,500	\$ -	\$ 10,822,500	Y	\$ -	\$ -	\$ -	\$ 10,822,500	\$ -	\$ 10,822,500	\$ -
40296301 Bonacord - Cochrane to Starr	2029 - 2029	\$ 18,000,000	\$ -	\$ 18,000,000	Y	\$ -	\$ -	\$ -	\$ 18,000,000	\$ -	\$ 18,000,000	\$ -
Subtotal Road Widening & Extensions		\$ 109,587,500	\$ 6,624,903	\$ 102,962,597		\$ -	\$ 2,767,579	\$ -	\$ 100,195,018	\$ 9,801,568	\$ 90,393,450	\$ -
1.1.11 Roads EA & Preliminary Design												
40160502 EA Study - Highway 7/12 Alternate Route	2016 - 2016	\$ 750,000	\$ -	\$ 750,000	Y	\$ -	\$ -	\$ -	\$ 750,000	\$ 750,000	\$ -	\$ -
40170502 Garden - Robert Attersley to Baldwin	2017 - 2018	\$ 600,000	\$ -	\$ 600,000	Y	\$ -	\$ -	\$ -	\$ 600,000	\$ 600,000	\$ -	\$ -
40121732 EA - Way Street	2018 - 2018	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ -	\$ -	\$ 100,000	\$ 100,000	\$ -	\$ -
40190501 Mid-Block Extension - Cochrane to Thickson	2019 - 2020	\$ 1,000,000	\$ -	\$ 1,000,000	Y	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -
Subtotal Roads EA & Preliminary Design		\$ 2,450,000	\$ -	\$ 2,450,000		\$ -	\$ -	\$ -	\$ 2,450,000	\$ 1,450,000	\$ 1,000,000	\$ -

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ROADS AND RELATED - TOWN-WIDE INFRASTRUCTURE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
<b>1.1.12 Rural Arterial Road Growth Related Resurfacing</b>												
40166003 Ashburn Rd - Columbus Rd to Brawley Rd	2016 - 2016	\$ 404,889	\$ -	\$ 404,889	Y	\$ -	\$ 364,400	\$ -	\$ 40,489	\$ 40,489	\$ -	\$ -
40201703 Coronation - Hwy 7 to Columbus	2018 - 2018	\$ 413,800	\$ -	\$ 413,800	Y	\$ -	\$ 372,420	\$ -	\$ 41,380	\$ 41,380	\$ -	\$ -
40306001 Ashburn Rd - Brawley Rd to Myrtle Rd	2030 - 2030	\$ 2,200,000	\$ -	\$ 2,200,000	Y	\$ -	\$ 1,980,000	\$ -	\$ 220,000	\$ -	\$ -	\$ 220,000
40306005 South Blair St - Water St to Victoria St	2030 - 2030	\$ 908,900	\$ 43,391	\$ 865,509	Y	\$ -	\$ 778,958	\$ -	\$ 86,551	\$ -	\$ -	\$ 86,551
40326001 Garrard Rd - Birchpark Dr to Conlin Rd	2032 - 2032	\$ 1,229,500	\$ -	\$ 1,229,500	Y	\$ -	\$ 1,106,550	\$ -	\$ 122,950	\$ -	\$ -	\$ 122,950
Subtotal Rural Arterial Road Growth Related Resurfacing		\$ 5,157,089	\$ 43,391	\$ 5,113,698		\$ -	\$ 4,602,328	\$ -	\$ 511,370	\$ 81,869	\$ -	\$ 429,501
<b>1.1.13 Surface Treated to Hot Mix Conversion Program</b>												
40356001 Ashburn Rd - Myrtle Rd to Townline Rd	2016 - 2016	\$ 639,996	\$ -	\$ 639,996	Y	\$ -	\$ 83,199	\$ -	\$ 556,797	\$ 556,797	\$ -	\$ -
40181731 Townline Rd - Pickering to Oshawa	2020 - 2020	\$ 998,100	\$ -	\$ 998,100	Y	\$ -	\$ 129,753	\$ -	\$ 868,347	\$ -	\$ 868,347	\$ -
40221702 Columbus - Lakeridge to Cochrane	2025 - 2025	\$ 1,726,100	\$ -	\$ 1,726,100	Y	\$ -	\$ 224,393	\$ -	\$ 1,501,707	\$ -	\$ 1,501,707	\$ -
Subtotal Surface Treated to Hot Mix Conversion Program		\$ 3,364,196	\$ -	\$ 3,364,196		\$ -	\$ 437,345	\$ -	\$ 2,926,851	\$ 556,797	\$ 2,370,054	\$ -

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Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
1.1.14 Urban Arterial Road Growth Related Resurfacing												
40166004 Anderson St - Rossland Rd to Glen Dhu Dr	2016 - 2016	\$ 179,420	\$ -	\$ 179,420	Y	\$ -	\$ 161,478	\$ -	\$ 17,942	\$ 17,942	\$ -	\$ -
40166009 Watson - Harbour to Charles	2016 - 2016	\$ 20,901	\$ -	\$ 20,901	Y	\$ -	\$ 18,811	\$ -	\$ 2,090	\$ 2,090	\$ -	\$ -
40166006 Dundas W - Cochrane/Annes Intersection	2016 - 2016	\$ 144,651	\$ -	\$ 144,651	Y	\$ -	\$ 130,186	\$ -	\$ 14,465	\$ 14,465	\$ -	\$ -
40176005 Dundas E - Brock to Hickory	2017 - 2017	\$ 472,500	\$ -	\$ 472,500	Y	\$ -	\$ 425,250	\$ -	\$ 47,250	\$ 47,250	\$ -	\$ -
40176007 Dundas W - Jeffery to Annes	2017 - 2017	\$ 982,000	\$ 19,563	\$ 962,437	Y	\$ -	\$ 866,193	\$ -	\$ 96,244	\$ 96,244	\$ -	\$ -
40181723 Dryden - Brock to Anderson	2018 - 2018	\$ 1,117,700	\$ -	\$ 1,117,700	Y	\$ -	\$ 1,005,930	\$ -	\$ 111,770	\$ 111,770	\$ -	\$ -
40166001 Garden - Martinet to Manning	2018 - 2018	\$ 601,200	\$ -	\$ 601,200	Y	\$ -	\$ 541,080	\$ -	\$ 60,120	\$ 60,120	\$ -	\$ -
40191701 Burns E - Thickson to Oshawa	2019 - 2019	\$ 983,200	\$ -	\$ 983,200	Y	\$ -	\$ 884,880	\$ -	\$ 98,320	\$ -	\$ 98,320	\$ -
40181722 Burns W - Annes to Brock	2019 - 2019	\$ 530,000	\$ -	\$ 530,000	Y	\$ -	\$ 477,000	\$ -	\$ 53,000	\$ -	\$ 53,000	\$ -
40196003 Dundas E - Hickory to Garden	2019 - 2019	\$ 405,000	\$ -	\$ 405,000	Y	\$ -	\$ 364,500	\$ -	\$ 40,500	\$ -	\$ 40,500	\$ -
40196004 Dundas W - Jeffery to White Oaks	2019 - 2019	\$ 400,000	\$ -	\$ 400,000	Y	\$ -	\$ 360,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -
40196001 Garden - Dundas to Martinet	2019 - 2019	\$ 924,000	\$ -	\$ 924,000	Y	\$ -	\$ 831,600	\$ -	\$ 92,400	\$ -	\$ 92,400	\$ -
40206006 Anderson St - Dryden Blvd to Taunton Rd	2023 - 2023	\$ 603,200	\$ -	\$ 603,200	Y	\$ -	\$ 542,880	\$ -	\$ 60,320	\$ -	\$ 60,320	\$ -
40206005 Bonacord Ave - Mackey Dr to McQuay Blvd	2020 - 2020	\$ 311,600	\$ -	\$ 311,600	Y	\$ -	\$ 280,440	\$ -	\$ 31,160	\$ -	\$ 31,160	\$ -
40206007 Dundas E - Bowman to Oshawa	2020 - 2020	\$ 1,395,000	\$ -	\$ 1,395,000	Y	\$ -	\$ 1,255,500	\$ -	\$ 139,500	\$ -	\$ 139,500	\$ -
40206004 Rossland Rd - McQuay Blvd to Cochrane St	2020 - 2020	\$ 1,573,000	\$ -	\$ 1,573,000	Y	\$ -	\$ 1,415,700	\$ -	\$ 157,300	\$ -	\$ 157,300	\$ -
40211701 Dryden - Thickson to Oshawa	2021 - 2021	\$ 1,076,000	\$ -	\$ 1,076,000	Y	\$ -	\$ 968,400	\$ -	\$ 107,600	\$ -	\$ 107,600	\$ -
40176006 Dundas E - Hopkins to Bowman	2021 - 2021	\$ 440,000	\$ -	\$ 440,000	Y	\$ -	\$ 396,000	\$ -	\$ 44,000	\$ -	\$ 44,000	\$ -
40151717 Mary St E - Pine to Garden	2021 - 2021	\$ 202,600	\$ -	\$ 202,600	Y	\$ -	\$ 182,340	\$ -	\$ 20,260	\$ -	\$ 20,260	\$ -
40186002 Anderson St - Glen Dhu Dr to Dryden Blvd	2021 - 2021	\$ 603,200	\$ -	\$ 603,200	Y	\$ -	\$ 542,880	\$ -	\$ 60,320	\$ -	\$ 60,320	\$ -
40351702 Garden - Consumers to Dundas	2022 - 2022	\$ 300,200	\$ -	\$ 300,200	Y	\$ -	\$ 270,180	\$ -	\$ 30,020	\$ -	\$ 30,020	\$ -
40216012 Garden - Manning to Dryden	2022 - 2022	\$ 1,278,400	\$ -	\$ 1,278,400	Y	\$ -	\$ 1,150,560	\$ -	\$ 127,840	\$ -	\$ 127,840	\$ -
40236012 Brock St N - Manning Rd to Rossland Rd	2023 - 2023	\$ 548,000	\$ -	\$ 548,000	Y	\$ -	\$ 493,200	\$ -	\$ 54,800	\$ -	\$ 54,800	\$ -
40236011 Carnwith Dr - Baldwin St to Thickson Rd	2023 - 2023	\$ 811,300	\$ -	\$ 811,300	Y	\$ -	\$ 730,170	\$ -	\$ 81,130	\$ -	\$ 81,130	\$ -
40236014 Dundas W - Annes to Brock	2023 - 2023	\$ 910,300	\$ -	\$ 910,300	Y	\$ -	\$ 819,270	\$ -	\$ 91,030	\$ -	\$ 91,030	\$ -
40356003 Carnwith Dr - Ashburn Rd to Montgomery Ave	2024 - 2024	\$ 821,100	\$ -	\$ 821,100	Y	\$ -	\$ 738,990	\$ -	\$ 82,110	\$ -	\$ 82,110	\$ -
40256003 Anderson St - Clair Ave to Winchester Rd	2025 - 2025	\$ 532,400	\$ -	\$ 532,400	Y	\$ -	\$ 479,160	\$ -	\$ 53,240	\$ -	\$ 53,240	\$ -
40231702 Brock N - Dundas to Manning	2025 - 2025	\$ 1,260,300	\$ -	\$ 1,260,300	Y	\$ -	\$ 1,134,270	\$ -	\$ 126,030	\$ -	\$ 126,030	\$ -

APPENDIX C.1  
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TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED - TOWN-WIDE INFRASTRUCTURE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
1.1.15 Urban Arterial Road Growth Related Resurfacing Continued												
40256004 Gordon St - Victoria to End of Rd	2025 - 2025	\$ 307,500	\$ 16,775	\$ 290,725	Y	\$ -	\$ 261,653	\$ -	\$ 29,072	\$ -	\$ 29,072	\$ -
40266007 Carnwith Dr - Montgomery Ave to Baldwin St	2026 - 2026	\$ 828,800	\$ -	\$ 828,800	Y	\$ -	\$ 745,920	\$ -	\$ 82,880	\$ -	\$ 82,880	\$ -
40251714 Cochrane - Rossland to Taunton	2026 - 2026	\$ 1,199,000	\$ -	\$ 1,199,000	Y	\$ -	\$ 1,079,100	\$ -	\$ 119,900	\$ -	\$ 119,900	\$ -
40231703 Garrard - Rossland to Taunton	2026 - 2026	\$ 1,224,300	\$ -	\$ 1,224,300	Y	\$ -	\$ 1,101,870	\$ -	\$ 122,430	\$ -	\$ 122,430	\$ -
40241702 Ashburn - Robmar to Columbus	2027 - 2027	\$ 2,279,400	\$ -	\$ 2,279,400	Y	\$ -	\$ 2,051,460	\$ -	\$ 227,940	\$ -	\$ 227,940	\$ -
40271701 Brock S - 401 to Dundas	2027 - 2027	\$ 1,490,100	\$ -	\$ 1,490,100	Y	\$ -	\$ 1,341,090	\$ -	\$ 149,010	\$ -	\$ 149,010	\$ -
40286001 Garrard Rd - Taunton Rd to Birchpark Dr	2028 - 2028	\$ 197,600	\$ -	\$ 197,600	Y	\$ -	\$ 177,840	\$ -	\$ 19,760	\$ -	\$ 19,760	\$ -
40296001 Burns St - End of Rd to Annes St	2029 - 2029	\$ 367,100	\$ -	\$ 367,100	Y	\$ -	\$ 330,390	\$ -	\$ 36,710	\$ -	\$ -	\$ 36,710
40306008 Annes St - Burns St to Dunlop St	2030 - 2030	\$ 452,200	\$ -	\$ 452,200	Y	\$ -	\$ 406,980	\$ -	\$ 45,220	\$ -	\$ -	\$ 45,220
40306003 Cachet Blvd - Winchester Rd to Carnwith Dr	2030 - 2030	\$ 852,300	\$ -	\$ 852,300	Y	\$ -	\$ 767,070	\$ -	\$ 85,230	\$ -	\$ -	\$ 85,230
40306002 Carnwith Dr - Thicksn Rd to End of Rd	2030 - 2030	\$ 747,400	\$ -	\$ 747,400	Y	\$ -	\$ 672,660	\$ -	\$ 74,740	\$ -	\$ -	\$ 74,740
40306009 Dryden Blvd - Anderson St to End of Rd	2030 - 2030	\$ 594,000	\$ -	\$ 594,000	Y	\$ -	\$ 534,600	\$ -	\$ 59,400	\$ -	\$ -	\$ 59,400
40306006 Thicksn Rd - Wentworth St to End of Rd	2030 - 2030	\$ 481,900	\$ -	\$ 481,900	Y	\$ -	\$ 433,710	\$ -	\$ 48,190	\$ -	\$ -	\$ 48,190
40301702 Twin Streams - Baycliffe to Cochrane	2030 - 2030	\$ 756,800	\$ 106,248	\$ 650,552	Y	\$ -	\$ 585,497	\$ -	\$ 65,055	\$ -	\$ -	\$ 65,055
40316001 Garden St - Taunton Rd to Robert Attersley Dr	2031 - 2031	\$ 572,000	\$ -	\$ 572,000	Y	\$ -	\$ 514,800	\$ -	\$ 57,200	\$ -	\$ -	\$ 57,200
40311701 Garrard - Dundas to Rossland	2031 - 2031	\$ 1,204,400	\$ -	\$ 1,204,400	Y	\$ -	\$ 1,083,960	\$ -	\$ 120,440	\$ -	\$ -	\$ 120,440
40331701 Kendalwood - Burns to Dundas	2033 - 2033	\$ 696,200	\$ -	\$ 696,200	Y	\$ -	\$ 626,580	\$ -	\$ 69,620	\$ -	\$ -	\$ 69,620
40346001 Bonacord Ave - McQuay Blvd to Cochrane St	2034 - 2034	\$ 650,000	\$ -	\$ 650,000	Y	\$ -	\$ 585,000	\$ -	\$ 65,000	\$ -	\$ -	\$ 65,000
40341701 Burns E - Brock to Hopkins	2034 - 2034	\$ 1,110,000	\$ -	\$ 1,110,000	Y	\$ -	\$ 999,000	\$ -	\$ 111,000	\$ -	\$ -	\$ 111,000
40341702 Conlin - Anderson to Oshawa	2034 - 2034	\$ 1,436,500	\$ -	\$ 1,436,500	Y	\$ -	\$ 1,292,850	\$ -	\$ 143,650	\$ -	\$ -	\$ 143,650
40341703 South Blair - Water to Watson	2034 - 2034	\$ 875,300	\$ -	\$ 875,300	Y	\$ -	\$ 787,770	\$ -	\$ 87,530	\$ -	\$ -	\$ 87,530
40356006 Annes St - Burns St to End of Rd	2035 - 2035	\$ 146,000	\$ -	\$ 146,000	Y	\$ -	\$ 131,400	\$ -	\$ 14,600	\$ -	\$ -	\$ 14,600
40356007 Annes St - Dunlop St to Dundas St	2035 - 2035	\$ 160,200	\$ -	\$ 160,200	Y	\$ -	\$ 144,180	\$ -	\$ 16,020	\$ -	\$ -	\$ 16,020
40356005 Cachet Blvd - Carnwith Dr to Columbus Rd	2035 - 2035	\$ 400,000	\$ -	\$ 400,000	Y	\$ -	\$ 360,000	\$ -	\$ 40,000	\$ -	\$ -	\$ 40,000
40351703 Garden - Consumers to Dundas	2035 - 2035	\$ 1,077,300	\$ -	\$ 1,077,300	Y	\$ -	\$ 969,570	\$ -	\$ 107,730	\$ -	\$ -	\$ 107,730
40356004 Montgomery Ave - Carnwith Dr to Columbus Rd	2035 - 2035	\$ 488,400	\$ -	\$ 488,400	Y	\$ -	\$ 439,560	\$ -	\$ 48,840	\$ -	\$ -	\$ 48,840
40171714 Anderson - Rossland to Taunton	2036 - 2036	\$ 183,600	\$ -	\$ 183,600	Y	\$ -	\$ 165,240	\$ -	\$ 18,360	\$ -	\$ -	\$ 18,360
Subtotal Urban Arterial Road Growth Related Resurfacing		\$ 40,205,472	\$ 142,586	\$ 40,062,886		\$ -	\$ 36,056,598	\$ -	\$ 4,006,288	\$ 349,881	\$ 2,341,872	\$ 1,314,535



APPENDIX C.1  
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TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED - TOWN-WIDE INFRASTRUCTURE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
1.1.15 Sidewalks - New												
40176605 Cassels Rd W - Heber Down to Baldwin	2016 - 2016	\$ 52,295	\$ 6,820	\$ 45,475	Y	\$ -	\$ -	\$ -	\$ 45,475	\$ 45,475	\$ -	\$ -
40176603 Heber Down - Montgomery to Vipond	2016 - 2016	\$ 72,582	\$ -	\$ 72,582	Y	\$ -	\$ -	\$ -	\$ 72,582	\$ 72,582	\$ -	\$ -
40071807 RR 25 Champlain - Thickson to east limit (SS)	2017 - 2017	\$ 218,750	\$ 24,308	\$ 194,442	Y	\$ -	\$ -	\$ -	\$ 194,442	\$ 194,442	\$ -	\$ -
40166604 Civic Centre - Rossland to 100m North	2017 - 2017	\$ 65,000	\$ 1,645	\$ 63,355	Y	\$ -	\$ -	\$ -	\$ 63,355	\$ 63,355	\$ -	\$ -
40186604 Hunter - Kendalwood to Powell	2017 - 2017	\$ 80,000	\$ -	\$ 80,000	Y	\$ -	\$ 72,000	\$ -	\$ 8,000	\$ 8,000	\$ -	\$ -
40186606 Northview - Kendalwood to Powell	2018 - 2018	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ 67,500	\$ -	\$ 7,500	\$ 7,500	\$ -	\$ -
40091804 RR 26 Thickson - Winchester to Sawyer	2017 - 2017	\$ 75,000	\$ 67,614	\$ 7,386	Y	\$ -	\$ -	\$ -	\$ 7,386	\$ 7,386	\$ -	\$ -
40176606 RR 5 Myrtle - Highway 12 to 130 m west	2017 - 2017	\$ 45,000	\$ -	\$ 45,000	Y	\$ -	\$ -	\$ -	\$ 45,000	\$ 45,000	\$ -	\$ -
40176601 RR 25 Champlain - Thickson to east limit (NS)	2018 - 2018	\$ 152,000	\$ 9,029	\$ 142,971	Y	\$ -	\$ -	\$ -	\$ 142,971	\$ 142,971	\$ -	\$ -
40186611 Torian - Heber Down to Vipond	2018 - 2018	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ -	\$ -	\$ 100,000	\$ 100,000	\$ -	\$ -
40186603 Ash St - Chestnut to Maple	2018 - 2018	\$ 32,500	\$ 14,487	\$ 18,013	Y	\$ -	\$ -	\$ -	\$ 18,013	\$ 18,013	\$ -	\$ -
40186602 Brock - Rossland to Palmerson (WS)	2018 - 2018	\$ 25,000	\$ 14,893	\$ 10,107	Y	\$ -	\$ -	\$ -	\$ 10,107	\$ 10,107	\$ -	\$ -
40186607 Cassels - Heber Down to Montgomery	2018 - 2018	\$ 30,000	\$ -	\$ 30,000	Y	\$ -	\$ -	\$ -	\$ 30,000	\$ 30,000	\$ -	\$ -
40186608 Centre - Mary to Walnut	2018 - 2018	\$ 62,500	\$ -	\$ 62,500	Y	\$ -	\$ -	\$ -	\$ 62,500	\$ 62,500	\$ -	\$ -
40186609 Montgomery - Heber Down to Vipond	2018 - 2018	\$ 80,000	\$ -	\$ 80,000	Y	\$ -	\$ -	\$ -	\$ 80,000	\$ 80,000	\$ -	\$ -
40186610 Ontario - Athol to Peel	2018 - 2018	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ -	\$ -	\$ 25,000	\$ 25,000	\$ -	\$ -
40186605 Maple St - Perry to Hickory	2018 - 2018	\$ 61,250	\$ 5,831	\$ 55,419	Y	\$ -	\$ 49,877	\$ -	\$ 5,542	\$ 5,542	\$ -	\$ -
40186601 RR 12 Baldwin - Sonley to Garden (WS)	2018 - 2018	\$ 211,250	\$ -	\$ 211,250	Y	\$ -	\$ -	\$ -	\$ 211,250	\$ 211,250	\$ -	\$ -
40196601 North - Colston to Baldwin	2019 - 2019	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ -	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -
40171807 RR 4 Taunton - Coronation to Consumers (NS)	2019 - 2019	\$ 219,000	\$ -	\$ 219,000	Y	\$ -	\$ -	\$ -	\$ 219,000	\$ -	\$ 219,000	\$ -
40091807 RR 26 Thickson - Rossland to Taunton (WS)	2019 - 2019	\$ 260,000	\$ 14,189	\$ 245,811	Y	\$ -	\$ -	\$ -	\$ 245,811	\$ -	\$ 245,811	\$ -
40146602 Centre St (NS) - Baldwin St to Queen St	2019 - 2019	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ -	\$ -	\$ 75,000	\$ -	\$ 75,000	\$ -
40146603 Colston - Centre to North	2019 - 2019	\$ 35,000	\$ 4,677	\$ 30,323	Y	\$ -	\$ -	\$ -	\$ 30,323	\$ -	\$ 30,323	\$ -
40091802 Pearl Street - Baldwin St. to Cassels Ro	2019 - 2019	\$ 58,750	\$ -	\$ 58,750	Y	\$ -	\$ 52,875	\$ -	\$ 5,875	\$ -	\$ 5,875	\$ -
40196602 RR 43 Cochrane - Walnut to Bonacord	2019 - 2019	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ 67,500	\$ -	\$ 7,500	\$ -	\$ 7,500	\$ -
40206601 RR 26 Thickson - Sawyer to Columbus	2020 - 2020	\$ 231,500	\$ -	\$ 231,500	Y	\$ -	\$ -	\$ -	\$ 231,500	\$ -	\$ 231,500	\$ -
40351801 New Sidewalk Installations	2020 - 2020	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000	\$ -
40071808 RR 58 Manning - Adelaide Connection	2020 - 2020	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000	\$ -
40216601 Hwy 12 Baldwin - Garden to Winchester (WS)	2021 - 2021	\$ 825,000	\$ -	\$ 825,000	Y	\$ -	\$ -	\$ -	\$ 825,000	\$ -	\$ 825,000	\$ -
40226601 RR 26 Thickson - Taunton to Winchester	2022 - 2022	\$ 1,050,000	\$ -	\$ 1,050,000	Y	\$ -	\$ -	\$ -	\$ 1,050,000	\$ -	\$ 1,050,000	\$ -
40351801 New Sidewalk Installations	2023 - 2024	\$ 1,000,000	\$ -	\$ 1,000,000	Y	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -
40221801 RR 26 Thickson - Columbus to Brawley (BS)	2025 - 2025	\$ 515,000	\$ -	\$ 515,000	Y	\$ -	\$ -	\$ -	\$ 515,000	\$ -	\$ 515,000	\$ -
40151821 RR 36 Hopkins - Victoria to Consumers	2026 - 2026	\$ 100,000	\$ 38,398	\$ 61,602	Y	\$ -	\$ -	\$ -	\$ 61,602	\$ -	\$ 61,602	\$ -
40121804 RR 36 Hopkins - Consumers to Dundas	2026 - 2026	\$ 412,500	\$ 30,370	\$ 382,130	Y	\$ -	\$ -	\$ -	\$ 382,130	\$ -	\$ 382,130	\$ -
40351801 New Sidewalk Installations	2027 - 2028	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000	\$ -
40351801 New Sidewalk Installations	2029 - 2036	\$ 1,000,000	\$ -	\$ 1,000,000	Y	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ 1,000,000
Subtotal Sidewalks - New		\$ 8,069,877	\$ 232,261	\$ 7,837,616		\$ -	\$ 309,752	\$ -	\$ 7,527,864	\$ 1,129,123	\$ 5,398,741	\$ 1,000,000

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Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
1.1.16 Sidewalks - Highway 407 Related Infrastructure												
40216602 Ashburn - Winchester to 407 S. Limit (ES)	2021 - 2021	\$ 700,000	\$ -	\$ 700,000	Y	\$ -	\$ 175,000	\$ -	\$ 525,000	\$ -	\$ 525,000	\$ -
40251802 MTO Hwy 7 - Ashburn to Cochrane	2022 - 2022	\$ 625,000	\$ -	\$ 625,000	Y	\$ -	\$ -	\$ -	\$ 625,000	\$ -	\$ 625,000	\$ -
40221802 MTO Hwy 7 - Baldwin to Ashburn	2022 - 2022	\$ 212,500	\$ -	\$ 212,500	Y	\$ -	\$ -	\$ -	\$ 212,500	\$ -	\$ 212,500	\$ -
40151822 Sidewalks on Cochrane/407 overpass	2027 - 2027	\$ 700,000	\$ -	\$ 700,000	Y	\$ -	\$ -	\$ -	\$ 700,000	\$ -	\$ 700,000	\$ -
Subtotal Sidewalks - Highway 407 Related Infrastructure		\$ 2,237,500	\$ -	\$ 2,237,500		\$ -	\$ 175,000	\$ -	\$ 2,062,500	\$ -	\$ 2,062,500	\$ -

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					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
1.1.17 Street Lighting - New												
40152107 Conlin - Anderson to Oshawa	2016 - 2016	\$ 160,750	\$ -	\$ 160,750	Y	\$ -	\$ 109,714	\$ -	\$ 51,036	\$ 51,036	\$ -	\$ -
40062105 RR 12 Brock - Rossland to Taunton	2016 - 2016	\$ 120,000	\$ -	\$ 120,000	Y	\$ -	\$ 15,600	\$ -	\$ 104,400	\$ 104,400	\$ -	\$ -
40166902 RR 25 Champlain - Thickson to E. Limit	2016 - 2016	\$ 100,000	\$ 8,535	\$ 91,465	Y	\$ -	\$ 915	\$ -	\$ 90,550	\$ 90,550	\$ -	\$ -
40082106 RR 3 Winchester - Thickson to Garrard	2016 - 2016	\$ 435,000	\$ 22,449	\$ 412,551	Y	\$ -	\$ 16,502	\$ -	\$ 396,049	\$ 396,049	\$ -	\$ -
40132105 Anderson - Taunton to Winchester	2017 - 2017	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ 102,377	\$ -	\$ 47,623	\$ 47,623	\$ -	\$ -
40062105 RR 12 Brock - Rossland to Taunton	2017 - 2017	\$ 230,000	\$ 127,519	\$ 102,481	Y	\$ -	\$ 13,323	\$ -	\$ 89,158	\$ 89,158	\$ -	\$ -
40122105 RR 25 Consumers - Thickson to Thorton	2017 - 2017	\$ 395,500	\$ 14,226	\$ 381,274	Y	\$ -	\$ 3,813	\$ -	\$ 377,461	\$ 377,461	\$ -	\$ -
40162104 RR 26 Thickson - Taunton to Winchester	2017 - 2017	\$ 100,000	\$ 92,874	\$ 7,126	Y	\$ -	\$ 855	\$ -	\$ 6,271	\$ 6,271	\$ -	\$ -
40122104 RR 22 Victoria - South Blair to Thickson	2018 - 2018	\$ 445,000	\$ 98,193	\$ 346,807	Y	\$ -	\$ 52,021	\$ -	\$ 294,786	\$ 294,786	\$ -	\$ -
40152104 RR 22 Victoria - Home Depot to Oshawa	2019 - 2019	\$ 156,500	\$ -	\$ 156,500	Y	\$ -	\$ 14,085	\$ -	\$ 142,415	\$ -	\$ 142,415	\$ -
40172102 RR 4 Taunton Rd - Coronation Rd to Cochrane St	2019 - 2019	\$ 420,250	\$ -	\$ 420,250	Y	\$ -	\$ 33,620	\$ -	\$ 386,630	\$ -	\$ 386,630	\$ -
40162103 RR 26 Thickson - Wentworth to Victoria	2020 - 2020	\$ 142,000	\$ -	\$ 142,000	Y	\$ -	\$ 22,720	\$ -	\$ 119,280	\$ -	\$ 119,280	\$ -
40152106 RR 12 Baldwin - Taunton to Garden	2020 - 2020	\$ 278,000	\$ -	\$ 278,000	Y	\$ -	\$ 22,240	\$ -	\$ 255,760	\$ -	\$ 255,760	\$ -
40162102 RR 23 Lake Ridge - Victoria to Dundas	2020 - 2020	\$ 490,250	\$ 9,143	\$ 481,107	Y	\$ -	\$ 43,300	\$ -	\$ 437,807	\$ -	\$ 437,807	\$ -
40112107 RR 58 Manning - Garrard to Oshawa	2020 - 2020	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 1,000	\$ -	\$ 99,000	\$ -	\$ 99,000	\$ -
40216901 Future Street Lighting	2021 - 2036	\$ 3,200,000	\$ -	\$ 3,200,000	Y	\$ -	\$ 2,184,047	\$ -	\$ 1,015,953	\$ -	\$ 1,015,953	\$ -
40192102 RR 23 Lake Ridge - Dundas to Taunton	2022 - 2022	\$ 495,000	\$ -	\$ 495,000	Y	\$ -	\$ 44,550	\$ -	\$ 450,450	\$ -	\$ 450,450	\$ -
40162104 RR 26 Thickson - Taunton to Winchester	2022 - 2022	\$ 320,000	\$ -	\$ 320,000	Y	\$ -	\$ 38,400	\$ -	\$ 281,600	\$ -	\$ 281,600	\$ -
40192102 RR 23 Lake Ridge - Dundas to Taunton	2024 - 2024	\$ 495,000	\$ -	\$ 495,000	Y	\$ -	\$ 44,550	\$ -	\$ 450,450	\$ -	\$ 450,450	\$ -
40222101 RR 26 Thickson - Winchester to Columbus	2025 - 2025	\$ 320,000	\$ -	\$ 320,000	Y	\$ -	\$ 38,400	\$ -	\$ 281,600	\$ -	\$ 281,600	\$ -
40252102 RR 26 Thickson - Columbus to Brawley	2025 - 2025	\$ 116,000	\$ -	\$ 116,000	Y	\$ -	\$ 13,920	\$ -	\$ 102,080	\$ -	\$ 102,080	\$ -
40132102 RR 36 Hopkins - Consumers to Dundas	2026 - 2026	\$ 394,000	\$ -	\$ 394,000	Y	\$ -	\$ 23,640	\$ -	\$ 370,360	\$ -	\$ 370,360	\$ -
40252101 RR 36 Hopkins - Victoria to Consumers	2026 - 2026	\$ 72,250	\$ 44,798	\$ 27,452	Y	\$ -	\$ 1,647	\$ -	\$ 25,805	\$ -	\$ 25,805	\$ -
Subtotal Street Lighting - New		\$ 9,135,500	\$ 417,737	\$ 8,717,763		\$ -	\$ 2,841,238	\$ -	\$ 5,876,525	\$ 1,457,334	\$ 4,419,191	\$ -

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Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
<b>1.1.18 Traffic Signals - New</b>												
40177101 Future Traffic Signals	2017 - 2017	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ -	\$ -	\$ 500,000	\$ 500,000	\$ -	\$ -
40177103 Traffic Signal - Thickson / Summerside	2017 - 2017	\$ 125,000	\$ -	\$ 125,000	Y	\$ -	\$ -	\$ -	\$ 125,000	\$ 125,000	\$ -	\$ -
40187102 Pedestrian Intersection Signal - Brock / Colborne	2018 - 2018	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ -	\$ -	\$ 150,000	\$ 150,000	\$ -	\$ -
40187101 Pedestrian Intersection Signal - Baldwin / Cassels	2018 - 2018	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ -	\$ -	\$ 150,000	\$ 150,000	\$ -	\$ -
40102101 Garden Street and Bradley Drive	2019 - 2019	\$ 982,000	\$ -	\$ 982,000	Y	\$ -	\$ -	\$ -	\$ 982,000	\$ -	\$ 982,000	\$ -
40207101 Pedestrian Intersection Signal - Dundas / Centre	2020 - 2020	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ -	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -
40177101 Future Traffic Signals	2021 - 2021	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ 500,000	\$ -
40217101 Pedestrian Intersection Signal - Baldwin / Way	2021 - 2021	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ -	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -
40237101 Pedestrian Intersection Signal - Brock / Elm	2023 - 2023	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ -	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -
40177102 Future Traffic Signage	2017 - 2025	\$ 135,000	\$ -	\$ 135,000	Y	\$ -	\$ -	\$ -	\$ 135,000	\$ -	\$ 135,000	\$ -
40177101 Future Traffic Signals	2025 - 2025	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ 500,000	\$ -
40177101 Future Traffic Signals	2029 - 2029	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ 266,187	\$ 233,813
40177101 Future Traffic Signals	2033 - 2033	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ 500,000
Subtotal Traffic Signals - New		\$ 4,492,000	\$ -	\$ 4,492,000		\$ -	\$ -	\$ -	\$ 4,492,000	\$ 925,000	\$ 2,833,187	\$ 733,813
<b>1.1.19 Roads and Roads-Related Studies</b>												
30187701 Salt Mangement Plan	2018 - 2018	\$ 35,000	\$ -	\$ 35,000	Y	\$ -	\$ 7,000	\$ -	\$ 28,000	\$ 28,000	\$ -	\$ -
30197701 Streetlight Strategy Study	2019 - 2019	\$ 30,000	\$ -	\$ 30,000	Y	\$ -	\$ 20,475	\$ -	\$ 9,525	\$ -	\$ 9,525	\$ -
40112302 Municipal Engineering Growth Studies/Design Reviews	2016 - 2028	\$ 1,300,000	\$ -	\$ 1,300,000	Y	\$ -	\$ -	\$ -	\$ 1,300,000	\$ -	\$ 1,300,000	\$ -
40112302 Municipal Engineering Growth Studies/Design Reviews	2029 - 2036	\$ 800,000	\$ -	\$ 800,000	Y	\$ -	\$ -	\$ -	\$ 800,000	\$ -	\$ -	\$ 800,000
40122304 Traffic & Transportation Study	2016 - 2028	\$ 1,300,000	\$ -	\$ 1,300,000	Y	\$ -	\$ -	\$ -	\$ 1,300,000	\$ -	\$ 1,300,000	\$ -
40122304 Traffic & Transportation Study	2029 - 2036	\$ 800,000	\$ -	\$ 800,000	Y	\$ -	\$ -	\$ -	\$ 800,000	\$ -	\$ -	\$ 800,000
Subtotal Roads and Roads-Related Studies		\$ 4,265,000	\$ -	\$ 4,265,000		\$ -	\$ 27,475	\$ -	\$ 4,237,525	\$ 28,000	\$ 2,609,525	\$ 1,600,000

APPENDIX C-1  
TABLE 2  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED - TOWN-WIDE INFRASTRUCTURE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
1.1.20 Transportation Master Plan and Related Studies												
40157701 Active Transportation Plan	2016 - 2016	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ 30,000	\$ -	\$ 120,000	\$ 120,000	\$ -	\$ -
40167701 Goods Movement Strategy	2016 - 2016	\$ 5,000	\$ -	\$ 5,000	Y	\$ -	\$ 1,000	\$ -	\$ 4,000	\$ 4,000	\$ -	\$ -
40202301 Zones and Corridor Studies / Designs	2016 - 2017	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 10,000	\$ -	\$ 40,000	\$ 40,000	\$ -	\$ -
40122302 Lakeshore Integrated Transportation Study	2017 - 2017	\$ 225,000	\$ -	\$ 225,000	Y	\$ -	\$ 45,000	\$ -	\$ 180,000	\$ 180,000	\$ -	\$ -
40162303 Alternative People Mover Systems Study	2018 - 2018	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 10,000	\$ -	\$ 40,000	\$ 40,000	\$ -	\$ -
40172302 Traffic Operations Study	2018 - 2018	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 20,000	\$ -	\$ 80,000	\$ 80,000	\$ -	\$ -
40152302 Trans Demand Mgmt Strategy Implementation Plan	2018 - 2018	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 10,000	\$ -	\$ 40,000	\$ 40,000	\$ -	\$ -
40177701 Transit Oriented Development Policy	2018 - 2018	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ 5,000	\$ -	\$ 20,000	\$ 20,000	\$ -	\$ -
40142302 Transportation Master Plan Study Update	2019 - 2019	\$ 350,000	\$ -	\$ 350,000	Y	\$ -	\$ -	\$ -	\$ 350,000	\$ -	\$ 350,000	\$ -
40202301 Zones and Corridor Studies / Designs	2019 - 2021	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ 15,000	\$ -	\$ 60,000	\$ -	\$ 60,000	\$ -
40157701 Active Transportation Plan	2021 - 2021	\$ 150,000	\$ -	\$ 150,000	Y	\$ -	\$ 30,000	\$ -	\$ 120,000	\$ -	\$ 120,000	\$ -
40152302 Trans Demand Mgmt Strategy Implementation Plan	2023 - 2023	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 10,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -
40142302 Transportation Master Plan Study Update	2024 - 2024	\$ 350,000	\$ -	\$ 350,000	Y	\$ -	\$ -	\$ -	\$ 350,000	\$ -	\$ 350,000	\$ -
40202301 Zones and Corridor Studies / Designs	2024 - 2025	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 10,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -
40202301 Zones and Corridor Studies / Designs	2026 - 2026	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ 5,000	\$ -	\$ 20,000	\$ -	\$ 20,000	\$ -
40152302 Trans Demand Mgmt Strategy Implementation Plan	2028 - 2028	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 10,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -
40142302 Transportation Master Plan Study Update	2029 - 2029	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ -	\$ -	\$ 200,000	\$ -	\$ 200,000	\$ -
40202301 Zones and Corridor Studies / Designs	2029 - 2031	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ 15,000	\$ -	\$ 60,000	\$ -	\$ -	\$ 60,000
40202301 Zones and Corridor Studies / Designs	2034 - 2036	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ 15,000	\$ -	\$ 60,000	\$ -	\$ -	\$ 60,000
40142302 Transportation Master Plan Study Update	2036 - 2036	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ 200,000
Subtotal Transportation Master Plan and Related Studies		\$ 2,305,000	\$ -	\$ 2,305,000		\$ -	\$ 241,000	\$ -	\$ 2,064,000	\$ 524,000	\$ 1,220,000	\$ 320,000
TOTAL ROADS & RELATED - TOWN-WIDE INFRASTRUCTURE - 10-YEAR (2016-2025)		\$ 207,340,349	\$ 7,698,536	\$ 199,641,813		\$ -	\$ 40,091,880	\$ -	\$ 159,549,933	\$ 39,062,486	\$ 120,487,447	\$ -
TOTAL ROADS & RELATED - TOWN-WIDE INFRASTRUCTURE - 20-YEAR (2016-2036)		\$ 329,418,789	\$ 8,423,707	\$ 320,995,082		\$ -	\$ 71,107,320	\$ -	\$ 249,887,762	\$ 39,062,486	\$ 183,498,927	\$ 27,326,349

<b>Residential Development Charge Calculation</b>		
Residential Share of 2016 - 2036 DC Eligible Costs	80.2%	\$147,091,355
Growth in Population in New Units 2015 - 2031		71,573
Unadjusted Development Charge Per Capita		<b>\$2,055.12</b>
<b>Non-Residential Development Charge Calculation</b>		
<i>Retail Commercial</i>		
Non-Residential Share of 2016 - 2036 DC Eligible Costs	3.9%	\$7,115,786
16-Year Growth in Square Metres		148,886
Unadjusted Development Charge Per Square Metre		<b>\$47.79</b>
<i>Other Non-Residential</i>		
Non-Residential Share of 2016 - 2036 DC Eligible Costs	16.0%	\$29,291,786
16-Year Growth in Square Metres		1,144,302
Unadjusted Development Charge Per Square Metre		<b>\$25.60</b>

2016 - 2036 Net Funding Envelope	\$516,468,272
Reserve Fund Balance	
Balance as at December 31, 2015	\$39,062,486

APPENDIX C.1  
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TOWN OF WHITBY  
ROADS AND RELATED - TOWN-WIDE INFRASTRUCTURE  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE

ROADS: RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
OPENING CASH BALANCE (\$000)	\$0.0	\$2,985.7	\$5,912.4	\$10,906.0	(\$3,795.2)	(\$12,681.1)	(\$12,017.7)	(\$35,305.6)	(\$44,690.5)	(\$44,880.5)	(\$42,808.3)
2015 to 2031 RESIDENTIAL FUNDING REQUIREMENTS											
Roads: Residential: Non Inflated	\$228.5	\$240.5	\$755.7	\$20,918.8	\$15,484.4	\$6,517.4	\$27,409.5	\$14,291.3	\$6,215.6	\$4,520.1	\$10,580.9
Roads: Residential: Inflated	\$0.0	\$245.3	\$786.3	\$22,199.2	\$16,760.8	\$7,195.7	\$30,867.6	\$16,416.2	\$7,282.6	\$5,402.0	\$12,898.1
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,263	1,274	2,272	3,051	3,307	3,327	3,382	3,437	3,495	3,553	3,613
REVENUE											
- DC Receipts: Inflated	\$2,934.4	\$3,019.0	\$5,490.6	\$7,520.0	\$8,315.9	\$8,533.2	\$8,846.2	\$9,172.3	\$9,511.6	\$9,864.5	\$10,231.2
INTEREST											
- Interest on Opening Balance	\$0.0	\$104.5	\$206.9	\$381.7	(\$208.7)	(\$697.5)	(\$661.0)	(\$1,941.8)	(\$2,458.0)	(\$2,468.4)	(\$2,354.5)
- Interest on In-year Transactions	\$51.4	\$48.5	\$82.3	(\$403.7)	(\$232.2)	\$23.4	(\$605.6)	(\$199.2)	\$39.0	\$78.1	(\$73.3)
TOTAL REVENUE	\$2,985.7	\$3,172.0	\$5,779.8	\$7,498.0	\$7,874.9	\$7,859.1	\$7,579.7	\$7,031.3	\$7,092.6	\$7,474.1	\$7,803.4
CLOSING CASH BALANCE	\$2,985.7	\$5,912.4	\$10,906.0	(\$3,795.2)	(\$12,681.1)	(\$12,017.7)	(\$35,305.6)	(\$44,690.5)	(\$44,880.5)	(\$42,808.3)	(\$47,903.1)

ROADS: RESIDENTIAL	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
OPENING CASH BALANCE (\$000)	(\$47,903.1)	(\$70,675.5)	(\$63,921.6)	(\$75,455.7)	(\$67,638.6)	(\$58,952.0)	(\$49,323.8)	(38,693.8)	(26,981.8)	(14,111.0)	
2015 to 2031 RESIDENTIAL FUNDING REQUIREMENTS											
Roads: Residential: Non: Inflated	\$24,291.6	\$427.5	\$14,853.3	\$50.9	\$50.9	\$50.9	\$50.9	\$50.9	\$50.9	\$50.9	\$147,091.4
Roads: Residential: Inflated	\$30,203.5	\$542.1	\$19,214.3	\$67.2	\$68.5	\$69.9	\$71.3	\$72.7	\$74.1	\$75.6	\$170,512.9
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	3,672	3,734	3,797	3,859	3,922	3,989	4,053	4,121.7	4,190.8	4,260.6	71,573
REVENUE											
- DC Receipts: Inflated	\$10,604.7	\$11,000.2	\$11,410.5	\$11,828.4	\$12,261.9	\$12,719.0	\$13,184.6	\$13,674.8	\$14,182.0	\$14,706.7	\$209,011.6
INTEREST											
- Interest on Opening Balance	(\$2,634.7)	(\$3,887.2)	(\$3,515.7)	(\$4,150.1)	(\$3,720.1)	(\$3,242.4)	(\$2,712.8)	(\$2,128.2)	(\$1,484.0)	(\$776.1)	(\$38,347.8)
- Interest on In-year Transactions	(\$539.0)	\$183.0	(\$214.6)	\$205.8	\$213.4	\$221.4	\$229.5	\$238.0	\$246.9	\$256.0	(\$150.9)
TOTAL REVENUE	\$7,431.1	\$7,296.1	\$7,680.2	\$7,884.2	\$8,755.2	\$9,698.0	\$10,701.3	\$11,784.7	\$12,944.9	\$14,186.7	\$170,512.9
CLOSING CASH BALANCE	(\$70,675.5)	(\$63,921.6)	(\$75,455.7)	(\$67,638.6)	(\$58,952.0)	(\$49,323.8)	(\$38,693.8)	(\$26,981.8)	(\$14,111.0)	(\$0.0)	

2016 Adjusted Charge Per Capita	\$ 2,322.95
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Allocation of Capital Program	
Residential Sector	80.2%
Non-Residential Sector	19.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

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TOWN OF WHITBY  
ROADS & RELATED - TOWN-WIDE INFRASTRUCTURE  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE

ROADS: RETAIL COMMERCIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
OPENING CASH BALANCE (\$000)	\$0.0	\$164.8	\$306.6	\$583.7	(\$97.6)	(\$486.4)	(\$465.1)	(\$1,602.7)	(\$2,067.6)	(\$2,087.5)	(\$1,997.8)
2015 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS											
Roads: Retail Commercial: Non: Inflated	\$11.1	\$11.6	\$36.6	\$1,012.0	\$749.1	\$315.3	\$1,326.0	\$691.4	\$300.7	\$218.7	\$511.9
Roads: Retail Commercial: Inflated	\$11.1	\$11.9	\$38.0	\$1,073.9	\$810.8	\$348.1	\$1,493.3	\$794.2	\$352.3	\$261.3	\$624.0
COMMERCIAL DEVELOPMENT											
- New Retail Commerical GFA - SQ.M	3,210	2,647	5,347	6,835	7,500	6,642	6,771	6,904	7,038	7,177	7,315
REVENUE											
- DC Receipts: Inflated	\$173.0	\$145.5	\$299.9	\$391.0	\$437.6	\$395.3	\$411.0	\$427.5	\$444.5	\$462.3	\$480.7
INTEREST											
- Interest on Opening Balance	\$0.0	\$5.8	\$10.7	\$20.4	(\$5.4)	(\$26.8)	(\$25.6)	(\$88.2)	(\$113.7)	(\$114.8)	(\$109.9)
- Interest on In-year Transactions	\$2.8	\$2.3	\$4.6	(\$18.8)	(\$10.3)	\$0.8	(\$29.8)	(\$10.1)	\$1.6	\$3.5	(\$3.9)
TOTAL REVENUE	\$175.8	\$153.6	\$315.2	\$392.6	\$422.0	\$369.4	\$355.7	\$329.3	\$332.4	\$351.0	\$366.9
CLOSING CASH BALANCE	\$164.8	\$306.6	\$583.7	(\$97.6)	(\$486.4)	(\$465.1)	(\$1,602.7)	(\$2,067.6)	(\$2,087.5)	(\$1,997.8)	(\$2,255.0)

ROADS: RETAIL COMMERCIAL	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
OPENING CASH BALANCE (\$000)	(\$2,255.0)	(\$3,366.7)	(\$3,049.5)	(\$3,616.8)	(\$3,247.0)	(\$2,834.0)	(\$2,374.7)	(1,865.5)	(1,302.7)	(682.2)	
2015 to 2031 RESIDENTIAL FUNDING REQUIREMENTS											
Roads: Retail Commercial: Non: Inflated	\$1,175.1	\$20.7	\$718.6	\$2.5	\$2.5	\$2.5	\$2.5	\$2.5	\$2.5	\$2.5	\$7,115.8
Roads: Retail Commercial: Inflated	\$1,461.1	\$26.2	\$929.5	\$3.2	\$3.3	\$3.4	\$3.4	3.5	3.6	3.7	\$8,259.9
COMMERCIAL DEVELOPMENT											
- New Retail Commerical GFA - SQ.M	7,459	7,605	7,753	7,904	8,060	8,216	8,377	8,540.3	8,708.5	8,876.1	148,885.9
REVENUE											
- DC Receipts: Inflated	\$499.9	\$519.9	\$540.6	\$562.2	\$584.7	\$608.0	\$632.3	\$657.5	\$683.9	\$711.0	\$10,068.3
INTEREST											
- Interest on Opening Balance	(\$124.0)	(\$185.2)	(\$167.7)	(\$198.9)	(\$178.6)	(\$155.9)	(\$130.6)	(\$102.6)	(\$71.6)	(\$37.5)	(\$1,800.0)
- Interest on In-year Transactions	(\$26.4)	\$8.6	(\$10.7)	\$9.8	\$10.2	\$10.6	\$11.0	11.4	11.9	12.4	(\$8.3)
TOTAL REVENUE	\$349.4	\$343.4	\$362.2	\$373.0	\$416.3	\$462.7	\$512.7	\$566.3	\$624.1	\$685.8	\$8,259.9
CLOSING CASH BALANCE	(\$3,366.7)	(\$3,049.5)	(\$3,616.8)	(\$3,247.0)	(\$2,834.0)	(\$2,374.7)	(\$1,865.5)	(\$1,302.7)	(\$682.2)	(\$0.0)	

2016 Adjusted Charge Per Square Metre	\$53.90
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.0%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

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TOWN OF WHITBY  
ROADS & RELATED - TOWN-WIDE INFRASTRUCTURE  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE

ROADS: OTHER NON-RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
OPENING CASH BALANCE (\$000)	\$0.0	\$1,273.5	\$2,634.7	\$3,987.7	\$1,072.0	(\$775.5)	(\$690.3)	(\$5,379.4)	(\$7,306.7)	(\$7,408.4)	(\$7,068.7)
2015 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS											
Roads: Other Non-Residential : Non: Inflated	\$45.5	\$47.9	\$150.5	\$4,165.8	\$3,083.6	\$1,297.9	\$5,458.3	\$2,846.0	\$1,237.8	\$900.1	\$2,107.1
Roads: Other Non-Residential : Inflated	\$45.5	\$48.8	\$156.6	\$4,420.7	\$3,337.7	\$1,433.0	\$6,147.0	\$3,269.1	\$1,450.3	\$1,075.7	\$2,568.5
NEW INDUSTRIAL DEVELOPMENT											
- New Other Non-Residential GFA - SQ.M	45,587	46,271	47,147	47,931	48,807	49,618	50,567	51,443	52,354	53,230	54,206
REVENUE											
- DC Receipts: Inflated	\$1,297.1	\$1,342.9	\$1,395.7	\$1,447.2	\$1,503.2	\$1,558.7	\$1,620.3	\$1,681.3	\$1,745.3	\$1,810.0	\$1,880.1
INTEREST											
- Interest on Opening Balance	\$0.0	\$44.6	\$92.2	\$139.6	\$37.5	(\$42.7)	(\$38.0)	(\$295.9)	(\$401.9)	(\$407.5)	(\$388.8)
- Interest on In-year Transactions	\$21.9	\$22.6	\$21.7	(\$81.8)	(\$50.5)	\$2.2	(\$124.5)	(\$43.7)	\$5.2	\$12.8	(\$18.9)
TOTAL REVENUE	\$1,319.0	\$1,410.1	\$1,509.6	\$1,505.0	\$1,490.2	\$1,518.2	\$1,457.8	\$1,341.8	\$1,348.6	\$1,415.4	\$1,472.3
CLOSING CASH BALANCE	\$1,273.5	\$2,634.7	\$3,987.7	\$1,072.0	(\$775.5)	(\$690.3)	(\$5,379.4)	(\$7,306.7)	(\$7,408.4)	(\$7,068.7)	(\$8,164.9)

ROADS: OTHER NON-RESIDENTIAL	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
OPENING CASH BALANCE (\$000)	(\$8,164.9)	(\$12,788.2)	(\$11,539.5)	(\$13,944.0)	(\$12,503.7)	(\$10,901.0)	(\$9,125.5)	(7,160.2)	(4,992.9)	(2,612.9)	-
2015 to 2031 RESIDENTIAL FUNDING REQUIREMENTS											
Roads: Other Non-Residential : Non: Inflated	\$4,837.4	\$85.1	\$2,957.9	\$10.1	\$10.1	\$10.1	\$10.1	\$10.1	\$10.1	\$10.1	\$29,291.8
Roads: Other Non-Residential : Inflated	\$6,014.7	\$108.0	\$3,826.3	\$13.4	\$13.6	\$13.9	\$14.2	\$14.5	\$14.8	\$15.1	34,001.5
NEW RESIDENTIAL DEVELOPMENT											
- New Other Non-Residential GFA - SQ.M	55,182	56,158	57,161	58,137	59,140	60,116	61,219	62,295.0	63,298.0	64,435.2	1,144,302.2
REVENUE											
- DC Receipts: Inflated	\$1,952.2	\$2,026.5	\$2,103.9	\$2,182.6	\$2,264.7	\$2,348.1	\$2,439.0	\$2,531.5	\$2,623.7	\$2,724.3	\$40,478.1
INTEREST											
- Interest on Opening Balance	(\$449.1)	(\$703.4)	(\$634.7)	(\$766.9)	(\$687.7)	(\$599.6)	(\$501.9)	(\$393.8)	(\$274.6)	(\$143.7)	(\$6,416.0)
- Interest on In-year Transactions	(\$111.7)	\$33.6	(\$47.4)	\$38.0	\$39.4	\$40.8	\$42.4	\$44.0	\$45.7	\$47.4	(60.6)
TOTAL REVENUE	\$1,391.4	\$1,356.7	\$1,421.9	\$1,453.7	\$1,616.4	\$1,789.4	\$1,979.5	\$2,181.7	\$2,394.8	\$2,628.0	34,001.5
CLOSING CASH BALANCE	(\$12,788.2)	(\$11,539.5)	(\$13,944.0)	(\$12,503.7)	(\$10,901.0)	(\$9,125.5)	(\$7,160.2)	(\$4,992.9)	(\$2,612.9)	\$0.0	

2016 Adjusted Charge Per Square Metre	\$28.45
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commercial Share	16.0%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%



APPENDIX C.1  
TABLE 2  
  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED - ALTERNATE ROUTE AND RELATED INFRASTRUCTURE

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016- 2036	Post 2036
1.2 ROADS AND RELATED - ALTERNATE ROUTE AND RELATED INFRASTRUCTURE												
1.2.1 Alternate Route for Hwy 7/12												
40180601 Property Acquisition - Highway 7/12 Alternate Route	2020 - 2020	\$ 1,000,000	\$ -	\$ 1,000,000	Y	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -
40196302 Utility Relocation - Highway 7/12 Alternate Route	2021 - 2021	\$ 1,000,000	\$ -	\$ 1,000,000	Y	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -
40195803 Baldwin/Thickson - Roundabout	2021 - 2021	\$ 1,000,000	\$ -	\$ 1,000,000	Y	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -
40206301 Construction - Highway 7/12 Alternate Route	2022 - 2022	\$ 55,000,000	\$ -	\$ 55,000,000	Y	\$ -	\$ -	\$ -	\$ 55,000,000	\$ -	\$ 49,056,853	\$ 5,943,147
Subtotal Alternate Route for Hwy 7/12		\$ 58,000,000	\$ -	\$ 58,000,000		\$ -	\$ -	\$ -	\$ 58,000,000	\$ -	\$ 52,056,853	\$ 5,943,147
TOTAL - 10-YEAR (2016-2025)		\$ 58,000,000	\$ -	\$ 58,000,000		\$ -	\$ -	\$ -	\$ 58,000,000	\$ -	\$ 52,056,853	\$ 5,943,147
TOTAL - 20-YEAR (2016-2036)		\$ 58,000,000	\$ -	\$ 58,000,000		\$ -	\$ -	\$ -	\$ 58,000,000	\$ -	\$ 52,056,853	\$ 5,943,147

Residential Development Charge Calculation		
Residential Share of 2016 - 2036 DC Eligible Costs	80.2%	\$41,728,380
Growth in Population in New Units 2015 - 2031		71,573
Unadjusted Development Charge Per Capita		\$583.02
Non-Residential Development Charge Calculation		
Retail Commercial		
Non-Residential Share of 2016 - 2036 DC Eligible Costs	3.9%	\$2,033,546
16-Year Growth in Square Metres		148,886
Unadjusted Development Charge Per Square Metre		\$13.66
Other Non-Residential		
Non-Residential Share of 2016 - 2036 DC Eligible Costs	16.0%	\$8,309,794
16-Year Growth in Square Metres		1,144,302
Unadjusted Development Charge Per Square Metre		\$7.26

APPENDIX C.1  
TABLE 3 - PAGE 1

TOWN OF WHITBY  
ROADS AND RELATED - ALTERNATE ROUTE AND RELATED INFRASTRUCTURE  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE

ROADS: RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
OPENING CASH BALANCE (\$000)	\$0.0	\$899.6	\$1,856.5	\$3,604.7	\$6,036.2	\$7,913.9	\$9,005.8	(\$33,443.1)	(\$32,470.6)	(\$31,340.6)	(\$30,040.3)
2015 to 2031 RESIDENTIAL FUNDING REQUIREMENTS											
Roads: Residential: Non Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$801.6	\$1,603.2	\$39,323.6	\$0.0	\$0.0	\$0.0	\$0.0
Roads: Residential: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$867.7	\$1,770.0	\$44,284.8	\$0.0	\$0.0	\$0.0	\$0.0
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,263	1,274	2,272	3,051	3,307	3,327	3,382	3,437	3,495	3,553	3,613
REVENUE											
- DC Receipts: Inflated	\$884.1	\$909.6	\$1,654.2	\$2,265.7	\$2,505.5	\$2,570.9	\$2,665.3	\$2,763.5	\$2,865.7	\$2,972.0	\$3,082.5
INTEREST											
- Interest on Opening Balance	\$0.0	\$31.5	\$65.0	\$126.2	\$211.3	\$277.0	\$315.2	(\$1,839.4)	(\$1,785.9)	(\$1,723.7)	(\$1,652.2)
- Interest on In-year Transactions	\$15.5	\$15.9	\$28.9	\$39.6	\$28.7	\$14.0	(\$1,144.5)	\$48.4	\$50.2	\$52.0	\$53.9
TOTAL REVENUE	\$899.6	\$957.0	\$1,748.2	\$2,431.5	\$2,745.4	\$2,861.9	\$1,835.9	\$972.5	\$1,130.0	\$1,300.3	\$1,484.2
CLOSING CASH BALANCE	\$899.6	\$1,856.5	\$3,604.7	\$6,036.2	\$7,913.9	\$9,005.8	(\$33,443.1)	(\$32,470.6)	(\$31,340.6)	(\$30,040.3)	(\$28,556.0)

ROADS: RESIDENTIAL	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
OPENING CASH BALANCE (\$000)	(\$28,556.0)	(\$26,875.6)	(\$24,981.6)	(\$22,857.5)	(\$20,488.6)	(\$17,856.5)	(\$14,939.4)	(11,719.2)	(8,171.6)	(4,273.4)	
2015 to 2031 RESIDENTIAL FUNDING REQUIREMENTS											
Roads: Residential: Non: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$41,728.4
Roads: Residential: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$46,922.5
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	3,672	3,734	3,797	3,859	3,922	3,989	4,053	4,121.7	4,190.8	4,260.6	71,573
REVENUE											
- DC Receipts: Inflated	\$3,195.1	\$3,314.2	\$3,437.8	\$3,563.7	\$3,694.4	\$3,832.1	\$3,972.4	\$4,120.0	\$4,272.9	\$4,430.9	\$62,972.5
INTEREST											
- Interest on Opening Balance	(\$1,570.6)	(\$1,478.2)	(\$1,374.0)	(\$1,257.2)	(\$1,126.9)	(\$982.1)	(\$821.7)	(\$644.6)	(\$449.4)	(\$235.0)	(\$15,914.7)
- Interest on In-year Transactions	\$55.9	\$58.0	\$60.2	\$62.4	\$64.7	\$67.1	\$69.5	\$72.1	\$74.8	\$77.5	(\$135.3)
TOTAL REVENUE	\$1,680.4	\$1,894.1	\$2,124.0	\$2,368.9	\$2,632.1	\$2,917.0	\$3,220.2	\$3,547.6	\$3,898.2	\$4,273.4	\$46,922.5
CLOSING CASH BALANCE	(\$26,875.6)	(\$24,981.6)	(\$22,857.5)	(\$20,488.6)	(\$17,856.5)	(\$14,939.4)	(\$11,719.2)	(\$8,171.6)	(\$4,273.4)	(\$0.0)	

2016 Adjusted Charge Per Capita	\$ 699.88
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Allocation of Capital Program	
Residential Sector	80.2%
Non-Residential Sector	19.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.1  
TABLE 3 - PAGE 2

TOWN OF WHITBY  
ROADS AND RELATED - ALTERNATE ROUTE AND RELATED INFRASTRUCTURE  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE

ROADS: RETAIL COMMERCIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
OPENING CASH BALANCE (\$000)	\$0.0	\$53.0	\$99.4	\$194.8	\$321.3	\$423.9	\$472.7	(\$1,584.9)	(\$1,541.1)	(\$1,489.7)	(\$1,430.1)
2015 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS											
Roads: Retail Commercial: Non: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$38.8	\$77.6	\$1,902.3	\$0.0	\$0.0	\$0.0	\$0.0
Roads: Retail Commercial: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$42.0	\$85.6	\$2,142.3	\$0.0	\$0.0	\$0.0	\$0.0
COMMERCIAL DEVELOPMENT											
- New Retail Commerical GFA - SQ.M	3,210	2,647	5,347	6,835	7,500	6,642	6,771	6,904	7,038	7,177	7,315
REVENUE											
- DC Receipts: Inflated	\$52.1	\$43.8	\$90.3	\$117.7	\$131.7	\$119.0	\$123.7	\$128.7	\$133.8	\$139.2	\$144.7
INTEREST											
- Interest on Opening Balance	\$0.0	\$1.9	\$3.5	\$6.8	\$11.2	\$14.8	\$16.5	(\$87.2)	(\$84.8)	(\$81.9)	(\$78.7)
- Interest on In-year Transactions	\$0.9	\$0.8	\$1.6	\$2.1	\$1.6	\$0.6	(\$55.5)	\$2.3	\$2.3	\$2.4	\$2.5
TOTAL REVENUE	\$53.0	\$46.4	\$95.3	\$126.6	\$144.6	\$134.4	\$84.8	\$43.8	\$51.4	\$59.7	\$68.6
CLOSING CASH BALANCE	\$53.0	\$99.4	\$194.8	\$321.3	\$423.9	\$472.7	(\$1,584.9)	(\$1,541.1)	(\$1,489.7)	(\$1,430.1)	(\$1,361.5)

ROADS: RETAIL COMMERCIAL	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
OPENING CASH BALANCE (\$000)	(\$1,361.5)	(\$1,283.3)	(\$1,194.6)	(\$1,094.7)	(\$982.7)	(\$857.7)	(\$718.7)	(564.5)	(394.2)	(206.4)	
2015 to 2031 RESIDENTIAL FUNDING REQUIREMENTS											
Roads: Retail Commercial: Non: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,018.7
Roads: Retail Commercial: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,270.0
COMMERCIAL DEVELOPMENT											
- New Retail Commerical GFA - SQ.M	7,459	7,605	7,753	7,904	8,060	8,216	8,377	8,540.3	8,708.5	8,876.1	148,885.9
REVENUE											
- DC Receipts: Inflated	\$150.5	\$156.5	\$162.7	\$169.2	\$176.0	\$183.0	\$190.3	\$197.9	\$205.9	\$214.0	\$3,030.8
INTEREST											
- Interest on Opening Balance	(\$74.9)	(\$70.6)	(\$65.7)	(\$60.2)	(\$54.1)	(\$47.2)	(\$39.5)	(\$31.0)	(\$21.7)	(\$11.4)	(\$754.0)
- Interest on In-year Transactions	\$2.6	\$2.7	\$2.8	\$3.0	\$3.1	\$3.2	\$3.3	\$3.5	\$3.6	\$3.7	(\$6.9)
TOTAL REVENUE	\$78.2	\$88.7	\$99.9	\$112.0	\$125.0	\$139.0	\$154.1	\$170.3	\$187.8	\$206.4	\$2,270.0
CLOSING CASH BALANCE	(\$1,283.3)	(\$1,194.6)	(\$1,094.7)	(\$982.7)	(\$857.7)	(\$718.7)	(\$564.5)	(\$394.2)	(\$206.4)	\$0.0	

2016 Adjusted Charge Per Square Metre	\$16.23
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.0%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.1  
TABLE 3 - PAGE 3

TOWN OF WHITBY  
ROADS AND RELATED - ALTERNATE ROUTE AND RELATED INFRASTRUCTURE  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE

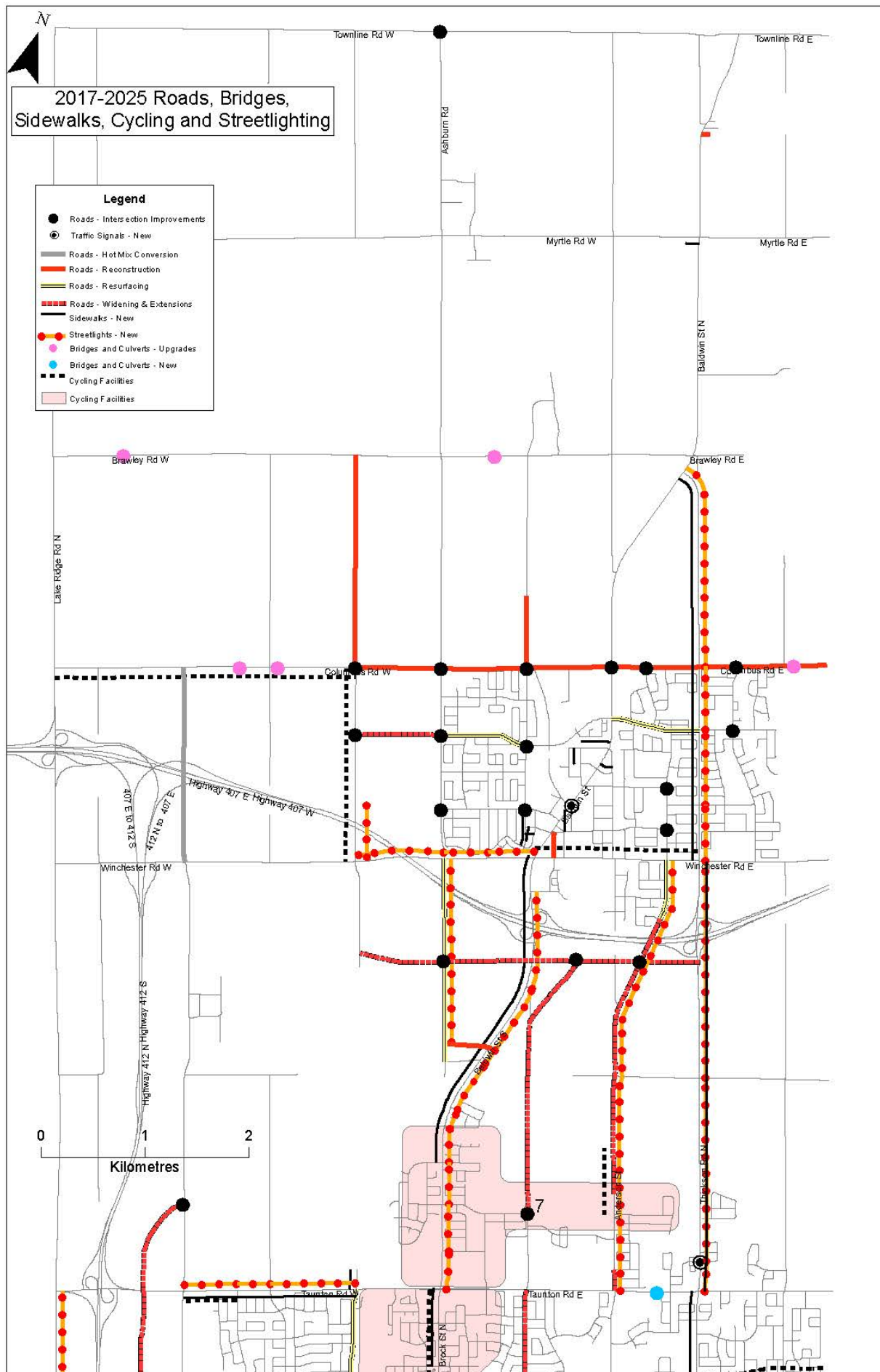
ROADS: OTHER NON-RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
OPENING CASH BALANCE (\$000)	\$0.0	\$397.9	\$823.8	\$1,280.8	\$1,769.6	\$2,116.8	\$2,310.4	(\$6,168.1)	(\$5,991.6)	(\$5,785.7)	(\$5,548.7)
2015 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS											
Roads: Other Non-Residential : Non: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$159.6	\$319.3	\$7,830.9	\$0.0	\$0.0	\$0.0	\$0.0
Roads: Other Non-Residential : Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$172.8	\$352.5	\$8,818.9	\$0.0	\$0.0	\$0.0	\$0.0
NEW INDUSTRIAL DEVELOPMENT											
- New Other Non-Residential GFA - SQ.M	45,587	46,271	47,147	47,931	48,807	49,618	50,567	51,443	52,354	53,230	54,206
REVENUE											
- DC Receipts: Inflated	\$391.1	\$404.9	\$420.8	\$436.3	\$453.2	\$469.9	\$488.5	\$506.9	\$526.2	\$545.7	\$566.8
INTEREST											
- Interest on Opening Balance	\$0.0	\$13.9	\$28.8	\$44.8	\$61.9	\$74.1	\$80.9	(\$339.2)	(\$329.5)	(\$318.2)	(\$305.2)
- Interest on In-year Transactions	\$6.8	\$7.1	\$7.4	\$7.6	\$4.9	\$2.1	(\$229.1)	\$8.9	\$9.2	\$9.5	\$9.9
TOTAL REVENUE	\$397.9	\$425.9	\$457.0	\$488.8	\$520.0	\$546.1	\$340.3	\$176.5	\$205.9	\$237.0	\$271.6
CLOSING CASH BALANCE	\$397.9	\$823.8	\$1,280.8	\$1,769.6	\$2,116.8	\$2,310.4	(\$6,168.1)	(\$5,991.6)	(\$5,785.7)	(\$5,548.7)	(\$5,277.1)

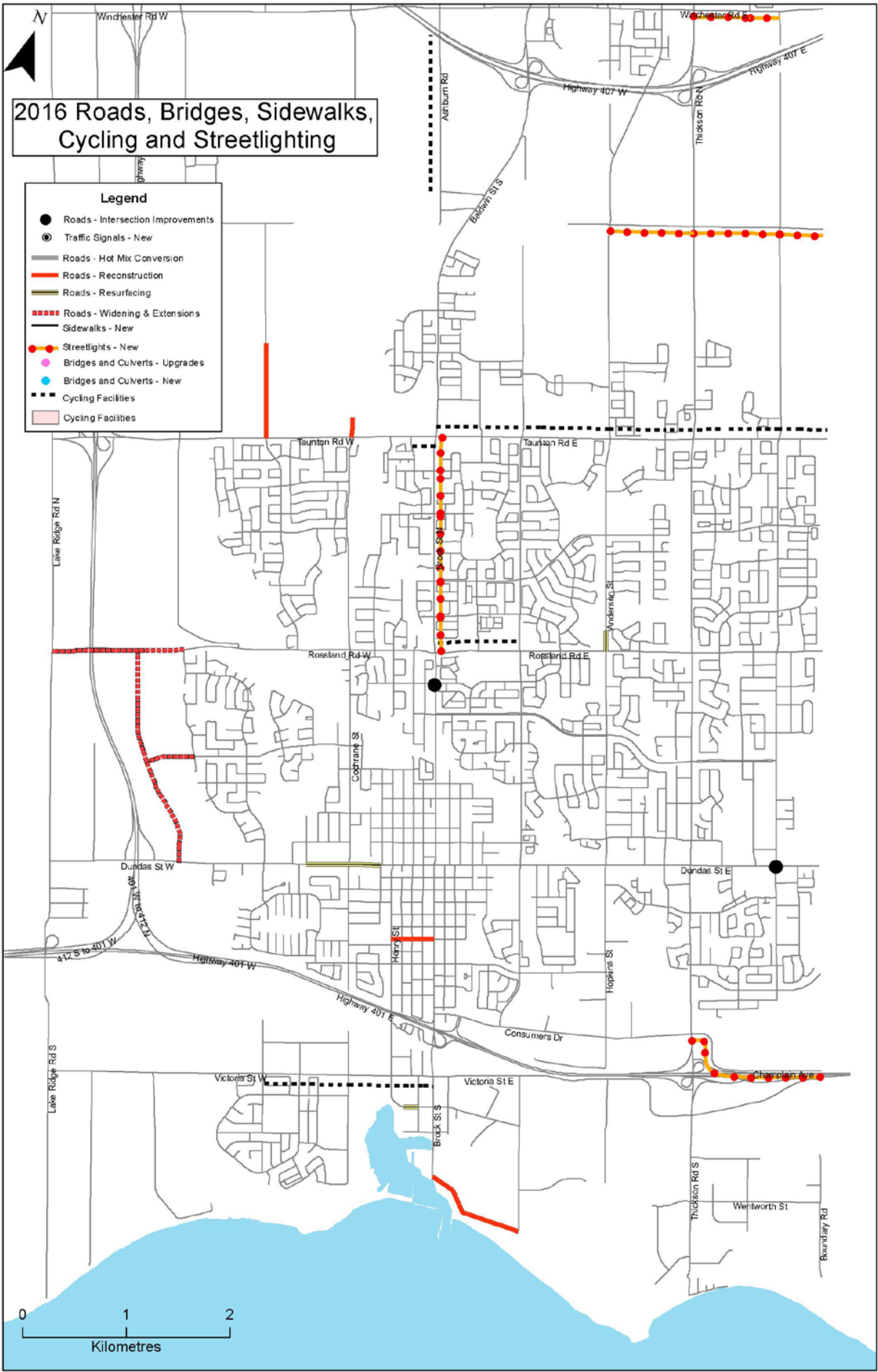
ROADS: OTHER NON-RESIDENTIAL	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
OPENING CASH BALANCE (\$000)	(\$5,277.1)	(\$4,968.5)	(\$4,620.1)	(\$4,228.7)	(\$3,791.8)	(\$3,305.6)	(\$2,767.0)	(2,171.0)	(1,513.8)	(792.2)	-
2015 to 2031 RESIDENTIAL FUNDING REQUIREMENTS											
Roads: Other Non-Residential : Non: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$8,309.8
Roads: Other Non-Residential : Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	9,344.1
NEW RESIDENTIAL DEVELOPMENT											
- New Other Non-Residential GFA - SQ.M	55,182	56,158	57,161	58,137	59,140	60,116	61,219	62,295.0	63,298.0	64,435.2	1,144,302.2
REVENUE											
- DC Receipts: Inflated	\$588.6	\$611.0	\$634.3	\$658.1	\$682.8	\$707.9	\$735.4	\$763.2	\$791.0	\$821.4	\$12,204.1
INTEREST											
- Interest on Opening Balance	(\$290.2)	(\$273.3)	(\$254.1)	(\$232.6)	(\$208.5)	(\$181.8)	(\$152.2)	(\$119.4)	(\$83.3)	(\$43.6)	(\$2,826.7)
- Interest on In-year Transactions	\$10.3	\$10.7	\$11.1	\$11.5	\$11.9	\$12.4	\$12.9	\$13.4	\$13.8	\$14.4	(33.3)
TOTAL REVENUE	\$308.6	\$348.4	\$391.3	\$437.0	\$486.2	\$538.5	\$596.0	\$657.2	\$721.6	\$792.2	9,344.1
CLOSING CASH BALANCE	(\$4,968.5)	(\$4,620.1)	(\$4,228.7)	(\$3,791.8)	(\$3,305.6)	(\$2,767.0)	(\$2,171.0)	(\$1,513.8)	(\$792.2)	\$0.0	

2016 Adjusted Charge Per Square Metre	\$8.58
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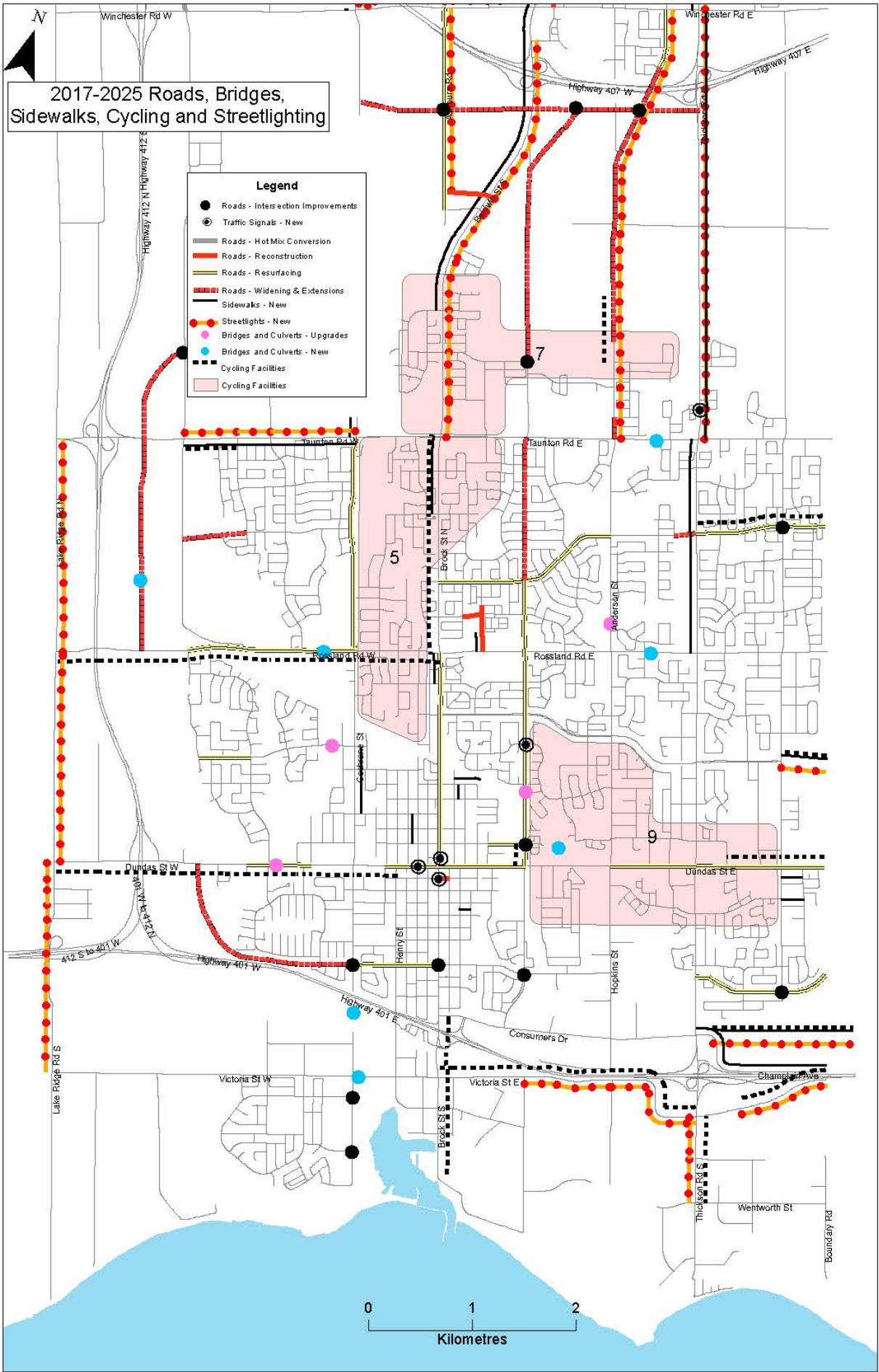
Allocation of Capital Program	
Commercial Share	3.9%
Non-Commercial Share	16.0%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%













## **Appendix C.2**

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### **Stormwater Management**

## Appendix C.2

### Stormwater Management

The following tables set out the 2016 to 2036 development-related capital forecast and the calculation of the development charge for Whitby's Stormwater Management services. The cost, quantum and description of the projects included in the forecast have been informed largely by stormwater studies, as well as the Town's approved ten-year capital forecast. The identified development-related projects are required in order to accommodate the increased stormwater needs arising from growth as the Town continues to develop over the next 20 years from 2016 to 2036.

It should be noted that all minor/major stormwater management facilities that are internal to a subdivision, as required through the Town's local service definitions, are considered a direct developer responsibility under section 59 of the DCA and have not been included in the capital program.

Stormwater management facilities included in the DC capital program are required to achieve health and safety standards as identified in relevant legislation including Provincial and Conservation Authority regulations, the Planning Act, the Ontario Water Resources Act and the Municipal Act. As such, in accordance with section 4(3) of O.Reg. 82/98, the ten-year historical service level does not apply.

Tables 1 to 2 provide details of the projects included in the Town-wide Stormwater development charges calculation. The content of the tables is as follows:

Table 1            2016 – 2036 Stormwater Management Capital Program & “Unadjusted” Development Charges

Table 2            Residential & Non-Residential Cash Flow Analysis

#### **Table 1            2016-2036 Development-Related Capital Program & Calculation Of “Unadjusted” Development Charges**

Table 1 provides a list of the Stormwater Management capital projects included in the development charges calculation and the capital cost estimate of the works. The projects relate to the construction of new and expanded storm sewers, storm water facilities and stormwater-related studies. In total, the gross capital program cost amounts to \$24.54 million.

Grants, subsidies or other contributions in the amount of \$1.27 million are anticipated and have been removed from the capital projects. Recognizing that the development of new stormwater management infrastructure will benefit existing and new development, a 60 per cent benefit to existing share, based on shares of household growth over the 2016-2036 planning period, have been applied to all new and expanded storm sewers and storm water facilities. For stormwater management studies, a benefit to existing share of 20 per cent has been applied recognizing that the studies will, in part, provide a benefit to the existing community.

The benefit to existing shares for Stormwater Management totals \$13.65 million and this portion is removed from the DC calculation and must be funded through non-DC sources. Available DC reserve funds in the amount of \$698,310 have been reduced from the eligible development charge related costs and applied to capital projects occurring in the initial years of the planning period. As no post-period share have been identified, the total reduced eligible development charge related cost brought forward to the DC calculation is \$8.93 million.

The 2016-2031 DC eligible cost is then apportioned approximately 80 per cent to the residential sector, or \$7.16 million, 4 per cent to the retail commercial sector, or \$346,190, and 16 per cent to the other non-residential sector, or \$1.43 million. The resulting unadjusted per capita residential charge is \$99.98 before cash flow adjustments. The non-residential retail commercial unadjusted charge is \$2.33 per square metre and the other non-residential charge is \$1.25 per square meter.

**Table 3            Residential & Non-Residential Cash Flow Analysis**

The long term cash flow analysis, shown on Table 3 takes into consideration expenditure timing and revenue projections. The relationship, between the timing of the infrastructure emplacement preceding the development, is normal and expected as the stormwater infrastructure needs to be in place prior to full-development of the benefiting lands.

After cash flow analysis, the residential charge increases to \$111.08 per capita, the non-residential retail commercial charge increases to \$2.57 per square metre and the other non-residential charge increases to \$1.35 per square metre.

The following is a summary of the Stormwater Management calculated unadjusted and cash flow adjusted development charge rates:

STORMWATER MANAGEMENT SUMMARY							
2016 - 2036		Unadjusted Development Charge			Adjusted Development Charge		
Development-Related Capital Program		Residential	Retail	Other Non-Res	Residential	Retail	Other Non-Res
Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/sq.m	\$/capita	\$/sq.m	\$/sq.m
\$24,541,500	\$8,927,449	\$99.98	\$2.33	\$1.25	<b>\$111.08</b>	<b>\$2.57</b>	<b>\$1.35</b>

APPENDIX C.2  
TABLE 2  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
STORMWATER MANAGEMENT

Project Description		Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
						DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016-2036	Post 2036
2.0 STORMWATER MANAGEMENT													
2.1 Storm Sewers - New / Expanded Capacity													
40167202	Halls Rd Culvert @ Lynde Creek - Phase I	2016 - 2016	\$ 25,000	\$ -	\$ 25,000	Y	\$ -	\$ 15,000	\$ -	\$ 10,000	\$ 10,000	\$ -	\$ -
40157301	Lynde Creek Culvert Review at GO/CN	2016 - 2016	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 60,100	\$ -	\$ 39,900	\$ -	\$ 39,900	\$ -
40157301	Lynde Creek Culvert Review at GO/CN	2017 - 2017	\$ 110,000	\$ -	\$ 110,000	Y	\$ -	\$ 66,100	\$ -	\$ 43,900	\$ -	\$ 43,900	\$ -
40157301	Lynde Creek Culvert Review at GO/CN	2018 - 2018	\$ 800,000	\$ -	\$ 800,000	Y	\$ -	\$ 480,900	\$ -	\$ 319,100	\$ -	\$ 319,100	\$ -
40182001	Rowe Channel Upgrades	2018 - 2018	\$ 515,000	\$ -	\$ 515,000	Y	\$ -	\$ 309,600	\$ -	\$ 205,400	\$ -	\$ 205,400	\$ -
40167202	Halls Rd Culvert @ Lynde Creek - Phase I	2019 - 2019	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 30,100	\$ -	\$ 19,900	\$ -	\$ 19,900	\$ -
40167202	Halls Rd Culvert @ Lynde Creek - Phase II	2020 - 2020	\$ 600,000	\$ -	\$ 600,000	Y	\$ -	\$ 360,700	\$ -	\$ 239,300	\$ -	\$ 239,300	\$ -
40177201	Future Capacity Improvement Projects	2022 - 2022	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 150,300	\$ -	\$ 99,700	\$ -	\$ 99,700	\$ -
40177201	Future Capacity Improvement Projects	2024 - 2024	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 150,300	\$ -	\$ 99,700	\$ -	\$ 99,700	\$ -
40157301	Lynde Creek Culvert Review at GO/CN	2026 - 2026	\$ 5,000,000	\$ -	\$ 5,000,000	Y	\$ -	\$ 3,005,600	\$ -	\$ 1,994,400	\$ -	\$ 1,994,400	\$ -
40177201	Future Capacity Improvement Projects	2026 - 2026	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 150,300	\$ -	\$ 99,700	\$ -	\$ 99,700	\$ -
40177201	Future Capacity Improvement Projects	2028 - 2028	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 150,300	\$ -	\$ 99,700	\$ -	\$ 99,700	\$ -
40177201	Future Capacity Improvement Projects	2030 - 2030	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 150,300	\$ -	\$ 99,700	\$ -	\$ 99,700	\$ -
40177201	Future Capacity Improvement Projects	2032 - 2032	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 150,300	\$ -	\$ 99,700	\$ -	\$ 99,700	\$ -
40177201	Future Capacity Improvement Projects	2034 - 2034	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 150,300	\$ -	\$ 99,700	\$ -	\$ 99,700	\$ -
40177201	Future Capacity Improvement Projects	2036 - 2036	\$ 250,000	\$ -	\$ 250,000	Y	\$ -	\$ 150,300	\$ -	\$ 99,700	\$ -	\$ 99,700	\$ -
Subtotal Storm Sewers - New / Expanded Capacity			\$ 9,200,000	\$ -	\$ 9,200,000		\$ -	\$ 5,530,500	\$ -	\$ 3,669,500	\$ 10,000	\$ 3,659,500	\$ -
2.2 Storm Water Facilities - New / Expanded Capacity													
40142003	Snow Stockpile Pond	2016 - 2016	\$ 2,000,000	\$ -	\$ 2,000,000	Y	\$ -	\$ 1,202,300	\$ -	\$ 797,700	\$ 688,311	\$ 109,389	\$ -
40122004	Lynde and Pringle Creek Stabilization	2016 - 2025	\$ 1,050,000	\$ -	\$ 1,050,000	Y	\$ -	\$ 631,200	\$ -	\$ 418,800	\$ -	\$ 418,800	\$ -
40177303	38 Way & 36 Evans	2017 - 2017	\$ 330,000	\$ -	\$ 330,000	Y	\$ -	\$ 198,400	\$ -	\$ 131,600	\$ -	\$ 131,600	\$ -
40177304	Slope Stabilization - Jeffrey St	2017 - 2017	\$ 140,000	\$ -	\$ 140,000	Y	\$ -	\$ 84,200	\$ -	\$ 55,800	\$ -	\$ 55,800	\$ -
40177305	Slope Stabilization - Way St	2017 - 2017	\$ 160,000	\$ -	\$ 160,000	Y	\$ -	\$ 96,200	\$ -	\$ 63,800	\$ -	\$ 63,800	\$ -
40177301	SWM Facility Improvement Design	2017 - 2036	\$ 500,000	\$ -	\$ 500,000	Y	\$ -	\$ 300,600	\$ -	\$ 199,400	\$ -	\$ 199,400	\$ -
40177302	SWM Facility Rehabilitation Analysis	2017 - 2020	\$ 180,000	\$ -	\$ 180,000	Y	\$ -	\$ 108,200	\$ -	\$ 71,800	\$ -	\$ 71,800	\$ -
40092001	Turk SWQ Pond	2018 - 2018	\$ 2,947,000	\$ 658,157	\$ 2,288,843	Y	\$ -	\$ 1,375,900	\$ -	\$ 912,943	\$ -	\$ 912,943	\$ -
40112001	Cawker Court SWQ Pond	2021 - 2021	\$ 457,000	\$ 142,316	\$ 314,684	Y	\$ -	\$ 189,200	\$ -	\$ 125,484	\$ -	\$ 125,484	\$ -
40177302	SWM Facility Rehabilitation Analysis	2021 - 2036	\$ 960,000	\$ -	\$ 960,000	Y	\$ -	\$ 577,100	\$ -	\$ 382,900	\$ -	\$ 382,900	\$ -
40102003	Deerfield SWQ Pond	2024 - 2024	\$ 1,071,750	\$ 232,897	\$ 838,853	Y	\$ -	\$ 504,300	\$ -	\$ 334,553	\$ -	\$ 334,553	\$ -
40132002	Corbett Creek Plunge Pools	2026 - 2026	\$ 710,750	\$ 230,636	\$ 480,114	Y	\$ -	\$ 288,600	\$ -	\$ 191,514	\$ -	\$ 191,514	\$ -
40102004	Mozart Court SWQ Pond	2027 - 2027	\$ 667,000	\$ 3,634	\$ 663,366	Y	\$ -	\$ 398,800	\$ -	\$ 264,566	\$ -	\$ 264,566	\$ -
40152001	Pringle Creek Plunge Pools	2028 - 2028	\$ 710,750	\$ -	\$ 710,750	Y	\$ -	\$ 427,300	\$ -	\$ 283,450	\$ -	\$ 283,450	\$ -
40162001	Lynde Creek Plunge Pools	2030 - 2030	\$ 710,750	\$ -	\$ 710,750	Y	\$ -	\$ 427,300	\$ -	\$ 283,450	\$ -	\$ 283,450	\$ -
40132003	Hazelwood SWQ Pond	2032 - 2032	\$ 736,500	\$ -	\$ 736,500	Y	\$ -	\$ 442,700	\$ -	\$ 293,800	\$ -	\$ 293,800	\$ -
40122004	Lynde and Pringle Creek Stabilization	2026 - 2036	\$ 1,155,000	\$ -	\$ 1,155,000	Y	\$ -	\$ 694,300	\$ -	\$ 460,700	\$ -	\$ 460,700	\$ -
Subtotal Storm Water Facilities - New / Expanded Capacity			\$ 14,486,500	\$ 1,267,640	\$ 13,218,860		\$ -	\$ 7,946,600	\$ -	\$ 5,272,260	\$ 688,311	\$ 4,583,949	\$ -

APPENDIX C.2  
TABLE 2  
TOWN OF WHITBY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
STORMWATER MANAGEMENT

Project Description	Timing	Gross Project Cost	Grants/ Subsidies/ Recoveries	Net Municipal Cost	Ineligible Costs				Total DC Eligible Costs	DC Eligible Costs		
					DC Eligible Services	Ineligible Service	Replacement & BTE Shares	0% Reduction		Available DC Reserves	2016-2036	Post 2036
2.3 Storm Water Studies												
40167702 Storm Sewer Capacity Improvements Study	2016 - 2016	\$ 75,000	\$ -	\$ 75,000	Y	\$ -	\$ 15,000	\$ -	\$ 60,000	\$ -	\$ 60,000	\$ -
40162302 Lynde Creek Study Update	2016 - 2016	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 20,000	\$ -	\$ 80,000	\$ -	\$ 80,000	\$ -
40167702 Storm Sewer Capacity Improvements Study	2017 - 2017	\$ 20,000	\$ -	\$ 20,000	Y	\$ -	\$ 4,000	\$ -	\$ 16,000	\$ -	\$ 16,000	\$ -
40162302 Lynde Creek Study Update	2017 - 2017	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 10,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -
40167703 Slope Stability Report / Analysis Requirement Guideline	2017 - 2017	\$ 20,000	\$ -	\$ 20,000	Y	\$ -	\$ 4,000	\$ -	\$ 16,000	\$ -	\$ 16,000	\$ -
30202301 Stormwater Management Facility Needs Study	2017 - 2017	\$ 50,000	\$ -	\$ 50,000	Y	\$ -	\$ 10,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -
40187701 SWM Quality and Erosion Control Enhancement Study	2018 - 2018	\$ 80,000	\$ -	\$ 80,000	Y	\$ -	\$ 16,000	\$ -	\$ 64,000	\$ -	\$ 64,000	\$ -
40187702 SWM Utility Study	2018 - 2018	\$ 200,000	\$ -	\$ 200,000	Y	\$ -	\$ 40,000	\$ -	\$ 160,000	\$ -	\$ 160,000	\$ -
30202301 Stormwater Management Facility Needs Study	2022 - 2022	\$ 60,000	\$ -	\$ 60,000	Y	\$ -	\$ 12,000	\$ -	\$ 48,000	\$ -	\$ 48,000	\$ -
40257701 Pringle Creek Master Drainage Plan Update	2025 - 2025	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 20,000	\$ -	\$ 80,000	\$ -	\$ 80,000	\$ -
40162302 Lynde Creek Study Update	2026 - 2026	\$ 100,000	\$ -	\$ 100,000	Y	\$ -	\$ 20,000	\$ -	\$ 80,000	\$ -	\$ 80,000	\$ -
Subtotal Storm Water Studies		\$ 855,000	\$ -	\$ 855,000		\$ -	\$ 171,000	\$ -	\$ 684,000	\$ -	\$ 684,000	\$ -
TOTAL STORMWATER MANAGEMENT - 10-YEAR (2016-2025)		\$ 12,315,750	\$ 1,033,370	\$ 11,282,380		\$ -	\$ 6,479,614	\$ -	\$ 4,802,766	\$ 698,311	\$ 4,104,455	\$ -
TOTAL STORMWATER MANAGEMENT - 20-YEAR (2016-2036)		\$ 24,541,500	\$ 1,267,640	\$ 23,273,860		\$ -	\$ 13,648,100	\$ -	\$ 9,625,760	\$ 698,311	\$ 8,927,449	\$ -

Residential Development Charge Calculation		
Residential Share of 2016 - 2036 DC Eligible Costs	80.2%	\$7,156,176
Growth in Population in New Units 2015 - 2031		71,573
Unadjusted Development Charge Per Capita		\$99.98
Non-Residential Development Charge Calculation		
Retail Commercial		
Non-Residential Share of 2016 - 2036 DC Eligible Costs	3.9%	\$346,192
16-Year Growth in Square Metres		148,886
Unadjusted Development Charge Per Square Metre		\$2.33
Other Non-Residential		
Non-Residential Share of 2016 - 2036 DC Eligible Costs	16.0%	\$1,425,081
16-Year Growth in Square Metres		1,144,302
Unadjusted Development Charge Per Square Metre		\$1.25

Reserve Fund Balance	
Balance as at December 31, 2015	\$698,311

APPENDIX C.2  
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TOWN OF WHITBY  
STORMWATER MANAGEMENT  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE

STORMWATER: RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
OPENING CASH BALANCE (\$000)	\$0.0	(\$128.6)	(\$388.0)	(\$1,623.0)	(\$1,424.0)	(\$1,370.6)	(\$1,212.1)	(\$1,053.6)	(\$736.2)	(\$801.5)	(\$517.5)
2015 to 2031 RESIDENTIAL FUNDING REQUIREMENTS											
Stormwater: Residential: Non Inflated	\$265.5	\$382.3	\$1,387.8	\$71.9	\$247.8	\$161.3	\$179.1	\$60.7	\$408.8	\$124.9	\$1,957.0
Stormwater: Residential: Inflated	\$265.5	\$389.9	\$1,443.8	\$76.3	\$268.2	\$178.1	\$201.7	\$69.8	\$479.0	\$149.2	\$2,385.6
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	1,263	1,274	2,272	3,051	3,307	3,327	3,382	3,437	3,495	3,553	3,613
REVENUE											
- DC Receipts: Inflated	\$140.3	\$144.4	\$262.6	\$359.6	\$397.7	\$408.1	\$423.0	\$438.6	\$454.8	\$471.7	\$489.3
INTEREST											
- Interest on Opening Balance	\$0.0	(\$7.1)	(\$21.3)	(\$89.3)	(\$78.3)	(\$75.4)	(\$66.7)	(\$57.9)	(\$40.5)	(\$44.1)	(\$28.5)
- Interest on In-year Transactions	(\$3.4)	(\$6.8)	(\$32.5)	\$5.0	\$2.3	\$4.0	\$3.9	\$6.5	(\$0.7)	\$5.6	(\$52.1)
TOTAL REVENUE	\$136.9	\$130.5	\$208.7	\$275.3	\$321.6	\$336.7	\$360.2	\$387.1	\$413.7	\$433.3	\$408.6
CLOSING CASH BALANCE	(\$128.6)	(\$388.0)	(\$1,623.0)	(\$1,424.0)	(\$1,370.6)	(\$1,212.1)	(\$1,053.6)	(\$736.2)	(\$801.5)	(\$517.5)	(\$2,494.4)

STORMWATER: RESIDENTIAL	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
OPENING CASH BALANCE (\$000)	(\$2,494.4)	(\$2,460.8)	(\$2,535.6)	(\$2,199.8)	(\$2,239.2)	(\$1,848.9)	(\$1,857.1)	(1,404.3)	(1,020.6)	(476.7)	
2015 to 2031 RESIDENTIAL FUNDING REQUIREMENTS											
Stormwater: Residential: Non: Inflated	\$272.8	\$367.9	\$60.7	\$367.9	\$60.7	\$376.2	\$60.7	\$140.7	\$60.7	\$140.7	\$7,156.2
Stormwater: Residential: Inflated	\$339.2	\$466.6	\$78.6	\$485.4	\$81.8	\$516.4	\$85.1	200.9	88.5	209.0	\$8,458.6
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	3,672	3,734	3,797	3,859	3,922	3,989	4,053	4,121.7	4,190.8	4,260.6	71,573
REVENUE											
- DC Receipts: Inflated	\$507.1	\$526.0	\$545.7	\$565.6	\$586.4	\$608.2	\$630.5	\$653.9	\$678.2	\$703.3	\$9,995.0
INTEREST											
- Interest on Opening Balance	(\$137.2)	(\$135.3)	(\$139.5)	(\$121.0)	(\$123.2)	(\$101.7)	(\$102.1)	(\$77.2)	(\$56.1)	(\$26.2)	(\$1,528.6)
- Interest on In-year Transactions	\$2.9	\$1.0	\$8.2	\$1.4	\$8.8	\$1.6	\$9.5	\$7.9	\$10.3	\$8.6	(\$7.8)
TOTAL REVENUE	\$372.9	\$391.7	\$414.4	\$446.1	\$472.0	\$508.1	\$537.9	\$584.6	\$632.4	\$685.7	\$8,458.6
CLOSING CASH BALANCE	(\$2,460.8)	(\$2,535.6)	(\$2,199.8)	(\$2,239.2)	(\$1,848.9)	(\$1,857.1)	(\$1,404.3)	(\$1,020.6)	(\$476.7)	\$0.0	

2016 Adjusted Charge Per Capita	\$ 111.08
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Allocation of Capital Program	
Residential Sector	80.2%
Non-Residential Sector	19.8%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

APPENDIX C.2  
TABLE 2 - PAGE 2

TOWN OF WHITBY  
STORMWATER MANAGEMENT  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE

STORMWATER: RETAIL COMMERCIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
OPENING CASH BALANCE (\$000)	\$0.0	(\$4.7)	(\$17.2)	(\$75.2)	(\$64.1)	(\$59.6)	(\$52.5)	(\$45.4)	(\$30.5)	(\$34.2)	(\$21.0)
2015 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS											
Stormwater: Retail Commercial: Non: Inflated	\$12.8	\$18.5	\$67.1	\$3.5	\$12.0	\$7.8	\$8.7	\$2.9	\$19.8	\$6.0	\$94.7
Stormwater: Retail Commercial: Inflated	\$12.8	\$18.9	\$69.8	\$3.7	\$13.0	\$8.6	\$9.8	\$3.4	\$23.2	\$7.2	\$115.4
COMMERCIAL DEVELOPMENT											
- New Retail Commerical GFA - SQ.M	3,210	2,647	5,347	6,835	7,500	6,642	6,771	6,904	7,038	7,177	7,315
REVENUE											
- DC Receipts: Inflated	\$8.3	\$6.9	\$14.3	\$18.7	\$20.9	\$18.9	\$19.6	\$20.4	\$21.2	\$22.1	\$22.9
INTEREST											
- Interest on Opening Balance	\$0.0	(\$0.3)	(\$0.9)	(\$4.1)	(\$3.5)	(\$3.3)	(\$2.9)	(\$2.5)	(\$1.7)	(\$1.9)	(\$1.2)
- Interest on In-year Transactions	(\$0.1)	(\$0.3)	(\$1.5)	\$0.3	\$0.1	\$0.2	\$0.2	\$0.3	(\$0.1)	\$0.3	(\$2.5)
TOTAL REVENUE	\$8.1	\$6.4	\$11.8	\$14.8	\$17.5	\$15.8	\$16.9	\$18.2	\$19.5	\$20.4	\$19.2
CLOSING CASH BALANCE	(\$4.7)	(\$17.2)	(\$75.2)	(\$64.1)	(\$59.6)	(\$52.5)	(\$45.4)	(\$30.5)	(\$34.2)	(\$21.0)	(\$117.2)

STORMWATER: RETAIL COMMERCIAL	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
OPENING CASH BALANCE (\$000)	(\$117.2)	(\$116.1)	(\$120.2)	(\$104.4)	(\$106.8)	(\$88.3)	(\$89.0)	(67.4)	(49.1)	(23.0)	
2015 to 2031 RESIDENTIAL FUNDING REQUIREMENTS											
Stormwater: Retail Commercial: Non: Inflated	\$13.2	\$17.8	\$2.9	\$17.8	\$2.9	\$18.2	\$2.9	\$6.8	\$2.9	\$6.8	\$346.2
Stormwater: Retail Commercial: Inflated	\$16.4	\$22.6	\$3.8	\$23.5	\$4.0	\$25.0	\$4.1	9.7	4.3	10.1	\$409.2
COMMERCIAL DEVELOPMENT											
- New Retail Commerical GFA - SQ.M	7,459	7,605	7,753	7,904	8,060	8,216	8,377	8,540.3	8,708.5	8,876.1	148,885.9
REVENUE											
- DC Receipts: Inflated	\$23.9	\$24.8	\$25.8	\$26.8	\$27.9	\$29.0	\$30.2	\$31.4	\$32.6	\$33.9	\$480.3
INTEREST											
- Interest on Opening Balance	(\$6.4)	(\$6.4)	(\$6.6)	(\$5.7)	(\$5.9)	(\$4.9)	(\$4.9)	(\$3.7)	(\$2.7)	(\$1.3)	(\$70.7)
- Interest on In-year Transactions	\$0.1	\$0.0	\$0.4	\$0.1	\$0.4	\$0.1	\$0.5	0.4	0.5	0.4	(\$0.4)
TOTAL REVENUE	\$17.5	\$18.5	\$19.6	\$21.1	\$22.4	\$24.2	\$25.7	\$28.0	\$30.4	\$33.1	\$409.2
CLOSING CASH BALANCE	(\$116.1)	(\$120.2)	(\$104.4)	(\$106.8)	(\$88.3)	(\$89.0)	(\$67.4)	(\$49.1)	(\$23.0)	\$0.0	

2016 Adjusted Charge Per Square Metre	\$2.57
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.0%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%



APPENDIX C.2  
TABLE 2 - PAGE 3

TOWN OF WHITBY  
STORMWATER MANAGEMENT  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE

STORMWATER: OTHER NON-RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
OPENING CASH BALANCE (\$000)	\$0.0	\$8.9	(\$5.0)	(\$232.5)	(\$190.8)	(\$183.0)	(\$153.8)	(\$124.8)	(\$64.5)	(\$80.8)	(\$28.0)
2015 to 2031 NON-RESIDENTIAL FUNDING REQUIREMENTS											
Stormwater: Other Non-Residential: Non: Inflate	\$52.9	\$76.1	\$276.4	\$14.3	\$49.3	\$32.1	\$35.7	\$12.1	\$81.4	\$24.9	\$389.7
Stormwater: Other Non-Residential: Inflated	\$52.9	\$77.6	\$287.5	\$15.2	\$53.4	\$35.5	\$40.2	\$13.9	\$95.4	\$29.7	\$475.1
NEW INDUSTRIAL DEVELOPMENT											
- New Other Non-Residential GFA - SQ.M	45,587	46,271	47,147	47,931	48,807	49,618	50,567	51,443	52,354	53,230	54,206
REVENUE											
- DC Receipts: Inflated	\$61.6	\$63.8	\$66.3	\$68.8	\$71.4	\$74.1	\$77.0	\$79.9	\$82.9	\$86.0	\$89.3
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.3	(\$0.3)	(\$12.8)	(\$10.5)	(\$10.1)	(\$8.5)	(\$6.9)	(\$3.5)	(\$4.4)	(\$1.5)
- Interest on In-year Transactions	\$0.2	(\$0.4)	(\$6.1)	\$0.9	\$0.3	\$0.7	\$0.6	\$1.2	(\$0.3)	\$1.0	(\$10.6)
TOTAL REVENUE	\$61.8	\$63.7	\$60.0	\$56.9	\$61.2	\$64.7	\$69.2	\$74.2	\$79.0	\$82.5	\$77.2
CLOSING CASH BALANCE	\$8.9	(\$5.0)	(\$232.5)	(\$190.8)	(\$183.0)	(\$153.8)	(\$124.8)	(\$64.5)	(\$80.8)	(\$28.0)	(\$425.9)

STORMWATER: OTHER NON-RESIDENTIAL	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
OPENING CASH BALANCE (\$000)	(\$425.9)	(\$423.6)	(\$443.5)	(\$382.1)	(\$395.9)	(\$324.8)	(\$333.7)	(\$251.4)	(\$183.5)	(\$84.7)	-
2015 to 2031 RESIDENTIAL FUNDING REQUIREMENTS											
Stormwater: Other Non-Residential: Non: Inflate	\$54.3	\$73.3	\$12.1	\$73.3	\$12.1	\$74.9	\$12.1	\$28.0	\$12.1	\$28.0	\$1,425.1
Stormwater: Other Non-Residential: Inflated	\$67.6	\$92.9	\$15.6	\$96.7	\$16.3	\$102.8	\$16.9	\$40.0	\$17.6	\$41.6	1,684.4
NEW RESIDENTIAL DEVELOPMENT											
- New Building GFA - square metres	55,182	56,158	57,161	58,137	59,140	60,116	61,219	62,295	63,298	64,435	1,144,302.2
REVENUE											
- DC Receipts: Inflated	\$92.8	\$96.3	\$100.0	\$103.7	\$107.6	\$111.6	\$115.9	\$120.3	\$124.7	\$129.5	\$1,923.5
	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	-
INTEREST											
- Interest on Opening Balance	(\$23.4)	(\$23.3)	(\$24.4)	(\$21.0)	(\$21.8)	(\$17.9)	(\$18.4)	(\$13.8)	(\$10.1)	(\$4.7)	(\$236.9)
- Interest on In-year Transactions	\$0.4	\$0.1	\$1.5	\$0.1	\$1.6	\$0.2	\$1.7	\$1.4	\$1.9	\$1.5	(2.1)
TOTAL REVENUE	\$69.8	\$73.1	\$77.1	\$82.8	\$87.4	\$93.9	\$99.3	\$107.9	\$116.5	\$126.3	1,684.4
CLOSING CASH BALANCE	(\$423.6)	(\$443.5)	(\$382.1)	(\$395.9)	(\$324.8)	(\$333.7)	(\$251.4)	(\$183.5)	(\$84.7)	\$0.0	

2016 Adjusted Charge Per Square Metre	\$1.35
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Allocation of Capital Program	
Commercial Share	3.9%
Non-Commerical Share	16.0%
Rates for 2016	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

## **Appendix D**

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### **Reserve Fund Balances**

## **Appendix D**

### **Development Charges Reserve Funds**

The *DCA* requires that a reserve fund be established for each service for which development charges are collected. Table 1 presents the reserve fund balances that are available to help fund the development-related capital costs identified in the study. The closing balances of the development charges reserve funds as at December 31, 2015 are displayed in Table 1. All of the available reserve fund balances are therefore accounted for in the study.

As shown on Table 1, the December 31, 2015 total reserve fund balance was approximately \$64.18 million. The balances for each service are deemed to be “uncommitted” and have been treated appropriately in each of the cash flow analyses. The application of the available monies in each of the reserve funds is discussed in the appendix section related to each service.

**APPENDIX D  
TABLE 1**

**TOWN OF WHITBY  
DEVELOPMENT CHARGE RESERVE FUND BALANCE BY ACCOUNT  
TOWN-WIDE RESERVES  
YEAR ENDING DECEMBER 31, 2015**

<b>Service</b>	<b>Reserve Fund Balance as of Dec. 31, 2015</b>
General Government	(\$1,202,864.90)
Non-Admin Ops Facilities	\$104,024.65
Operations	(\$409,204.51)
Fire	\$17,627.97
Parks and Recreation	\$26,184,546.13
Libraries	(\$381,268.46)
Parking & By-law	\$104,990.17
Roads & Related	\$39,062,486.08
Stormwater Management	\$698,311.14
<b>Total Development Charge Reserves</b>	<b>\$64,178,648.27</b>

## **Appendix E**

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### **Cost of Growth Analysis**

## **Appendix E**

### **Cost of Growth Analysis**

The following appendix provides the detailed Cost of Growth Analysis undertaken for the growth-related ten-year capital program in the Town of Whitby. The objective of the analysis is to examine the impact of development-related infrastructure needs on the property tax base, irrespective of whether the infrastructure was funded by development charges or not. The analysis considers both capital and operating implications.

This section is also intended to satisfy the long-term capital and operating costs and asset management plan requirements as required by subsections 10(1)(c) and 10(3) of the DCA.

#### **A. Long-Term Operating Impact Analysis**

Table 1 summarizes the annual estimated increase in net operating costs associated with the planned capital program. These estimates are based on average costs derived from a review of the Town's 2016 budget and indirect operating estimates provided by Town staff.

As shown in Table 1, the Town's cumulative total net direct and indirect operating costs for tax-supported services are estimated to cost \$73.81 million over the 2016-2025 period. This amount includes, operating costs resulting from the emplacement of infrastructure and Town funded assets. Included in this amount, is the addition of approximately 130 full-time equivalent employees over ten years. As shown in the attached, operating impacts include a one-year lag (beginning in 2017) from the year the project is undertaken.

The Town also incurs operating costs when local assets included in subdivision plans are assumed. In accordance with Town policy, these assets have an eight-year lag from the time they are constructed to the time they are assumed by the Town. Over the ten-year period, the cumulative operating impact of the subdivision assets is anticipated to be \$5.50 million. The Town's cumulative total operating impact for the 2016-2025 period amounts to \$79.31 million.

**APPENDIX E  
TABLE 1**

**TOWN OF WHITBY  
NET LONG-TERM OPERATING IMPACTS  
TOWN/DC FUNDED AND ASSUMED ASSETS**

<b>TOWN/DC FUNDED PROJECTS</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Total</b>
<b>Expenditures</b>											
Salaries, wages & benefits (Broad based)		\$176,561	\$330,264	\$588,058	\$899,320	\$1,230,542	\$1,524,625	\$1,818,998	\$2,113,716	\$2,408,577	\$11,090,661
Salaries, wages & benefits		\$2,574,569	\$3,481,613	\$3,747,737	\$4,302,596	\$5,760,755	\$7,476,152	\$8,539,012	\$9,579,760	\$9,650,194	\$55,112,387
Employee Related		\$19,801	\$43,437	\$46,729	\$62,104	\$85,343	\$112,149	\$133,681	\$169,375	\$170,554	\$843,173
Corporate Training		\$0	\$0	\$0	\$0	\$0	\$1,248	\$1,248	\$1,248	\$1,248	\$4,990
Services/Contracted work		\$27,177	\$117,457	\$141,369	\$190,028	\$281,569	\$424,440	\$759,470	\$791,018	\$803,092	\$3,535,619
Administrative		\$3,486	\$48,036	\$52,174	\$53,939	\$87,809	\$170,670	\$191,345	\$192,711	\$193,014	\$993,184
Operating Supplies		\$0	\$0	\$0	\$86	\$86	\$3,080	\$6,405	\$6,405	\$6,405	\$22,465
Utilities		\$18,970	\$128,707	\$143,631	\$180,128	\$471,139	\$794,401	\$951,070	\$976,092	\$986,011	\$4,650,149
Repairs & Maintenance		\$1,992	\$27,620	\$35,113	\$40,647	\$89,106	\$162,070	\$179,000	\$184,043	\$185,002	\$904,594
Vehicle & Equipment		\$29,374	\$214,718	\$259,972	\$356,176	\$465,210	\$575,487	\$756,765	\$982,611	\$989,618	\$4,629,930
Other Building Related		\$1,494	\$7,123	\$12,742	\$16,607	\$26,266	\$61,973	\$63,595	\$67,376	\$68,096	\$325,272
Miscellaneous		\$262	\$1,411	\$2,397	\$3,075	\$6,430	\$13,405	\$13,689	\$14,353	\$14,479	\$69,500
<b>Subtotal</b>		<b>\$2,853,687</b>	<b>\$4,400,387</b>	<b>\$5,029,922</b>	<b>\$6,104,704</b>	<b>\$8,504,254</b>	<b>\$11,319,700</b>	<b>\$13,414,277</b>	<b>\$15,078,707</b>	<b>\$15,476,287</b>	<b>\$82,181,924</b>
Grants		\$134,707	\$220,229	\$336,911	\$447,987	\$570,261	\$1,223,739	\$1,369,073	\$1,525,536	\$1,691,872	\$7,520,315
Debt Charges		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interfund Transfers		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>TOTAL</b>		<b>\$2,988,394</b>	<b>\$4,620,615</b>	<b>\$5,366,833</b>	<b>\$6,552,691</b>	<b>\$9,074,515</b>	<b>\$12,543,439</b>	<b>\$14,783,350</b>	<b>\$16,604,243</b>	<b>\$17,168,159</b>	<b>\$89,702,240</b>
<b>Revenues</b>											\$0
General Taxation		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supplementary		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PIL		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Licences & Permits		(\$1,465)	(\$4,011)	(\$4,775)	(\$7,400)	(\$9,423)	(\$10,431)	(\$19,307)	(\$21,081)	(\$21,853)	(\$99,744)
Rentals		(\$6,493)	(\$83,563)	(\$107,982)	(\$124,781)	(\$706,623)	(\$1,283,489)	(\$1,290,536)	(\$1,306,971)	(\$1,310,096)	(\$6,220,535)
Miscellaneous Fees		(\$8,128)	(\$31,991)	(\$50,879)	(\$63,001)	(\$133,194)	(\$224,937)	(\$317,588)	(\$329,101)	(\$331,480)	(\$1,490,298)
Other Municipal		(\$1,463)	(\$44,235)	(\$46,272)	(\$49,206)	(\$457,873)	(\$837,978)	(\$844,883)	(\$847,174)	(\$847,926)	(\$3,977,009)
Donations/Sponsorship		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest Income		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Programs		(\$1,807)	(\$47,622)	(\$54,419)	(\$59,094)	(\$471,069)	(\$863,159)	(\$865,120)	(\$869,694)	(\$870,564)	(\$4,102,547)
<b>Subtotal</b>		<b>(\$19,356)</b>	<b>(\$211,422)</b>	<b>(\$264,326)</b>	<b>(\$303,482)</b>	<b>(\$1,778,182)</b>	<b>(\$3,219,993)</b>	<b>(\$3,337,433)</b>	<b>(\$3,374,021)</b>	<b>(\$3,381,919)</b>	<b>(\$15,890,134)</b>
Provincial		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Federal		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contribution from Own Funds		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>TOTAL</b>		<b>(\$19,356)</b>	<b>(\$211,422)</b>	<b>(\$264,326)</b>	<b>(\$303,482)</b>	<b>(\$1,778,182)</b>	<b>(\$3,219,993)</b>	<b>(\$3,337,433)</b>	<b>(\$3,374,021)</b>	<b>(\$3,381,919)</b>	<b>(\$15,890,134)</b>
<b>NET EXPENDITURE TOWN/DC FUNDED</b>		<b>\$2,969,038</b>	<b>\$4,409,194</b>	<b>\$5,102,508</b>	<b>\$6,249,209</b>	<b>\$7,296,334</b>	<b>\$9,323,446</b>	<b>\$11,445,916</b>	<b>\$13,230,222</b>	<b>\$13,786,240</b>	<b>\$73,812,106</b>
<b>ASSUMED ASSETS</b>	<b>\$144,608</b>	<b>\$147,891</b>	<b>\$298,953</b>	<b>\$453,638</b>	<b>\$574,450</b>	<b>\$641,479</b>	<b>\$686,713</b>	<b>\$727,474</b>	<b>\$849,681</b>	<b>\$974,748</b>	<b>\$5,499,636</b>
<b>TOTAL OPERATING IMPACTS</b>	<b>\$144,608</b>	<b>\$3,116,929</b>	<b>\$4,708,147</b>	<b>\$5,556,146</b>	<b>\$6,823,659</b>	<b>\$7,937,813</b>	<b>\$10,010,159</b>	<b>\$12,173,391</b>	<b>\$14,079,903</b>	<b>\$14,760,988</b>	<b>\$79,311,742</b>

## **B. Asset Management Plan**

The recently enacted changes to the DCA require the completion of an Asset Management Plan before the passing of a development charges by-law. The primary purpose of the Asset Management Plan is to demonstrate that all assets proposed to be funded under the development charges by-law are financially sustainable over their full life cycle.

### **Asset Types**

Summaries of the future municipal-owned assets and estimated useful life assumptions considered under the 2016 Development Charges Study are outlined on Table 2 for general services and Table 3 for engineered services. These assumptions were primarily derived from the Town's 2016 Asset Management Plan (AMP) Update which is currently underway. Some adjustments have been made to these assumptions as per staff direction from Town staff.

Although all capital assets considered in the 2016 Development Charges Study have been identified, not all assets will necessitate future replacement or ongoing maintenance activities. These exceptions include:

- Works identified that represent one-time expenditures or assets such as land that do not depreciate. Such assets are identified as “not a long-term asset” in the table; and
- Projects such as development-related studies or infrastructure needs studies, which do not relate to the emplacement of a tangible capital asset. Such projects are identified as “not infrastructure” in the tables.

It should be noted that the capital cost estimates prepared for each of the identified projects include grouped costs of various individual elements, which, as a stand-alone item, may have their own useful life. For example, new buildings include elements such as HVAC, structural elements, and roofs, among others; new bridges include deck, superstructure, and substructure components. Accordingly, the average useful life assumptions noted below are applicable to all project components.



<b>Table 2 – Summary of General Services Assets Considered</b>	
<b>Capital Project Description</b>	<b>Estimated Useful Life</b>
Facility Construction, Replacement, or Expansion	40 years
Furniture	15 years
Software Tools	5 years
Financial System Application	15 years
Computing / Communication Devices	7 years
Land Acquisitions	Not a long-term asset
Dry Hydrant Connection	10 years
Building Design Development	Not infrastructure
Fire Prevention Vehicle	10 years
Fire Rescue Truck	15 years
Aerial/Pumper Truck	20 years
Fire Utility Vehicle with Skid Mount Pump/Tank	20 years
Fire Suppression Staff Equipment	10 years
Fire Mobile Data Terminals / Turn Out Technology	10 years
Parking Lot Construction/Expansion	20 years
Staff Vehicles	10 years
Public Works Vehicles (Misc.)	10 years
Public Works Equipment (Misc.)	10 years
Tri-Axle Trailer	15 years
Vehicle Routing Optimization	5 years
Soccer Dome	100 years
Sports Field Design	Not infrastructure
Sports Field Construction	40 years
Walk Behind Floor Scrubber	15 years
Park Design	Not infrastructure
Park Development	20 years
Splashpad	10 years
Kelloryn Park Redevelopment	40 years
Ball Diamonds Shade Structures	40 years
Willow Park Shade Structures	25 years
Tennis Courts	20 years
Playground Redevelopment	15 years
Cullen Park Redevelopment	40 years
Waterfront Lighting	40 years
Misc. Local and District Parks	40 years
Trails	20 years
Parks Maintenance Front Mount Mower	7 years
Parks Maintenance Wide Cut Mower	8 years
Parks Maintenance Trailer	15 years
Parks Maintenance Front End Loader	12 years
Forestry – Chipper Truck	8 years
Library Collection Expansion	15 years
Parking Structure	15 years
Parking Ballistic Vest	15 years
½ Ton Extended Cab – Solid Waste	10 years
Garbage Packer – Rear Loader	10 years
Garbage Packer – Side Loader	7 years

<b>Table 3 – Summary of Engineered Services Assets Considered</b>	
<b>Capital Project Description</b>	<b>Estimated Useful Life</b>
Bridges	80 years
Culverts	80 years
Pedestrian Bridges	80 years
Multi-Use Pathways	20 years
Road Construction and Reconstruction	60 years
Road Design	Not infrastructure
Intersection Improvements	25 years
Roundabouts	60 years
Roads Environmental Assessment	Not infrastructure
Rural Road Resurfacing	20 years
Urban Road Resurfacing	15 – 35 years
Sidewalk Construction	45 years
Street Lighting	40 years
Traffic Signals	40 years
Stormwater Infrastructure	80 years

### Annual Provision

When assets require rehabilitation or are due for replacement, funding sources are generally limited to reserves, debt, grants or contributions from the tax base through the operating budget. Capital expenditures to carry out the rehabilitation and replacement of aging infrastructure are not development-related, and therefore, are not eligible for funding through development charge revenues or other developer contributions.

Using the useful life assumptions obtained from Town staff and the capital cost of acquiring and/or emplacing each asset, a provision for infrastructure replacement has been calculated. Provisions for infrastructure replacement are initially calculated for each asset based on their useful life and the anticipated cost of replacement. The aggregate of all individual provisions form the required annual capital provision. In calculating the annual provisions, an assumption of a 1.5 per cent real earnings rate was assumed.

Under the requirements of the DCA, only the assets that are proposed to be funded under the development charges by-law are to be included in the AMP. As per staff direction, additional costs that are to be funded outside of the development charge by-law were included in the analysis to better understand the full cost of growth. In this respect, for the gross capital cost less benefit to existing shares was used.

Table 4 provides an overview of the capital provisions required to replace the capital infrastructure proposed to be funded under the development charges by-law. Table 4

**APPENDIX E  
TABLE 4**

**TOWN OF WHITBY  
ANNUAL PROVISION SCHEDULE**

<b>AMP Contributions</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
General Government			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Non-Admin			\$29,947	\$163,976	\$243,685	\$322,137	\$377,122	\$772,491	\$878,240	\$945,841
Fire Services			\$8,068	\$75,898	\$116,661	\$122,511	\$122,511	\$125,314	\$214,584	\$214,584
Operations			\$2,178	\$124,540	\$146,778	\$212,371	\$250,058	\$331,099	\$479,519	\$604,424
Parks and Rec			\$59,603	\$247,583	\$429,194	\$505,766	\$1,043,940	\$1,629,963	\$1,714,313	\$1,841,053
Library			\$0	\$553	\$8,989	\$17,681	\$29,071	\$106,431	\$123,216	\$142,398
Parking & By-law			\$0	\$60	\$60	\$60	\$47,337	\$50,900	\$55,352	\$58,915
Waste Management			\$27,096	\$49,520	\$71,197	\$71,197	\$71,197	\$89,884	\$201,860	\$201,860
Roads and Related - Town-Wide			\$345,223	\$844,908	\$1,023,221	\$1,481,390	\$1,907,959	\$2,066,726	\$2,718,657	\$3,026,208
Roads and Related - Alt Route			\$0	\$0	\$0	\$0	\$16,667	\$50,000	\$966,667	\$966,667
Stormwater			\$11,119	\$15,680	\$42,747	\$43,869	\$47,732	\$52,027	\$54,221	\$55,168
<b>Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$483,233</b>	<b>\$1,522,717</b>	<b>\$2,082,533</b>	<b>\$2,776,981</b>	<b>\$3,913,593</b>	<b>\$5,274,835</b>	<b>\$7,406,627</b>	<b>\$8,057,118</b>

Note: Based on Cumulative 2 Year Lag with Real Interest Rate of 1.5%

illustrates that, by 2025, the Town will need to contribute an additional \$8.06 million per annum in order to fully fund the full tax-supported life-cycle costs of the new assets included in this development charges study, and does not include any additional assets assumed by the Town through plans of subdivision. As per the Maintenance Reserve Town policy, these assets, once constructed and assumed after a two-year lag period, will be included in the annual maintenance envelope calculation.

The calculated annual funding provision should be considered within the context of the Town's projected growth. Over the next ten years (to 2025) the Town is projecting an increase of approximately 10,620 total private dwelling units, representing a 25 per cent increase over the existing (2015) base, as well as nearly 7,400 new employees. This growth will have the effect of increasing the overall assessment base and will result in an additional \$106.82 million in cumulative assessment revenue over the ten-year period. In this respect, the additional assessment and user fee revenue can be utilized to offset the Town's total cost of growth.

### **C. Cost of Growth Analysis Scenario Testing**

Table 5 provides the details of the Cost of Growth analysis and summarizes the components of the development-related capital program that will require funding from property taxes and identifies the annual tax increase requirement. In total, \$195.90 million is related to the net capital funding requirements and \$79.31 million relates to the net operating expenditures over the 2016-2025 period that will be funded from non-development charge sources.

The Town currently maintains a Growth Reserve Fund which is used to pay for the Town's portion of capital growth projects as outlined in the Council approved Development Charges Background Study. Approximately \$3.15 million is contributed to this reserve annually, subject to Council approval. As of 2016, the Town had \$22.60 million available in the Growth Reserve Fund that has been applied to off-set the total net capital funding requirements. Over the ten-year period, the Town also anticipates to generate roughly \$106.82 million in additional taxation revenue from new growth. After these adjustments, the cumulative "gap" between tax related expenditures and tax revenue is used to determine the annual tax increase to balance the 10-year plan.

For the purposes of the analysis, two scenarios have been provided. A brief description of each scenario and the related tax rate impact is described below and summarized in Table 5.

#### **Scenario 1: Base Case**

- No projects are funded through debentures
- All post-period shares are funded through taxes
- Considers Growth Reserve Fund balance and annual contributions to Growth Reserve Fund
- Total 10-year funding requirement after reserve adjustments and taxation revenue from new growth equals \$113.12 million
- Annual tax increase calculated to be 2.48 per cent over the ten-year period

#### **Scenario 2: With Debt Considerations**

- Assumes \$63.87 million in Town share of projects are funded through debentures; associated principal and interest payments are considered
- All post-period shares are funded through taxes
- Considers Growth Reserve Fund balance and annual contributions to Growth Reserve Fund
- Total 10-year funding requirement after reserve adjustments, anticipated debentures and taxation revenue from new growth equals \$66.12 million
- Annual tax increase calculated to be 1.49 per cent over the ten-year period

#### **D. Financing Mechanisms to Mitigate Tax Rate Impacts Will Be Examined Through the Long-Range Financial Plan**

As summarized in Table 5, the calculated funding requirements are considered to be financially sustainable as it is expected that the increased tax funded expenditure requirements, including long-term operating and capital asset management requirements, can be absorbed by the tax base over the long-term with increases.

The tax increase shown in Table 5 has been calculated on an average annual basis. In order to achieve this, the Town will need to use a number of mitigating measures including but not limited to transfers to/from reserves, timing of projects and use of debt. The Town's financing mechanisms for these projects will be further evaluated based on financial policies and thresholds that will be identified through a Long-Range Financial Plan (LRFP) analysis.

APPENDIX E  
TABLE 5 - PAGE 1

TOWN OF WHITBY  
COST OF GROWTH ANALYSIS - 10-YEAR CAPITAL PLAN  
TOTAL GROWTH-RELATED CAPITAL PROJECTS  
ALL COSTS ARE IN \$2016

Total Growth-Related Capital Projects											Total
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
<b>A Total Project Costs</b>											
Gross Project Costs	\$ 28,343,719	\$ 56,697,460	\$ 32,358,488	\$ 43,228,778	\$ 63,702,793	\$ 75,623,302	\$ 111,315,627	\$ 29,471,241	\$ 19,899,274	\$ 21,511,300	\$482,151,983
<b>Subtotal</b>	<b>\$ 28,343,719</b>	<b>\$ 56,697,460</b>	<b>\$ 32,358,488</b>	<b>\$ 43,228,778</b>	<b>\$ 63,702,793</b>	<b>\$ 75,623,302</b>	<b>\$ 111,315,627</b>	<b>\$ 29,471,241</b>	<b>\$ 19,899,274</b>	<b>\$ 21,511,300</b>	<b>\$482,151,983</b>
<b>Capital Cost Analysis</b>											
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
<b>B Grants and Subsidies</b>											
Grants and Subsidies	\$ 3,450,990	\$ 3,947,779	\$ 972,701	\$ 284,305	\$ 9,143	\$ 142,316	\$ -	\$ -	\$ 232,897	\$ 16,775	\$9,056,906
<b>Subtotal</b>	<b>\$ 3,450,990</b>	<b>\$ 3,947,779</b>	<b>\$ 972,701</b>	<b>\$ 284,305</b>	<b>\$ 9,143</b>	<b>\$ 142,316</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 232,897</b>	<b>\$ 16,775</b>	<b>\$9,056,906</b>
<b>C Development Charges</b>											
Available DC Reserves	\$ 12,877,857	\$ 27,097,079	\$ 16,326,148	\$ 2,753,345	\$ 7,117,557	\$ -	\$ -	\$ -	\$ -	\$ -	\$66,171,986
DC Collections 2016-2025 Net of DC Exemptions (1)	\$ 3,367,664	\$ 11,193,581	\$ 3,694,277	\$ 27,477,557	\$ 39,561,300	\$ 40,171,244	\$ 89,069,827	\$ 20,581,912	\$ 11,035,945	\$ 5,899,964	\$252,053,271
<b>Subtotal</b>	<b>\$ 16,245,521</b>	<b>\$ 38,290,660</b>	<b>\$ 20,020,424</b>	<b>\$ 30,230,902</b>	<b>\$ 46,678,857</b>	<b>\$ 40,171,244</b>	<b>\$ 89,069,827</b>	<b>\$ 20,581,912</b>	<b>\$ 11,035,945</b>	<b>\$ 5,899,964</b>	<b>\$318,225,257</b>
<b>D DC Deductions (Town Share of Growth)</b>											
Benefit-to-Existing/Replacement (2)	\$ 4,405,172	\$ 8,725,807	\$ 8,116,373	\$ 9,415,060	\$ 10,982,838	\$ 5,678,617	\$ 10,660,037	\$ 5,765,504	\$ 4,515,106	\$ 3,371,657	\$71,636,171
10% Statutory Deduction (2)	\$ 295,328	\$ 953,734	\$ 1,308,964	\$ 590,471	\$ 3,069,772	\$ 4,409,406	\$ 399,028	\$ 426,547	\$ 430,413	\$ 1,137,666	\$13,021,329
Ineligible Services (2)	\$ 2,924,000	\$ 3,255,000	\$ 205,000	\$ 570,000	\$ 710,000	\$ 11,761,000	\$ 815,000	\$ 325,000	\$ 1,705,000	\$ 100,000	\$22,370,000
Post-Period benefit (3)	\$ -	\$ 157,424	\$ 238,000	\$ 693,455	\$ 752,793	\$ 11,940,101	\$ 9,007,961	\$ 1,351,972	\$ 944,478	\$ 9,933,278	\$35,019,461
<b>Subtotal</b>	<b>\$ 7,624,500</b>	<b>\$ 13,091,965</b>	<b>\$ 9,868,336</b>	<b>\$ 11,268,987</b>	<b>\$ 15,515,403</b>	<b>\$ 33,789,124</b>	<b>\$ 20,882,026</b>	<b>\$ 7,869,023</b>	<b>\$ 7,594,996</b>	<b>\$ 14,542,601</b>	<b>\$142,046,960</b>
<b>E DC Exemptions (Town Share of Growth)</b>											
Statutory Discounts (2)	\$ 708,310	\$ 718,041	\$ 750,923	\$ 741,712	\$ 766,611	\$ 777,656	\$ 799,579	\$ 812,205	\$ 824,564	\$ 837,190	\$7,736,793
Non-Statutory Discounts (2)	\$ 314,398	\$ 649,014	\$ 746,103	\$ 702,872	\$ 732,778	\$ 742,962	\$ 564,195	\$ 208,101	\$ 210,872	\$ 214,771	\$5,086,067
<b>Subtotal</b>	<b>\$ 1,022,708</b>	<b>\$ 1,367,056</b>	<b>\$ 1,497,027</b>	<b>\$ 1,444,584</b>	<b>\$ 1,499,390</b>	<b>\$ 1,520,618</b>	<b>\$ 1,363,774</b>	<b>\$ 1,020,306</b>	<b>\$ 1,035,436</b>	<b>\$ 1,051,960</b>	<b>\$12,822,859</b>
<b>TOTAL CAPITAL COSTS (B + C + D + E) (4)</b>	<b>\$ 28,343,719</b>	<b>\$ 56,697,460</b>	<b>\$ 32,358,488</b>	<b>\$ 43,228,778</b>	<b>\$ 63,702,793</b>	<b>\$ 75,623,302</b>	<b>\$ 111,315,627</b>	<b>\$ 29,471,241</b>	<b>\$ 19,899,274</b>	<b>\$ 21,511,300</b>	<b>\$482,151,983</b>

## Notes:

- 1 Recovered through the development charge rates, less exemptions
- 2 Represents ineligible shares of development charge projects that must be funded from taxes
- 3 Assumed to be Tax funded but may be considered for recovery in future development charge by-law
- 4 Town's share of capital program equals DC deductions plus DC exemptions

APPENDIX E  
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TOWN OF WHITBY  
COST OF GROWTH ANALYSIS - 10-YEAR CAPITAL PLAN  
OPERATING AND ASSET MANAGEMENT REQUIREMENTS ANALYSIS  
ALL COSTS ARE IN \$2016

Operating Cost Analysis (5)											Total
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
<b>F Direct and Indirect (Cumulative)</b>											
DC/Town Funded Projects	\$ -	\$ 2,969,038	\$ 4,409,194	\$ 5,102,508	\$ 6,249,209	\$ 7,296,334	\$ 9,323,446	\$ 11,445,916	\$ 13,230,222	\$ 13,786,240	\$ 73,812,106
Assumed Projects	\$ 144,608	\$ 147,891	\$ 298,953	\$ 453,638	\$ 574,450	\$ 641,479	\$ 686,713	\$ 727,474	\$ 849,681	\$ 974,748	\$ 5,499,636
<b>Total Operating Cost Analysis</b>	<b>\$ 144,608</b>	<b>\$ 3,116,929</b>	<b>\$ 4,708,147</b>	<b>\$ 5,556,146</b>	<b>\$ 6,823,659</b>	<b>\$ 7,937,813</b>	<b>\$ 10,010,159</b>	<b>\$ 12,173,391</b>	<b>\$ 14,079,903</b>	<b>\$ 14,760,988</b>	<b>\$ 79,311,742</b>
<b>Additional Full Time Equivalents (FTEs) (6)</b>											
DC/Town Funded Projects	0.0	27.8	10.7	5.3	8.8	18.1	20.3	13.7	13.5	3.7	121.8
Assumed Projects	1.1	0.0	1.1	1.2	0.9	0.5	0.3	0.3	0.9	0.9	7.4
<b>Total FTEs</b>	<b>1.1</b>	<b>27.8</b>	<b>11.9</b>	<b>6.5</b>	<b>9.7</b>	<b>18.6</b>	<b>20.6</b>	<b>14.0</b>	<b>14.4</b>	<b>4.6</b>	<b>129.2</b>
<b>Asset Management Requirements (7)</b>											
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
<b>G Asset Management (Cumulative)</b>											
DC/Town Funded Projects	\$ -	\$ -	\$ 483,233	\$ 1,522,717	\$ 2,082,533	\$ 2,776,981	\$ 3,913,593	\$ 5,274,835	\$ 7,406,627	\$ 8,057,118	\$ 31,517,637
Assumed Projects	\$ 216,092	\$ 436,815	\$ 662,833	\$ 839,357	\$ 937,297	\$ 1,003,390	\$ 1,062,949	\$ 1,241,510	\$ 1,424,253	\$ 1,685,186	\$ 9,509,682
<b>Total Capital Maintenance Costs</b>	<b>\$ 216,092</b>	<b>\$ 436,815</b>	<b>\$ 1,146,066</b>	<b>\$ 2,362,074</b>	<b>\$ 3,019,830</b>	<b>\$ 3,780,371</b>	<b>\$ 4,976,542</b>	<b>\$ 6,516,345</b>	<b>\$ 8,830,880</b>	<b>\$ 9,742,303</b>	<b>\$ 41,027,319</b>
<b>TOTAL ALL EXPENDITURES (B + C + D + E + F + G)</b>	<b>\$ 28,704,419</b>	<b>\$ 60,251,204</b>	<b>\$ 38,212,702</b>	<b>\$ 51,146,998</b>	<b>\$ 73,546,282</b>	<b>\$ 87,341,487</b>	<b>\$ 126,302,328</b>	<b>\$ 48,160,977</b>	<b>\$ 42,810,057</b>	<b>\$ 46,014,591</b>	<b>\$ 602,491,044</b>
<b>TAX SUPPORTED EXPENDITURES (D + E + F + G)</b>	<b>\$ 9,007,908</b>	<b>\$ 18,012,765</b>	<b>\$ 17,219,576</b>	<b>\$ 20,631,791</b>	<b>\$ 26,858,281</b>	<b>\$ 47,027,926</b>	<b>\$ 37,232,500</b>	<b>\$ 27,579,065</b>	<b>\$ 31,541,215</b>	<b>\$ 40,097,852</b>	<b>\$ 275,208,881</b>

## Notes:

5 Direct and indirect operating impacts are net of user fee revenues.

6 Based on an average salary, wages and benefits of approximately \$99,000 per employee. Salaries relating to new FTEs are included in the operating costs.

7 Calculated using straight-line approach with interest. These are calculated contributions are higher than the Town's current contributions to asset replacement.

Taxation Revenue from New Growth											Total
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
<b>Taxation Revenue (Cumulative)</b>											
Residential Revenue	\$ 780,600	\$ 1,570,167	\$ 2,983,156	\$ 4,891,639	\$ 6,965,593	\$ 9,062,510	\$ 11,204,443	\$ 13,392,684	\$ 15,628,506	\$ 17,913,165	\$ 84,392,463
Non-Residential Revenue	\$ 348,257	\$ 709,433	\$ 1,114,043	\$ 1,544,646	\$ 1,990,623	\$ 2,430,456	\$ 2,878,720	\$ 3,335,021	\$ 3,799,530	\$ 4,272,144	\$ 22,422,873
<b>Subtotal</b>	<b>\$ 1,128,857</b>	<b>\$ 2,279,600</b>	<b>\$ 4,097,199</b>	<b>\$ 6,436,285</b>	<b>\$ 8,956,216</b>	<b>\$ 11,492,966</b>	<b>\$ 14,083,163</b>	<b>\$ 16,727,705</b>	<b>\$ 19,428,036</b>	<b>\$ 22,185,309</b>	<b>\$ 106,815,336</b>
<b>TOTAL TAX REVENUE</b>	<b>\$ 1,128,857</b>	<b>\$ 2,279,600</b>	<b>\$ 4,097,199</b>	<b>\$ 6,436,285</b>	<b>\$ 8,956,216</b>	<b>\$ 11,492,966</b>	<b>\$ 14,083,163</b>	<b>\$ 16,727,705</b>	<b>\$ 19,428,036</b>	<b>\$ 22,185,309</b>	<b>\$ 106,815,336</b>

APPENDIX E  
TABLE 5 - PAGE 3

TOWN OF WHITBY  
COST OF GROWTH ANALYSIS - 10-YEAR CAPITAL PLAN

SCENARIO TESTING  
ALL COSTS ARE IN \$2016

COST OF GROWTH ANALYSIS												Total
<b>Scenario 1: Base Case</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>		
Capital Funding Required (1)	\$ 8,863,300	\$ 14,895,836	\$ 12,511,429	\$ 15,075,646	\$ 20,034,622	\$ 39,090,113	\$ 27,222,341	\$ 15,405,675	\$ 17,461,312	\$ 25,336,864	\$	\$ 195,897,139
Less Growth Reserve Fund Balance	\$ (4,530,214)	\$ (11,745,836)	\$ (6,328,611)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	\$ (22,604,660)
Less Growth Reserve Fund Contribution	\$ (4,333,086)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$	\$ (32,683,086)
Operating Funding Required (2)	\$ 144,608	\$ 3,116,929	\$ 4,708,147	\$ 5,556,146	\$ 6,823,659	\$ 7,937,813	\$ 10,010,159	\$ 12,173,391	\$ 14,079,903	\$ 14,760,988	\$	\$ 79,311,742
<b>Revised Capital + Operating Funding Required</b>	<b>\$ 144,608</b>	<b>\$ 3,116,929</b>	<b>\$ 7,740,965</b>	<b>\$ 17,481,791</b>	<b>\$ 23,708,281</b>	<b>\$ 43,877,926</b>	<b>\$ 34,082,500</b>	<b>\$ 24,429,065</b>	<b>\$ 28,391,215</b>	<b>\$ 36,947,852</b>	<b>\$</b>	<b>\$ 219,921,134</b>
Existing Tax Levy	\$ (79,700,000)	\$ (81,673,375)	\$ (83,695,611)	\$ (85,767,918)	\$ (87,891,535)	\$ (90,067,733)	\$ (92,297,814)	\$ (94,583,112)	\$ (96,924,993)	\$ (99,324,860)	\$	\$ (94,926,952)
Tax Revenue from Existing Levy	\$ -	\$ (1,973,375)	\$ (3,995,611)	\$ (6,067,918)	\$ (8,191,535)	\$ (10,367,733)	\$ (12,597,814)	\$ (14,883,112)	\$ (17,224,993)	\$ (19,624,860)	\$	\$ (124,994,183)
Tax Revenue from New Growth	\$ (1,128,857)	\$ (2,336,043)	\$ (4,302,604)	\$ (6,926,308)	\$ (9,876,732)	\$ (12,988,023)	\$ (16,309,224)	\$ (19,851,423)	\$ (23,626,879)	\$ (27,648,089)	\$	\$ (0)
Annual Tax Increase to Balance 10-Year Plan	2.48%	\$ (984,249)	\$ (1,192,489)	\$ (557,250)	\$ 4,487,565	\$ 5,640,014	\$ 20,522,171	\$ 5,175,462	\$ (10,305,469)	\$ (12,460,657)	\$ (10,325,097)	\$ (0)
<b>Scenario 2: With Debt Considerations</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>		
Capital Funding Required (1)	\$ 8,863,300	\$ 14,895,836	\$ 12,511,429	\$ 15,075,646	\$ 20,034,622	\$ 39,090,113	\$ 27,222,341	\$ 15,405,675	\$ 17,461,312	\$ 25,336,864	\$	\$ 195,897,139
Less Growth Reserve Fund Balance	\$ (441,657)	\$ (9,145,836)	\$ (9,001,429)	\$ (4,015,738)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	\$ (22,604,660)
Less Growth Reserve Fund Contribution	\$ (4,333,086)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$	\$ (32,683,086)
Less Debt Financed Capital Costs	\$ (4,088,557)	\$ (2,600,000)	\$ (360,000)	\$ (1,386,877)	\$ (5,646,254)	\$ (28,476,684)	\$ (9,006,844)	\$ -	\$ (2,300,000)	\$ (10,000,000)	\$	\$ (63,865,216)
Plus Debt Principal and Interest	\$ -	\$ 287,675	\$ 470,614	\$ 495,944	\$ 593,526	\$ 990,803	\$ 2,994,453	\$ 3,628,184	\$ 3,628,184	\$ 3,790,015	\$	\$ 16,879,398
Operating Funding Required (2)	\$ 144,608	\$ 3,116,929	\$ 4,708,147	\$ 5,556,146	\$ 6,823,659	\$ 7,937,813	\$ 10,010,159	\$ 12,173,391	\$ 14,079,903	\$ 14,760,988	\$	\$ 79,311,742
<b>Revised Capital + Operating Funding Required After Debt</b>	<b>\$ 144,608</b>	<b>\$ 3,404,605</b>	<b>\$ 5,178,761</b>	<b>\$ 12,575,120</b>	<b>\$ 18,655,553</b>	<b>\$ 16,392,045</b>	<b>\$ 28,070,109</b>	<b>\$ 28,057,249</b>	<b>\$ 29,719,399</b>	<b>\$ 30,737,867</b>	<b>\$</b>	<b>\$ 172,935,316</b>
Existing Tax Levy	\$ (79,700,000)	\$ (80,885,705)	\$ (82,089,051)	\$ (83,310,298)	\$ (84,549,714)	\$ (85,807,569)	\$ (87,084,138)	\$ (88,379,698)	\$ (89,694,532)	\$ (91,028,927)	\$	\$ (55,529,632)
Tax Revenue from Existing Levy	\$ -	\$ (1,185,705)	\$ (2,389,051)	\$ (3,610,298)	\$ (4,849,714)	\$ (6,107,569)	\$ (7,384,138)	\$ (8,679,698)	\$ (9,994,532)	\$ (11,328,927)	\$	\$ (117,405,684)
Tax Revenue from New Growth	\$ (1,128,857)	\$ (2,313,514)	\$ (4,220,015)	\$ (6,727,840)	\$ (9,501,198)	\$ (12,373,695)	\$ (15,387,956)	\$ (18,549,429)	\$ (21,864,349)	\$ (25,338,832)	\$	\$ (0)
Annual Tax Increase to Balance 10-Year Plan	1.49%	\$ (984,249)	\$ (94,615)	\$ (1,430,304)	\$ 2,236,982	\$ 4,304,641	\$ (2,089,219)	\$ 5,298,015	\$ 828,122	\$ (2,139,481)	\$ (5,929,892)	\$ (0)

## Notes:

1 Includes "DC Deductions", "DC Exemptions" and "Capital Maintenance Costs"

2 Includes direct and indirect operating costs



## **Appendix F**

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### **Local Service Definitions**

## **Appendix F Local Service Definitions**

### **General Policy Guidelines on Development Charge And Local Service Funding For Town-Related Works**

The following guidelines set out in general terms the size and nature of engineered infrastructure that is included in the Town of Whitby Development Charge Study, as a project to be eligible to be funded in part by development charges the following will apply:

1. The project will be required to be listed in the most current Town of Whitby Development Charges Study.
2. If any infrastructure does not add any additional capacity over and above the capacity requirement for that development, these projects are assumed to be the sole responsibility of the developer.
3. Infrastructure that provides servicing or capacity for more than one development is not necessarily fully or partially funded from development charges. If a project is considered fully or partially local in nature, the Town will require the benefiting land owners to fund the works directly.

The following policy guidelines are general principles by which staff will be guided in considering development applications. Each application will be considered on its own merits having regard to, among other factors, the nature, type and location of the development in any existing development and proposed development in its surrounding area these policy guidelines, the location and type of services required and their relationship to the proposed development and to existing and proposed development in the area, and subsection 59(2) of the Development Charges Act, 1997.

These local service policy guidelines are subject to review and amendment by the Town which may be independent of an amendment or update to the Town's development charge by-laws.

The detailed engineering requirements for all work and/or development are governed by the Town of Whitby Official Plan, or if not specified in the Official Plan, by the approved detailed engineering standards, including but not limited to the 2010 Transportation Master Plan (TMP).

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 land owner or developer. The issue of "local services" is being specifically considered for the services outlined in the following sections.

## **Roads Internal to Development**

### **1.0 Roads Internal to Development**

- 1.1 All local and collector roads internal to a development (including road base and surface, streetlighting, storm sewers, bridges, culverts, sidewalks, bike lanes, bikepaths, noise walls, utilities, turning lanes, line painting, signage, etc.) – are the direct responsibility of the direct developer under s.59 of the DCA (as a local service).
- 1.2 Arterial Roadways internal to a development are subject to oversizing cost recoveries for the direct developer. Oversizing costs (the costs associated with providing a roadway width greater than a 11.0m collector roadway as identified in the paragraph above) have been included in this study.
- 1.3 In addition, there may be circumstances where road improvements (turning lanes, traffic signalization, all-way stop-control, horizontal/vertical grade upgrades for applicable intersection sightlines, etc.) are required on adjacent external roadways in order to facilitate a development. These road improvements are the responsibility of the direct developer under s.59 of the DCA (as a local service) and have not been identified in this study.

## **Roads External to Development**

### **2.0 Road Widenings and New Alignments**

- 2.1 In June of 2010, Town of Whitby Council approved the Town of Whitby Transportation Master Plan (TMP) which defines at a strategic level, an integrated mobility plan and sets out guiding principles for the accommodation of future anticipated growth in a cost-effective, efficient, balanced and environmentally sensitive manner. This study was used as a basis for determining all new roads and road widenings (i.e. widening from 2 to 4 lanes) that provide service to future development areas.
- 2.2 All costs for studies, environmental assessments, engineering, contract administration and inspection, property acquisition, sidewalks, storm sewers, cycling facilities, streetlighting, bridges, traffic signals, etc., associated with these projects have been included in the Road Widenings and New Alignments section of this study, unless specifically identified elsewhere. Traffic signalization for development adjacent to a highway or major arterial is a direct developer responsibility under s.59 of the DCA (local services).

### **3.0 Road Reconstruction**

- 3.1 Road Reconstruction projects are projects that are intended to maintain the same number of basic lanes, however, the existing roadway is required to be significantly rehabilitated (i.e. full depth granular replacement) in order to accommodate current and future transportation needs, or requires upgrading (i.e. urbanization) to current engineering standards. These projects will also include the construction of appropriate turning lanes as required to service future growth.
- 3.2 On an annual basis, the Town of Whitby undertakes a Road Needs Study which assesses and assigns condition ratings for all existing roadways - and is used as a basis for determining the required rehabilitation timing/strategies.
- 3.3 Existing collector and arterial roadways that provide service to future development areas, and require reconstruction, have been included in this study.

### **4.0 Road Resurfacing**

- 4.1 Road resurfacing projects are projects that are intended to maintain the same number of basic lanes, however the asphalt will require partial or full-depth replacement. These projects will also include the construction of appropriate turning lanes as required to service future growth.
- 4.2 On an annual basis, the Town of Whitby undertakes a Road Needs Study which assesses and assigns condition ratings for all existing roadways - and is used as a basis for determining the required rehabilitation timing/strategies.

### **5.0 Bridges**

- 5.1 On a bi-annual basis, the Town of Whitby undertakes a Bridge Needs Study which evaluates the condition of existing bridge structures. Those bridges that require rehabilitation to service future growth (bringing the bridge up to current engineering standards and/or require upgrades to accommodate increased transportation needs) have been included in this study.
- 5.2 New bridges that are required to service future growth (as identified by the Town's Transportation Master Plan) have generally been included in the associated road Widening/New Alignment project cost.

## **6.0 Traffic Signals**

- 6.1 New traffic signals associated with road widening/new alignment projects that are required to service future growth (as identified by the Town's Transportation Master Plan) have generally been included in the associated Road Widening/New Alignment project cost.
- 6.2 Existing intersections that are currently stop-controlled, but are projected to require full signalization to service future growth, and are not associated with a road project, are included individually within this study. These projects are based on the Town's annual traffic count program and associated traffic signal warrant calculations.

## **7.0 Street Lights**

- 7.1 New street lights associated with road widening/new alignment projects that are required to service future growth (as identified by the Town's Transportation Master Plan) have generally been included in the associated Road Widening/New Alignment project cost.
- 7.2 The Town of Whitby's current practice is to collect Development Charges on behalf of the Region of Durham to provide streetlighting on Regional road widening/new alignment projects that are required to service future growth. The timing of these projects is based on the Region's Capital Road Program, and have been included in this study.
- 7.3 New street light installations on existing Town collector and arterial roads that are required to service future growth, and are not associated with a road project, are included individually within this study.

## **8.0 Sidewalks**

- 8.1 New sidewalks associated with road widening/new alignment projects that are required to service future growth (as identified by the Town's Transportation Master Plan) have generally been included in the associated Road Widening/New Alignment project cost.
- 8.2 The Town of Whitby is mandated by the Municipal Act with the responsibility of providing/maintaining sidewalks on Regional roads within the Town. The timing of these projects is based on the Region's Capital Road Program, and have been included in this study.

- 8.3 New sidewalk installations on existing Town collector and arterial roads that are required to service future growth, and are not associated with a road project, are included individually within this study.

## 9.0 Cycling Facilities

- 9.1 In June of 2010, Town of Whitby Council approved the Town of Whitby Cycling & Leisure Trails Plan which defines a linked system of bikeways and pathways to service existing and future growth within Whitby. This study was used as a basis for determining all new cycling facilities that provide service to future development areas. Cycling facilities on Regional Roads are subject to the following cost-sharing arrangement:

- **On-road (rural cross-section: paved shoulders):**
- Region: land acquisition, utility relocation, grading, and customized bridge structures, and all maintenance activities.
- 50/50 Local Municipalities/Region: Granular, asphalt, signage, marking, the provision of other amenities.
  
- **Off-road (urban cross-section: multi-use pathway):**
- Region: land acquisition, utility relocation, grading, and customized bridge structures.
- Local Municipalities: Granular, asphalt, signage, marking, the provision of other amenities, and path maintenance (i.e. short term regular maintenance, ownership, and long term maintenance).
  
- **On-road (urban cross-section: cycling lanes, signage):**
- Considered on a case-by-case basis.

- 9.2 Only the Town's share of these projects has been included within this study. In addition, the timing of these projects on regional facilities is based on the Region's Capital Road Program.

## 10. Studies

- 10.1 Environmental Assessment Studies associated with road widening/new alignment projects that are required to service future growth (as identified by the Town's Transportation Master Plan) have generally been included in the associated Road Widening/New Alignment project cost.
- 10.2 Other Transportation related studies, not specifically related to an individual road project, which are required to facilitate future growth, are included within this study under the General Government component.

## **11.0 Provincial Roadways**

- 11.1 Where agreements have been secured with the Ministry of Transportation to cost share new Provincial interchanges, the projects have been included within this study.
- 11.2 In addition, where the municipality is responsible for providing sidewalks or cycling facilities on provincial roadways, the projects have been included within this study.

## **12.0 Storm Water Management Facilities Internal to Development**

- 12.1 The following guidelines were used to identify Storm Water Management Facilities internal to development:
  - 1. the conveyance system within creeks internal to a development whereby local benefit is apparent or re-alignment is necessary for the development of adjacent lands (for example: creek erosion and bank stabilization);
  - 2. a share of the cost of culverts based on the local benefits derived;
  - 3. all storm water management facilities, outfalls and localized creek or channel improvements related to a secondary plan will be cost-shared among all landowners within the secondary planning area through Developer Cost Sharing Agreements unless over-control is required due to downstream constraints; and
  - 4. any storm water quality control measures required to mitigate impacts of development.
- 12.2 All minor/local storm water management facilities internal to a development (including storm sewer pipe networks, storm water management ponds, plunge pools, creek/channel stabilization measures, etc.) – are the responsibility of the direct developer under s.59 of the DCA (as a local service), thus have not been identified in this study.

## **13.0 Storm Sewer Rehabilitation**

- 13.1 Storm Sewer Rehabilitation projects are intended to repair or replace existing storm sewer infrastructure to retain structural integrity, improve function, or upgrading (i.e. upsizing) to meet current drainage needs and/or current engineering standards.

- 13.2 On an as required basis, the Town of Whitby undertakes a Storm Water Sewers Condition Surveys which assesses and assigns condition ratings for existing storm sewer facilities - and is used as a basis for determining the required rehabilitation timing/strategies.

#### **14.0 Storm Water Management Ponds**

- 14.1 Depending on their design, Storm Water Management Facilities provide a flood protection, a water quality treatment, an erosion control, a base flow augmentation, an infiltration, a spill management, aesthetics, and a buffer between urbanized and/or natural areas. New Storm Water Management ponds and/or plunge pools that are required to service future growth and intensification areas have generally been included in this study.

#### **15.0 Creek/Channel Stabilization Measures/Plunge Pools**

- 15.1 Periodically, the Town of Whitby undertakes Creek/Channel Stabilization Studies on various creeks/channels within the Town of Whitby. The purpose of those studies is to identify mitigating measures to improve the deteriorating condition of the existing channels. The improvements might include: a stabilization of the channel to accommodate additional drainage flows while protecting adjacent properties from damages resulting from premature erosion; a restoration of the channel to provide for a balanced sediment transfer and improve the quality of water to sustain healthy aquatic and wildlife habitats. Those creeks/channels that require rehabilitation to service future growth have been included in this study.

#### **16.0 Environmental Assessment Studies**

- 16.1 Environmental Assessment Studies associated with Storm Water Management projects that are required to service future growth (as identified by the Town's Transportation Master Plan) have generally been included in the associated Storm Water Management facility project cost.

#### **17.0 Parkland Development**

- 17.1 Parkland: Developers are required to retain the professional services of a qualified landscape architect to prepare a park concept plan and detailed grading and drainage plan for the park. The grading and drainage plan will detail the ultimate finished grades to be achieved upon completion of park construction, and accommodating the amenities required. Developers are also required to retain the services of a professional engineer to complete storm



sewer design for the park including sizing of pipe, catch basin elevations and inverts and are to be coordinated with the grading plan. Developers are required to clear trees, stumps and other vegetation. Tree clearing, if required, will be in accordance with the approved tree preservation plan. Temporary restoration must be undertaken, including the provision of 150mm of top soil and seeding for the entire park. Upon completion of pre-grading, an “as built” topographical survey of the park as graded is required. Perimeter fencing shall be installed as required by the subdivision agreement. For all parks, Developers will provide stub connections for sanitary sewer and water, electrical service, and storm water. These services are to be stubbed out 1.5 meters into the park property and adequately marked with a permanent monument at ground level. In the case of a local park, a minimum of one storm water catch basin and connection will be provided, and in the case of a district park, a minimum of two stormwater catch basins and connections will be provided.

- 17.2 Open Space: Developers are required to retain the professional services of a qualified landscape architect to prepare an edge management planting plan for the open space. The Developer shall install all edge plantings in accordance with the approved edge management planting plan. Developers shall arrange for an inspection of the open space with Town Staff. The inspection shall identify all dead or hazardous trees particularly those that may affect lots, all debris, and construction waste. All dead or hazardous trees shall be felled and removed or laid on the ground. All debris and construction waste shall be removed. Developers shall also provide the necessary storm drainage facilities to accommodate run off from open space blocks as required.

## **Appendix G**

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**2017 Development Charges By-Law**

**(Available Under Separate Cover)**