The Regional Municipality of York
2017 Development Charge Background Study

FINAL
As Released May 18, 2017





York Region

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EXECUTIVE SUMMARY

1.0 Purpose of this Background Study

1.1 This Background Study has been prepared pursuant to Section 10 of the *Development Charges Act, 1997* and, together with the proposed bylaw, is being made available to the public more than 60 days prior to the anticipated passage and more than two weeks prior to the public meeting prior to the meeting of Regional Council on April 20, 2017, as required by Section 10 of the *Development Charges Act*.

1.2 The development charges calculated represent those that can be recovered under the *Development Charges Act,* based on York Region's capital plans and other assumptions in accordance with the requirements of the *Development Charges Act*.

1.3 Regional Council, having received the revised draft background study and bylaw, and having regard for the input at the public meeting and any other consultation sessions, shall decide upon the magnitude of the development charges it wishes to establish for residential, industrial, office, institutional, retail and hotel development. Tax levy, user rate or other funding (e.g., grants) will be required to finance any portion of growth-related costs not funded by development charges.

1.4 Prior to tabling this revised background study, staff held nine consultation meetings, beginning in August 2016, with representatives of the Building Industry and Land Development Association York Chapter. The consultation process helped to ensure that stakeholders understand York Region's the methodologies and assumptions used in calculating and attributing costs. Specific topics included: the growth forecast, area-specific development charges, development charge methodologies and assumptions, hotel development charges, asset management plans and the draft 2017 Development Charge Background Study and Bylaw (tabled on February 16, 2017).

Staff are committed to continuing communication with the development industry and will continue to meet to discuss development charge-related matters and issues.

1.5 Staff also held seven consultation meetings with finance directors from the local municipalities (prior to tabling of this revised background study). This engagement, which also began in June 2016, covered a number of topics that informed the content of the 2017 Background Study and Bylaw, including: the growth forecast, area-specific development charges, hotel development charges, asset management plans and the draft 2017 Development Charge Background Study (tabled on February 16, 2017) .

1.6 Decisions are required to finalize the development charge policy and the Bylaw, including decisions regarding the schedule of charges by type of development, the threshold to delineate large and small apartments, and a policy to defer development charges for private purpose-built rentals.

2.0 2017 Development Charge calculation

2.1 Table ES-2 presents the proposed increase in the region-wide development charges for residential developments, including single and semi-detached units, multiple dwelling units and apartments (large and small), and non-residential developments, including industrial/office/institutional, retail and hotel.

Proposed residential development charge rate for single-family detached have increased by approximately 12.97 per cent. Proposed non-residential development charge rates have increased by 0.25 per cent for retail and decreased by 12.55 per cent for non-retail.

Hotels will pay development charge rates that are 79.97 per cent lower than they were in 2012. Hotels were not identified as a separate class under the 2012 Regional Bylaw (No. 2012-36) but were charged a blended rate consisting of the small apartment rate and to levy the gross floor area for the entire hotel at 25 per cent of the retail rate. The per square foot/metre rate for hotels has been calculated using the blended rate and applying it to an 'average hotel' in the Region since 2,000 (approximately 124 units and 73,200 square feet). The calculated charges are reflected in the proposed bylaw contained in Appendix C and in this Executive Summary.

2.2 Table ES-3 summarizes York Region's Development Related Capital Program and the required deductions under the *Development Charges Act*. In summary, the gross development-related capital cost of the entire development charge program is $6.5 billion. Of this amount, $3.7 billion has been determined to be development charge-recoverable over the 2017 to mid-2031 period (approximately $2.7 billion from residential development and $1.0 billion from retail, industrial, office, institutional and hotel development (non- residential). These costs do not include debt carrying charges or other financing costs to be incurred by York Region, as these have been incorporated separately. The difference between the gross and development charge-recoverable amounts comprises the following deductions, pursuant to the *Development Charges Act.* Numbers may not add due to rounding:

	$6.52 billion	Gross development-related capital cost
-	$1.26 billion	Ineligible re: Level of Service/Post Period Benefit
-	$0.91 billion	Benefit to Existing Development
-	$0.67 billion	Subsidies and Other Contributions
-	$0.01 billion	10% Statutory Deduction
	$3.68 billion	

2.3 These calculations have been made in accordance with the principle that "Growth Pays for Growth" to the extent that it is permitted under the *Development Charges Act*. Accordingly, the Benefit to Existing Development is not a growth-related cost. Subsidies and Other Contributions represent a funding source that does not involve local taxes or user rates. The 10 per cent statutory deduction affects services other than Wastewater, Water, Roads, Transit, Toronto-York Subway extension, Police and Public Works. Finally, the Post Period Benefit deduction represents the amount to be funded by means of future development charges to be collected via subsequent by-laws, once the planning horizon extends beyond 2031.

2.4 Table ES-2 sets out the existing and calculated charge for single family detached, multiples, apartments (large and small), retail, non-retail and hotel development.

3.0 Proposed Bylaw modifications

Table ES-1 (below) captures the substantive changes in the Region's draft 2017 development charge bylaw.

Table ES - 1
PROPOSED CHANGES TO THE DEVELOPMENT CHARGES BYLAW

Area	How issue identified	Current treatment	Proposed treatment
Threshold to delineate large versus small apartments	Stakeholder concern from 2012 Bylaw	Large apartments are 650 square feet or greater	Large apartments are 700 square feet or greater
Hotel development charge rate structure	Council direction (June 2016)	Blended rate: 100 per cent small apartment unit and the gross floor area for the entire hotel at 25 per cent of the retail rate	Hotel class: per square foot charge
Timing of payment	Stakeholder concern	For future development blocks, DCs will be paid for the maximum number and type of dwelling units permitted by the Zoning Bylaw in effect at the time of registration	Payment of development charges for future development blocks to be at building permit stage
Building permit definition	Change to legislation	Current Bylaw (No. 2012-36) does not define building permit	Will be defined to mean a permit issued under the *Building Code Act*, which permits the construction of a building or structure, or which permits the construction of the foundation of a building or structure*
Multi-tenanted development or redevelopment	Stakeholder concern	Previously individually owned units in a multi-tenanted structure would be levied development charges based on the principal use of the entirety of the structure	Now assessed individually based on the predominant use of each unit within that structure.

4.0 Council approvals sought

At this stage in the process, the Background Study and proposed Development Charge Bylaw are being tabled for information purposes, as part of the consultation process and in accordance with the *Development Charges Act*.

When that process is complete and final development charge recommendations are made to Council on May 18, 2017, approval will be sought for the 2017 Development Charge Bylaw and the Background Study, including:

- The development charge calculation;
- The development forecast;
- The development-related capital program;
- Changes to the bylaw; and
- Associated material (including policies outside of the Bylaw).

All of the above will be subject to any amendments or addenda that may be produced prior to the passing of the Bylaw.

Table ES-2

Comparison of Existing and Calculated Development Charges

Service	Residential - Per Single Detached Unit				Non-Residential - Per Sqft of Retail GFA											
					Retail				Industrial/Office/Institutional				Hotel			
	February 2017 Current Charge	June 2017 Proposed Charge	Change		February 2017 Current Charge	June 2017 Proposed Charge	Change		February 2017 Current Charge	June 2017 Proposed Charge	Change		February 2017 Current Charge	June 2017 Proposed Charge	Change	
Hard Services																
Water	$9,817	$9,170	($647)	-6.59%	$6.15	$5.54	($0.61)	-9.97%	$4.94	$3.44	($1.50)	-30.42%	N/A	$0.98	N/A	N/A
Wastewater[1]	$17,221	$18,853	$1,632	9.48%	$10.81	$10.67	($0.14)	-1.33%	$8.69	$7.02	($1.67)	-19.19%	N/A	$1.98	N/A	N/A
Roads	$12,129	$14,206	$2,077	17.12%	$19.55	$17.87	($1.68)	-8.58%	$5.50	$5.26	($0.24)	-4.43%	N/A	$3.69	N/A	N/A
Subtotal Hard Services	**$39,167**	**$42,229**	**$3,062**	**7.82%**	**$36.51**	**$34.08**	**($2.43)**	**-6.67%**	**$19.13**	**$15.72**	**($3.41)**	**-17.85%**	**N/A**	**$6.65**	**N/A**	**N/A**
															N/A	N/A
General Services															N/A	N/A
Transit	$801	$1,309	$508	63.38%	$1.10	$1.82	$0.72	65.44%	$0.31	$0.53	$0.22	72.30%	N/A	$0.43	N/A	N/A
Toronto-York Spadina Subway Extension	$999	$2,531	$1,532	153.39%	$1.61	$3.11	$1.50	93.07%	$0.45	$0.91	$0.46	102.60%	N/A	$0.61	N/A	N/A
															N/A	N/A
Police	$517	$903	$386	74.68%	$0.34	$0.63	$0.29	84.26%	$0.28	$0.49	$0.21	75.15%	N/A	$0.14	N/A	N/A
Waste Diversion	N/A	$42	$42	N/A	N/A	$0.03	$0.03	N/A	N/A	$0.03	$0.03	N/A	N/A	$0.03	N/A	N/A
Public Works	$234	$203	($31)	-13.45%	$0.14	$0.12	($0.02)	-17.84%	$0.11	$0.13	$0.02	15.98%	N/A	$0.05	N/A	N/A
Paramedic Services	$98	$396	$298	303.59%	$0.02	$0.08	$0.06	286.15%	$0.02	$0.07	$0.05	225.62%	N/A	$0.02	N/A	N/A
Public Health	$78	$116	$38	48.90%	$0.01	$0.01	($0.00)	-2.94%	$0.01	$0.01	($0.00)	-27.18%	N/A	$0.00	N/A	N/A
Social Housing	$360	$209	($151)	-41.98%	$0.00	$0.00	$0.00	N/A	$0.00	$0.00	$0.00	N/A	N/A	$0.00	N/A	N/A
Court Services	N/A	$40	$40	N/A	N/A	$0.03	$0.03	N/A	N/A	$0.02	$0.02	N/A	N/A	$0.01	N/A	N/A
Growth Studies	$24	$0	($24)	-100.00%	$0.02	$0.00	($0.02)	-100.00%	$0.01	$0.00	($0.01)	-100.00%	N/A	$0.00	N/A	N/A
Senior Services	$17	$0	($17)	-100.00%	$0.00	$0.00	$0.00		$0.00	$0.00	$0.00	N/A	N/A	$0.00	N/A	N/A
Subtotal General Services	**$3,128**	**$5,749**	**$2,621**	**83.79%**	**$3.24**	**$5.81**	**$2.57**	**79.41%**	**$1.19**	**$2.18**	**$0.99**	**83.44%**	**N/A**	**$1.28**	**N/A**	**N/A**
GO Transit[2]	$342	$342	$0	0.00%	$0.00	$0.00	$0.00	0.00%	$0.00	$0.00	$0.00	0.00%	0.00	$0.00	N/A	N/A
Total	**$42,637**	**$48,320**	**$5,683**	**13.33%**	**$39.75**	**$39.89**	**$0.14**	**0.35%**	**$20.32**	**$17.90**	**($2.42)**	**-11.91%**	**N/A**	**$7.93**	**N/A**	**N/A**

[1]The Nobleton wastewater development charge is currently $9,438/single detached unit and $5.47/Sqft of non-residential gross floor area.

[2]Development charges for GO Transit are levied under a separate bylaw (No.DC-004-2001-097), as such the rates charged are not affected by this Background Study or Bylaw.

Table ES-3

Total Development Related Capital Program

2017

Service	Gross Project Cost	Less	New Municipal Cost	Less Ineligible costs		Potential DC Recoverable Costs			Residential and Non-residential Split			
										Non-Residential Share		
		Grants and Subsidies		Benefit to Existing	10% Statutory Deduction	Total Development Charge Eligible Cost	Growth Costs	Post Period Benefit / Level of Service Deduction	Residential	Retail	Industrial/Office/ Institutional	Hotel
Hard Services												
Water [1]	$602,643,143	$7,722,000	$594,921,143	$0	$0	$594,921,143	$205,661,143	$389,260,000	$157,330,775	$13,211,470	$34,873,830	$245,069
Wastewater [1]	$1,792,581,316	$67,540,000	$1,725,041,316	$15,455,000	$0	$1,709,586,316	$983,183,316	$726,403,000	$752,135,237	$63,158,731	$166,717,773	$1,171,575
Roads [1]	$2,798,668,586	$362,441,186	$2,436,227,400	$488,775,597	$0	$1,947,451,802	$1,945,274,992	$2,176,810	$1,391,418,810	$259,727,991	$289,655,415	$4,472,777
Subtotal Hard Services	**$5,193,893,046**	**$437,703,186**	**$4,756,189,859**	**$504,230,597**	**$0**	**$4,251,959,262**	**$3,134,119,452**	**$1,117,839,810**	**$2,300,884,821**	**$336,098,192**	**$491,247,017**	**$5,889,421**
General Services												
Transit	$381,967,000	$163,419,530	$218,547,470	$64,934,390	$0	$153,613,080	$153,576,080	$37,000	$106,705,316	$21,979,802	$24,512,448	$378,514
Toronto-York Spadina Subway Extension	$281,500,000	$21,436,000	$260,064,000	$67,616,640	$0	$192,447,360	$192,447,360	$0	$137,653,996	$25,695,064	$28,655,804	$442,495
Police [1]	$226,845,000	$0	$226,845,000	$121,309,361	$0	$105,535,639	$78,753,726	$26,781,913	$56,331,067	$6,129,403	$16,179,558	$113,699
Waste Diversion	$9,723,000	$0	$9,723,000	$3,513,764	$620,924	$5,588,313	$4,253,755	$1,334,558	$2,859,631	$283,103	$1,086,238	$24,783
Public Works [1]	$152,260,000	$0	$152,260,000	$7,260,500	$0	$144,999,500	$43,216,470	$101,783,030	$30,911,933	$3,363,538	$8,878,607	$62,393
Paramedic Services	$52,290,000	$0	$52,290,000	$15,015,417	$3,727,458	$33,547,125	$30,129,457	$3,417,668	$26,281,387	$1,050,935	$2,778,627	$18,508
Public Health	$17,347,000	$0	$17,347,000	$0	$1,734,700	$15,612,300	$15,612,300	$0	$14,831,685	$202,763	$574,462	$3,389
Social Housing	$185,174,000	$46,641,000	$138,533,000	$115,076,178	$2,345,682	$21,111,140	$21,111,140	$0	$21,111,140	$0	$0	$0
Court Services	$22,049,720	$0	$22,049,720	$6,342,772	$1,570,695	$14,136,254	$3,877,619	$10,258,635	$2,694,186	$323,204	$854,537	$5,692
Subtotal General Services	**$1,329,155,720**	**$231,496,530**	**$1,097,659,190**	**$401,069,021**	**$9,999,459**	**$686,590,710**	**$542,977,907**	**$143,612,804**	**$399,380,339**	**$59,027,813**	**$83,520,282**	**$1,049,473**
Total	**$6,523,048,766**	**$669,199,716**	**$5,853,849,049**	**$905,299,618**	**$9,999,459**	**$4,938,549,972**	**$3,677,097,359**	**$1,261,452,614**	**$2,700,265,161**	**$395,126,005**	**$574,767,299**	**$6,938,894**
2017-2031	$5,572,998,046	$437,703,186	$5,135,294,859	$632,800,458	$0	$4,502,494,401	$3,256,089,648	$1,246,404,753	$2,388,127,821	$345,591,133	$516,305,182	$6,065,512
2017-2026	$950,050,720	$231,496,530	$718,554,190	$272,499,160	$9,999,459	$436,055,571	$421,007,710	$15,047,861	$312,137,340	$49,534,872	$58,462,117	$873,381

[1] 2017-2031 planning period. For all other services, a 2017-2026 planning period was used

Table ES-4
York Region
Comparison of Existing and Calculated Development Charges
By Type of Development

	February 2017 Current Charge			June 2017 Proposed Charge		
Type of Development	**Hard and General Services**	**GO Transit**	**Total**	**Hard and General Services**	**GO Transit**	**Total**
Residential (Per Dwelling Unit)						
Single and Semi-detached	$42,295	$342	$42,637	$47,978	$342	$48,320
Multiple Unit Dwelling	$37,031	$269	$37,300	$38,622	$269	$38,891
Apartments (>= 700 Sqft)	$26,216	$198	$26,414	$28,069	$198	$28,267
Apartments (< 700 Sqft)	$17,803	$125	$17,928	$20,507	$125	$20,632
Non-residential (Per Sqft of Gross Floor Area)						
Retail	39.75	$0.00	$39.75	$39.89	$0.00	$39.89
Industrial/Office/Institutional	20.32	$0.00	$20.32	$17.90	$0.00	$17.90
Hotel	N/A	$0.00	N/A	$7.93	$0.00	$7.93
Non-residential (Per Sqm of Gross Floor Area)						
Retail	$427.87	$0.00	$427.87	$429.36	$0.00	$429.36
Industrial/Office/Institutional	$218.72	$0.00	$218.72	$192.66	$0.00	$192.66
Hotel	N/A	$0.00	N/A	$85.38	$0.00	$85.38

Note: The table above shows development charges for GO Transit which are imposed under a separate by-law and are not being updated as part of this review. In addition, development in Nobleton is excluded in this table and subject to a separate charge for Wastewater Treatment Services.

Development charges for GO Transit are levied under a separate bylaw (No. DC-0004-2001-097), so the rates charged are not affected by this Background Study or Bylaw. GO Transit development charges only apply to residential development. GO Transit rates as of February, 3 2017 are as follows:

TABLE ES-5

GO TRANSIT DEVELOPMENT CHARGES
(as of February 2017)

Type of residential development	GO Transit Development Charge Rate ($)
Single and semi-detached	342
Multiple unit dwelling	269
Apartments (>=700 Sqft)[1]	198
Apartments (< 700 Sqft)[1]	125

[1] It is proposed that under the 2017 Bylaw the delineation point for large versus small apartments will be 700 square feet

1. INTRODUCTION

1.1 Background Study requirements

The *Development Charges Act, 1997* (as amended) requires that Regional Council complete a development charge background study before passing a development charge bylaw. The mandatory inclusions in such a study are set out in s.10 of the *Development Charges Act* and in s.8 of O.Reg. 82/98, and are as follows:

1. Estimates of the anticipated amount, type and location of development (addressed in Chapter 3 of this background study)
2. Development charge calculations for each service to which the Development Charge Bylaw would relate are addressed in Chapters 5-10 of this background study
3. An examination of the long-term capital and operating costs for capital infrastructure required for each service to which the Development Charge Bylaw would relate (addressed in Chapter 14)
4. The following for each service to which the development charge relates:
    - The total of the estimated capital costs relating to the service
    - The allocation of the costs between costs that would benefit new development and costs that would benefit existing development
    - The total of the estimated capital costs relating to the service that will be incurred during the term of the proposed Development Charge Bylaw
    - An estimation of costs which will benefit development that occurs beyond the planning horizon of the respective services under this bylaw
    - The estimated and actual value of credits that are being carried forward relating to the service
5. Consideration of the use of more than one development charge bylaw to reflect different needs for services in different areas[1];
6. An asset management plan that deals with all assets whose capital costs are proposed to be funded under the Development Charge Bylaw[1] (addressed in Chapter 14):
    - Demonstrating that all the assets funded under the development charge bylaw are financially sustainable over their full life cycle.

[1] New requirement

7. A municipality's development charge background study must be made publicly available 60 days prior to the passing of the bylaw[1]; and
8. The proposed sequence of timing involved with putting a new development charge bylaw in place, as set out in Table1-1

[1] New requirement

TABLE 1-1

SCHEDULE OF KEY DEVELOPMENT CHARGE PROCESS DATES FOR YORK REGION

Deliverables	Date
Hotel Development Charges in York Region: Report to Committee of the Whole	March 10, 2016
Consultations with stakeholders	June 2016 - May 2017
Status of 2017 Bylaw Update: Report to Council	June 16, 2016
2017 Development Charge Bylaw Directions: Report to Council	November 17, 2016
Notice of first public meeting published	February 2, 2017
2017 Background Study and Bylaw publicly released	February 16, 2017
Report to Council on the 2017 Background Study and Bylaw	February 16, 2017
Public meeting at Committee of the Whole	March 9, 2017
Report to Council on the Revised 2017 Background Study and Bylaw	March 23, 2017
Revised 2017 Background Study and Bylaw publicly released	March 23, 2017
Notice of second public meeting published	March 30, 2017
Public meeting before Regional Council	April 20, 2017
New Bylaw to Council for consideration of passage	May 25, 2017
Newspaper notice of bylaw passage	By 20 days after passage
2017 Development Charge Bylaw comes into force	June 17, 2017
Last day for bylaw appeal	40 days after passage
Region makes pamphlet available	By 60 days after in force date

[1] New requirement

1.2 Overview of development charges in York Region

1.2.1 Introduction

This section describes the relevant sections of the *Development Charges Act* that form the basis of the development charge calculation.

1. Development charges are payments made by new development in York Region (residential and non-residential) normally as part of the building permit approval and/or the subdivision/severance agreement process. These payments are made by all new development, unless specifically exempted by the *Development Charges Act*, section 110 of the *Municipal Act*, or York Region's Development Charge Bylaw.

2. These development charge payments fund the growth-related capital costs of providing services to new development anticipated over the period of 2017 to 2026 or 2017 to 2031, depending on the service involved. All York Region-funded services are potentially eligible for development charge funding, except those specifically excluded via Ontario Regulation 82/98 of the *Development Charges Act*.

3. "Capital" is defined in the *Development Charges Act* to include the municipal cost to acquire, lease, construct or improve land or facilities, including rolling stock (7+ year life), furniture and equipment (other than computer equipment), library materials and related study and financing costs.

4. York Region has imposed development charges under the *Development Charges Act* since 1991, and prior to that lot levies pursuant to the *Planning Act*. York Region's current Development Charge Bylaw (No. 2012-36) came into effect on June 18, 2012 with a statutory maximum term of five years.

5. Development Charge Bylaw (No. 2012-36) is set to expire on June 16, 2017.

6. This Bylaw provides for development charge payments that vary with the amount and type of anticipated new development, as detailed in Chapter 3.

7. The charges are indexed for inflation on July 1 each year in accordance with the Statistics Canada Quarterly, *Construction Price Statistics*, catalogue number 62-007.

8. The monies collected under a development charge bylaw are maintained in separate reserve funds for each of the services involved. The existing charge is comprised of the following services: Water, Wastewater, Roads, Transit, the Toronto-York Subway Extension, Police, Public Works, Long Term Care, Emergency Medical Services, Public Health, Social Housing, and Growth Studies.

    - Each development charge paid is allocated, as statutorily required, to those reserve funds, in accordance with the development charge rate for each service. The monies can only be expended for the purposes for which the development charge was calculated.

- A municipality may borrow money from a reserve fund but if it does so, the municipality shall repay the amount used plus interest at a rate not less than the prescribed minimum interest rate.

9. The 2017 Bylaw will add the following services for which development charges are collected and which will require separate reserve funds: Waste Diversion and Court Services.

   - Waste Diversion is included as a result of amendments to the list of ineligible services, under Ontario Regulation 82/98.

   - Court Services is included as it is an eligible service under the legislation. Municipalities that have collected development charges for court services include: County of Grey, City of Brampton, City of Guelph, City of Mississauga and City of Hamilton.

10. The 2017 Bylaw will not collect for Growth Studies as the reserves are sufficient to fund the proposed projects.

11. The 2017 Bylaw will also rename two services

    - Paramedic Services, previously Emergency Medical Services.
    - Senior Services - Capital Component, previously Long Term Care.

12. Senior Services – Capital Component (previously Long Term Care), will be identified as a contingent service under the 2017 Bylaw. However, even if the trigger event occurs, the Bylaw will not collect for Senior Services – Capital Component as the reserves are sufficient to fund the provision provided in our background study.

13. In calculating the charge, it is necessary to:

    - Establish a new development forecast for population and housing type, and for employment and gross floor area;

    - Determine and cost the additional services new development will require and ensure that the associated capital program has Council approval;

    - Make the deductions required by the Development Charges Act with respect to historic service level cap, benefit to existing development, uncommitted excess capacity, grants and contributions, and the statutory 10 per cent deduction for certain services;

    - Calculate development charges by class and document this in a background study and bylaw; and

    - Take the Development Charge Background study and proposed Bylaw through a public process, and seek Council approval.

14. Due to recent amendments to the Development Charges Act, municipalities must now consider the use of area-specific development charges in their background study.

15. Due to recent amendments to the Development Charges Act, municipalities must now prepare an asset management plan for all services included in the bylaw, demonstrating that all assets funded by the bylaw are financially sustainable over their lifecycle.

16. Finally, municipalities must ensure that a development charge background study is made available to the public at least 60 days prior to the passing of the development charge bylaw and until the bylaw expires or is repealed by posting the study on the website of the municipality or, if there is no such website, in the municipal office.

1.2.2 Development charge pre-requisites

As per Ontario regulation 82/98, under the *Development Charges Act,* as amended, York Region can impose development charges for:

1. A regional service and funding responsibility other than:
    - The provision of cultural or entertainment facilities, including museums, theatres and art galleries but not including public libraries;
    - The provision of tourism facilities, including convention centres;
    - The acquisition of land for parks;
    - The provision of a hospital as defined in the Public Hospitals Act;
    - The provision of landfill sites and services;
    - The provision of facilities and services for the incineration of waste; and
    - The provision of headquarters for the general administration of municipalities and local boards.
2. A service that will experience an increase in capital needs at least partially attributable to residential and/or non-residential growth in York Region from 2017 to 2031 inclusive (or a 10-year planning period in the case of most general services including transit);
3. A service for which Regional Council has or will approve a capital forecast that includes capital capacity expansion projects as per paragraph 2;
4. Capital capacity expansion projects that are not fully funded by grants, subsidies or developer contributions or other contributions;
5. Capital projects that involve the acquisition, lease, construction or improvement of land, buildings, including furniture, rolling stock (with a useful life of seven

years or more or equivalent), equipment, studies and borrowing costs (as well as library materials); and

6. Capital costs cannot serve to increase the future (per capita/employee) level of service beyond the historical average in York Region over the 2007 to 2016 period (for those services to which historic level of service applies).

1.2.3 Statutory development charge calculation requirements

The following table sets out the method that must be used to determine development charges. The underlining has been added for clarification/emphasis and is not part of the statute or regulation quoted on the left side of the page. The development charge calculation process is also summarized schematically in Table1-2.

TABLE 1-2

SUMMARY OF STATUTORY DEVELOPMENT CHARGE CALCULATION REQUIREMENTS

s.s.5(1) of the *Development Charges Act* (and associated Regulations)	**Commentary**
1. "The anticipated amount, type and location of development, for which development charges can be imposed, must be estimated."	Virtually all municipalities who collect development charges forecast all development (including development charge-ineligible) in the first instance. That development is used as the denominator in the development charge calculation with the full eligible cost of servicing all such development used as the numerator. That way, growth-related servicing costs are equitably spread over all benefiting development, the municipality does not recover development charges from exempt development and this would ensure that the requirements of s.s.5(6)3 can be met. (That is, capital costs have not been offloaded from one type of development to another).
2. "The increase in the need for service attributable to the anticipated development must be estimated for each service to which the Development Charge Bylaw would relate."	This step involves estimating the additional requirement for each individual service that is needed by the development increment in paragraph 1. The anticipated development in paragraph 1 must correspond to the service attribution in paragraph 2. The capital costs estimates identified in paragraph 2 relates to both ineligible and eligible development. Consistent with the approach identified above, all development is included in the denominator of the development charge calculation.

s.s.5(1) of the *Development Charges Act* (and associated Regulations)	Commentary
3. "The estimate under paragraph 2 may include an increase in need only if the council of the municipality has indicated that it intends to ensure that such an increase in need will be met."[1] O.Reg. 82/98 s.3. "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."	Council needs to have expressed its' intent to undertake capital works of the nature outline in the Background Study to provide services at the level used to establish the DC rates. The Regulations provide direction on the different ways in which Council can express the intent.

s.s.5(1) of the *Development Charges Act* (and associated Regulations)	Commentary
4. "The estimate under paragraph 2 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 required under section 10.[1] The estimate also must not include an increase in the need for service that relates to a time after the 10-year period immediately following the preparation of the background study unless the service is set out in subsection (5)."	This provision creates a "service level cap" equal to the cost of providing service to the "anticipated development," consistent with the 10-year historical average level of service. In accordance with section 6.1(1) of the Regulations, transit services are a prescribed service for the purposes of this section of the Act and as such shall have a planned level of service for the 10-year period immediately following the preparation of the Background Study In accordance with s.s.5(1)4, services such as paramedic services, transit services and waste diversion services are restricted to a maximum 10-year planning horizon. s.s.5(5) notes that water, wastewater, storm water, road, police and fire services are not subject to a 10-year planning period cap. Services other than those excluded in the Regulations be defined by the municipality and, in some cases, grouped into "service categories" for purposes of reserve funds and credits (as per s.7).
O.Reg. 82/98 s.4(1) "For the purposes of paragraph 4 of subsection 5(1) of the Act, both the quantity and quality of a service shall be taken into account in determining the level of service and the average level of service." s.s.4(1.1) provides that in determining the quality of a service, the replacement cost, exclusive of any allowance for depreciation, shall be the amount used. s.s.4(2) addresses the service level in an excluded geographic area where a service is not provided. s.s.4(4) limits the service level in part of a municipality to the level otherwise applicable to the full municipality.	Two "level of service" measures must be taken into account in satisfying compliance with the 10-year historical average level of service cap. These considerations involve "quantity" (e.g., floor space/capita) and "quality" (e.g., cost per sq.m. of floor space). The Regulation clarifies that the quality level of service measure is to be based on the un-depreciated replacement cost of municipal capital works.

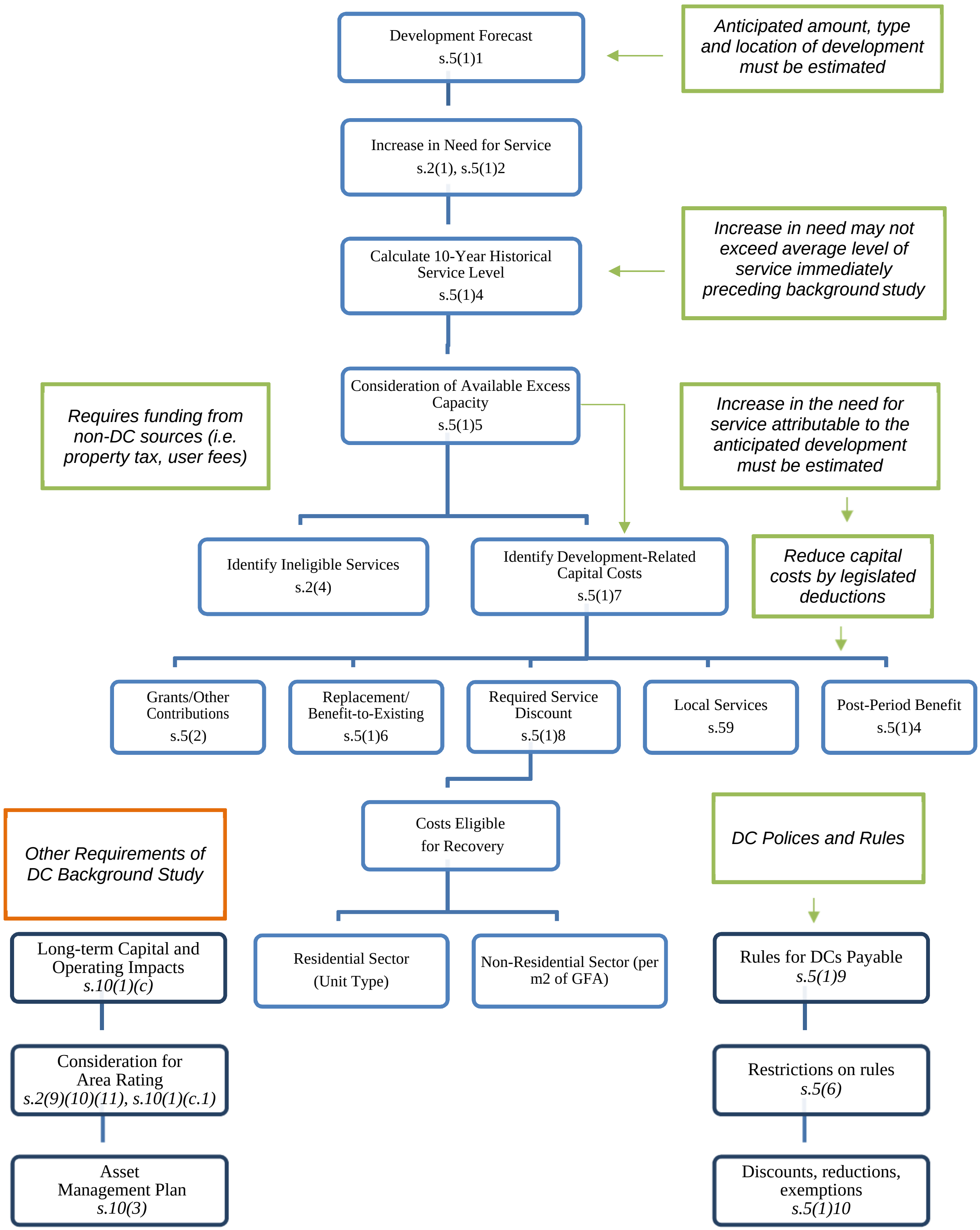
s.s.5(1) of the *Development Charges Act* (and associated Regulations)	Commentary
s.s.4(3) modifies the service level cap where a higher level is required by another Act. O.Reg. 206/04 amended s.4 of O.Reg. 82/98 by adding the following subsection: "(1.1) In determining the quality of a service under subsection (1), the replacement cost of municipal capital works, exclusive of any allowance for depreciation, shall be the amount used.	
5. "The increase in the need for service attributable to the anticipated development must be reduced by the part of that increase that can be met using the municipality's excess capacity, other than excess capacity that the council of the municipality has indicated an intention would be paid for by new development."[2] O.Reg. 82/98 s.5. "For the purposes of paragraph 5 of subsection 5(1) of the Act, excess capacity is uncommitted excess capacity unless, either before or at the time the excess capacity was created, the council of the municipality expressed a clear intention that the excess capacity would be paid for by development charges or other similar charges."	"excess capacity" is available capacity that obviates (part of) the need for new projects. The Act requires that it be determined if any excess capacity is "committed" or "uncommitted". "Uncommitted excess capacity" is available capacity that obviates (part of) the need for new projects. The Reg. explains the circumstances under which (part of) the cost of "committed excess capacity," (i.e., infrastructure in the ground from prior development charge bylaws or otherwise), can be recovered via future development charges. The Region, especially within the engineered services, has committed excess capacity being funding through current DC rates.
6. "The increase in the need for service must be reduced by the extent to which an increase in service to meet the increased need would benefit existing development."[1] Note: no regulatory clarification has been provided.	Existing development benefits from: the repair or unexpanded replacement of existing assets; an increase in average service level or existing operational efficiency; the elimination of a chronic servicing problem not created by growth; providing services where none previously existed (e.g., water service).

s.s.5(1) of the *Development Charges Act* (and associated Regulations)	Commentary
7. "The capital costs necessary to provide the increased services must be estimated. The capital costs must be reduced by the reductions set out in subsection (2). What is included as a capital cost is set out in subsection (3)."[1] O.Reg. 82/98 s. 6 indicates that: Unless the person making the grant or contribution was specific as to how it is to be applied, the contribution is to be shared between growth and non-growth project components in proportion to the way in which the costs were allocated in s.s.5(1)6.	s.s.5(2) refers to capital grants, subsidies and other contributions made to a municipality or that Council anticipates will be made in respect of the capital costs.
s.s.5(3) defines capital costs to include: The acquisition or lease of (an interest in) land; Construction, improvement, acquisition or lease (capital component only) costs for buildings/structures/facilities; Seven + year useful life rolling stock; Furniture, furnishings & equipment, other than computer equipment; Library materials; Studies re above; Development Charge Background Studies; and Interest on related borrowings.	These costs exclude "local services" related to a plan of subdivision or a consent approval, to be installed or paid for by the owner (s.s.2(5)). They are not directly applicable to York Region as a result of the allocation of servicing responsibility between the local municipalities and York Region. Includes debt payments related to previously constructed growth- related works.
8. "The capital cost must be reduced by 10 per cent. This paragraph does not apply to services set out in subsection (5)."	The purpose of this reduction is undefined, beyond the Province's expressed wish in 1997 to moderate development charge quantum. The exclusion of various services under s.s.2.1 (1) of the Regulations serves a similar purpose. (e.g., Cultural/entertainment facilities, including museums, theatres and art galleries; tourism facilities, including convention centres; parkland acquisition; public hospitals, provision of landfill sites and services, provision of facilities and services for the incineration of waste, and general administration headquarters for municipalities/local boards). The Region's services not subject to the 10% reduction are: Roads and Related, Water, Wastewater, Police, Transit, Toronto-York Subway Extension, and Public Works.

s.s.5(1) of the *Development Charges Act* (and associated Regulations)	Commentary
1. "Rules must be developed to determine if a development charge is payable in any particular case and to determine the amount of the charge, subject to the limitations set out in subsection (6)."	These are mandatory development charge bylaw inclusions as to how the charge is to be applied to development types and circumstances.
s.s.5(6):	
"The rules developed under paragraph 9 of subsection (1) to determine if a development charge is payable in any particular case and to determine the amount of the charge are subject to the following restrictions:	These are three over-riding tests to be met by the Development Charge Bylaw.
a) The rules must be such that the total of the development charges that would be imposed upon the anticipated development is less than or equal to the capital costs determined under paragraphs 2 to 8 of subsection (1) for all the services to which the Development Charge Bylaw relates.	A municipality cannot collect more than the calculated cost for each service (if the amount of development and resultant revenue outpaces the forecast, then the extra revenue must be addressed via a reserve fund deduction in the development charge calculation in the next round or other appropriate means).
b) If the rules expressly identify a type of development they must not provide for the type of development to pay development charges that exceed the capital costs, determined under paragraphs 2 to 8 of subsection (1), which arise from the increase in the need for services attributable to the type of development. However, it is not necessary that the amount of the development charge for a particular development be limited to the increase in capital costs, if any, that are attributable to that particular development.	A municipality cannot shift the cost of servicing one type of development onto another type. (e.g., Industrial servicing costs cannot be transferred to residential development and single detached unit servicing costs cannot be transferred to apartments). It is not necessary that the average municipal-wide per unit servicing costs funded by the development charge reflect the needs of any particular development project. Provides further clarification on the inability of the bylaw to offload cost recovery from one type of development to another, in this case from exempt or discounted development to non-exempt or non- discounted development.

s.s.5(1) of the *Development Charges Act* (and associated Regulations)	Commentary
c) If the Development Charge Bylaw will exempt a type of development, phase in a development charge, or otherwise provide for a type of development to have a lower development charge than is allowed, the rules for determining development charges may not provide for any resulting shortfall to be made up through higher development charges for other development.”	
10. “The rules may provide for full or partial exemptions for types of development and for the phasing in of development charges. The rules may also provide for the indexing of development charges based on the prescribed index.”	These are optional bylaw inclusions such as authority to set rules on discretionary exemptions, phasing in of development charges and indexing of development charges.

FIGURE 1-1
STATUTORY REQUIREMENTS FOR CALCULATING A DEVELOPMENT CHARGE



2. CURRENT YORK REGION POLICY

2.1 Schedule of charges

On May 17, 2012, York Region Council passed bylaw No. 2012-36 under the *Development Charges Act*. The bylaw came into effect on June 18, 2012. Minutes of Settlement with Building Industry and Land Development Association (BILD) regarding the 2012 Development Charge Bylaw update outlined the following key elements:

- Adjustments to the rate calculation were made that resulted in a reduction of approximately 5 per cent for residential and non-retail rates and approximately 7 per cent for retail rates compared to the proposed 2012 Development Charge Bylaw.
- The threshold for large apartments was identified as 700 square feet or larger. The 700 square foot threshold was to be in effect until June 18, 2014. The threshold was to be reduced to 650 square feet or larger on June 19, 2014. The 650 square foot threshold was to be in effect for the remainder of the term of the proposed Development Charge Bylaw. Staff agreed to undertake an analysis of the relationship between area and occupancy in apartments in the Region and agreed to use the analysis to inform the threshold in the next bylaw. The Region agreed to consult with BILD in establishing the methodology for the analysis

The 2012 Bylaw imposed development charges on residential; industrial, office, institutional (IOI); and retail uses. The table below shows the 2012 residential rates:

TABLE 2-1

2012 DEVELOPMENT CHARGES BYLAW - RESIDENTIAL RATES

2012 Development Charge Bylaw Residential Rates Effective June 18, 2012				
	Single & Semi-Detached	**Multiple Unit Dwelling**	**Apartments > or = 700 square feet[1]**	**Apartments < 700 square feet[1]**
Water	$9,313	$8,172	$5,785	$3,917
Wastewater	16,339	14,336	10,149	6,872
Roads	11,487	10,079	7,135	4,832
Subtotal	$37,139	$32,587	$23,069	$15,621
Transit	761	624	444	329
Subway	947	831	588	398
General	1,260	1,074	762	536
GO Transit[2]	314	247	182	114
Total	**$40,421**	**$35,363**	**$25,045**	**$16,998**
Nobleton Wastewater services[3]	$9,438	$8,461	$5,920	$4,077

[1] The large apartment threshold will be reduced to 650 square feet or greater on June 19, 2014.
[2] The table includes development charges for GO Transit which are imposed under a separate bylaw and have not been updated as part of this review.
[3] Development in the Village of Nobleton is subject to a separate charge for Wastewater Treatment Services (this Bylaw was updated in June 2016).

The table below summarizes the 2012 non-residential development charge rates:

TABLE 2-2

2012 DEVELOPMENT CHARGES BYLAW - NON-RESIDENTIAL RATES

2012 Development Charge Bylaw Non-Residential Rates				
	Per Square Foot of Gross Floor Area		Per Square Metre of Gross Floor Area	
	Industrial / Office / Institutional	Retail	Industrial / Office / Institutional	Retail
Water	$4.69	$5.84	$50.44	$62.91
Wastewater	8.23	10.26	88.55	110.45
Roads	5.21	18.51	56.12	199.23
Transit	0.29	1.04	3.14	11.16
Subway	0.43	1.53	4.63	16.42
General	0.41	0.51	4.41	5.50
Total	**$19.26**	**$37.69**	**$207.29**	**$405.67**
Nobleton Wastewater services[1]	$5.47	$5.47	$58.88	$58.88

[1] The Village of Nobleton has a separate rate for the wastewater component

2.2 Services covered

The following table details the services and infrastructure projects covered under the current Bylaw:

TABLE 2-3

INFRASTRUCTURE PROJECTS UNDER THE 2012 BYLAW

Service[1]	Infrastructure projects funded
Roads	Grade separations (new structures and widening), 400-Series interchanges, intersection improvement, mid-block crossing, new arterial links, missing link, reconstruction, road widening, urbanization, streetscaping, programs and studies, remaining gravel and surface treated roads
Water	Planning and studies, storage, pumping, wells and water treatment, watermains and cost-shared projects (with Toronto and Peel)
Wastewater	Planning and studies, pumping, treatment, conveyance and cost-shared projects (with Peel)
Subway Extension	Right of way, system tracks, tunnel and signal system, crossovers, subway stations and subway commuter facilities
Transit	Vehicles (buses and BRT vehicles), transit garage expansions, BRT infrastructure and equipment
Police	Facilities, vehicles and equipment (including communication and radio equipment)
Emergency Medical Services	Facilities and vehicles
Public Health	Facilities
Social Housing	Facilities
Long Term Care	Facilities and equipment (beds)
Public Works	Facilities, vehicles and equipment
Growth Studies	Master plans, fiscal impact studies and forecasts, debt management studies and Development Charge Background Studies)

[1] Financing costs associated with all services were included.

2.3 Timing of development charge calculation and payment

Development charges are calculated and payable in full upon issuance of a building permit with respect to development, with the following exception.

- In the case of development in a residential plan of subdivision, charges for the hard service component (water, wastewater and roads) must be paid at the time of Regional subdivision agreement signing (s.s.3.16 and 3.17).

In accordance with the bylaw, payment must be made by certified cheque. If under extraordinary circumstances, the Regional Treasurer of York Region can determine that other forms of payment are appropriate, provided that it is in a format acceptable to the Treasurer of York Region.

The policy regarding full registration and phased payment of development charges in conjunction with build-out of residential subdivisions will be continued with the enactment of a revised development charges bylaw.

In the case of a non-residential building that includes both retail and non-retail uses, the determination of which non-residential charge is to apply to the floor area is based on the principal use of the building. The principal use is that which has the greater gross floor area (s.s.3.11(a)). If no single use has 55 per cent or greater of the total gross floor area, then the development charge payable on the total gross floor area shall be the average of the two non-residential charges payable (3.11(a)). Residential uses in mixed use buildings are charged according to the type and number of residential units and non-residential uses are charged in accordance with the type and quantity of gross floor area. Deferral options are described in section 2.7 of this Background Study.

2.4 Indexing

The Development Charge Bylaw (No. 2012-36) provides for the mandatory annual indexing of the charges on July 1st of each year (s.5), based on the change in the Statistics Canada Quarterly, *Construction Price Statistics*, catalogue number 62-007. Table 2-4 provides the development charges currently in effect (which include indexing, where applicable), as well as a breakdown of the charges by service.

TABLE 2-4

DEVELOPMENT CHARGES (AS OF FEBRUARY 3, 2017)

Category of Service	Residential Charge per Dwelling Unit				Non-Residential (per sq.ft. of Gross Floor	
	Single and Semi Detached	Multiple Unit Dwelling	Apartments > or = 650 square feet*	Apartments > or = 650 square feet*	Industrial/ Office/ Institutional	Retail
Water	$9,817	$8,613	$6,097	$4,128	$4.94	$6.15
Wastewater[1]	17,221	15,110	10,697	7,242	8.69	10.81
Roads	12,129	10,642	7,533	5,102	5.50	19.55
Transit	801	657	468	347	0.31	1.10
Subway	999	877	620	419	0.45	1.61
Police	517	454	319	218	0.28	0.34
Emergency Medical Services	98	80	57	42	0.02	0.02
Growth Studies	24	20	13	10	0.01	0.02
Social Housing	360	295	212	156	0.00	0.00
Long Term Care	17	14	10	7	0.00	0.00
Public Health	78	63	45	34	0.01	0.01
Public Works	234	206	145	98	0.11	0.14
Total	**$42,285**	**$37,031**	**$26,216**	**$17,803**	**$20.32**	**$39.75**
GO Transit[2]	$342	$269	$198	$125	-	-
Grand total	**$42,637**	**$37,300**	**$26,414**	**$17,928**	**$20.32**	**$39.75**

[1]The Nobleton wastewater charge applies instead of York Region’s wastewater charge in the Village of Nobleton
[2] The GO Transit development charge only applies to residential development

2.5 Redevelopment credits

The 2012 Bylaw provides for a development charge reduction for certain qualified residential and non-residential redevelopment projects (3.13.1). If redevelopment occurs within 48 months of a building’s demolition or conversion, a credit towards the development charges payable may be offered. The credit is intended to encourage timely redevelopment after demolition.

For residential developments, or in the case of the residential uses in a mixed-use building or structure, the credit amount is calculated by multiplying the applicable development charge by the number of dwelling units, according to type, that have been or will be demolished or converted to another principal use.

For non-residential uses or non-residential uses in a mixed-use building or structure, the credit amount is calculated by multiplying the applicable development charges by the gross floor area that has been or will be demolished or converted to another principal use.

The amount of credit given will not exceed the total amount of the development charges otherwise payable with respect to the redevelopment.

For the purposes of the above, the onus is on the applicant to produce evidence to the satisfaction of York Region to establish the following:

- The number of dwelling units that have been or will be demolished or converted to another principal use; or
- The non-residential gross floor area that has been or will be demolished or converted to another principal use

For buildings deemed to be derelict by the relevant area municipal Council, the credit is extended for an additional 72 months in a declining scale. The table below details the calculation of credits provided to residential derelict buildings.

TABLE 2-5

CALCULATION OF CREDITS FOR DERELICT RESIDENTIAL BUILDINGS

Number of months from date of demolition permit to date of building permit issuance	Credit provided (%)[1]
Up to and including 48 months	100
Greater than 48 months up to and including 72 months	75
Greater than 72 months up to and including 96 months	50
Greater than 96months up to and including 120 months	25
Greater than 120 months	0

[1] Credits are calculated as a percentage of the prevailing development charge rates for the type of dwelling demolished.

2.6 Exemptions

2.6.1 Exemptions from the payment of development charges

The Region's Development Charge Bylaw and associated policies includes a number of statutory and non-statutory exemptions. No development charges will be imposed against land owned and used by a municipality or lands owned by a Board as described in the *Development Charges Act*. The tables below illustrate both statutory and non-statutory exemptions for both residential and non- residential development.

TABLE 2-6

RESIDENTIAL DEVELOPMENT CHARGE EXEMPTIONS: STATUTORY AND NON-STATUTORY

Statutory Exemptions

Type of Building	Maximum Number of Additional Dwelling Units	Restrictions
Single detached dwellings	Two	Total gross floor area of the additional dwelling unit or units must be less than or equal to the gross floor area of the dwelling unit already in the building
Semi-detached dwellings or row dwellings	One	Total gross floor area of the additional dwelling unit must be less than or equal to the gross floor area of the existing dwelling unit already in the building
Other residential buildings	One	Total gross floor area of additional dwelling unit must be less than or equal to the gross floor area of the smallest dwelling unit already in the building

Non-Statutory Exemptions
Affordable rental housing projects owned by a non-profit organization (grant provided equivalent to the development charge payable)

TABLE 2-7

NON-RESIDENTIAL DEVELOPMENT CHARGE EXEMPTIONS: STATUTORY AND NON-STATUTORY

Type of Use	Statutory	Non-Statutory
Institutional	• Public Schools	• Addition or expansion that is less than 50 per cent of the existing gross floor area • Public Hospitals receiving aid under the *Public Hospital Act* • Non-residential farm buildings • Accessory structures that are less than $100m^2$ of gross floor area • Lands, buildings or structures used for cemeteries or burial grounds exempt from taxation under the *Assessment Act* • Buildings owned by a non-profit corporation with purposes of a charitable nature and provide a facility for community use, where an area municipality agrees to a similar exemption • Development of a place of worship for gross floor area up to a maximum of 5,000 square feet, or gross floor area that relates to the portion of the structure used principally for worship, whichever is greater • Land owned by and used for the purposes of a private school that qualify as exempt from taxation under the *Assessment Act,* and where an area municipality agrees to a similar exemption
Office		• Addition or expansion that is less than 50 per cent of the existing gross floor area • Accessory structures that are less than $100m^2$ of gross floor area
Industrial	• Addition or expansion if it is less than 50 per cent of the existing gross floor area	• Accessory structures that are less than $100m^2$ of gross floor area
Retail		• Accessory structures that are less than $100m^2$ of gross floor area

2.6.2 Construction types exempt from development charges

The following construction types are exempt from Regional development charges:

- Accessory buildings associated with residential development (e.g., garages, garden sheds, gazebos, swimming pool enclosures, etc.);
- Additions and alterations to existing dwellings including fireplaces, stoves, decks, porches, sunrooms, etc.;
- Temporary buildings (e.g., special occasion buildings, tents, temporary sales offices);
- Repairs to restore existing buildings that do not require rezoning or variance;
- Designated structures: retaining walls, exterior storage tanks, pedestrian bridges, dish antennae, crane runways and solar collectors;
- Interior alteration to non-residential buildings which do not change the use of the building, including: the finishing or refinishing of non-residential floor areas (note: the construction of a mezzanine would not constitute “interior alteration” in this context and may be subject to development charges); and
- Buildings which do not require a permit.

2.7 Deferral options

2.7.1 Retail developments

A retail development has the option of securing development charge payment obligations through the provision of a Letter of Credit at the point at which development charges would otherwise be payable. The posted Letter of Credit can be drawn upon in equal annual amounts over a three-year period.

2.7.2 High-rise condominium developments

Developers of high-rise condominium developments may defer payments of Regional development charges. This deferral is dependent upon the developer providing a Letter of Credit at the time of building permit issuance to secure the payment of Regional development charges. The Letter of Credit shall be drawn at the earlier of 18 months after building permit issuance or registration of the condominium.[2]

[2] *Development Charge Policies (As per 2007 Development Charge Bylaw Review Background Study/Development Charge Pamphlet)*

2.7.3 Office developments

Developers of high-rise office developments may defer payment of Regional development charges. This deferral is dependent upon the developer providing a Letter of Credit at the time of building permit issuance to secure the payment of Regional development charges. The Letter of Credit shall be drawn 18 months after building permit issuance[3].

2.8 Transitional collection policies

2.8.1 Vacant lots of record

If the subject lot/subdivision was created prior to the imposition of a York Region's lot levy/development charge (i.e. March 1979 for residential development; March 1988 for non-residential development), there will be no requirement to pay the current prevailing development charge prior to building permit issuance if the lot has remained vacant and has not required any planning approvals for intensification in the interim period.

2.8.2 Subdivisions/lots registered and/or created prior to November 23, 1991 which require additional development approvals under authority of the Development Charges Act

If a Regional lot levy/development charge has been previously paid in its entirety to the Region as a condition of subdivision (subdivision agreement) or land development (severance) approval, and there have been no further intensification amendments to the subject lot in the interim period, there will be no further requirement to pay the current Regional development charge ("top-up") at the time of building permit issuance.

If a development proponent has provided other monetary contributions or undertaken capital works in lieu of previous levy/development charge payments, there will be a credit granted against the payment of current Regional development charges, in accordance with the *Development Charges Act.*

2.8.3 Residential subdivisions registered after November 23, 1991

If a development proponent has paid for the applicable roads, water and sanitary sewer components of the Regional development charge, subject to a subdivision or development charge agreement entered into with the Region, the general administration component of the Regional development charge should be collected by the Area Municipality, at the prevailing rate prior to building permit issuance.

[3] *Council Report – June 24th 2010*

All unregistered plans of subdivision will be required to enter into a development charge agreement with York Region that will impose the current prevailing road, water and sewer service component of the Regional development charge as indicated by a schedule to the Bylaw prior to execution of the agreement. The proponent shall pay the general administration component of the Regional development charge, and balance of the Regional development charges outstanding, at the prevailing rate to the Area Municipality prior to building permit issuance.

2.8.4 Non-Residential subdivisions registered after November 23, 1991

If a non-residential subdivision is created by plan of subdivision after November 23, 1991, then the applicable Regional development charge for the roads, water, sanitary sewer and general administration components of the charge shall apply at the prevailing rate, prior to building permit issuance.

2.8.5 Development lots created by severance after November 23, 1991

Lots created by severance after November 23, 1991 will be required to pay the current prevailing Regional development charge prior to building permit issuance.

3. ANTICIPATED DEVELOPMENT IN YORK REGION

This chapter provides the basis for the development forecast used in calculating the development charges, as well as a summary of the forecast results.

3.1 Requirements of the Development Charges Act

Subsection 5(1) of the *Development Charges Act* sets out the method that must be used to determine development charges. The first step states that:

“The anticipated amount, type and location of development, for which development charges can be imposed, must be estimated.”

Steps two to five go on to refer to the “increase in need for service attributable to the anticipated development…”. Thus, the estimate of anticipated development is an important starting point to determining development charge rates.

The requirement of the *Development Charges Act* is for a development forecast. Subsection 2(2) of the *Act* sets out what development can be charged for. Development generates increased service needs, via its occupancy and use, which is measured in in terms of households, population and employment (tourists, customers and patrons).

This chapter addresses both the anticipated increase in development and the users of the development. It covers all forms of development, whether or not they are included in the schedule of development charges. This is to avoid transferring the servicing cost responsibility of exempt development to non-exempt development.

3.2 Development charges growth forecast

In 2014, Regional staff initiated the Municipal Comprehensive Review process to update the Region’s Official Plan (2010), and address growth to 2041. In May 2016, the Province released four draft amended Provincial Plans, including a proposed new Provincial Growth Plan. The proposed Growth Plan contemplates significantly higher levels of intensification and density than the current Growth Plan. Given the Provincial policy direction on higher intensification and density, as well as the uncertainty around the final targets and policies in the new Growth Plan, the Municipal Comprehensive Review was put on hold. This background study uses a population and employment forecast to 2031 as the basis for forecasting anticipated development.

In addition, in light of the uncertainty around the final provincial policy directions, this forecast does not include any urban expansion lands for residential or employment uses. It is anticipated that once the new Growth Plan policies are finalized, a new York Region forecast to 2041 will be prepared based on these policies. The development charges growth forecast would be revised accordingly and a new background study prepared prior to the expiration of the forthcoming 2017 Bylaw in 2022.

The 2031 mid-year population forecast of 1,545,700 (excludes institutional population) is based on anticipated levels of housing growth in York Region, taking into consideration demographic trends, the timing of servicing infrastructure, market demand, and intensification policy targets. The net population growth from year end 2016 to mid-year 2031 is estimated to be approximately 367,800 (excluding institutional population). The employment forecast for mid-2031 is 780,000 with growth of approximately 178,000 over the 14.5 year forecast period. This population and employment forecast is consistent with the forecasts underlying the Region's Water and Waste water and Transportation Master Plans.

3.3 Population and housing unit growth forecast

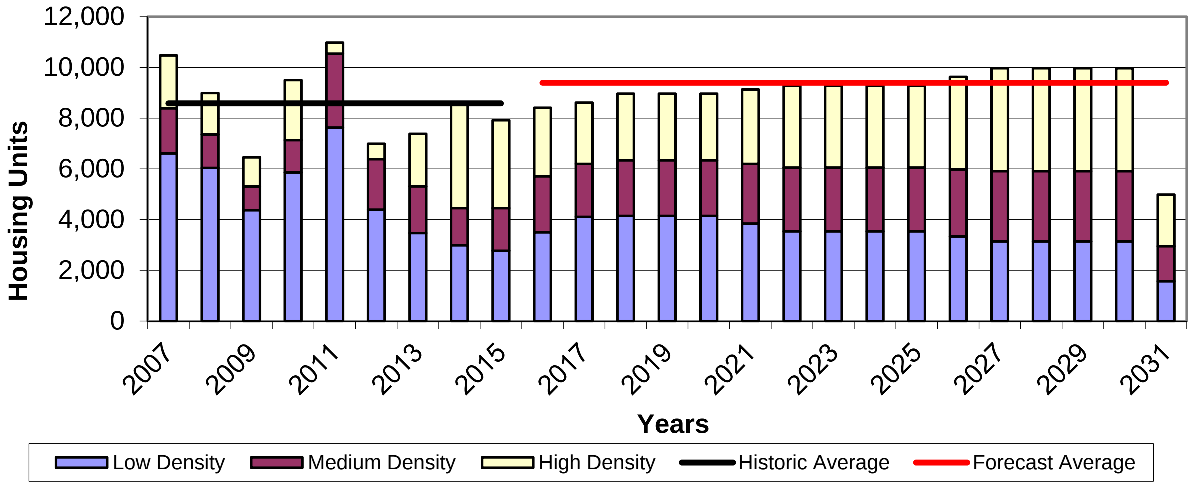
The population forecast is based on the recent MCR work and was used in the infrastructure master plan work. The methodology used to generate the forecast is outlined in Attachment 2 of the November 2015 York Region staff report on the Preferred Growth Scenario.

Net population growth refers to the total growth in population taking into account both population in new housing units and the decline in population in existing units. The net population growth from year-end 2016 to mid-year 2031 is estimated at approximately 367,800. For the purposes of calculating development charges, the population forecast is adjusted to include the Census undercount but does not include the Region's institutional population.

Over the forecast period, there is a shift in the Region's housing mix to higher density forms of housing. This change in housing mix is required to respond to the changing demographics of the Region and to meet the intensification policy requirements. The forecast incorporates a declining PPU from 2016 to 2031. Factors including a relatively low fertility rate, the anticipated increase in non-family households and one person households as well as an aging population will all contribute to a declining average household size. Figure 3-1 below shows the historic and forecast housing growth by type in the Region.

FIGURE 3-1

HISTORIC AND FORECAST HOUSING GROWTH (2007 – 2031)



Note that 2031 is a half year

Table 3-1 summarizes the population and housing unit forecast for the DC growth forecast.

TABLE 3-1

RESIDENTIAL GROWTH FORECAST SUMMARY

Year-End	Population (excluding institutional population)	Housing Units			
		Single and Semi-Detached	Multiple Dwellings[1]	Apartments[2]	Total Households
2011	1,074,700	239,145	52,325	37,739	329,209
2016	1,177,900	256,270	61,524	50,641	368,435
2026	1,418,000	294,138	85,270	80,433	459,841
2031 (mid-year)	1,545,700	308,273	97,729	98,683	504,685
2016-2026 Growth	**240,100**	**37,868**	**23,746**	**29,792**	**91,406**
2016-2031 (mid-year) Growth	**367,800**	**52,003**	**36,205**	**48,042**	**136,250**

[1]Multiple dwellings consist of row and duplex units.
[2]Apartment category consists of bachelor, 1 bedroom and 2+ bedroom apartments

The following table shows the forecast housing growth by type of structure (singles and semis, multiples and apartments). From 2017 to mid-2031, the Region is expected to add 136,250 residential units. Of which, 38 per cent are expected to be single and semi-detached homes, 27 per cent are expected to be multiples (rows and duplex units), and the remaining 35 per cent are expected to be apartments.

TABLE 3-2

RESIDENTIAL UNIT AND POPULATION FORECAST BY SINGLE YEAR (YEAR-END)

Year End	Singles and Semis	Multiples[1]	Apartments	Total	Housing Growth	Population	Population Growth
2016	256,270	61,524	50,641	368,435	8,407	1,177,900	22,100
2017	260,377	63,611	53,058	377,045	8,610	1,199,000	21,100
2018	264,521	65,809	55,681	386,011	8,965	1,222,300	23,300
2019	268,665	68,007	58,303	394,976	8,965	1,245,600	23,300
2020	272,810	70,206	60,926	403,941	8,965	1,268,900	23,300
2021	276,651	72,563	63,854	413,067	9,126	1,292,800	23,900
2022	280,188	75,079	67,087	422,354	9,287	1,317,400	24,600
2023	283,725	77,596	70,321	431,641	9,287	1,342,000	24,600
2024	287,262	80,112	73,555	440,928	9,287	1,366,700	24,700
2025	290,799	82,628	76,788	450,215	9,287	1,391,400	24,700
2026	294,138	85,270	80,433	459,841	9,626	1,418,000	26,600
2027	297,279	88,039	84,488	469,806	9,965	1,446,300	28,300
2028	300,420	90,808	88,544	479,772	9,965	1,474,700	28,400
2029	303,561	93,576	92,600	489,737	9,965	1,503,100	28,400
2030	306,702	96,345	96,655	499,702	9,965	1,531,500	28,400
2031[2]	308,273	97,729	98,683	504,685	4,983	1,545,700	14,200

Source: York Region
[1]Multiple dwellings consist of row and duplex units.
[2]Figures shown are for 2031 mid-year

The PPU assumptions in Table 3-3 are based on Statistics Canada data that allows for the calculation of York Region average PPU's by housing type for dwellings built between 2001 and 2011.

TABLE 3-3

PERSONS PER UNIT ASSUMPTIONS FOR DEVELOPMENT CHARGE CALCULATIONS

Housing Type	10-year Average Persons per Unit	14.5-year Average Persons per Unit
Singles and Semi's	3.74	3.74
Multiples (Rows, Duplexes)	3.01	3.01
Apartments > = 700 square feet	2.19	2.19
Apartments < 700 square feet	1.60	1.60
Total Apartments	1.91	1.91
Total Units	2.96	2.90

Source: York Region

[1]The Total Units PPU is based on the unit type PPU's weighted by housing forecast mix

[2]PPU's in table are adjusted to include the Census undercount

[3]10 Year and 14.5 average PPU's are based on average PPU's observed in housing units built in York Region from 2001 to 2011

[3]PPU's for apartments >= 700 square feet are based on observed PPU's in 1 bedroom or less apartments

[4]PPU's for apartments < 700 square feet are based on observed PPU's in 2+ bedroom apartments

Gross population growth only includes the population in new housing units, with no consideration for the decline in the existing population base. For the 10-year DC period, the growth in gross population of 270,100 was estimated by applying the persons per unit (PPU) by dwelling type to the forecast of housing units. (Table 3-4). The calculation of population in new housing units for the 14.5 year DC period to 2031 is also based on the same PPU assumptions. Using this method, the gross population increase from 2016 to 2031 is estimated at 395,400 (Table 3-5).

TABLE 3-4

REGION OF YORK
TEN YEAR GROWTH FORECAST
END - 2016 to END 2026

Estimated December 31, 2016 population	1,177,900

Average number of persons per unit (ppu) is assumed to be:				
	Linked		**Housing Mix**	
Singles and Semis	3.74	x	41.4%	1.55
Multiples (Rows and Duplex)	3.01	x	26.0%	0.78
Apartments	1.91	x	32.6%	0.62
			100%	
Weighted Average				2.96
Based on average ppu for units built between 2001 and 2011 in York Region				

	HOUSEHOLDS	**POPULATION**
OCCUPANTS OF NEW HOUSING UNITS FROM END OF 2011 TO END OF 2021		
Unit growth	91,406	
Multiplied by persons per unit	2.96	
Gross population increase		270,120
DECLINE IN HOUSING UNIT OCCUPANCY OVER END OF 2011 TO MID 2021 PERIOD		
December 31, 2016 occupied household estimate	368,435	
multiplied by ppu decline rate	0.0815	
total population decline		30,020
Forecast for year end 2026	459,841	1,418,000
Net Population Increase		240,100

Notes for the 2026 Growth Forecast

Estimated December 31 2016 population:
Includes the 2011 Census population with an undercount adjustment plus CMHC housing completion data from May 2011 to June 2016 plus estimates for additional units to be completed in 2016 times the 2016 forecast ppu; does not include the estimated institutional population.

Occupants of new housing units from end of 2016 to end of 2026:

Unit Growth
Based on York Region household forecast to year end 2026 minus year end 2016 household estimate.

Persons per unit (PPU):
Based on Census 2011 information for households in newly constructed units for the 2001 to 2011 period, adjusted for Census undercount

Weighted PPU average:
Based on estimated forecast mix for the 2016 to 2026 period.

Gross Population Increase:
Unit growth times weighted ppu

Decline in Housing Unit Occupancy over end of 2016 to end of 2026 period:

December 31, 2016 occupied household estimate:
Based on 2011 occupied household Census total plus CMHC housing completions from May 2011 to June 2016 plus estimate of units under construction to be completed in 2016.

PPU decline rate:
(Gross population increase plus year end 2016 population estimate minus 2026 year end population forecast) divided by 2016 year end household estimate.

Total population decline:
PPU decline rate times 2016 year end household estimate

Forecast end of 2026:
Households - 2026 year end forecast; population - 2026 year end forecast (does not include institutional population)

Net Population Increase:
2026 year end forecast minus 2016 year end estimate

TABLE 3-5

REGION OF YORK
14.5 YEAR GROWTH FORECAST
2016 TO MID 2031

Estimated December 31, 2016 population	1,177,900

Average number of persons per unit (ppu) is assumed to be:				
	Linked		**Housing Mix**	
Singles and Semis	3.74	x	38.2%	1.43
Multiples (Rows and Duplex)	3.01	x	26.6%	0.80
Apartments	1.91	x	35.3%	0.67
			100.0%	
Weighted Average				2.90
Based on average ppu for units built between 2001 and 2011 in York Region				

	HOUSEHOLDS	**POPULATION**
OCCUPANTS OF NEW HOUSING UNITS FROM END OF 2016 TO MID 2031		
Unit growth	136,250	
Multiplied by persons per unit	2.90	
Gross population increase		395,379
DECLINE IN HOUSING UNIT OCCUPANCY OVER END OF 2016 TO MID 2031 PERIOD		
December 31, 2016 occupied household estimate	368,435	
multiplied by ppu decline rate	0.0749	
total population decline		27,579
Forecast Mid 2031	504,685	1,545,700
Net Population Increase		367,800

Notes for 2031 Growth Forecast

Estimated December 31 2016 population:
Includes the 2011 Census with an undercoverage adjustment plus CMHC housing completion data from May 2011 to June 2016 plus estimates for additional units to be completed in 2016 times the 2016 forecast ppu; does not include the estimated institutional population.

Occupants of new housing units from end of 2016 to mid 2031:

Unit Growth
Based on York Region household forecast to mid-year 2031 minus year end 2016 household estimate.

Persons per unit (PPU):
Based on Census 2011 information for all households from York Region Forecast, adjusted for the Census undercount

Weighted PPU average:
Based on estimated forecast mix for the 2016 to 2031 period.

Gross Population Increase:
Unit growth times weighted ppu

Decline in Housing Unit Occupancy over end of 2016 to mid-2031 period:

December 31, 2016 occupied household estimate:
Based on 2011 occupied household Census total plus CMHC housing completions from May 2011 to June 2016 plus estimate of units under construction to be completed to 2016.

PPU decline rate:
(Gross population increase plus year end 2016 population estimate minus 2031 mid year population forecast) divided by 2016 year end household estimate.

Total population decline:
PPU decline rate times 2016 year end household estimate

Forecast mid year 2031:
Households - 2031 mid year forecast; population - 2031 mid year forecast (does not include institutional population)

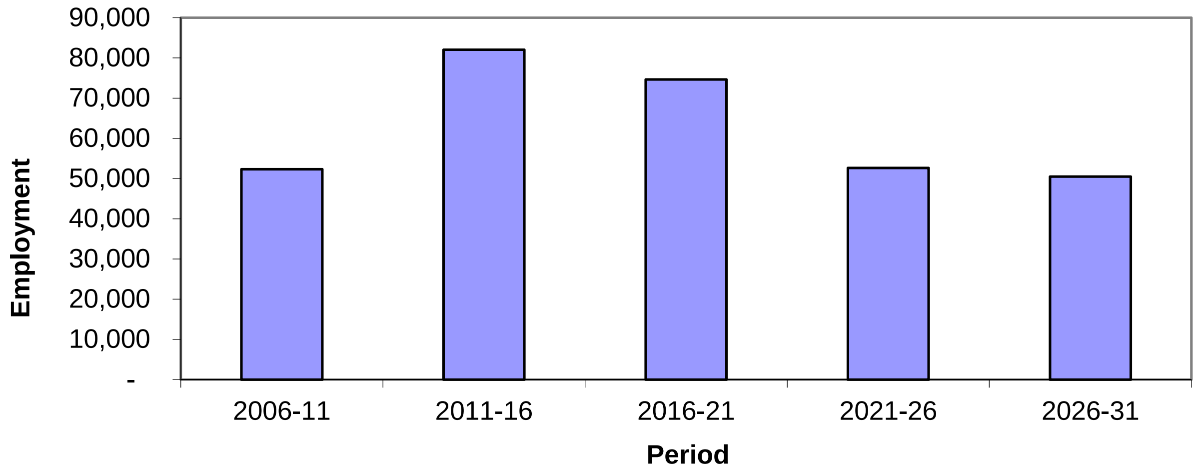
Net Population Increase:
2031 mid year forecast minus 2016 year end estimate

3.4 Employment and non-residential space forecast

The 2031 employment forecast is 780,000 with growth of approximately 178,000 over the 14.5 year forecast period. The methodology for the employment forecast is documented in Attachment 2 of the November 2015 York Region staff report on the Preferred Growth Scenario. An estimate for employment growth in new building space is generated, and divided into four building types: industrial, office, institutional and retail. Figure 3-2 below shows historic and forecast employment growth by five-year period from 2006 to 2031.

FIGURE 3-2

YORK REGION HISTORIC AND FORECAST EMPLOYMENT GROWTH



[1]Figure 3-2 shows historic forecast year-end to year-end employment growth with the exception of 2031 which is to mid-year.

The employment growth by building type (industrial, office, institutional and retail) is estimated by first examining the forecast by the three employment categories – major office, employment land and population-related employment (Table 3-6).
The shares of growth for each employment category within the four building types were estimated by examining historical shares of employment growth using building permit data from 2004 to 2013 and York Region employment survey data from 2015. The hotel employment forecast which is a component of the retail forecast was derived separately and is based on per capita and per employee ratios to forecast anticipated hotel development in the Region.

To derive the total employment growth that will generate new floor space (Table 3-6), the following deductions are made:

1. Work-at-Home Employment
   Work-at-home employment forecast is based on a projection that calculates work-at-home as a share of the Region’s labour force. Work-at-home employment is forecast to increase slightly over the forecast period, from approximately 7.5 to 8 per cent of employment in the Region from 2016 to 2031.

2. Employment Growth and GFA growth Adjustment Factor
   An adjustment factor is applied to the employment growth (less the work-at-home growth) to account for employment growth that does not require new floor space. Recent development trends suggest that the forecast employment growth does not align with growth occurring in new space. This could be due to existing space achieving planned occupancy (previously unoccupied space), and/or through renovations of existing space allowing for higher employment density. In addition, the adjustment factor also accounts for the anticipated continued increase in contracting out and growth in no-fixed place of work employment. The adjustment factor is a necessary modification to the employment forecast.

   In total the adjustment factor is approximately 10 per cent and ranges from 5 per cent for office, institutional and retail employment to 20 per cent for industrial employment. The higher adjustment factor for the industrial sector accounts for higher levels of increased off-site employment and contract employment within this sector.

TABLE 3-6
EMPLOYMENT GROWTH FORECAST

	Total Employment End of Year	Employment Growth	Work at Home Share	Employment Growth Less Work at Home	Employment Growth by Building Type					Employment Growth in Buildings	Employment Growth by Building Type				
					Retail	Industrial	Office	Institutional	Hotel		Retail	Industrial	Office	Institutional	Hotel
2017	**617,600**	15,400	7%	**14,328**	3,777	4,740	4,086	1,672	53	**12,900**	3,585	3,792	3,882	1,588	53
2018	**633,000**	15,400	7%	**14,328**	3,774	4,740	4,086	1,672	55	**12,900**	3,583	3,792	3,882	1,588	55
2019	**648,400**	15,400	7%	**14,328**	3,774	4,740	4,086	1,672	55	**12,900**	3,583	3,792	3,882	1,588	55
2020	**663,850**	15,450	7%	**14,374**	3,787	4,756	4,100	1,677	55	**12,942**	3,595	3,804	3,895	1,593	55
2021	**676,850**	13,000	7%	**12,095**	3,182	4,001	3,449	1,411	51	**10,890**	3,020	3,201	3,277	1,340	51
2022	**687,350**	10,500	10%	**9,448**	2,404	2,759	3,146	1,092	47	**8,562**	2,281	2,207	2,989	1,038	47
2023	**697,850**	10,500	10%	**9,448**	2,404	2,759	3,146	1,092	47	**8,562**	2,281	2,207	2,989	1,038	47
2024	**708,350**	10,500	10%	**9,448**	2,404	2,759	3,146	1,092	47	**8,562**	2,281	2,207	2,989	1,038	47
2025	**718,750**	10,400	10%	**9,358**	2,381	2,732	3,116	1,082	47	**8,480**	2,259	2,186	2,961	1,028	47
2026	**729,500**	10,750	10%	**9,673**	2,460	2,824	3,221	1,118	49	**8,766**	2,334	2,260	3,060	1,062	49
2027	**740,700**	11,200	11%	**10,002**	2,621	2,819	3,303	1,207	52	**9,079**	2,488	2,255	3,138	1,147	52
2028	**751,900**	11,200	11%	**10,002**	2,621	2,819	3,303	1,207	52	**9,079**	2,488	2,255	3,138	1,147	52
2029	**763,100**	11,200	11%	**10,002**	2,621	2,819	3,303	1,207	52	**9,079**	2,488	2,255	3,138	1,147	52
2030	**774,350**	11,250	11%	**10,047**	2,633	2,831	3,317	1,213	52	**9,120**	2,499	2,265	3,152	1,152	52
mid 2031	**780,000**	5,650	11%	**5,046**	1,323	1,422	1,666	609	26	**4,580**	1,255	1,138	1,583	579	26
2017 to mid-2031 sum		**177,800**		**161,928**	**42,166**	**49,520**	**50,476**	**19,023**	**742**	**146,403**	**40,020**	**39,616**	**47,953**	**18,072**	**742**

The forecast growth in non-residential space is derived by multiplying the employment growth for each building type with employee density assumptions. The employment density assumptions were derived by examining industry standards and by examining the observed employment densities of buildings constructed between 2004 and 2013 using building permit data and information from the 2015 York Region employment survey. The following table summarizes the employment densities used in the non-residential space forecast.

TABLE 3-7

NON-RESIDENTIAL GFA PER EMPLOYEE ASSUMPTIONS

Employment Type	Sq.Ft. Per Employee
Industrial	800
Office	275
Institutional	900
Retail	430
Hotel	2,000

Application of the above employment density assumptions by employment type yields the following non-residential gross floor area (Table 3-8).

TABLE 3-8
NEW GROSS FLOOR AREA – SQUARE FEET

New Gross Floor Area - Square Feet											
	Retail	**Industrial**	**Office**	**Institutional**	**Hotel**	**Total**		**Non-Retail**	**Retail**	**Hotel**	**Total**
Floor Space Per Worker	**430**	**800**	**275**	**900**	**2,000**						
2017	1,458,420	3,033,720	1,067,548	1,429,136	106,037	**7,094,861**		5,530,404	1,458,420	106,037	**7,094,861**
2018	1,453,659	3,033,720	1,067,548	1,429,136	110,798	**7,094,861**		5,530,404	1,453,659	110,798	**7,094,861**
2019	1,453,659	3,033,720	1,067,548	1,429,136	110,798	**7,094,861**		5,530,404	1,453,659	110,798	**7,094,861**
2020	1,458,537	3,043,570	1,071,014	1,433,776	111,000	**7,117,896**		5,548,360	1,458,537	111,000	**7,117,896**
2021	1,218,291	2,560,932	901,177	1,206,413	102,354	**5,989,168**		4,668,523	1,218,291	102,354	**5,989,168**
2022	907,415	1,765,600	821,985	933,884	93,714	**4,522,599**		3,521,469	907,415	93,714	**4,522,599**
2023	907,415	1,765,600	821,985	933,884	93,714	**4,522,599**		3,521,469	907,415	93,714	**4,522,599**
2024	907,415	1,765,600	821,985	933,884	93,714	**4,522,599**		3,521,469	907,415	93,714	**4,522,599**
2025	898,077	1,748,785	814,157	924,990	93,517	**4,479,526**		3,487,932	898,077	93,517	**4,479,526**
2026	926,103	1,807,638	841,557	956,120	98,863	**4,630,280**		3,605,314	926,103	98,863	**4,630,280**
2027	987,763	1,803,933	862,838	1,032,265	104,405	**4,791,205**		3,699,037	987,763	104,405	**4,791,205**
2028	987,763	1,803,933	862,838	1,032,265	104,405	**4,791,205**		3,699,037	987,763	104,405	**4,791,205**
2029	987,763	1,803,933	862,838	1,032,265	104,405	**4,791,205**		3,699,037	987,763	104,405	**4,791,205**
2030	992,437	1,811,987	866,690	1,036,874	104,607	**4,812,594**		3,715,550	992,437	104,607	**4,812,594**
mid 2031	498,555	910,020	435,271	520,741	52,404	**2,416,992**		1,866,032	498,555	52,404	**2,416,992**

4. DEVELOPMENT CHARGE CALCULATION ASSUMPTIONS

4.1 Introduction

This chapter addresses the requirements of s.s.5(1) of the *Development Charges Act*, and related matters with respect to the establishment of the estimated increased need for service attributable to the anticipated development, which underpins the development charge calculation. These requirements were detailed in section 1.2.

4.2 Services potentially involved

Table 4-1 lists the range of municipal service categories that are eligible for inclusion in the development charge calculation.

A number of these services are referenced in s.2.1 (1) Ontario Regulation 82/98 as it relates to the *Development Charges Act*, as being ineligible for inclusion in development charges. These are shown as “ineligible” on Table 4-1, identified with an ‘X’. In addition, two ineligible costs defined in s.s.5 (3) of the *Development Charges Act* are “computer equipment” and “rolling stock with an estimated useful life of (less than) seven years...”. In instances where rolling stock has an equivalent life, due to use, of seven years (e.g., police vehicles) they have been included as an eligible cost. Finally, local water, wastewater, stormwater management and road works are recovered separately under subdivision agreements and related means (as are other local services).

TABLE 4-1

ELIGIBILITY OF MUNICIPAL SERVICES FOR DEVELOPMENT CHARGE RECOVERY

Service	Service Components	Development Charge Eligibility	10 % Statutory Reduction
Services Related to a Highway	Arterial roads	✓	✗
	Traffic signals	✓	✗
	Interchanges and grade separations	✓	✗
Other Transportation Services (post Bill 73)	Transit vehicles	✓	✗
	Other transit infrastructure	✓	✗

Service	Service Components	Development Charge Eligibility	10 % Statutory Reduction
	Works yards	✓	✗
	Rolling stock	✓	✗
Wastewater Services	Treatment plants	✓	✗
	Sewage trunks	✓	✗
	Vehicles and equipment	✓	✗
Water Supply Services	Treatment plants	✓	✗
	Distribution systems	✓	✗
Waste Management Services (post Bill 73)	Collection, transfer vehicles and equipment (not for waste diversion purposes)	✗	Not Applicable
	Landfills and other disposal facilities	✗	Not Applicable
	Other waste diversion facilities and vehicles*	✓	✓
Police Services	Police detachments	✓	✗
	Police vehicles*	✓	✗
	Small equipment and gear	✓	✗
	Communications systems	✓	✗
Senior Service – Capital Component (formerly Long Term Care)	Long term care facilities	✓	✓
Public Health	Public health facilities	✓	✓
Social Housing	Social housing	✓	✓
Paramedic Service (formerly Emergency Medical Service)	Ambulance station space	✓	✓
	Vehicles*	✓	✓
Provision of Headquarters for the General Administration of Municipalities and Local	Office space (all services)	✗	Not Applicable
	Office furniture	✗	Not Applicable

Service	Service Components	Development Charge Eligibility	10 % Statutory Reduction
Boards	Computer equipment	✗	Not Applicable
Growth Studies	Growth related studies of a corporate nature (e.g., development charge background studies, master plans, official plans etc.)	✓	✓
Court Services	Courts facilities	✓	✓

*Note: with 7+ years of useful life or the equivalent

4.3 Applicable credits

Section 8 paragraph 5 of O.Reg. 82/98 indicates that a development charge background study must set out, “The estimated value of credits that are being carried forward relating to the service.” A credit is, in effect, a Municipal payment liability linked to the prior provision of infrastructure by a landowner. Credits have been included in the development charge calculation in order to ensure that the necessary development charge “funding room” has been provided.

York Region has made agreements with respect to a number of credits, which are incorporated in the calculation of the charge, for each of the services involved.

4.4 Region-wide charges

Development Charge bylaws can be imposed on a uniform Region-wide basis or on an area- specific basis or as a combination of these two approaches. With the exception of the wastewater charge for the Village of Nobleton, York Region’s existing development charge policy is to levy a Region-wide rate. This update proposes to continue with this approach (discussed in more detail in Chapter 12).

4.5 Council’s approval of the capital program

In order for an increase in need for service to be included in the development charges calculation, Regional Council must indicate “…that it intends to ensure that such an increase in need will be met” (s.s.5 (1)3). This can be done if the increase in service forms part of a Council-approved Official Plan, capital forecast or similar expression of the intention of Council (O.Reg. 82/98 s.3). The capital program contained herein reflects York Region’s approved capital plan and also reflects previous approvals of York Region’s Transportation Master Plan and Water and Wastewater Master Plans.

4.6 Rules for development charges

The rules for determining if development charges are payable in any particular case and for determining the amount of the development charges involved, are set out in the proposed Bylaw in Appendix C. The quantum of the development charge which is payable is as calculated in Chapters 5-10 and summarized in the Executive Summary and in the proposed Bylaw.

The rules for determining if development charges are payable in any particular case are addressed in the Bylaw and Background Study and deal with matters such as: multiple charges, the connection between servicing needs and development, the list of services for which charges are being imposed, types of development approval triggering the need for the imposition of development charges, the requirements for the installation of local services in addition to payment of the development charge, the method used in calculating development charges for individual developments, the quantum of the charge, the timing of calculation and payment, the alternative means of payment, exemptions, phasing-in of charges, indexing and charges imposed on redevelopment. These are further addressed in the proposed Bylaw in Appendix C.

5. WATER – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS

5.1 2017 to 2031 Capital program description

The water capital program (Table 5-4) consists of infrastructure and initiatives required to support growth as recommended by the 2016 York Region's Water and Wastewater Master Plan and other planning studies. The program includes the following components:

- Water supply, including wells and treatment
- Pumping
- Storage
- Watermains
- Cost shared projects (with Toronto and Peel)
- Planning and studies

In addition, Table 5-5 in this section of the report contains one water servicing project that will be placed on the contingent items list, and form part of Schedule "G" to the proposed 2017 Development Charge Bylaw.

5.2 Level of service

When another Act or Provincial Agency requires a higher level of service than what is permitted under section 5(1)4 of the *Development Charges Act*, development charges may be established based on the prescribed level of service as required under another Act. York Region's water service is provided in accordance with provincial design guidelines and requirements, and recognizes engineering design standards.

Through the Master Plan, design unit rates are developed to assist in identifying infrastructure needs over the long term. Water design unit rates proposed by the 2016 Master Plan Update were developed primarily based on a consumption forecast model that uses regression analysis of past water consumption trends while taking into consideration the Region's Long Term Water Conservation Program. These design unit rates are approximately 20% lower than the 2009 Master Plan Update unit rates, reflective of more recent water conservation efforts as shown in Table 5-1 below. The 2016 design unit rates will be monitored to ensure that the forecast model is kept up-to-date to inform the capital program.

TABLE 5-1

2031 UNIT WATER CONSUMPTION RATES

	Residential (l/c/d)	Employment Residential (l/c/d)
2009 Master Plan	239	228
2016 Master Plan	201	155

5.3 Benefit to existing development deduction

The methodology for establishing benefit to existing deduction is based on the principle that growth should pay for growth. Therefore, when a project was required to meet an increase in need due to development, benefit to existing was allocated. In cases where benefit to existing was considered, it was addressed on a project by project basis.

1. In cases of enhancements to meet statutory requirements, the following methodology applies:
   a) No benefit to existing applies where a growth project requires enhancement and/or modification of the existing treatment process to meet stringent regulatory requirements as part of the project approval requirements. Existing residents should not be asked to pay for improvements they don't need if growth does not occur.

   b) Where it can be demonstrated that enhancement of treatment process is required regardless of the growth project, then a portion of the project can be considered benefit to existing.

2. In the case of enhancements for system security:
   a) No benefit to existing applies to growth projects which add system security; and

   b) If a portion of the project is triggered solely by the need to provide system redundancy, and is not required for growth, then the corresponding cost will be considered benefit to existing and is not included in the development charge rate calculation.

3. In the case of growth projects replacing existing facilities, the following methodology applies:

   a) Where a project provides replacement capacity to an existing facility, and the timing of construction of the project is within 10 years of the end of expected useful life of the replacement facility, it is assumed that the timing of the project components coincides. As such, a portion of the cost of the project can be considered benefit to existing, and is calculated as follows:

$$BTE = \frac{C_o}{C_u} xP$$

Where:
Co is the capacity of the existing facility to be replaced
Cu is the total capacity of the new facility
P is the cost of the project within the DC period including decommissioning of the existing facility

The end of “expected useful life” shall be the planned year of replacement under York Region’s asset replacement plan.

   b) Where a growth project advances the replacement of an existing facility by more than 10 years before the end of its expected useful life, no benefit to existing applies, and the replacement cost would be fully attributable to growth because:

- The existing facility is still sound and the service received by the residents will not noticeably and tangibly be increased by the new facility;
- The time value of money for improvements is higher when payments are advanced; and
- Funds collected to cover the specific facility replacement have not yet built up to the target amount.

5.4 Post period benefit deduction

Where infrastructure is sized to accommodate growth beyond the development charge planning period, the additional cost of providing the oversized infrastructure has been recognized as post period benefit. The post period benefit shares are calculated on a project-by-project basis as further discussed below.

In the case of discrete assets, such as wells, storage, treatment plans and pumping stations, a pro-rated capacity method is used. This method is based on pro-rating the cost of capacity attributable to growth after 2031 excluding base costs that would be required, regardless of the planning period or capacity of the project. Costs beyond the 2031 planning period are considered post period benefit for recovery in subsequent development charge bylaws.

a) Post period benefit based on the Pro-rated Capacity method is calculated as:

$$PPB = \frac{C_u - F_{2031}}{C_u - C_e} \times P_{net}$$

Where:
C_u *is the total capacity immediately after completion of a new facility in the service area (up to 2051)*
F_{2031} *is the estimated 2031 flows in the service area*
C_e *is the capacity in existence immediately before commissioning the new facility*

P_{net} *is the cost of the project excluding certain base costs including:*

- Environmental Assessment costs which are expected to be generally the same for a facility sized for 2031 or for other years such as 2051;
- Supervisory Control and Data Acquisition System costs are expected to be generally the same for facility sized for 2031 or for other years such as 2051;
- For a pumping facility, normally at least one pump is required for standby. If a standby pump is required for the new facility, the hypothetical cost of a one-pump station is considered base cost and calculated as:
  Base Cost= P/Number of pumps
  Where:
  P is the project cost excluding base costs
- Other fixed costs where applicable on a project by project basis.

b) No post period benefit will apply for decommissioning projects in general, as there is no benefit to growth beyond 2031.

2. The determination of post period benefit for Peel and Toronto cost shared projects is based on a pro-rated capacity method and calculated as follows:.

Where:

C_{agt} is the total capacity that York Region secured under the Toronto and Peel water servicing agreements (509 MLD from Toronto and 331 MLD from Peel). D2031 is the estimated Lake Ontario based demand required from Toronto and Peel in 2031.
C_{2017} is the capacity that York Region has secured from Toronto and Peel at the beginning of 2017
P_{cs} is the total York Region share of the cost shared projects in Toronto and Peel from 2017 onwards to provide the respective capacities of 509 MLD and 331MLD, excluding costs related to administration of the servicing agreements

3. In the case of linear assets, the marginal cost approach is used. The cost of a project (including planning, design, construction, contingency and project management) required to service the growth to the development charge planning period is determined. The additional, or marginal cost required to increase the infrastructure size to service beyond 2031 is considered to provide a post period benefit. “Hypothetical” watermains to meet 2031 capacity need were sized to meet the following criteria:

   - Minimum size of 300mm in diameter;
   - Capacity to meet Maximum Day Demand plus Fire Flow need in 2031; and
   - Capacity to meet Peak Hour demand in 2031.

5.5 Grants, subsidies and other contributions

Any anticipated grants, subsidies and other contributions have been deducted from the development charge eligible costs in accordance with the requirements of the *Development Charges Act*. The grants are primarily from senior levels of government; however, the amounts vary by project and are not based on a set formula. For the projects included in the 2017 Development Charge Background Study, the anticipated contributions are approximately $7.7 million.

5.6 10% statutory deduction

Services that relate directly or indirectly to the provision of drinking water do not require a 10 per cent deduction under s.s. 5(1) 8 of the *Development Charges Act*.

5.7 Residential vs. non-residential allocation

The residential vs. non-residential allocation is based on incremental flow estimates as set out in Table 5-3. The residential share is 77 per cent, and the non-residential share is 23 per cent.

The cost share attributable to non-residential development (shown in Table 5-2) was divided between retail, institutional office and industrial, and hotel uses. This is based on the incremental growth in employment by type.

TABLE 5-2

NON-RESIDENTIAL ALLOCATION

Retail	Industrial Office Institutional	Hotel
6.42%	16.96%	0.12%

Table 5-3

WATER/WASTEWATER DEMAND FORECAST CALCULATIONS
FLOW SPLIT RESIDENTIAL VERSUS NON-RESIDENTIAL

Residential Component

2016 End of Year Residential Population

2016 Total Population		1,177,900

(Assume unserviced population stays constant between 2016 and 2031 and can therefore be excluded from the calculations)

2031 Mid-year Residential Population

2031 Total Population		1,545,700

Population Growth (2016 - 2031)

2031 - 2016 Population		1,154,700 - 1,177,900
	=	367,800

Non-Residential Component

2016 End of Year Non-Residential Population (Employees)

2016 Total Non-Res		602,200

(Assume unserviced population stays constant between 2016 and 2031 and can therefore be excluded from the calculations)

2031 Mid-year Non-Residential Population (Employees)

2031 Total Non-Res		748,603

Non-Residential Population Growth (2011 - 2031)

2031 - 2016 Population		748,603 - 602,200
	=	146,403

Residential / Non-Residential Cost Share Ratio

Proportion	= Per Capita flow x growth		
Residential =		201 x 367,800	(see note 1)
=		73,927,800	
Non-Residential =		155 x 146,403	(see note 1)
=		22,692,465	
Total		**96,620,265**	
Residential Portion		**76.5%**	
Non-Residential Portion		**23.5%**	

Note 1 - Unit consumption rates are population weighted averages based on the projected 2031 water unit rates Table 3.3 in the 2016 Water and Wastewater Master Plan Updated.

Note 2 - Population growth figures can be found in the anticipated development section of the background study. These figures exclude populations in institutions. Employment population only includes employment growth that would be generated by new development.

Table 5-4

Water

Growth related Capital Costs

Recoverable Cost Calculations:

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotel
										76.50%	6.42%	16.96%	0.12%
Supply													
1	Georgina Water Treatment Plan Phase 2	2017-2018	391,000	0	391,000	0	391,000	391,000	0	299,115	25,117	66,302	466
2	Nobleton - Additional Water Supply and Watermain	2017	10,000	0	10,000	0	10,000	10,000	0	7,650	642	1,696	12
3	Ballantrae Well Expansion	2017-2021	711,000	0	711,000	0	711,000	711,000	0	543,915	45,674	120,564	847
4	Nobleton Water System Expansion	2017-2030	5,025,000	0	5,025,000	0	5,025,000	5,025,000	0	3,844,125	322,801	852,086	5,988
5	Georgina Water System Upgrades *	2037-2041	0	0	0	0	0	0	0	0	0	0	0
	Subtotal		**6,137,000**	**0**	**6,137,000**	**0**	**6,137,000**	**6,137,000**	**0**	**4,694,805**	**394,235**	**1,040,647**	**7,313**
Water Pumping													
5	Orchard Heights Pumping Station Upgrade	2017-2018	20,000	0	20,000	0	20,000	20,000	0	15,300	1,285	3,391	24
6	East Vaughan Pumping Station	2017-2018	68,000	0	68,000	0	68,000	68,000	0	52,020	4,368	11,531	81
7	Richmond Hill Pumping Station Capacity Upgrade	2017	6,000	0	6,000	0	6,000	6,000	0	4,590	385	1,017	7
8	King City - Additional Water Supply watermain	2019-2019	2,506,000	0	2,506,000	0	2,506,000	2,506,000	0	1,917,090	160,983	424,941	2,986
9	South Maple Pumping Station Upgrades	2017-2019	760,000	0	760,000	0	760,000	760,000	0	581,400	48,822	128,873	906
10	Decommission North Richmond Hill Pumping Station	2018-2019	1,140,000	0	1,140,000	0	1,140,000	1,140,000	0	872,100	73,232	193,309	1,358
11	Aurora East Booster Pumping Station Upgrades	2022-2026	20,295,000	0	20,295,000	0	20,295,000	12,361,000	7,934,000	9,456,165	794,059	2,096,047	14,730
12	Kirby Pumping Station Expansion and Watermain	2027-2030	9,790,000	0	9,790,000	0	9,790,000	7,827,000	1,963,000	5,987,655	502,799	1,327,219	9,327
13	North Markham Water Servicing *	2028-2031	10,000,000	0	10,000,000	0	10,000,000	0	10,000,000	0	0	0	0
14	West Park Heights Pumping Station and Watermain *	2037-2040	0	0	0	0	0	0	0	0	0	0	0
15	Stouffville Pumping Station - Pump Addition*	2037-2039	0	0	0	0	0	0	0	0	0	0	0
16	Decommission East Woodbridge Pumping Station*	2026-2027	0	0	0	0	0	0	0	0	0	0	0
	Subtotal		**44,585,000**	**0**	**44,585,000**	**0**	**44,585,000**	**24,688,000**	**19,897,000**	**18,886,320**	**1,585,933**	**4,186,329**	**29,419**
Water Storage													
14	Queensville Elevated Tank No. 1	2017	7,000	0	7,000	0	7,000	7,000	0	5,355	450	1,187	8
15	Decommission Sharon Elevated Tank	2017	10,000	0	10,000	0	10,000	10,000	0	7,650	642	1,696	12
16	Aurora East Elevated Tank	2017-2018	25,000	0	25,000	0	25,000	25,000	0	19,125	1,606	4,239	30
17	Glenway Reservoir Expansion	2017	15,000	0	15,000	0	15,000	15,000	0	11,475	964	2,544	18
18	Orchard Height Reservoir Inlet Upgrade	2017-2018	1,330,000	0	1,330,000	0	1,330,000	1,330,000	0	1,017,450	85,438	225,527	1,585
19	South Maple Reservoir Upgrades	2017-2022	6,420,000	0	6,420,000	0	6,420,000	3,643,000	2,777,000	2,786,895	234,023	617,741	4,341

Table 5-4

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential 76.50%	Non-Residential Share: Retail 6.42%	Industrial/Office/ Institutional 16.96%	Hotel 0.12%
20	Stouffville Zone 2 Elevated Tank and Watermain	2017-2031	10,320,000	0	10,320,000	0	10,320,000	1,850,000	8,470,000	1,415,250	118,842	313,703	2,204
21	West Vaughan Water Servicing *	2017-2031	3,021,000	0	3,021,000	0	3,021,000	3,021,000	0	2,311,065	194,066	512,269	3,600
22	Queensville Sideroad Elevated Tank No. 2	2026-2030	11,990,000	0	11,990,000	0	11,990,000	2,836,000	9,154,000	2,169,540	182,182	480,899	3,379
23	Newmarket West Elevated Tank and Watermain	2027-2031	12,340,000	0	12,340,000	0	12,340,000	0	12,340,000	0	0	0	0
	Subtotal		**45,478,000**	**0**	**45,478,000**	**0**	**45,478,000**	**12,737,000**	**32,741,000**	**9,743,805**	**818,212**	**2,159,805**	**15,178**
	Water Linear												
24	Leslie Street Watermain	2017-2018	14,000	0	14,000	0	14,000	14,000	0	10,710	899	2,374	17
25	PD6 Nashville Road Watermain	2017-2018	20,000	0	20,000	0	20,000	20,000	0	15,300	1,285	3,391	24
26	Kennedy Road Watermain	2018	50,000	0	50,000	0	50,000	50,000	0	38,250	3,212	8,478	60
27	Second Concession Watermain	2017-2018	122,000	0	122,000	0	122,000	122,000	0	93,330	7,837	20,687	145
28	N. Richmond Hill ET No. 2 and Yonge, Bloomington, Bayview Watermain	2017-2018	10,000	0	10,000	0	10,000	10,000	0	7,650	642	1,696	12
29	East Gwillimbury Water Meter Chambers	2017	10,000	0	10,000	0	10,000	10,000	0	7,650	642	1,696	12
30	Water Servicing - Richmond Hill Langstaff Gateway Provincial Urban Growth and Regional Centre	2017-2027	1,443,000	0	1,443,000	0	1,443,000	1,443,000	0	1,103,895	92,697	244,689	1,719
31	Sutton Water Servicing	2017-2030	15,707,000	7,722,000	7,985,000	0	7,985,000	3,050,000	4,935,000	2,333,250	195,929	517,187	3,634
32	York Peel Feedermain System Upgrades	2023-2025	5,000,000	0	5,000,000	0	5,000,000	1,140,000	3,860,000	872,100	73,232	193,309	1,358
33	Green Lane Leslie Street Watermain	2022-2026	35,560,000	0	35,560,000	0	35,560,000	24,390,000	11,170,000	18,658,350	1,566,790	4,135,797	29,063
34	Bloomington Bayview Aurora Central Watermain	2026-2030	46,900,000	0	46,900,000	0	46,900,000	28,350,000	18,550,000	21,687,750	1,821,176	4,807,292	33,782
35	North-East Vaughan Water Servicing	2017-2028	98,689,000	0	98,689,000	0	98,689,000	46,336,000	52,353,000	35,447,040	2,976,579	7,857,166	55,215
36	East Gwillimbury Water Servicing	2027-2030	34,430,000	0	34,430,000	0	34,430,000	26,736,000	7,694,000	20,453,040	1,717,494	4,533,607	31,859
37	Eagle to Kirby Watermain	2028-2032	10,650,000	0	10,650,000	0	10,650,000	0	10,650,000	0	0	0	0
38	Yonge Watermain- Gladman to Green Lane*	2031-2035	0	0	0	0	0	0	0	0	0	0	0
	Subtotal		**248,605,000**	**7,722,000**	**240,883,000**	**0**	**240,883,000**	**131,671,000**	**109,212,000**	**100,728,315**	**8,458,416**	**22,327,368**	**156,901**
	Water Cost-Shared Projects												
38	Toronto Water Supply - Cost-Shared Work*	2017-2031	199,919,000	0	199,919,000	0	199,919,000	1,883,000	198,036,000	1,440,495	120,962	319,299	2,244
39	Peel Water Supply - Cost-Shared Work*	2017-2031	31,209,070	0	31,209,070	0	31,209,070	1,835,070	29,374,000	1,403,829	117,883	311,172	2,187
	Subtotal		**231,128,070**	**0**	**231,128,070**	**0**	**231,128,070**	**3,718,070**	**227,410,000**	**2,844,324**	**238,845**	**630,471**	**4,431**
	Planning and Studies												
40	Water Master Plan Update*	2017-2031	4,970,000	0	4,970,000	0	4,970,000	4,970,000	0	3,802,050	319,268	842,760	5,922
41	Water for Tomorrow Program*	2017-2031	18,676,650	0	18,676,650	0	18,676,650	18,676,650	0	14,287,637	1,199,770	3,166,988	22,255
42	Water System Capacity Assessment*	2017-2031	2,460,000	0	2,460,000	0	2,460,000	2,460,000	0	1,881,900	158,028	417,141	2,931
	Subtotal		**26,106,650**	**0**	**26,106,650**	**0**	**26,106,650**	**26,106,650**	**0**	**19,971,587**	**1,677,066**	**4,426,888**	**31,109**

Table 5-4

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotel
										76.50%	**6.42%**	**16.96%**	**0.12%**
Outstanding Credits													
43	Wellington Street Watermain	2017-2026	603,423	0	603,423		603,423	603,423	0	461,619	38,763	102,322	719
	Subtotal		**603,423**	**0**	**603,423**	**0**	**603,423**	**603,423**	**0**	**461,619**	**38,763**	**102,322**	**719**
Total			**602,643,143**	**7,722,000**	**594,921,143**	**0**	**594,921,143**	**205,661,143**	**389,260,000**	**157,330,775**	**13,211,470**	**34,873,830**	**245,069**
*These projects have costs beyond 2031			**602,039,720**				**594,317,720**						

Table 5-5

Water Contingent Items

Growth related Capital Costs

Recoverable Cost Calculations:

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost	Less	New Municipal Cost	Less	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies		Benefit to Existing	Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential	Non-Residential Share		
											Retail	Industrial/Office/ Institutional	Hotel
										76.60%	6.40%	16.88%	0.12%
1	Gormley Servicing	2031	11,864,682	0	11,864,682	0	11,864,682	0	11,864,682	0	0	0	0
Total			**11,864,682**	**0**	**11,864,682**	**0**	**11,864,682**	**0**	**11,864,682**	**0**	**0**	**0**	**0**

6. WASTEWATER – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS

6.1 2017 to 2031 Capital program description

The wastewater capital program consists of infrastructure and initiatives required to support growth as recommended by the 2016 York Region's Water and Wastewater Master Plan and other planning studies. The program includes the following components:

- Treatment
- Pumping
- Conveyance
- Cost shared capital (with Peel)
- Planning and studies

One wastewater project did not form part of the 2017 Development Charge Bylaw. This project will be placed on the Wastewater contingent items list (Table 6.4 to this section) and form part of Schedule "G" to the 2017 Development Charge Bylaw.

6.2 Level of service

When another Act, or Provincial Agency, requires a higher level of service than what is permitted under section 5(1)4 of the *Development Charges Act*, development charges may be established based on the prescribed level of service as required under another Act. York Region's wastewater service is provided in accordance with provincial design guidelines and requirements, and recognizes engineering design standards.

Through the Master Plan design unit rates are developed to assist in identifying infrastructure needs over the long term. Under the 2016 Master Plan Update, York Region uses a 25-year design storm to size the wastewater system. This is consistent with the 2009 Master Plan Update. For wastewater treatment facilities capacity is evaluated individually based on both hydraulics and treatment capabilities.

6.3 Benefit to existing development deduction

The methodology to determine benefit to existing development deduction for wastewater asset is the same as for water assets. The methodology is based on the principle that growth should pay for growth. Therefore, when a project is required to meet the increase in need for service arising from development, no benefit to existing was allocated. In cases where benefit to existing was considered, it was addressed on a project-by-project basis.

1. In cases of enhancements to meet statutory requirements, the following methodology applies:
   a) No benefit to existing applies where a growth project requires enhancement and/or modification of the existing treatment process to meet stringent regulatory requirements as part of the project approval requirements. Existing residents should not be asked to pay for improvements they don't need if growth does not occur.

   b) Where it can be demonstrated that enhancement of treatment process is required regardless of the growth project, then a portion of the project can be considered benefit to existing.

2. In the case of enhancements for system security:
   a) No benefit to existing applies to growth projects that add system security;

   b) If a portion of the project is triggered solely by the need to provide system redundancy, and is not required for growth, then the corresponding cost will be considered benefit to existing and is not included in the development charge rate calculation.

3. In the case of growth projects replacing existing facilities, the following methodology applies:
   a) Where a project provides replacement capacity to an existing facility, and the timing of construction of the project is within 10 years of the end of expected useful life of the replacement facility, it is assumed that the timing of the project components coincides. As such, a portion of the cost of the project can be considered Benefit to existing, and is calculated as follows

$$BTE = \frac{C_o}{C_u} xP$$

Where:
Co is the capacity of the existing facility to be replaced
Cu is the total capacity of the new facility
P is the cost of the project within the Development Charge period including decommissioning of the existing facility

The end of “expected useful life” shall be the planned year of replacement under York Region’s asset replacement plan.

b) Where a growth project advances the replacement of an existing facility by more than 10 years before the end of its expected useful life, no benefit to existing applies, and the replacement cost would be fully attributable to growth because:

- The existing facility is still sound and the service received by the residents will not noticeably and tangibly be increased by the new facility;
- The time value of money for improvements is higher when payments are advanced; and
- Funds collected to cover the specific facility replacement have not yet built up to the target amount.

6.4 Post period benefit deduction

Where infrastructure is sized to accommodate growth beyond the development charge planning period, the additional cost of providing the oversized infrastructure has been recognized as post period benefit. The post period benefit shares are calculated on a project-by-project basis, as further discussed below:

1. In the case of discrete assets, such as treatment facilities and pumping stations, a pro-rated capacity method is used. This method is based on pro-rating the cost of capacity attributable to growth after 2031, excluding base costs that would be required, regardless of the planning period or capacity of the project. Costs beyond the 2031 planning period are considered post period benefit for recovery in subsequent development charge bylaws.

a) Post-period benefit based on the pro-rated capacity method is calculated as:

$$PPB = \frac{C_u - F_{2031}}{C_u - C_e} \times P_{net}$$

Where:
C_u *is the total capacity immediately after completion of a new facility in the service area (up to 2051)*
F_{2031} *is the estimated 2031 flows in the service area*
C_e *is the capacity in existence immediately before commissioning the new facility*

P_{net} *is the cost of the project excluding certain base costs, including:*

- Environmental Assessment costs, which are expected to be generally the same for a facility sized for 2031 or for other years such as 2051;
-
- Supervisory Control and Data Acquisition System costs, which are expected to be generally the same for facility sized for 2031 or for other years such as 2051;
- For a pumping facility, normally at least one pump is required for standby. If a standby pump is required for the new facility, the hypothetical cost of a one-pump station is considered base cost and calculated as:

  Base Cost= P/Number of pumps Where:

  P is the project cost excluding base costs

- Other fixed costs where applicable on a project by project basis.

No post period benefit will apply for decommissioning projects in general, as there is no benefit to growth beyond 2031.

2. There is no post period benefit for Peel sewage costs shared projects, as York Region sewage flow to Peel will reach 53ML/D before 2031.

3. In the case of linear assets, the marginal cost approach is used. The cost of a project (including planning, design, construction, contingency and project management) required to service the growth to the development charge planning period is determined. The additional, or marginal cost required to increase the infrastructure size to service beyond 2031 is considered to provide a post period benefit.

   Sewers to service 2031 growth needs were sized to meet the following criteria:

- Minimum size of 450mm in diameter; and
- Capacity to convey the peak wet weather flow in 2031 under a 25-year storm event

6.5 Grants, subsidies and other contributions

Any anticipated grants, subsidies and other contributions have been deducted from the development charge eligible costs in accordance with the requirements of the *Development Charges Act*. The grants are primarily from senior levels of government; however, the amounts vary by project and are not based on a set formula. For the projects included in the 2017 Development Charge Background Study, the anticipated contributions are approximately $67.5 million.

6.6 10% statutory deduction

Those services that relate directly or indirectly to the provision of wastewater services including sewers and treatment services do not require a 10 per cent deduction under s.s. 5(1) 8 of the *Development Charges Act*.

6.7 Residential vs. non-residential allocation

The residential vs. non-residential allocation is based on incremental flow estimates as set out in Table 6-2. The residential share is 77 per cent, and the non-residential share is 23 per cent.

The cost share attributable to non-residential development (Shown in Table 6-1) was divided between retail, institutional office and industrial, and hotel uses. This is based on the incremental growth in employment by type.

TABLE 6-1

NON-RESIDENTIAL COST SHARE

Retail	Industrial Office Institutional	Hotel
6.42%	16.96%	0.12%

Table 6-2

WATER/WASTEWATER DEMAND FORECAST CALCULATIONS
FLOW SPLIT RESIDENTIAL VERSUS NON-RESIDENTIAL

Residential Component		
2016 End of Year Residential Population		
2016 Total Population	1,177,900	
(Assume unserviced population stays constant between 2016 and 2031 and can therefore be excluded from the calculations)		
2031 Mid-year Residential Population		
2031 Total Population	1,545,700	
Population Growth (2016 - 2031)		
2031 - 2016 Population	1,154,700 - 1,177,900	
=	367,800	
Non-Residential Component		
2016 End of Year Non-Residential Population (Employees)		
2016 Total Non-Res	602,200	
(Assume unserviced population stays constant between 2016 and 2031 and can therefore be excluded from the calculations)		
2031 Mid-year Non-Residential Population (Employees)		
2031 Total Non-Res	748,603	
Non-Residential Population Growth (2011 - 2031)		
2031 - 2016 Population	748,603 - 602,200	
=	146,403	
Residential / Non-Residential Cost Share Ratio		
Proportion = Per Capita flow x growth		
Residential =	201 x 367,800	(see note 1)
=	73,927,800	
Non-Residential =	155 x 146,403	(see note 1)
=	22,692,465	
Total	**96,620,265**	
Residential Portion	**76.5%**	
Non-Residential Portion	**23.5%**	

Note 1 - Unit consumption rates are population weighted averages based on the projected 2031 water unit rates Table 3.3 in the 2016 Water and Wastewater Master Plan Updated.

Note 2 - Population growth figures can be found in the anticipated development section of the background study. These figures exclude populations in institutions. Employment population only includes employment growth that would be generated by new development.

Table 6-3

Wastewater - Treatment

Growth related Capital Costs

Recoverable Cost Calculations:

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less	New Municipal Cost	Less	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies		Benefit to Existing	Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential	Non-Residential Share		
											Retail	Industrial/Office/ Institutional	Hotel
										76.50%	6.42%	16.96%	0.12%
Wastewater Treatment													
1	Keswick Water Resource Recovery Facility Expansion - Phase 2	2017-2019	22,000	0	22,000	0	22,000	22,000	0	16,830	1,413	3,731	26
2	Duffin Creek Water Pollution Control Plant - Phase 3 Expansion	2017	20,000	2,000	18,000	0	18,000	18,000	0	13,770	1,156	3,052	21
3	Duffin Creek Water Pollution Control Plant - Stages 1 & 2 Upgrades	2017-2019	30,905,000	6,181,000	24,724,000	10,137,000	14,587,000	14,587,000	0	11,159,055	937,055	2,473,508	17,382
4	Duffin Creek Water Pollution Control Plant - Lab Expansion	2017-2018	1,375,000	0	1,375,000	0	1,375,000	1,375,000	0	1,051,875	88,329	233,158	1,638
5	Holland Landing Lagoons Decommissioning	2024-2025	1,100,000	0	1,100,000	0	1,100,000	1,100,000	0	841,500	70,663	186,526	1,311
6	Upper York Sewage Servicing*	2017-2031	584,254,000	0	584,254,000	5,318,000	578,936,000	368,503,000	210,433,000	281,904,795	23,672,271	62,486,821	439,113
7	Duffin Creek Water Pollution Control Plant - Outfall	2017-2031	265,550,000	26,555,000	238,995,000	0	238,995,000	101,395,000	137,600,000	77,567,175	6,513,515	17,193,486	120,824
8	Duffin Creek Water Pollution Control Plant - Chlorine Contact Chamber Expansion	2026-2028	3,500,000	700,000	2,800,000	0	2,800,000	636,000	2,164,000	486,540	40,856	107,846	758
9	Sutton Water Resource Recovery Facility Expansion	2023-2030	40,680,000	0	40,680,000	0	40,680,000	3,834,000	36,846,000	2,933,010	246,292	650,129	4,569
10	Water Reclamation Centre - Phase 2 Expansion*	2028-2039	12,000,000	0	12,000,000	0	12,000,000	0	12,000,000	0	0	0	0
11	Keswick Water Resource Recovery Facility Expansion - Phase 3*	2036-2040	0	0	0	0	0	0	0	0	0	0	0
	Subtotal		**939,406,000**	**33,438,000**	**905,968,000**	**15,455,000**	**890,513,000**	**491,470,000**	**399,043,000**	**375,974,550**	**31,571,550**	**83,338,257**	**585,643**
Wastewater Pumping													
11	Queensville Holland Landing Sharon York Durham Sewage System Connection	2017-2018	155,000	0	155,000	0	155,000	155,000	0	118,575	9,957	26,283	185
12	Humber Pumping Station Electrical Upgrades	2017-2018	40,000	0	40,000	0	40,000	40,000	0	30,600	2,570	6,783	48
13	Leslie Street Sewage Pumping Station Upgrades	2017-2018	5,600,000	0	5,600,000	0	5,600,000	5,600,000	0	4,284,000	359,739	949,588	6,673
14	East Queensville Pumping Station and Forcemain	2024-2027	21,900,000	0	21,900,000	0	21,900,000	14,415,000	7,485,000	11,027,475	926,005	2,444,342	17,177
15	High Street Pump Station Expansion	2027-2030	2,284,000	0	2,284,000	0	2,284,000	163,000	2,121,000	124,695	10,471	27,640	194
16	Leslie Street Sewage Pumping Station Forcemain*	2028-2031	3,440,000	0	3,440,000	0	3,440,000	0	3,440,000	0	0	0	0
17	Queensville Second Concession Holland Landing Pumping Station Upgrades*	2032-2035	0	0	0	0	0	0	0	0	0	0	0
	Subtotal		**33,419,000**	**0**	**33,419,000**	**0**	**33,419,000**	**20,373,000**	**13,046,000**	**15,585,345**	**1,308,742**	**3,454,637**	**24,277**
Wastewater Linear													
18	YDSS 16th Avenue Trunk Sewer	2017-2018	4,000	0	4,000	0	4,000	4,000	0	3,060	257	678	5
19	Green Lane Sewer Diversion	2017-2018	122,000	0	122,000	0	122,000	122,000	0	93,330	7,837	20,687	145
20	Sharon Trunk Sewer	2017-2018	122,000	0	122,000	0	122,000	122,000	0	93,330	7,837	20,687	145
21	YDSS Southeast Collector	2017-2019	6,308,000	0	6,308,000	0	6,308,000	6,308,000	0	4,825,620	405,220	1,069,644	7,517
22	Weldrick Sewer Overflow Gate Installation	2017	797,000	0	797,000	0	797,000	797,000	0	609,705	51,198	135,147	950

Table 6-3

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotel
										76.50%	6.42%	16.96%	0.12%
23	West Vaughan Sewage Servicing*	2017-2031	256,291,405	0	256,291,405	0	256,291,405	132,681,405	123,610,000	101,501,275	8,523,323	22,498,702	158,105
24	Wastewater Servicing - Richmond Hill Langstaff Gateway Provincial Urban Growth and Regional Centre	2017-2027	25,722,000	0	25,722,000	0	25,722,000	21,880,000	3,842,000	16,738,200	1,405,550	3,710,178	26,073
25	North-East Vaughan Wastewater Servicing	2017-2028	109,983,000	0	109,983,000	0	109,983,000	89,271,000	20,712,000	68,292,315	5,734,681	15,137,627	106,377
26	Primary Trunk Sewer	2019-2030	253,580,000	34,102,000	219,478,000	0	219,478,000	65,456,000	154,022,000	50,073,840	4,204,829	11,099,333	77,998
27	Newmarket Diversion Sewer*	2029-2031	1,450,000	0	1,450,000	0	1,450,000	0	1,450,000	0	0	0	0
28	North Markham Sewer*	2029-2031	5,678,000	0	5,678,000	0	5,678,000	0	5,678,000	0	0	0	0
29	Yonge Street Sewer Twinning*	2030-2031	5,000,000	0	5,000,000	0	5,000,000	0	5,000,000	0	0	0	0
	Subtotal		**665,057,405**	**34,102,000**	**630,955,405**	**0**	**630,955,405**	**316,641,405**	**314,314,000**	**242,230,675**	**20,340,733**	**53,692,683**	**377,314**
Peel Cost-Shared													
30	Peel System Cost Shared Works	2017-2025	7,940,241	0	7,940,241	0	7,940,241	7,940,241	0	6,074,284	510,073	1,346,422	9,462
	Subtotal		**7,940,241**	**0**	**7,940,241**	**0**	**7,940,241**	**7,940,241**	**0**	**6,074,284**	**510,073**	**1,346,422**	**9,462**
Planning and Studies													
31	Wastewater Master Plan Update*	2017-2031	2,410,000	0	2,410,000	0	2,410,000	2,410,000	0	1,843,650	154,816	408,662	2,872
32	Inflow and Infiltration Reduction*	2017-2031	34,912,000	0	34,912,000	0	34,912,000	34,912,000	0	26,707,680	2,242,713	5,920,006	41,602
33	Wastewater System Capacity Studies*	2017-2031	3,950,000	0	3,950,000	0	3,950,000	3,950,000	0	3,021,750	253,744	669,799	4,707
	Subtotal		**41,272,000**	**0**	**41,272,000**	**0**	**41,272,000**	**41,272,000**	**0**	**31,573,080**	**2,651,273**	**6,998,467**	**49,180**
Outstanding Credits													
35	Aurora 2B (Tableland)	2017-2026	506,470	0	506,470	0	506,470	506,470	0	387,450	32,535	85,882	604
36	Mount Albert WPCP	2017-2026	70,482	0	70,482	0	70,482	70,482	0	53,919	4,528	11,952	84
37	Nobleton WPCP	2017-2026	4,520,308	0	4,520,308	0	4,520,308	4,520,308	0	3,458,036	290,380	766,506	5,386
38	Sharon Trunk Sewer	2017-2026	15,268,677	0	15,268,677	0	15,268,677	15,268,677	0	11,680,538	980,845	2,589,100	18,194
39	Sutton Sewage Treatment	2017-2026	2,047,760	0	2,047,760	0	2,047,760	2,047,760	0	1,566,536	131,546	347,237	2,440
40	YDDS Sewer Extension	2017-2026	83,072,973	0	83,072,973	0	83,072,973	83,072,973	0	63,550,825	5,336,526	14,086,632	98,991
	Subtotal		**105,486,670**	**0**	**105,486,670**	**0**	**105,486,670**	**105,486,670**	**0**	**80,697,303**	**6,776,360**	**17,887,308**	**125,699**
Total			**1,792,581,316**	**67,540,000**	**1,725,041,316**	**15,455,000**	**1,709,586,316**	**983,183,316**	**726,403,000**	**752,135,237**	**63,158,731**	**166,717,773**	**1,171,575**

*These projects have costs beyond 2031

Table 6-4

Wastewater Contingent Items

Growth related Capital Costs

Recoverable Cost Calculations:

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential 76.60%	Non-Residential Share: Retail 6.40%	Industrial/Office/ Institutional 16.88%	Hotel 0.12%
1	Gormley Servicing	2031	14,021,896	0	14,021,896	0	14,021,896	0	14,021,896	0	0	0	0
Total			**14,021,896**	**0**	**14,021,896**	**0**	**14,021,896**	**0**	**14,021,896**	**0**	**0**	**0**	**0**

7. ROADS – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS

7.1 2017 to 2031 Capital program description

The capital program is based on York Region's Transportation Master Plan and 10-year Capital Plan, and includes the following service components:

- Grade separation
    - New structures
    - Widening
- 400-series interchanges and ramp extensions
- Jog elimination/intersection improvement
- Mid-block crossing
- New Arterial road link
- Reconstruction
- Road widening
    - Rural areas
    - Urban areas
    - HOV corridor
- Urbanization
- Intersection and miscellaneous capital
- Programs and studies
- Ongoing projects

Eighty-two (82) Roads projects did not form part of the main list of the 2017 Development Charge Bylaw. Twenty-six (26) of these projects will be placed on Schedule "G" to the Bylaw (part "A"). Table 7-6 to this section details the growth-related capital cost calculation for these projects. The remaining fifty-six (56) roads projects will be placed on Schedule "G" to the Bylaw (part "B"). Table 7-7 to this section details the growth-related capital cost calculation for these projects.

Consistent with previous development charge bylaws, York Region proposes to maintain a transportation program that accommodates all improvements within York Region's right of way, which includes road widenings, road structural capacity improvements, road volume capacity improvements, high-occupancy vehicles lanes and transit running ways.

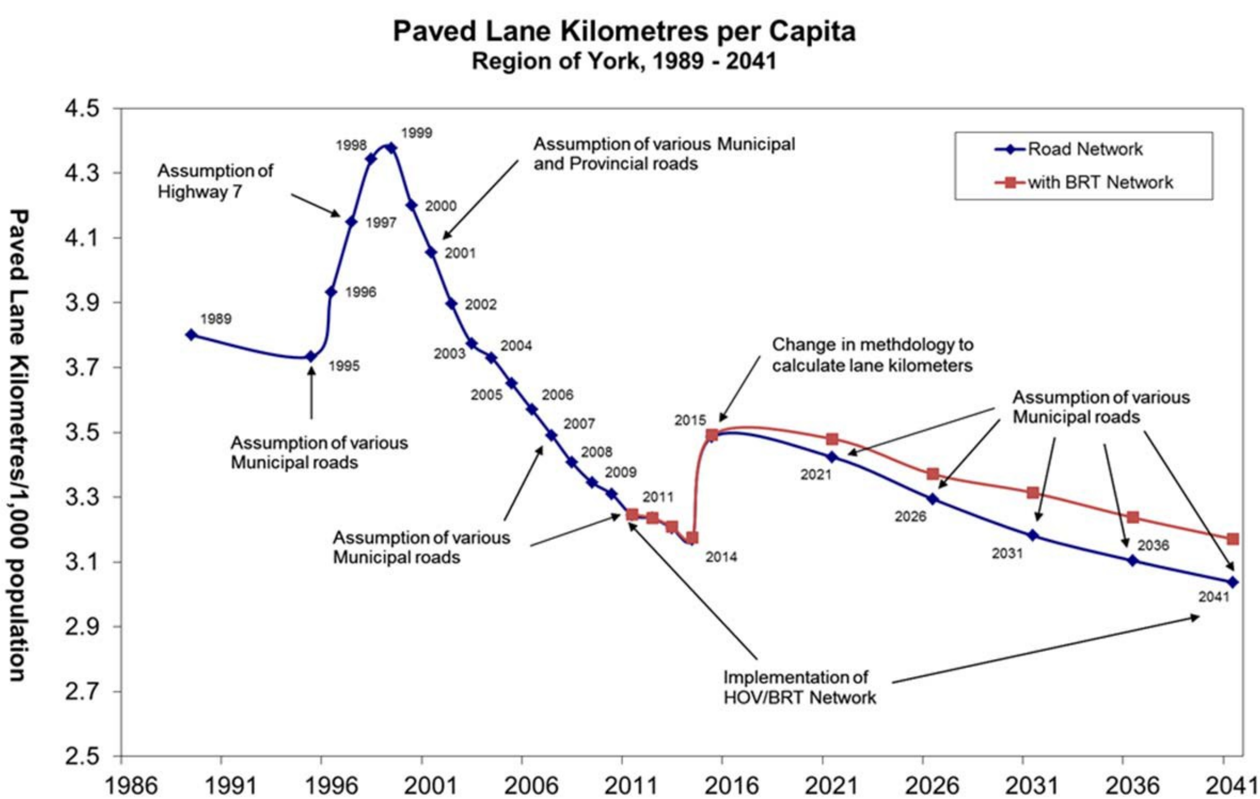
This multi-modal division of the transportation corridors is consistent with policy 7.2.38 of the York Region Official Plan (2010), which states that the “hierarchy of streets on Map 12 supports York Region’s proposed urban structure. These corridors are to support all modes of transportation including walking, cycling, transit, automobile use and the movements of goods, as well as public and private utilities;” policy 7.2.40 to “implement transit improvements on urban street and “to require transit or high-occupancy vehicle lanes and bicycle lanes within the right-of-way of 6-lane Regional streets” (7.2.41).

Further, the development of the transportation program is consistent with the definition of high occupancy vehicle lanes in the York Region Official Plan (2010). The York Region Official Plan (2010) defines high-occupancy vehicle lanes as “reserved rights-of-way for public transit vehicles and other vehicles such as emergency vehicles, taxis or multi-person vehicles.”

7.2 Level of service

As depicted in Figure 7-1, the proposed transportation improvement program anticipates a declining road kilometre per capita level of service over the long term.

FIGURE 7-1 HISTORICAL LEVEL OF SERVICE



Note: 2017 to 2041 paved lane kilometers based on 2016 Transportation Master Plan and therefore includes linear kilometers not currently funded within this Development Charges Bylaw.

The networks of road and transit improvements identified in the 2016 Transportation Master Plan represent the ultimate build-out of transit, roads, active transportation and goods movement networks to the year 2041 to meet the growth plan. To meet evolving needs of York Region's growing population, network improvements will be phased in over the next 25 years. The Transportation Master Plan recognizes that York Region's road network plays a foundational role in providing an interconnected system of mobility, enabling the provision of YRT/Viva's transit services. History has demonstrated that simply expanding the road network will not solve congestion issues. The Region will ensure the most effective use of road space and financial resources over the long term by designing and operating Regional streets to maximize capacity to move people. This proposed policy principle will support the Region's ability to meet the mobility needs of today's users while ensuring corridors can adapt in the future to meet the changing travel needs, including High Occupancy Vehicle / Transit lanes and new technologies including autonomous and connected vehicles and supporting the development of a finer grid network.

The Transportation Master Plan recommends that, to maintain an acceptable level of transportation service, some capacity deficiencies in the road network be supplied through the implementation of active transportation and Transportation Demand Management initiatives and transit infrastructure. The Transportation Master Plan further recognized that the transportation programs and improvements identified in the plan cannot address all the capacity demands needed to support the Region through the planning period which will result in many corridors operating at a poorer level of service than today.

The inter-jurisdictional nature of mobility in the GTHA will continue to increase the complexity of service delivery in York Region. Further, the success of the Region's Transportation Master Plan will be heavily dependent on leveraging successful partnerships with other levels of government. The Province's recent commitment to deliver Regional Express Rail and to build new Provincial highway facilities will require continued cooperation with Metrolinx, Ontario Ministry of Transportation, other Provincial Ministries, and the Federal Government.

7.3 Benefit to existing development deduction

Consistent with previous Development Charge Bylaws, the benefit to existing development deduction will be assigned to projects based on a standard categorization as defined in table 7-1. The table is a general guideline to the proportion of the capital cost attributed to development in each case. Projects may deviate from these classifications based on an individual assessment.

York Region has historically applied a minimum 10% BTE to all road projects as a deduction for elements such as re-paving existing lanes, sub-base reconstruction, and rehabilitation of existing structures. This standard reduction is maintained. However, the base reduction would not apply to the construction of new or missing arterial road links; including mid-block crossings and interchange ramp extensions.

The Region's population and employment growth between 2017 and 2031 (mid-year) is forecasted to be approximately 22.4% of the total population and employment anticipated for mid-2031. It is the position of York Region, that the maximum Benefit to Existing shall not exceed 75% of the total Regional contribution to a project.

TABLE 7-1

PROJECT CATEGORIZATION FOR BENEFIT TO EXISTING (TRANSPORTATION)

Project Category	Benefit to Existing	Proportion Attibuted to Development
NEW REGIONAL INFRASTRUCTURE		
New Arterial Road Link	**0%**	**100%**
New arterial roads are identified to support Greenfield and provincially designated development areas. Typically, in many developing communities the existing arterial road functions as a main street through the Hamlet. To service the transportation needs of these new communities, the new arterial roads are constructed to serve as a major collector as well as an arterial road and traverse the community. In many incidences the new arterial road is designed as a by-pass to distribute traffic away from existing nodes and villages which will negatively impact the existing development by increasing travel distance.		
Missing Arterial Road Link	**0%**	**100%**
The construction of a missing arterial road link would benefit existing development in a redistribution of arterial travel. However, as the demand for the missing arterial road link is needed to support future population and employment growth, the overall level of service in the corridor will be negatively impacted.		
Grade Separation; New Structure	**0-20%**	**80%-100%**
Construction of new rail grade separations will be based on the difference in the rail exposure index from when the need was identified (i.e. the 2016 Transportation Master Plan) and the time of construction. If the increase in the rail exposure index is greater than 100%, then all of the costs will be attributed to growth. If the increase in the rail exposure index is less than 100%, then the benefit to existing will be calculated as (1-rail exposure increase).		
CAPACITY IMPROVEMENTS		
Road Widening; Urban Area	**10%**	**90%**
Capital improvement, including road widenings and intersection improvements, within the urban boundary to support proposed growth. May include widenings from 2 – 4 lanes and 4 – 6 lanes.		
Road Widening; Rural Area	**10%**	**90%**
Capital improvement, including road widenings within rural areas. To support increased growth and densities in the towns and villages outside the main urban areas. May include widenings from 2 – 4 lanes and 4 – 6 lanes.		
Road Widening; HOV Lanes	**10%**	**90%**
Arterial road widenings to support multi-passenger vehicle trips. Improvements along these corridors are to increase the person trip capacity of the corridor through lanes to support car and van pooling and transit.		
Grade Separation; Widening	**10%**	**90%**
The benefit to existing for the road widening project will apply to the grade separation when being constructed concurrently.		
Jog Elimination / Intersection Improvement	**10%**	**90%**
Major intersection improvements including jog elimination of regional intersections to support proposed growth. Benefit to existing arises from capacity and safety increases and geometric improvements, however in many cases, the addition of new signals or modifications to existing signals to accommodate for example, protected phasing, may reduce the level of service for existing development.		

Project Category	Benefit to Existing	Proportion Attributed to Development
CONTRIBUTION TO INFRASTRUCTURE		
Mid-Block Crossing	**0%**	**100%**
To support the Regional share for new mid-block crossings of 400 series highways to support new growth areas.		
400-Series Interchange	**10%**	**90%**
To support the Regional share for interchange improvements and/or new interchanges to support new growth areas. The benefit of an added interchange to existing users is normally offset by increased traffic congestion created by proposed growth.		
Interchange Ramp Extensions	**0%**	**100%**
To support the Regional share for new interchange ramp extensions from 400 series highways to support new growth areas.		
MISCELLANEOUS POLICIES AND PROGRAMS		
Reconstruction to Regional standard; Growth Areas	**60%**	**40%**
Road improvements, road structural capacity improvements and road volume capacity improvements to support increased demand related to growth within or supporting existing or urban growth areas. May include, but not limited to, reconstruction of existing general purpose lanes, structural design, intersection improvements, turn lanes, geometric improvements, and improvements to shoulder widths.		
Reconstruction to Regional standard; Others Areas	**75%**	**25%**
Road improvements, road structural capacity improvements and road volume capacity improvements to support increased demand related to growth. May include, but not limited to, reconstruction of existing general purpose lanes, structural design, intersection improvements, turn lanes, geometric improvements, and improvements to shoulder widths.		
Programs and Studies	**10%**	**90%**
May include, but not limited to, Master Plans, transportation planning studies, programs and initiatives required to support planned growth.		
MISCELLANEOUS CAPITAL		
Include general road improvements, streetscaping, urbanization and conversion of gravel, hard and surface treated roads to Regional standard to support increased demand related to growth.		
■ Urbanization	**10%**	**90%**
■ Intersection and Miscellaneous Capital	**10 to 75%**	**25% to 90%**
■ Streetscaping	**20%**	**80%**
■ Remaining Gravel Roads	**75%**	**25%**
■ Remaining Surface Treated Roads	**75%**	**25%**

7.4 Post period benefit deduction

York Region's methodology for undertaking the post period benefit analysis is as follows

1. Consistent with the *Development Charges Act*, where maintaining a fixed level of service is the standard measure, the Region will establish an average level of service (LOS) for the past ten years, referred hereafter as "Base". The objective is to maintain the same traffic level of service as the Base for the DC Bylaw planning horizon, referred hereafter as "Future". Consistent with that methodology proposed for the 2012 Development Charge Bylaw, York Region proposes that V/C ratios for 2016 be used to represent the average LOS "Base", and 2031 to represent the "Future".

   The total cost of the capital projects identified as required by 2031 will be included (2017 to 2031) in the PPB analysis, while projects identified in the Transportation Master Plan as required post 2031 have been assigned a post period benefit of 100%.

2. To maintain theoretical consistency in the analysis, traffic volumes on the Regional road system were modeled for the Base and Future, and V/C ratios for three scenarios computed.

a. Future volumes on Base network

b. Base volumes on Base network

c. Future volumes on Future network

3. For each scheduled improvement in the roads section of the Development Charges Bylaw, the morning peak period peak demand is tested against two thresholds as follows:

   Threshold 1:

   $\text{Volumes}_{\text{Future}}$ / $\text{Capacity}_{\text{Base}}$ are less than (0.80 or 0.90)

   The purpose of Threshold 1 is to ensure that specific projects identified in the Transportation Master Plan are required to support development identified within the planning horizon. In other words, where the future demand compared to the base capacity exceeds a volume to capacity ratio of 0.90 in an urban environment and 0.80 in a rural setting, the project is necessary to maintain the historical level of service. In the case of a road widening, the increase is measured in terms of the "minimum" number of lanes that need to be added to the road system in order to maintain the quality of the base network.

   Threshold 2:

   $(V/C)_{\text{Future}} < (V/C)_{\text{Base}}$

   The purpose of Threshold 2 is to ensure that the quality of the base road network, defined as Level of Service, has not been improved by the scheduled improvement. In other words, there may be a potential for PPB if the quality of the road segment, defined as the Volume / Capacity of the road project, improves over time.

A Post Period Benefit will be considered for projects that satisfy both thresholds. The amount of Post Period Benefit will be calculated as defined in Step 4.

4. For projects identified in Step 3 for consideration of a Post Period Benefit, a reduction in the project shall be calculated as:

$$\frac{(V/C)_{Future} - (V/C)_{Base}}{(V/C)_{Base}}$$

   The reduction shall be calculated for both directions and the lower of the two reductions utilized.

5. If a reduction is applied to a specific project to accommodate Post Period Benefit, it is anticipated that this reduction will be considered for recovery in development charges calculations in a period beyond the existing Bylaw horizon.

   This PPB methodology is not applicable to Grade Separations, mid-block crossings, new Regional Roads, Programs and Studies and Miscellaneous Capital Expenditures. However, where the Transportation Master Plan identifies a project need beyond the planning horizon, the project will be assigned a 100% post period benefit.

   Further, the Background Study has historically identified a growth component in major reconstruction capital projects. These improvements provide additional lane capacity to support growth within the planning horizon of the background study. As such, no post period benefit is applicable.

7.5 Grants, subsidies and other contributions

Any anticipated grants, subsidies and other contributions have been deducted from the development charge eligible costs in accordance with the requirements of the DCA. The grants are primarily from other levels of government; however, the amounts vary by project and are not based on a set formula. For the projects included in the 2017 Development Charge Background Study, the anticipated grants/subsidies are approximately $362.4 million.

7.6 10% statutory deduction

Services that relate directly or indirectly to the provision of transportation do not require a 10 per cent deduction under s.s. 5(1) 8 of the *Development Charges Act*.

7.7 Residential vs. non-residential allocation

7.7.1 Residential vs Non-residential

The system of network improvements recommended in the Transportation Master Plan identify infrastructure requirements needed to support a multi-modal network for all trip purposes and for all trips originating from or destined to York Region. This includes additional transit infrastructure, roads infrastructure and a systems of sidewalks and trails to further enable active transportation. The residential vs. non-residential allocation documented here also applies to the Toronto-York Subway Extension and Transit services.

The residential vs non-residential allocation is determined through the net incremental population and employment growth approach.

TABLE 7-2

INCREMENTAL GROWTH FOR POPULATION AND EMPLOYMENT

Incremental Growth (Population / Employment)		
	Increment (2017 to 2031 mid-year)	%
Population[1]	367,800	72
Employment[2]	146,403	28
Total	**514,203**	**100**

Note:
[1] Population, excludes Institutional population.
[2] Employment, excluding those with no fixed place of work and work at home.

7.7.2 Non-residential cost allocation

For the purpose of rate calculation, the non-residential share of the total capital cost is further allocated between retail, non-retail (industrial, office and institutional) and hotel uses. The cost allocation is determined based on the share of trips generated using the ITE Trip Generation rates.

Trip generation rates are used by transportation professionals for estimating the number of trips generated by specific types of developments or land uses. A trip generation rate is the number of trips (vehicle trips, pedestrian trips, and/or transit trips) that can be expected to access and exit a site over a given period of time, expressed over an independent variable, such as trips per 1000 sq. ft. gross floor area, or per hotel suite. For each non-residential sector, an average trip generation rate was developed based on a sample of land use categories.

To capture the travel characteristics of all land use categories, an average of the AM peak hour and PM peak hour trip generation rate was estimated. Furthermore, consistent with industry practices, retail trip rates were further reduced by 20 per cent to accommodate “pass-by” trips. Pass-by trips are defined as trips that would have traveled on a street adjacent to a retail center even if the retail was not constructed.

Where data is available, the peak of the land use , (the trips generated for each land use during the peak period of the land use) was used in the analysis.

Using the above methodology, the non-residential share of the costs are allocated to the three land uses based on the percentages below:

TABLE 7-3

NON-RESIDENTIAL LAND USE (Based on Trip Generation)

Non-residential Land Use	Allocation of DC Eligible Costs
Retail	46.89%
Non-retail (Industrial, Office, Institutional)	52.30%
Hotel	0.81%
Total	**100.00%**

Table 7-4

Roads

Number of Lane Km

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Lane KM of Regional Road	3,366	3,399	3,428	3,455	3,487	3,523	3,559	3,593	4,030	4,071
Total (#)	**3,366**	**3,399**	**3,428**	**3,455**	**3,487**	**3,523**	**3,559**	**3,593**	**4,030**	**4,071**

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per 1,000 Capita Standard	2.3089	2.2787	2.2637	2.2252	2.1864	2.1529	2.1271	2.1046	2.3136	2.2870

10 Year Average	2007-2016
Quantity Standard (km per 1,000 Capita)	2.2248

Table 7-5

Roads

Growth related Capital Costs

Council Approved Standard of Service

Quantity of Service	Historical 2007 - 2016
Average lane-kilometres of Regional Road per 1,000 Capita (Pop + Employment)	2.22

Recoverable Cost Calculations:

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential 71.53%	Non-Residential Share: Retail 13.35%	Industrial/Office/ Institutional 14.89%	Hotels 0.23%
Rail grade separation													
1	Barrie GO Grade Separation - Rutherford Road east of Keele Street	2017-2021	48,151,909	40,929,123	7,222,786	0	7,222,786	7,222,786	0	5,166,324	964,367	1,075,488	16,607
2	Barrie GO Grade Separation - Teston Road east of Keele Street	2017-2026	400,000	60,000	340,000	0	340,000	340,000	0	243,196	45,396	50,627	782
3	Barrie GO Grade Separation - Wellington Street west of Industrial Parkway	2017-2026	44,394,918	37,735,680	6,659,238	0	6,659,238	6,659,238	0	4,763,228	889,124	991,574	15,312
4	CP MacTier Grade Separation - Major Mackenzie west of Highway 27	2017-2021	23,173,005	3,475,951	19,697,054	0	19,697,054	19,697,054	0	14,088,934	2,629,899	2,932,932	45,289
5	Richmond Hill GO Grade Separation - Elgin Mills Road east of Yonge Street	2017-2026	51,427,643	7,714,146	43,713,497	0	43,713,497	43,713,497	0	31,267,446	5,836,511	6,509,029	100,511
6	Stouffville GO Grade Separation - Kennedy Road north of Steeles Avenue	2017-2026	46,206,909	6,931,036	39,275,873	0	39,275,873	39,275,873	0	28,093,297	5,244,011	5,848,258	90,307
7	Stouffville GO Grade Separation - Kennedy Road north of Highway 7	2017-2026	400,000	60,000	340,000	0	340,000	340,000	0	243,196	45,396	50,627	782
	Subtotal		**214,154,384**	**96,905,937**	**117,248,448**	**0**	**117,248,448**	**117,248,448**	**0**	**83,865,621**	**15,654,704**	**17,458,533**	**269,590**
New Arterial Road Link													
8	(Donald Cousens Parkway (via 19th Avenue) - Woodbine Avenue to Donald Cousens Parkway)	2024- 2031	1,500,000	0	1,500,000	0	1,500,000	1,500,000	0	1,072,922	200,276	223,353	3,449
	Subtotal		**1,500,000**	**0**	**1,500,000**	**0**	**1,500,000**	**1,500,000**	**0**	**1,072,922**	**200,276**	**223,353**	**3,449**
Interchange (New)													
9	Hwy 407 New Interchange at Martin Grove Road	2027 to 2031	40,250,000	40,250,000	0	0	0	0	0	0	0	0	0
10	Hwy 404 New Interchange - At Doane Road	2019-2026	3,656,700	0	3,656,700	365,670	3,291,030	3,291,030	0	2,354,012	439,410	490,041	7,567
	Subtotal		**43,906,700**	**40,250,000**	**3,656,700**	**365,670**	**3,291,030**	**3,291,030**	**0**	**2,354,012**	**439,410**	**490,041**	**7,567**
Interchange Improvements													
11	Hwy 407 Interchange Improvements at Donald Cousens Parkway	2022 to 2026	6,750,000	6,750,000	0	0	0	0	0	0	0	0	0
12	Hwy 400 Interchange Improvements - At Highway 7 - Vaughan Metropolitan Centre	2017-2021	19,200,000	0	19,200,000	1,920,000	17,280,000	17,280,000	0	12,360,061	2,307,180	2,573,027	39,732
13	Hwy 404 Interchange Improvements - At 16th Avenue	2017-2021	13,750,000	13,750,000	0	0	0	0	0	0	0	0	0
14	Hwy 404 Interchange Improvements - At Mulock Drive	2019-2026	5,400,000	5,400,000	0	0	0	0	0	0	0	0	0
	Subtotal		**45,100,000**	**25,900,000**	**19,200,000**	**1,920,000**	**17,280,000**	**17,280,000**	**0**	**12,360,061**	**2,307,180**	**2,573,027**	**39,732**

Table 7-5

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential 71.53%	Non-Residential Share: Retail 13.35%	Industrial/Office/ Institutional 14.89%	Hotels 0.23%
Missing Link													
15	Langstaff Road - Jane Street to Keele Street	2022- 2031	16,520,000	0	16,520,000	0	16,520,000	16,520,000	0	11,816,447	2,205,707	2,459,862	37,984
16	Teston Road - Keele Street to Dufferin Street	2017-2026	16,745,000	0	16,745,000	0	16,745,000	16,745,000	0	11,977,385	2,235,748	2,493,365	38,502
	Subtotal		**33,265,000**	**0**	**33,265,000**	**0**	**33,265,000**	**33,265,000**	**0**	**23,793,832**	**4,441,455**	**4,953,226**	**76,486**
New Midblock Crossing													
17	Midblock Crossing - Highway 400 south of Highway 7	2022- 2031	78,850,000	52,566,667	26,283,333	0	26,283,333	26,283,333	0	18,799,977	3,509,281	3,913,642	60,433

Table 7-5

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotels
										71.53%	13.35%	14.89%	0.23%
18	Midblock Crossing - Highway 400 north of Major Mackenzie Drive	2022- 2031	10,000,000	6,666,667	3,333,333	0	3,333,333	3,333,333	0	2,384,271	445,058	496,340	7,664
19	Midblock Crossing - Highway 404 north of Highway 7	2017-2021	19,042,938	12,695,292	6,347,646	0	6,347,646	6,347,646	0	4,540,352	847,521	945,177	14,595
20	Midblock Crossing - Highway 404 north of 16th Avenue	2017-2021	55,650,039	37,100,026	18,550,013	0	18,550,013	18,550,013	0	13,268,477	2,476,749	2,762,135	42,652
21	Midblock Crossing - Highway 404 north of Major Mackenzie Drive	2022- 2031	49,486,000	32,990,667	16,495,333	0	16,495,333	16,495,333	0	11,798,803	2,202,413	2,456,189	37,928
22	Midblock Crossing - Highway 404 north of Elgin Mills	2017-2026	908,000	600000	308,000	30800	277,200	277,200	0	198,276	37,011	41,276	637
23	Midblock Crossing - Highway 407 at Cedar Avenue	2017-2021	4,300,000	2,866,667	1,433,333	0	1,433,333	1,433,333	0	1,025,237	191,375	213,426	3,296
24	Midblock Crossing - Highway 427 north of Langstaff Road	2022- 2031	10,000,000	6,666,667	3,333,333	0	3,333,333	3,333,333	0	2,384,271	445,058	496,340	7,664
	Subtotal		**228,236,977**	**152,152,651**	**76,084,326**	**30,800**	**76,053,526**	**76,053,526**	**0**	**54,399,664**	**10,154,466**	**11,324,525**	**174,870**
Widen to 4 lanes													
25	Bayview Avenue - 19th Avenue to Stouffville Road	2017-2021	8,315,000	0	8,315,000	831,500	7,483,500	7,483,500	0	5,352,808	999,177	1,114,308	17,207
26	Bayview Avenue - Stouffville Road to Bloomington Road	2017-2026	700,000	0	700,000	70,000	630,000	630,000	0	450,627	84,116	93,808	1,449
27	Leslie Street - 19th Avenue to Stouffville Road (inc. jog elimination and GS	2017-2026	2,000,000	0	2,000,000	200,000	1,800,000	1,800,000	0	1,287,506	240,331	268,024	4,139
28	Ravenshoe Road - Woodbine Avenue to Warden Avenue	2024- 2031	9,532,098	0	9,532,098	953,210	8,578,888	6,402,078	2,176,810	4,579,287	854,789	953,282	14,720
29	Stouffville Road - Yonge Street to Bayview Avenue	2019-2026	9,622,814	0	9,622,814	962,281	8,660,532	8,660,532	0	6,194,717	1,156,331	1,289,571	19,913
30	Stouffville Road - Bayview Avenue to Leslie Street	2017-2026	10,343,064	0	10,343,064	1,034,306	9,308,757	9,308,757	0	6,658,380	1,242,881	1,386,093	21,404
31	Stouffville Road - Leslie Street to Highway 404	2017-2026	20,566,683	0	20,566,683	2,056,668	18,510,015	18,510,015	0	13,239,867	2,471,408	2,756,179	42,560
32	19th Avenue - Linda Margaret Crescent / Jefferson Forest Drive to Bayview Avenue	2017-2021	2,270,000	0	2,270,000	227,000	2,043,000	2,043,000	0	1,461,320	272,776	304,207	4,697
33	19th Avenue - Bayview Avenue to Leslie Street	2017-2026	14,010,661	0	14,010,661	1,401,066	12,609,595	12,609,595	0	9,019,408	1,683,600	1,877,594	28,993
34	Bayview Avenue - Elgin Mills Road to 19th Avenue	2017-2021	24,420,000	0	24,420,000	2,442,000	21,978,000	21,978,000	0	15,720,452	2,934,445	3,272,569	50,534
35	Doane Road - Yonge Street to 2nd Concession	2019-2026	11,408,679	0	11,408,679	1,140,868	10,267,811	10,267,811	0	7,344,373	1,370,931	1,528,898	23,609
36	Doane Road - 2nd Concession to Leslie Street	2017-2026	12,602,229	0	12,602,229	1,260,223	11,342,006	11,342,006	0	8,112,725	1,514,355	1,688,848	26,079
37	Doane Road - Leslie Street to Woodbine Avenue	2017-2026	12,068,292	0	12,068,292	1,206,829	10,861,463	10,861,463	0	7,769,001	1,450,194	1,617,294	24,974
38	Dufferin Street - Major Mackenzie Drive to Teston Road	2017-2026	360,000	0	360,000	36,000	324,000	324,000	0	231,751	43,260	48,244	745
39	Elgin Mills Road - Bathurst Street to Yonge Street	2017-2026	15,396,143	0	15,396,143	1,539,614	13,856,529	13,856,529	0	9,911,316	1,850,087	2,063,265	31,860
40	Elgin Mills Road - Woodbine Avenue Bypass to Woodbine Avenue	2024- 2031	5,356,365	0	5,356,365	535,637	4,820,729	4,820,729	0	3,448,177	643,651	717,816	11,084
41	Highway 27 - Major Mackenzie Drive to Old Major Mackenzie Drive	2017-2026	11,091,544	0	11,091,544	1,109,154	9,982,389	9,982,389	0	7,140,216	1,332,822	1,486,398	22,953
42	Highway 27 – Old Major Mackenzie Drive to Nashville Road	2017-2026	14,112,811	0	14,112,811	1,411,281	12,701,530	12,701,530	0	9,085,167	1,695,875	1,891,284	29,205
43	Kennedy Road - Major Mackenzie Drive to Donald Cousens Parkway	2027-2031	890,000	0	890,000	89,000	801,000	801,000	0	572,940	106,947	119,271	1,842
44	Leslie Street - Elgin Mills Road to 19th Avenue (inc. jog elimination)	2017-2021	10,757,253	0	10,757,253	1,075,725	9,681,528	9,681,528	0	6,925,016	1,292,652	1,441,599	22,261
45	Leslie Street - Wellington Street to St John's Sideroad	2017-2021	17,583,000	0	17,583,000	1,758,300	15,824,700	15,824,700	0	11,319,112	2,112,872	2,356,330	36,386
46	Leslie Street - St John's Sideroad to Mulock Drive	2017-2021	2,610,000	0	2,610,000	261,000	2,349,000	2,349,000	0	1,680,196	313,632	349,771	5,401
47	Leslie Street - Green Lane to Colonel Wayling Boulevard	2019-2026	11,131,200	0	11,131,200	1,113,120	10,018,080	10,018,080	0	7,165,745	1,337,588	1,491,713	23,035
48	Major Mackenzie Drive - Donald Cousens Parkway to 9th Line	2027- 2031	4,152,358	0	4,152,358	415,236	3,737,123	3,737,123	0	2,673,094	498,971	556,465	8,593
49	Ninth Line - Steeles Avenue to Box Grove Area	2019-2026	1,000,000	0	1,000,000	100,000	900,000	900,000	0	643,753	120,166	134,012	2,069
50	Pine Valley Drive - Major Mackenzie Drive to Teston Road	2017-2026	10,619,520	0	10,619,520	1,061,952	9,557,568	9,557,568	0	6,836,350	1,276,101	1,423,141	21,976

Table 7-5

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotels
										71.53%	13.35%	14.89%	0.23%
51	St John's Sideroad - Bayview Avenue to Leslie Street (inc. Leslie St to Woodbine Ave reconstruction)	2017-2021	24,991,000	0	24,991,000	2,499,100	22,491,900	22,491,900	0	16,088,035	3,003,059	3,349,090	51,716
52	Teston Road - Pine Valley Drive to Weston Road (inc. jog elimination)	2017-2026	20,127,468	0	20,127,468	2,012,747	18,114,721	18,114,721	0	12,957,121	2,418,630	2,697,319	41,651
53	Teston Road - Dufferin Street to Bathurst Street	2017-2026	9,401,174	0	9,401,174	940,117	8,461,057	8,461,057	0	6,052,036	1,129,698	1,259,869	19,455
	Subtotal		**297,439,357**	**0**	**297,439,357**	**29,743,936**	**267,695,421**	**265,518,611**	**2,176,810**	**189,920,495**	**35,451,345**	**39,536,263**	**610,508**
Widen to 6 lanes													
54	16th Avenue - Yonge Street to Bayview Avenue	2017-2026	24,947,606	0	24,947,606	2,494,761	22,452,846	22,452,846	0	16,060,101	2,997,845	3,343,275	51,626
55	16th Avenue - Bayview Avenue to Leslie Street	2017-2026	18,688,228	0	18,688,228	1,868,823	16,819,405	16,819,405	0	12,030,606	2,245,683	2,504,444	38,673
56	16th Avenue - Leslie Street to Woodbine Avenue	2017-2021	63,491,199	0	63,491,199	6,349,120	57,142,079	57,142,079	0	40,872,660	7,629,460	8,508,572	131,387
57	16th Avenue - Woodbine Avenue to Ninth Line	2017-2026	1,555,000	0	1,555,000	155,500	1,399,500	1,399,500	0	1,001,036	186,858	208,388	3,218
58	- Bathurst Street - Centre Street to Highway 7	2017-2026	0	0	0	0	0	0	0	0	0	0	0
59	Bathurst Street - Highway 7 to Rutherford Road	2017-2026	21,535,000	0	21,535,000	2,153,500	19,381,500	19,381,500	0	13,863,224	2,587,767	2,885,945	44,564
60	Bathurst Street - Rutherford Road to Major Mackenzie Drive	2017-2026	20,368,000	0	20,368,000	2,036,800	18,331,200	18,331,200	0	13,111,964	2,447,534	2,729,553	42,149
61	Bathurst Street - Major Mackenzie Drive to Elgin Mills Road	2017-2026	32,311,000	0	32,311,000	3,231,100	29,079,900	29,079,900	0	20,800,308	3,882,672	4,330,056	66,864
62	Bathurst Street - Elgin Mills Road to Gamble Road	2017-2026	14,023,656	0	14,023,656	1,402,366	12,621,290	12,621,290	0	9,027,773	1,685,161	1,879,336	29,020
63	Bayview Avenue - Steeles Avenue to John Street	2017-2026	49,820,170	0	49,820,170	4,982,017	44,838,153	44,838,153	0	32,071,892	5,986,672	6,676,492	103,097
64	Bayview Avenue - John Street to Highway 407	2017-2026	41,627,857	0	41,627,857	4,162,786	37,465,072	37,465,072	0	26,798,065	5,002,238	5,578,626	86,144
65	Bayview Avenue - Highway 7 to 16th Avenue	2017-2026	17,798,000	0	17,798,000	1,779,800	16,018,200	16,018,200	0	11,457,519	2,138,708	2,385,143	36,831
66	Bayview Avenue - 16th Avenue to Major Mackenzie Drive	2017-2026	19,652,400	0	19,652,400	1,965,240	17,687,160	17,687,160	0	12,651,295	2,361,543	2,633,654	40,668
67	Carrville Road - Bathurst Street to Yonge Street	2022- 2031	1,000,000	0	1,000,000	100,000	900,000	900,000	0	643,753	120,166	134,012	2,069
68	Dufferin Street - Langstaff to Major Mackenzie Drive	2017-2026	720,000	0	720,000	72,000	648,000	648,000	0	463,502	86,519	96,489	1,490
69	Highway 50 - Rutherford Road to Major Mackenzie Drive	2022-2026	10,844,435	5,422,217	5,422,217	542,222	4,879,996	4,879,996	0	3,490,570	651,564	726,641	11,221
70	Highway 50 - Major Mackenzie Drive to Nashville Road	2022-2026	10,952,671	5,476,335	5,476,335	547,634	4,928,702	4,928,702	0	3,525,408	658,067	733,894	11,333
71	Highway 50 - Nashville Road to Albion-Vaughan Road	2022-2026	8,319,113	4,159,557	4,159,557	415,956	3,743,601	3,743,601	0	2,677,728	499,836	557,430	8,608
72	Jane Street - Rutherford to Major Mackenzie Drive	2017-2026	370,000	0	370,000	37,000	333,000	333,000	0	238,189	44,461	49,584	766
73	Jane Street - Highway 7 to Langstaff Road	2017-2026	18,780,000	0	18,780,000	1,878,000	16,902,000	16,902,000	0	12,089,684	2,256,711	2,516,742	38,863
74	Jane Street - Langstaff Road to Rutherford Road	2017-2026	17,984,080	0	17,984,080	1,798,408	16,185,672	16,185,672	0	11,577,308	2,161,068	2,410,080	37,216
75	Keele Street - Steeles Avenue to Highway 407 (incl. Grade Separation)	2017-2021	22,385,400	0	22,385,400	2,238,540	20,146,860	20,146,860	0	14,410,672	2,689,956	2,999,909	46,324
76	Keele Street - Highway 407 to Highway 7	2022-2026	12,620,000	0	12,620,000	1,262,000	11,358,000	11,358,000	0	8,124,165	1,516,490	1,691,229	26,115
77	Keele Street - Highway 7 to Rutherford Road	2017-2026	640,000	0	640,000	64,000	576,000	576,000	0	412,002	76,906	85,768	1,324
78	Kennedy Road - Steeles Avenue to 14th Avenue	2017-2026	41,662,984	0	41,662,984	4,166,298	37,496,686	37,496,686	0	26,820,678	5,006,459	5,583,333	86,216
79	Kennedy Road - 14th Avenue to Highway 407	2017-2026	15,410,046	0	15,410,046	1,541,005	13,869,041	13,869,041	0	9,920,266	1,851,758	2,065,129	31,889
80	Kennedy Road - Highway 407 to Highway 7	2017-2026	8,304,643	0	8,304,643	830,464	7,474,178	7,474,178	0	5,346,140	997,933	1,112,920	17,185
81	Kennedy Road - Highway 7 to Major Mackenzie Drive	2017-2026	735,000	0	735,000	73,500	661,500	661,500	0	473,159	88,322	98,499	1,521
82	Langstaff Road - Weston Road to Jane Street	2017-2026	460,000	0	460,000	46,000	414,000	414,000	0	296,126	55,276	61,645	952
83	Langstaff Road - Keele Street to Highway 7	2017-2026	460,000	0	460,000	46,000	414,000	414,000	0	296,126	55,276	61,645	952

Table 7-5

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotels
										71.53%	13.35%	14.89%	0.23%
84	Major Mackenzie Drive - Highway 50 to Huntington Road	2017-2021	19,173,900	0	19,173,900	1,917,390	17,256,510	17,256,510	0	12,343,259	2,304,044	2,569,530	39,678
85	Major Mackenzie Drive - Huntington Road to Highway 27	2017-2021	22,080,995	0	22,080,995	2,208,100	19,872,896	19,872,896	0	14,214,710	2,653,377	2,959,115	45,694
86	Major Mackenzie Drive - Highway 27 to Islington Avenue	2017-2021	14,944,200	0	14,944,200	1,494,420	13,449,780	13,449,780	0	9,620,376	1,795,779	2,002,700	30,925
87	Major Mackenzie Drive - Islington Avenue to Pine Valley	2017-2021	28,109,800	0	28,109,800	2,810,980	25,298,820	25,298,820	0	18,095,773	3,377,832	3,767,046	58,170
88	Major Mackenzie Drive - Pine Valley Drive to Weston Road	2017-2021	5,002,545	0	5,002,545	500,255	4,502,291	4,502,291	0	3,220,404	601,134	670,400	10,352
89	Major Mackenzie Drive - Weston Road to Highway 400	2017-2021	3,080,706	0	3,080,706	308,071	2,772,635	2,772,635	0	1,983,214	370,195	412,851	6,375
90	Major Mackenzie Drive - Highway 400 to Jane Street	2017-2021	13,755,870	0	13,755,870	1,375,587	12,380,283	12,380,283	0	8,855,385	1,652,983	1,843,449	28,466
91	Major Mackenzie Drive - Leslie Street to Woodbine Avenue	2017-2026	24,097,174	0	24,097,174	2,409,717	21,687,456	21,687,456	0	15,512,632	2,895,652	3,229,306	49,866
92	Major Mackenzie Drive - Woodbine Avenue to Kennedy Road	2017-2026	700,000	0	700,000	70,000	630,000	630,000	0	450,627	84,116	93,808	1,449
93	Markham Road - Steeles to 407	2017-2026	51,755,287	0	51,755,287	5,175,529	46,579,758	46,579,758	0	33,317,630	6,219,207	6,935,821	107,101
94	McCowan Road - Steeles Avenue to 14th Avenue	2017-2026	20,744,745	0	20,744,745	2,074,475	18,670,271	18,670,271	0	13,354,495	2,492,805	2,780,041	42,929
95	McCowan Road - 14th Avenue to Highway 7	2017-2026	18,544,640	0	18,544,640	1,854,464	16,690,176	16,690,176	0	11,938,171	2,228,428	2,485,201	38,376
96	McCowan Road - Highway 7 to 16th Avenue	2017-2026	17,652,460	0	17,652,460	1,765,246	15,887,214	15,887,214	0	11,363,827	2,121,219	2,365,639	36,530
97	McCowan Road - 16th Avenue to Major Mackenzie Drive	2017-2026	357,000	0	357,000	35,700	321,300	321,300	0	229,820	42,899	47,842	739
98	Rutherford Road - Highway 50 to Weston Road	2027- 2031	2,563,000	0	2,563,000	256,300	2,306,700	2,306,700	0	1,649,939	307,985	343,472	5,304
99	Rutherford Road - Jane Street to Keele Street	2017-2021	31,398,200	0	31,398,200	3,139,820	28,258,380	28,258,380	0	20,212,691	3,772,984	4,207,730	64,975
100	Rutherford Road - Keele Street to Dufferin Street	2017-2021	21,881,133	0	21,881,133	2,188,113	19,693,020	19,693,020	0	14,086,049	2,629,360	2,932,331	45,280
101	Rutherford Road - Dufferin Street to Bathurst	2017-2021	24,629,740	0	24,629,740	2,462,974	22,166,766	22,166,766	0	15,855,473	2,959,648	3,300,677	50,968
102	Weston Road - Steeles Avenue to Highway 7	2027- 2031	900,000	0	900,000	90,000	810,000	810,000	0	579,378	108,149	120,611	1,862
103	Woodbine Avenue - Highway 7 to Hooper Road	2027- 2031	5,568,722	0	5,568,722	556,872	5,011,850	5,011,850	0	3,584,882	669,169	746,275	11,524
104	Woodbine Avenue - 16th Avenue to Major Mackenzie Drive	2022- 2031	0	0	0	0	0	0	0	0	0	0	0
105	Yonge Street - Davis Drive to Green Lane	2017-2021	26,802,872	0	26,802,872	2,680,287	24,122,585	24,122,585	0	17,254,434	3,220,784	3,591,902	55,465
106	Steeles Avenue - Markham Road to Ninth Line	2017-2021	3,000,000	1,500,000	1,500,000	150,000	1,350,000	1,350,000	0	965,630	180,248	201,018	3,104
	Subtotal		**854,209,478**	**16,558,109**	**837,651,369**	**83,765,137**	**753,886,232**	**753,886,232**	**0**	**539,240,718**	**100,656,903**	**112,255,198**	**1,733,413**
Reconstruction													
107	14th Avenue - Reesor Road to Eleventh Concession	2017-2021	3,875,654	0	3,875,654	2,906,740	968,913	968,913	0	693,046	129,367	144,273	2,228
108	14th Avenue - Eleventh Concession to York/Durham Line	2017-2021	694,263	0	694,263	520,697	173,566	173,566	0	124,148	23,174	25,844	399
109	18th Sideroad - Dufferin Street / Lloydtown/Aurora Road to Bathurst Street / St John'S Sideroad	2017-2021	4,310,540	0	4,310,540	3,232,905	1,077,635	1,077,635	0	770,812	143,883	160,462	2,478
110	Aurora Road - Woodbine Avenue to Warden Avenue	2022-2026	6,109,583	0	6,109,583	4,582,187	1,527,396	1,527,396	0	1,092,518	203,934	227,432	3,512
111	Aurora Road - Warden Avenue to Kennedy Road	2022-2026	5,075,539	0	5,075,539	3,806,654	1,268,885	1,268,885	0	907,609	169,418	188,940	2,918
112	Aurora Road - Kennedy Road to Mccowan Road	2022-2026	5,765,336	0	5,765,336	4,324,002	1,441,334	1,441,334	0	1,030,959	192,443	214,618	3,314
113	Aurora Road - Mccowan Road to Highway 48	2022-2026	5,826,181	0	5,826,181	3,495,709	2,330,472	2,330,472	0	1,666,943	311,159	347,012	5,358
114	Aurora Road - Highway 48 to Ninth Line	2022-2026	6,055,571	0	6,055,571	3,633,343	2,422,228	2,422,228	0	1,732,575	323,410	360,675	5,569
115	Aurora Road - Ninth Line to York/Durham Line	2022-2026	4,605,045	0	4,605,045	3,453,784	1,151,261	1,151,261	0	823,476	153,713	171,425	2,647
116	Baseline Road - Woodbine Avenue to Warden Avenue	2017-2021	5,256,160	0	5,256,160	3,153,696	2,102,464	2,102,464	0	1,503,853	280,715	313,061	4,834

Table 7-5

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117	Bathurst Street - Highway 11 to Holland Landing Road	2022-2026	475,942	0	475,942	285,565	190,377	190,377	0	136,173	25,419	28,347	438
118	Bathurst Street - Holland Landing Road to Queensville Sideroad West	2022-2026	4,042,636	0	4,042,636	2,425,582	1,617,054	1,617,054	0	1,156,649	215,905	240,783	3,718
119	Dufferin Street - King Road to 15Th Sideroad	2022-2026	6,506,561	0	6,506,561	3,903,937	2,602,624	2,602,624	0	1,861,609	347,496	387,536	5,984
120	Dufferin Street - 15Th Sideroad to 16Th Sideroad	2022-2026	5,695,673	0	5,695,673	4,271,755	1,423,918	1,423,918	0	1,018,502	190,118	212,024	3,274
121	Dufferin Street - 16Th Sideroad to Wellington Street West	2022-2026	5,150,828	0	5,150,828	3,863,121	1,287,707	1,287,707	0	921,073	171,931	191,742	2,961
122	High Street - Highway 48 to Dalton Road / Mcdonough Avenue	2022-2026	5,887,026	0	5,887,026	3,532,216	2,354,810	2,354,810	0	1,684,352	314,408	350,636	5,414
123	Holland Landing Road - Old Yonge Street / Yonge Street to Bradford Street	2017-2021	2,943,753	0	2,943,753	1,766,252	1,177,501	1,177,501	0	842,245	157,217	175,332	2,707
124	Holland Landing Road - Bradford Street to Bathurst Street	2017-2021	4,304,790	0	4,304,790	2,582,874	1,721,916	1,721,916	0	1,231,654	229,906	256,397	3,959
125	King Road - 8Th Concession to 7Th Concession	2017-2021	4,788,312	0	4,788,312	2,872,987	1,915,325	1,915,325	0	1,369,996	255,729	285,196	4,404
126	King Road - 7Th Concession to Weston Road	2017-2021	4,889,493	0	4,889,493	2,933,696	1,955,797	1,955,797	0	1,398,945	261,133	291,222	4,497
127	King Road - Weston Road to Highway 400	2017-2021	1,784,158	0	1,784,158	1,070,495	713,663	713,663	0	510,470	95,286	106,266	1,641
128	King Road - Bond Crescent to Yonge Street	2022-2026	4,543,673	0	4,543,673	2,726,204	1,817,469	1,817,469	0	1,300,002	242,664	270,625	4,179
129	Lloydtown/Aurora Road - 7Th Concession to Weston Road	2017-2021	5,472,670	0	5,472,670	4,104,502	1,368,167	1,368,167	0	978,625	182,674	203,723	3,146
130	Lloydtown/Aurora Road - 18Th Sideroad / Jane Street to Keele Street	2017-2021	5,209,948	0	5,209,948	3,907,461	1,302,487	1,302,487	0	931,645	173,905	193,943	2,995
131	Lloydtown/Aurora Road - Keele Street to 18Th Sideroad / Dufferin Street	2017-2021	5,549,021	0	5,549,021	4,161,766	1,387,255	1,387,255	0	992,278	185,223	206,565	3,190
132	Major Mackenzie Drive - Reesor Road to York/Durham Line	2017-2021	3,400,053	0	3,400,053	2,550,040	850,013	850,013	0	607,999	113,492	126,569	1,954
133	Mount Albert Road - Woodbine Avenue to Warden Avenue	2022-2026	6,852,065	0	6,852,065	5,139,049	1,713,016	1,713,016	0	1,225,288	228,717	255,072	3,939
134	Mount Albert Road - Warden Avenue to Kennedy Road	2022-2026	5,811,942	0	5,811,942	4,358,957	1,452,986	1,452,986	0	1,039,293	193,999	216,353	3,341
135	Mount Albert Road - Kennedy Road to Mccowan Road	2022-2026	5,219,531	0	5,219,531	3,914,648	1,304,883	1,304,883	0	933,358	174,224	194,300	3,000
136	Mount Albert Road - Mccowan Road to Highway 48	2022-2026	5,843,471	0	5,843,471	4,382,604	1,460,868	1,460,868	0	1,044,931	195,051	217,526	3,359
137	Mount Albert Road - Highway 48 to Centre Street	2022-2026	4,229,854	0	4,229,854	2,537,913	1,691,942	1,691,942	0	1,210,214	225,904	251,934	3,890
138	Mount Albert Road - Centre Street to Ninth Line	2022-2026	3,349,367	0	3,349,367	2,009,620	1,339,747	1,339,747	0	958,296	178,879	199,491	3,080
139	Mount Albert Road - Ninth Line to East Townline	2022-2026	982,707	0	982,707	589,624	393,083	393,083	0	281,165	52,483	58,531	904
140	Nashville Road - Cold Creek Road to Huntington Road	2022-2026	4,871,388	0	4,871,388	2,922,833	1,948,555	1,948,555	0	1,393,765	260,166	290,144	4,480
141	Ninth Line - Donald Cousens Parkway to Major Mackenzie Drive East	2017-2021	3,034,762	0	3,034,762	1,820,857	1,213,905	1,213,905	0	868,284	162,077	180,753	2,791
142	Ninth Line - Main Street to Bethesda Sideroad	2017-2021	4,919,878	0	4,919,878	2,951,927	1,967,951	1,967,951	0	1,407,639	262,756	293,032	4,525
143	Ninth Line - Hillsdale Drive to Aurora Road	2017-2021	5,163,650	0	5,163,650	3,872,738	1,290,913	1,290,913	0	923,366	172,359	192,220	2,968
144	Park Road - Highway 48 to Black River Road	2022-2026	5,000,702	0	5,000,702	3,000,421	2,000,281	2,000,281	0	1,430,764	267,072	297,846	4,599
145	Park Road - Black River Road to Hedge Road	2022-2026	4,349,300	0	4,349,300	2,609,580	1,739,720	1,739,720	0	1,244,389	232,283	259,048	4,000
146	Pefferlaw Road - Lake Ridge Road to Morning Glory Road	2022-2026	8,943,690	0	8,943,690	5,366,214	3,577,476	3,577,476	0	2,558,902	477,655	532,693	8,226
147	Pefferlaw Road - Morning Glory Road to Highway 404 Extension	2022-2026	4,281,564	0	4,281,564	2,568,938	1,712,626	1,712,626	0	1,225,009	228,665	255,013	3,938
148	Pefferlaw Road - Highway 404 Extension to Highway 48 / Moorings Road	2022-2026	904,992	0	904,992	542,995	361,997	361,997	0	258,929	48,333	53,902	832
149	Prospect Street - Gorham Street / Water Street to Davis Drive / Lundy'S Lane	2017-2021	2,787,847	0	2,787,847	1,672,708	1,115,139	1,115,139	0	797,638	148,890	166,046	2,564
150	Queensville Sideroad - Highway 404 Extension to Woodbine Avenue	2017-2021	1,642,488	0	1,642,488	985,493	656,995	656,995	0	469,936	87,720	97,828	1,511
151	Ravenshoe Road - York Region-Simcoe Border to Yonge Street	2017-2021	737,030	0	737,030	552,772	184,257	184,257	0	131,796	24,602	27,436	424
152	Ravenshoe Road - Victoria Road to Lake Ridge Road	2017-2021	4,623,792	0	4,623,792	3,467,844	1,155,948	1,155,948	0	826,828	154,339	172,123	2,658
153	Victoria Road - Ravenshoe Road to Old Shiloh Road	2022-2026	4,604,388	0	4,604,388	3,453,291	1,151,097	1,151,097	0	823,358	153,691	171,401	2,647

Table 7-5

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154	Victoria Road - Ravenshoe Road to Old Shiloh Road	2022-2026	3,756,178	0	3,756,178	2,817,133	939,044	939,044	0	671,681	125,379	139,826	2,159
155	Warden Avenue - Vivian Road to Davis Drive	2017-2021	4,281,659	0	4,281,659	3,211,244	1,070,415	1,070,415	0	765,648	142,919	159,387	2,461
156	Warden Avenue - Highway 404 Extension to Old Homestead Road	2017-2021	3,054,757	0	3,054,757	2,291,068	763,689	763,689	0	546,253	101,966	113,715	1,756
157	Wellington Street - Dufferin Street to Bathurst Street	2022-2026	6,068,820	0	6,068,820	4,551,615	1,517,205	1,517,205	0	1,085,228	202,573	225,915	3,489
158	Woodbine Avenue - Bloomington Road to Vandorf Sideroad	2022-2026	7,691,631	0	7,691,631	5,768,723	1,922,908	1,922,908	0	1,375,420	256,742	286,325	4,421
159	Woodbine Avenue - St John'S Sideroad to Vivian Road	2017-2021	4,891,777	0	4,891,777	3,668,833	1,222,944	1,222,944	0	874,749	163,284	182,099	2,812
160	Woodbine Avenue - Old Homestead Road to Boyer'S Sideroad	2022-2026	5,066,200	0	5,066,200	3,039,720	2,026,480	2,026,480	0	1,449,503	270,570	301,747	4,659
161	Woodbine Avenue - Boyer'S Sideroad to Deer Park Road	2022-2026	2,544,882	0	2,544,882	1,526,929	1,017,953	1,017,953	0	728,123	135,914	151,575	2,341
162	Woodbine Avenue - Deer Park Road to Metro Road North	2022-2026	2,544,882	0	2,544,882	1,526,929	1,017,953	1,017,953	0	728,123	135,914	151,575	2,341
163	Woodbine Avenue - Baseline Road Ramp	2017-2021	1,236,899	0	1,236,899	927,674	309,225	309,225	0	221,183	41,287	46,044	711
164	Yonge Street - Highway 11 / Morning Sideroad to Holland Landing Road / Old Yonge Street	2017-2021	3,215,549	0	3,215,549	1,929,329	1,286,219	1,286,219	0	920,009	171,733	191,521	2,957
165	York/Durham Line - 16th Avenue to Major Mackenzie Drive	2017-2021	3,947,302	0	3,947,302	2,960,476	986,825	986,825	0	705,858	131,758	146,940	2,269
166	14th Avenue - Kennedy Road to McCowan Road	2017-2021	1,979,858	0	1,979,858	1,187,915	791,943	791,943	0	566,462	105,738	117,922	1,821
167	16th Avenue - Kennedy Road to McCowan Road	2017-2021	2,230,014	0	2,230,014	1,338,008	892,006	892,006	0	638,035	119,098	132,821	2,051
168	16th Avenue - McCowan Road to Highway 48 / Main Street Markham	2017-2021	2,278,813	0	2,278,813	1,367,288	911,525	911,525	0	651,997	121,704	135,728	2,096
169	16th Avenue - 16th Avenue to 16th Avenue	2017-2021	366,403	0	366,403	219,842	146,561	146,561	0	104,832	19,568	21,823	337
170	Aurora Road - Wellington Street East to Woodbine Avenue	2022-2026	454,500	0	454,500	340,875	113,625	113,625	0	81,274	15,171	16,919	261
171	Baseline Road - Warden Avenue to Kennedy Road	2017-2021	1,028,314	0	1,028,314	616,989	411,326	411,326	0	294,214	54,919	61,247	946
172	Baseline Road - Kennedy Road to McCowan Road	2017-2021	959,764	0	959,764	575,859	383,906	383,906	0	274,601	51,258	57,164	883
173	Bathurst Street - King Vaughan Road / Milos Road to King Road	2022-2026	2,586,049	0	2,586,049	1,551,629	1,034,420	1,034,420	0	739,901	138,113	154,027	2,378
174	Bathurst Street - Davis Drive West to Green Lane West / Miller'S Sideroad	2022-2026	2,594,769	0	2,594,769	1,556,861	1,037,908	1,037,908	0	742,396	138,579	154,547	2,386
175	Black River Road - Dalton Road to Park Road	2022-2026	1,915,772	0	1,915,772	1,149,463	766,309	766,309	0	548,126	102,316	114,105	1,762
176	Bradford Street - Holland Landing Road to Thompson Drive / Yonge Street	2022-2026	376,541	0	376,541	225,925	150,617	150,617	0	107,733	20,110	22,427	346
177	Centre Street - Dufferin Street to Bathurst Street	2022-2026	3,402,106	0	3,402,106	2,041,264	1,360,842	1,360,842	0	973,385	181,696	202,632	3,129
178	Davis Drive - McCowan Road to Highway 48	2022-2026	1,478,099	0	1,478,099	1,108,574	369,525	369,525	0	264,314	49,338	55,023	850
179	Davis Drive - Highway 48 to Centre Street	2017-2021	566,277	0	566,277	424,708	141,569	141,569	0	101,262	18,902	21,080	326
180	Davis Drive - Centre Street to Ninth Line	2017-2021	524,408	0	524,408	393,306	131,102	131,102	0	93,775	17,504	19,521	301
181	Davis Drive - Ninth Line to East Townline / York/Durham Line	2017-2021	388,540	0	388,540	291,405	97,135	97,135	0	69,479	12,969	14,464	223
182	Green Lane East - Highway 404 to Herald Road / Woodbine Avenue	2022-2026	1,436,574	0	1,436,574	1,077,431	359,144	359,144	0	256,889	47,952	53,477	826
183	Green Lane West - Bathurst Street / Miller'S Sideroad to Green Lane East / Yonge Street	2022-2026	2,898,760	0	2,898,760	1,739,256	1,159,504	1,159,504	0	829,372	154,814	172,653	2,666
184	Highway 7 - Kipling Avenue to Islington Avenue	2017-2021	765,026	0	765,026	459,016	306,010	306,010	0	218,884	40,858	45,566	704
185	Highway 7 - Islington Avenue to Pine Valley Drive	2017-2021	1,883,534	0	1,883,534	1,130,121	753,414	753,414	0	538,903	100,594	112,185	1,732
186	Highway 7 - Pine Valley Drive to Weston Road	2017-2021	3,760,177	3,760,177	0	0	0	0	0	0	0	0	0
187	Highway 7 - Bathurst Street to Yonge Street	2022-2026	2,377,778	2,377,778	0	0	0	0	0	0	0	0	0
188	Highway 7 - Yonge Street to Bayview Avenue	2022-2026	3,424,654	0	3,424,654	2,054,793	1,369,862	1,369,862	0	979,836	182,900	203,975	3,150
189	Highway 7 - Bathurst Street Interchange - Highway 7 to Bathurst Street	2022-2026	539,627	0	539,627	323,776	215,851	215,851	0	154,394	28,820	32,141	496

Table 7-5

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotels
										71.53%	13.35%	14.89%	0.23%
190	Highway 7 - Bayview Avenue Interchange - Highway 7 to Bayview Avenue	2022-2026	502,355	0	502,355	301,413	200,942	200,942	0	143,730	26,829	29,921	462
191	Highway 7 - Yonge Street Interchange - Highway 7 to Yonge Street	2022-2026	658,042	0	658,042	394,825	263,217	263,217	0	188,274	35,144	39,194	605
192	Holland Landing Road - Bathurst Street to Bathurst Street	2017-2021	118,766	0	118,766	71,260	47,507	47,507	0	33,981	6,343	7,074	109
193	Kennedy Road - Davis Drive to Unopened Road Allowance	2022-2026	293,714	0	293,714	220,286	73,429	73,429	0	52,522	9,804	10,934	169
194	Langstaff Road - Islington Avenue to Pine Valley Drive	2017-2021	377,276	0	377,276	226,366	150,910	150,910	0	107,943	20,149	22,471	347
195	Leslie Street - Don Mills Road / John Street to Highway 407	2017-2021	2,020,659	0	2,020,659	1,212,395	808,264	808,264	0	578,136	107,917	120,352	1,858
196	Leslie Street - Highway 407 to Highway 7	2017-2021	927,479	0	927,479	556,487	370,992	370,992	0	265,363	49,534	55,241	853
197	Leslie Street - Highway 7 to 16th Avenue	2017-2021	2,325,268	0	2,325,268	1,395,161	930,107	930,107	0	665,288	124,185	138,495	2,139
198	Leslie Street - Mulock Drive to Gorham Street	2022-2026	1,494,662	0	1,494,662	896,797	597,865	597,865	0	427,642	79,825	89,023	1,375
199	Leslie Street - Gorham Street to Davis Drive	2022-2026	1,570,659	0	1,570,659	942,395	628,263	628,263	0	449,385	83,884	93,550	1,445
200	Major Mackenzie Drive - Major Mackenzie Drive West / Yonge Street to Bayview Avenue	2022-2026	2,387,855	0	2,387,855	1,432,713	955,142	955,142	0	683,195	127,528	142,223	2,196
201	Major Mackenzie Drive - Ninth Line to Reesor Road	2022-2026	1,166,928	0	1,166,928	875,196	291,732	291,732	0	208,670	38,951	43,440	671
202	Major Mackenzie Drive - Jane Street to Keele Street	2017-2021	2,134,047	0	2,134,047	1,280,428	853,619	853,619	0	610,578	113,973	127,106	1,963
203	Major Mackenzie Drive - Bathurst Street to Major Mackenzie Drive East / Yonge Street	2022-2026	2,949,919	0	2,949,919	1,769,951	1,179,967	1,179,967	0	844,009	157,546	175,700	2,713
204	McCowan Road - Bethesda Sideroad to Bloomington Road	2022-2026	1,162,123	0	1,162,123	871,593	290,531	290,531	0	207,811	38,791	43,261	668
205	Mulock Drive - Yonge Street to Bayview Avenue	2022-2026	2,947,403	0	2,947,403	1,768,442	1,178,961	1,178,961	0	843,289	157,412	175,550	2,711
206	Mulock Drive - Bayview Avenue to Leslie Street	2022-2026	3,013,387	0	3,013,387	1,808,032	1,205,355	1,205,355	0	862,168	160,936	179,480	2,771
207	Mulock Drive - Leslie Street to Vivian Road	2022-2026	783,779	0	783,779	470,267	313,512	313,512	0	224,249	41,859	46,683	721
208	Ninth Line - Bethesda Sideroad to Bloomington Road	2022-2026	1,183,184	0	1,183,184	887,388	295,796	295,796	0	211,577	39,494	44,045	680
209	Ninth Line - Bloomington Road to Hillsdale Drive	2022-2026	1,369,859	0	1,369,859	1,027,394	342,465	342,465	0	244,959	45,725	50,994	787
210	Old Homestead Road - Woodbine Avenue to Warden Avenue	2017-2021	1,183,458	0	1,183,458	887,594	295,865	295,865	0	211,626	39,503	44,055	680
211	Ravenshoe Road - Yonge Street to 2Nd Concession Road	2017-2021	862,011	0	862,011	646,508	215,503	215,503	0	154,145	28,773	32,089	496
212	Ravenshoe Road - 2Nd Concession Road to Leslie Street / The Queensway South	2017-2021	1,040,266	0	1,040,266	624,159	416,106	416,106	0	297,633	55,557	61,959	957
213	Rutherford Road - Clarence Street to Islington Avenue	2017-2021	567,042	0	567,042	340,225	226,817	226,817	0	162,238	30,284	33,773	522
214	Rutherford Road - Pine Valley Drive to Weston Road	2017-2021	2,413,900	0	2,413,900	1,448,340	965,560	965,560	0	690,647	128,919	143,774	2,220
215	Vivian Road - Mulock Drive to Woodbine Avenue	2022-2026	737,692	0	737,692	553,269	184,423	184,423	0	131,914	24,624	27,461	424
216	Vivian Road - Woodbine Avenue to Warden Avenue	2017-2021	1,042,433	0	1,042,433	781,825	260,608	260,608	0	186,408	34,796	38,805	599
217	Vivian Road - Warden Avenue to Kennedy Road	2017-2021	996,791	0	996,791	747,593	249,198	249,198	0	178,247	33,272	37,106	573
218	Wellington Street West - Bathurst Street to Wellington Street East / Yonge Street	2022-2026	2,849,995	0	2,849,995	1,709,997	1,139,998	1,139,998	0	815,419	152,210	169,748	2,621
219	Yonge Street - Centre Street / Thornhill Summit Drive to Highway 407	2022-2026	2,692,331	0	2,692,331	1,615,399	1,076,933	1,076,933	0	770,310	143,789	160,357	2,476
220	Yonge Street - Holland Landing Road / Old Yonge Street to Mount Albert Road / Queen Street	2017-2021	301,168	0	301,168	180,701	120,467	120,467	0	86,168	16,084	17,938	277
221	Yonge Street - Mount Albert Road / Queen Street to Bradford Street / Thompson Drive	2022-2026	427,506	0	427,506	256,503	171,002	171,002	0	122,315	22,832	25,463	393
222	Yonge Street - Bradford Street / Thompson Drive to Doane Road / Doane Road West	2022-2026	653,886	0	653,886	392,331	261,554	261,554	0	187,085	34,922	38,946	601

Table 7-5

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less	New Municipal Cost	Less	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies		Benefit to Existing	Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential	Non-Residential Share		
											Retail	Industrial/Office/ Institutional	Hotels
										71.53%	13.35%	14.89%	0.23%
223	Yonge Street - Doane Road / Doane Road West to Queensville Sideroad	2022-2026	98,227	0	98,227	58,936	39,291	39,291	0	28,104	5,246	5,850	90
	Subtotal		**340,143,785**	**6,137,955**	**334,005,830**	**222,835,344**	**111,170,486**	**111,170,486**	**0**	**79,518,169**	**14,843,190**	**16,553,512**	**255,615**
Miscellaneous and Intersection Capital													
224	Intersection, Bottleneck and Miscellaneous Capital	2017- 2031	288,929,010	0	288,929,010	31,591,501	257,337,509	257,337,509	0	184,068,706	34,359,026	38,318,080	591,697
225	Environmental Assessment, Design and Property Acquisition for Future Capital Projects	2017- 2031	25,000,000	0	25,000,000	2,500,000	22,500,000	22,500,000	0	16,093,829	3,004,141	3,350,296	51,734
226	Bridge & Culvert Rehabilitation	2017- 2031	96,583,174	0	96,583,174	72,437,380	24,145,793	24,145,793	0	17,271,034	3,223,883	3,595,358	55,519
227	Various Road Improvements	2017- 2031	20,502,508	0	20,502,508	15,376,881	5,125,627	5,125,627	0	3,666,265	684,360	763,216	11,785
228	Streetscaping (Municipal Partnership Program)	2017- 2031	21,200,000	0	21,200,000	4,240,000	16,960,000	16,960,000	0	12,131,171	2,264,455	2,525,379	38,996
229	Roads projects to support Transit	2017- 2031	40,000,000	0	40,000,000	4,000,000	36,000,000	36,000,000	0	25,750,127	4,806,625	5,360,473	82,775
	Subtotal		**492,214,692**	**0**	**492,214,692**	**130,145,762**	**362,068,929**	**362,068,929**	**0**	**258,981,132**	**48,342,489**	**53,912,802**	**832,506**
Programs and Studies													
230	Transportation Master Plan	2017- 2031	2,760,000	0	2,760,000	276,000	2,484,000	2,484,000	0	1,776,759	331,657	369,873	5,711
231	Transportation Planning Studies	2017- 2031	3,149,097	0	3,149,097	314,910	2,834,187	2,834,187	0	2,027,241	378,413	422,016	6,517
232	Corridor Transportation Studies	2017- 2031	3,149,097	0	3,149,097	314,910	2,834,187	2,834,187	0	2,027,241	378,413	422,016	6,517
233	Transportation Demand Management	2017- 2031	23,627,224	0	23,627,224	2,362,722	21,264,502	21,264,502	0	15,210,100	2,839,180	3,166,328	48,894
234	Active Transportation Programs and Initiatives	2017- 2031	36,777,222	0	36,777,222	3,677,722	33,099,500	33,099,500	0	23,675,453	4,419,358	4,928,583	76,106
235	Accessibility for Ontarians with Disabilities (AODA)	2017- 2031	10,000,000	0	10,000,000	1,000,000	9,000,000	9,000,000	0	6,437,532	1,201,656	1,340,118	20,694
236	Urbanization Program	2017- 2031	37,265,746	0	37,265,746	3,726,575	33,539,171	33,539,171	0	23,989,942	4,478,062	4,994,051	77,117
237	Commuter Parking Improvement Program	2017- 2031	24,877,863	16,593,534	8,284,328	828,433	7,455,895	7,455,895	0	5,333,063	995,492	1,110,198	17,143
238	ITS and Technology Evolution	2017- 2031	25,192,772	0	25,192,772	2,519,277	22,673,495	22,673,495	0	16,217,927	3,027,305	3,376,130	52,133
239	Arterial Ramp Extensions at 400 Series Highways	2017- 2031	5,038,554	0	5,038,554	0	5,038,554	5,038,554	0	3,603,984	672,735	750,251	11,585
	Subtotal		**171,837,574**	**16,593,534**	**155,244,040**	**15,020,549**	**140,223,491**	**140,223,491**	**0**	**100,299,240**	**18,722,271**	**20,879,564**	**322,416**
Ongoing Projects													
240	2nd Concession - Green Lane to Doane Road	2017-2021	4,100,000	0	4,100,000	410,000	3,690,000	3,690,000	0	2,639,388	492,679	549,449	8,484
241	Bathurst Street - Green Lane West to Yonge Street	2017-2021	365,000	0	365,000	36,500	328,500	328,500	0	234,970	43,860	48,914	755
242	Bloomington Road - Bathurst Street to Yonge Street	2017-2021	29,000	0	29,000	2,900	26,100	26,100	0	18,669	3,485	3,886	60
243	Bloomington Road - Bayview Avenue to Highway 404	2017-2021	14,000	0	14,000	1,400	12,600	12,600	0	9,013	1,682	1,876	29
244	Bloomington Road - Yonge Street to Bayview Avenue	2017-2021	44,000	0	44,000	4,400	39,600	39,600	0	28,325	5,287	5,897	91
245	Highway 7 - Town Centre Blvd to Sciberras Road	2017-2021	1,537,000	0	1,537,000	153,700	1,383,300	1,383,300	0	989,449	184,695	205,976	3,181
246	Highway 27 - Road widening at the CPR Bridge	2017-2021	16,815,000	0	16,815,000	1,681,500	15,133,500	15,133,500	0	10,824,709	2,020,585	2,253,409	34,797
247	Highway 50 - Highway 50 and Albion-Vaughan Road/Mayfield Road	2017-2021	1,592,000	0	1,592,000	159,200	1,432,800	1,432,800	0	1,024,855	191,304	213,347	3,294
248	Highway 50 - Highway 7 to Rutherford Road	2017-2021	631,000	0	631,000	63,100	567,900	567,900	0	406,208	75,825	84,561	1,306
249	Highway 404 - Northbound Off-Ramp Extension at Highway 7	2017-2021	15,886,000	7,943,000	7,943,000	794,300	7,148,700	7,148,700	0	5,113,331	954,476	1,064,456	16,437

Table 7-5

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Potential Development Charge Recoverable Costs: Growth Costs (2017-2031)	Potential Development Charge Recoverable Costs: Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential 71.53%	Non-Residential Share: Retail 13.35%	Non-Residential Share: Industrial/Office/ Institutional 14.89%	Non-Residential Share: Hotels 0.23%
250	Leslie Street - Bethesda Sideroad to Bloomington Road	2017-2021	115,000	0	115,000	11,500	103,500	103,500	0	74,032	13,819	15,411	238
251	Ninth Line - North of Major Mackenzie Drive to Stouffville Main Street	2017-2021	112,000	0	112,000	11,200	100,800	100,800	0	72,100	13,459	15,009	232
252	Warden Avenue - 16th Avenue to Major Mackenzie Drive	2017-2021	57,000	0	57,000	5,700	51,300	51,300	0	36,694	6,849	7,639	118
253	Intersection Improvement - Bathurst Street and Davis Drive	2017-2021	5,277,000	0	5,277,000	527,700	4,749,300	4,749,300	0	3,397,085	634,114	707,180	10,920
254	Intersection Improvement - King Road and Highway 27	2017-2021	6,280,000	0	6,280,000	628,000	5,652,000	5,652,000	0	4,042,770	754,640	841,594	12,996
255	Intersection Improvement - King Road and Weston Road	2017-2021	4,573,000	0	4,573,000	457,300	4,115,700	4,115,700	0	2,943,883	549,517	612,836	9,463
	Subtotal		**57,427,000**	**7,943,000**	**49,484,000**	**4,948,400**	**44,535,600**	**44,535,600**	**0**	**31,855,482**	**5,946,276**	**6,631,442**	**102,401**
Outstanding Credits													
256	Vaughan Mills Road	2017-2026	7,277,584	0	7,277,584	0	7,277,584	7,277,584	0	5,205,520	971,684	1,083,647	16,733
257	Woodbine Ave By-Pass Ph 1 & 2 A	2017-2026	1,138,878	0	1,138,878	0	1,138,878	1,138,878	0	814,618	152,060	169,581	2,619
258	Woodbine Ave By-Pass Ph 2B & 3	2017-2026	817,178	0	817,178	0	817,178	817,178	0	584,512	109,107	121,679	1,879
259	Intersection Credits	2017-2021	10,000,000	0	10,000,000	0	10,000,000	10,000,000	0	7,152,813	1,335,174	1,489,020	22,993
	Subtotal		**19,233,639**	**0**	**19,233,639**	**0**	**19,233,639**	**19,233,639**	**0**	**13,757,462**	**2,568,025**	**2,863,928**	**44,224**
Total			**2,798,668,586**	**362,441,186**	**2,436,227,400**	**488,775,597**	**1,947,451,802**	**1,945,274,992**	**2,176,810**	**1,391,418,810**	**259,727,991**	**289,655,415**	**4,472,777**

Table 7-6

Roads Contingent Items "A"

Growth related Capital Costs

Recoverable Cost Calculations:

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential 71.53%	Non-Residential Share: Retail 13.35%	Industrial/Office/ Institutional 14.89%	Hotels 0.23%
Rail grade separation													
1	Barrie GO Grade Separation Kirby Road west of Keele Street	2022-2031	22,505,868	3,375,880	19,129,987	1,912,999	17,216,989	17,216,989	0	12,314,990	2,298,767	2,563,645	39,587
2	Stouffville GO Grade Separation Steeles Avenue east of Kennedy Road	2017-2021	46,576,909	43,083,641	3,493,268	0	3,493,268	3,493,268	0	2,498,669	466,412	520,155	8,032
	Subtotal		**69,082,777**	**46,459,521**	**22,623,256**	**1,912,999**	**20,710,257**	**20,710,257**	**0**	**14,813,659**	**2,765,179**	**3,083,799**	**47,619**
Interchange (New)													
3	Hwy 400 New Interchange at Kirby Road	2022-2031	40,250,000	0	40,250,000	4,025,000	36,225,000	36,225,000	0	25,911,065	4,836,667	5,393,976	83,292
4	Hwy 404 New Interchange at 19th Avenue	2022-2031	40,250,000	0	40,250,000	4,025,000	36,225,000	36,225,000	0	25,911,065	4,836,667	5,393,976	83,292
5	Hwy 404 New Interchange at Glenwoods Avenue	2022-2031	40,250,000	0	40,250,000	4,025,000	36,225,000	36,225,000	0	25,911,065	4,836,667	5,393,976	83,292
	Subtotal		**120,750,000**	**0**	**120,750,000**	**12,075,000**	**108,675,000**	**108,675,000**	**0**	**77,733,194**	**14,510,000**	**16,181,929**	**249,877**
Missing Link													
6	Kirby Road Dufferin Street to Bathurst Street	2022-2031	41,807,406	0	41,807,406	0	41,807,406	41,807,406	0	29,904,055	5,582,015	6,225,208	96,128
	Subtotal		**41,807,406**	**0**	**41,807,406**	**0**	**41,807,406**	**41,807,406**	**0**	**29,904,055**	**5,582,015**	**6,225,208**	**96,128**
Widen to 4 lanes													
7	19th Avenue Leslie Street to Woodbine Avenue	2022-2031	18,904,230	0	18,904,230	1,890,423	17,013,807	17,013,807	0	12,169,658	2,271,639	2,533,391	39,120
8	Elgin Mills Road Woodbine Ave to Kennedy Road	2022-2031	23,038,391	0	23,038,391	2,303,839	20,734,552	20,734,552	0	14,831,037	2,768,423	3,087,417	47,675
9	Glenwoods Avenue Woodbine to Highway 404 Extension (inc. jog elimination at Woodbine Avenue)	2024-2031	5,496,930	0	5,496,930	549,693	4,947,237	4,947,237	0	3,538,666	660,542	736,654	11,375
10	Highway 7 (MTO) Donald Cousens Parkway to York-Durham Line	2024-2031	14,016,685	0	14,016,685	1,401,669	12,615,017	12,615,017	0	9,023,286	1,684,324	1,878,402	29,006
11	Highway 9 (MTO) Highway 27 to Weston Road	2024-2031	14,977,952	0	14,977,952	1,497,795	13,480,157	13,480,157	0	9,642,104	1,799,835	2,007,223	30,995
12	Jefferson Sideroad Bathurst Street to Yonge Street	2024-2031	8,348,889	0	8,348,889	834,889	7,514,000	7,514,000	0	5,374,624	1,003,250	1,118,850	17,277
13	Kirby Road Weston Road to Dufferin Street	2022-2031	65,887,157	0	65,887,157	6,588,716	59,298,441	59,298,441	0	42,415,066	7,917,372	8,829,659	136,345
14	Ninth Line - Steeles Avenue to Box Grove Area	2019-2026	7730000	0	7,730,000	873,000	6,857,000	6,857,000	0	4,904,684	915,529	1,021,021	15,766
	Subtotal		**158,400,234**	**0**	**158,400,234**	**15,940,023**	**142,460,211**	**142,460,211**	**0**	**101,899,124**	**19,020,912**	**21,212,616**	**327,559**
Widen to 6 lanes (Steeles)													
15	Steeles Avenue Bathurst Street to Hilda Avenue	2017-2026	15,458,393	7,729,197	7,729,197	772,920	6,956,277	6,956,277	0	4,975,695	928,784	1,035,804	15,995
16	Steeles Avenue Kennedy Road to Markham Road	2022-2031	22,241,611	11,120,806	11,120,806	1,112,081	10,008,725	10,008,725	0	7,159,054	1,336,339	1,490,320	23,013
17	Steeles Avenue - Markham Road to Ninth Line	2017-2021	37,235,772	18,617,886	18,617,886	1,861,789	16,756,097	16,756,097	-	11,985,323	2,237,230	2,495,017	38,527
18	Steeles Avenue Ninth Line to York Durham Line	2022-2031	24,812,555	12,406,278	12,406,278	1,240,628	11,165,650	11,165,650	0	7,986,580	1,490,808	1,662,588	25,673
19	Steeles Avenue McCowan Road to Markham Road	2022-2031	15,739,588	7,869,794	7,869,794	786,979	7,082,815	7,082,815	0	5,066,205	945,679	1,054,646	16,286

Table 7-6

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotels
										71.53%	13.35%	14.89%	0.23%
20	Steeles Avenue Reesor Road to east of 11th Concession (Beare)	2022-2031	14,006,952	7,003,476	7,003,476	700,348	6,303,129	6,303,129	0	4,508,510	841,577	938,549	14,493
21	Steeles Avenue East of 11th Concession to York-Durham Line	2024-2031	4,787,001	2,393,501	2,393,501	239,350	2,154,151	2,154,151	0	1,540,824	287,617	320,757	4,953
	Subtotal		**134,281,874**	**67,140,937**	**67,140,937**	**6,714,094**	**60,426,843**	**60,426,843**	**0**	**43,222,191**	**8,068,033**	**8,997,680**	**138,940**
Regional Standard													
22	Caledon-King Townline Wolfe Road/17th Sideroad to King - Vaughan Boundary	2017-2031	45,000,000	0	45,000,000	4,500,000	40,500,000	40,500,000	0	28,968,892	5,407,453	6,030,533	93,122
23	Albion-Vaughan Road King - Vaughan Boundary to Highway 50	2017-2031	18,600,000	0	18,600,000	1,860,000	16,740,000	16,740,000	0	11,973,809	2,235,081	2,492,620	38,490
24	Dufferin Street Davis Drive to Miller's Sideroad	2017-2031	12,000,000	0	12,000,000	1,200,000	10,800,000	10,800,000	0	7,725,038	1,441,988	1,608,142	24,832
25	Miller's Sideroad Bathurst Street to Yonge Street	2017-2031	12,000,000	0	12,000,000	1,200,000	10,800,000	10,800,000	0	7,725,038	1,441,988	1,608,142	24,832
	Subtotal		**87,600,000**	**0**	**87,600,000**	**8,760,000**	**78,840,000**	**78,840,000**	**0**	**56,392,777**	**10,526,509**	**11,739,437**	**181,277**
Programs & Studies													
26	Finer Grid (Municipal Partnership Program)	2017-2031	150,000,000	0	150,000,000	15,000,000	135,000,000	135,000,000	0	96,562,974	18,024,844	20,101,775	310,406
	Subtotal		**150,000,000**	**0**	**150,000,000**	**15,000,000**	**135,000,000**	**135,000,000**	**0**	**96,562,974**	**18,024,844**	**20,101,775**	**310,406**
Total			**761,922,290**	**113,600,458**	**648,321,832**	**60,402,116**	**587,919,717**	**587,919,717**	**0**	**420,527,974**	**78,497,491**	**87,542,445**	**1,351,806**

Table 7-7

Roads Contingent Items "B"

Growth related Capital Costs

Recoverable Cost Calculations:

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential 71.53%	Non-Residential Share: Retail 13.35%	Industrial/Office/ Institutional 14.89%	Hotels 0.23%
Widen to 4 Lanes													
1	Dufferin Street - Major Mackenzie Drive to Teston Road	2022-2026	12,745,000	0	12,745,000	1,274,500	11,470,500	11,470,500	0	8,204,634	1,531,511	1,707,981	26,374
2	Wellington Street - Yonge Street to Rail Grade Separation	2022-2026	7,090,359	0	7,090,359	709,036	6,381,323	6,381,323	0	4,564,441	852,017	950,192	14,673
3	14th Avenue - Markham Road to Donald Cousens Parkway	2022-2026	35,598,421	0	35,598,421	3,559,842	32,038,579	32,038,579	0	22,916,596	4,277,707	4,770,610	73,666
4	Highway 27 - Nashville Road to King Road	2022-2026	44,655,000	0	44,655,000	4,465,500	40,189,500	40,189,500	0	28,746,797	5,365,996	5,984,299	92,408
5	Warden Avenue - Major Mackenzie Drive to Donald Cousens Parkway	2027-2031	37,688,800	0	37,688,800	3,768,880	33,919,920	33,919,920	0	24,262,284	4,528,898	5,050,745	77,992
6	Weston Road - Teston Road to Kirby Road	2027-2031	10,920,746	0	10,920,746	1,092,075	9,828,671	9,828,671	0	7,030,265	1,312,298	1,463,509	22,599
7	Leslie Street - Doane Road to Queensville Sideroad	2027-2031	7,291,302	0	7,291,302	729,130	6,562,172	6,562,172	0	4,693,799	876,164	977,121	15,088
8	St John's Sideroad - Bathurst Street to Yonge Street	2027-2031	11,424,061	0	11,424,061	1,142,406	10,281,655	10,281,655	0	7,354,275	1,372,779	1,530,959	23,641
9	Jane Street - Teston Road to Kirby Road	2027-2031	11,739,200	0	11,739,200	1,173,920	10,565,280	10,565,280	0	7,557,147	1,410,648	1,573,192	24,293
10	Bayview Avenue - Stouffville Road to Bethesda Road	2027-2031	13,007,505	0	13,007,505	1,300,751	11,706,755	11,706,755	0	8,373,623	1,563,055	1,743,160	26,917
11	Islington Avenue - Willis Road to Langstaff Road	2027-2031	8,683,218	0	8,683,218	868,322	7,814,896	7,814,896	0	5,589,849	1,043,424	1,163,654	17,969
12	Kennedy Road - Major Mackenzie Drive to Elgin Mills Road	2027-2031	10,210,879	0	10,210,879	1,021,088	9,189,791	9,189,791	0	6,573,286	1,226,997	1,368,379	21,130
13	Woodbine Avenue - Woodbine Avenue Bypass to 19th Avenue	2027-2031	32,748,000	0	32,748,000	3,274,800	29,473,200	29,473,200	0	21,081,629	3,935,184	4,388,620	67,768
14	Leslie Street - Vandorf Sideroad to Wellington Street	2027-2031	9,905,450	0	9,905,450	990,545	8,914,905	8,914,905	0	6,376,665	1,190,295	1,327,447	20,498
15	St John's Sideroad - Leslie Street to Highway 404	2027-2031	14,201,961	0	14,201,961	1,420,196	12,781,765	12,781,765	0	9,142,557	1,706,588	1,903,231	29,389
16	Pine Valley Drive - Rutherford to Major Mackenzie	2027-2031	11,884,023	0	11,884,023	1,188,402	10,695,621	10,695,621	0	7,650,378	1,428,051	1,592,600	24,592
17	Leslie Street-19th Avenue to Stouffville Road	2022-2026	58,194,000	0	58,194,000	5,819,400	52,374,600	52,374,600	0	37,462,572	6,992,919	7,798,685	120,425
	Subtotal		**337,987,925**	**0**	**337,987,925**	**33,798,793**	**304,189,133**	**304,189,133**	**0**	**217,580,796**	**40,614,531**	**45,294,382**	**699,423**
Widen to 6 Lanes													
18	Keele Street - Highway 7 to Rutherford Road	2022-2026	34,529,897	0	34,529,897	3,452,990	31,076,907	31,076,907	0	22,228,730	4,149,307	4,627,415	71,455
19	Weston Road - Highway 7 to Langstaff Road	2022-2026	17,756,421	0	17,756,421	1,775,642	15,980,779	15,980,779	0	11,430,752	2,133,712	2,379,571	36,745
20	16th Avenue - Woodbine Avenue to McCowan Road	2022-2026	64,732,000	0	64,732,000	6,473,200	58,258,800	58,258,800	0	41,671,430	7,778,561	8,674,854	133,955
21	Kennedy Road - Highway 7 to 16th Avenue	2022-2026	22,693,818	0	22,693,818	2,269,382	20,424,436	20,424,436	0	14,609,217	2,727,017	3,041,240	46,962
22	Langstaff Road - Keele Street to Dufferin Street	2022-2026	18,964,331	0	18,964,331	1,896,433	17,067,898	17,067,898	0	12,208,348	2,278,861	2,541,445	39,244
23	Weston Road - Steeles Avenue to Highway 7	2022-2026	37,387,907	0	37,387,907	3,738,791	33,649,116	33,649,116	0	24,068,583	4,492,741	5,010,422	77,370
24	Jane Street - Rutherford Road to Major Mackenzie Drive	2022-2026	19,156,874	0	19,156,874	1,915,687	17,241,187	17,241,187	0	12,332,298	2,301,998	2,567,248	39,643
25	Green Lane - Yonge Street to Highway 404	2022-2026	55,549,963	0	55,549,963	5,554,996	49,994,967	49,994,967	0	35,760,464	6,675,196	7,444,353	114,954
26	Warden Avenue - Steeles Avenue to McNabb Street / MacPherson Street	2027-2031	29,028,000	0	29,028,000	2,902,800	26,125,200	26,125,200	0	18,686,867	3,488,168	3,890,096	60,070
27	Warden Avenue - Highway 7 to 16th Avenue	2027-2031	16,200,000	0	16,200,000	1,620,000	14,580,000	14,580,000	0	10,428,801	1,946,683	2,170,992	33,524
28	Langstaff Road - Weston Road to Jane Street	2027-2031	27,939,250	0	27,939,250	2,793,925	25,145,325	25,145,325	0	17,985,981	3,357,338	3,744,190	57,817

Table 7-7

				Less		Less	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
											Non-Residential Share		
Project Number	Project Description (2017-2031)	Timing	Gross Project Cost	Grants and Subsidies	New Municipal Cost	Benefit to Existing	Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential	Retail	Industrial/Office/ Institutional	Hotels
										71.53%	13.35%	14.89%	0.23%
29	Rutherford Road - Pine Valley Drive to Weston Road	2027-2031	16,647,817	0	16,647,817	1,664,782	14,983,035	14,983,035	0	10,717,085	2,000,495	2,231,005	34,451
30	Woodbine Avenue - Hooper Road to Major Mackenzie Drive	2027-2031	33,218,161	0	33,218,161	3,321,816	29,896,345	29,896,345	0	21,384,296	3,991,681	4,451,627	68,741
31	Dufferin Street - Langstaff Road to Rutherford Road	2027-2031	31,265,000	0	31,265,000	3,126,500	28,138,500	28,138,500	0	20,126,943	3,756,978	4,189,880	64,699
32	Kennedy Road - 16th Avenue to Major Mackenzie Drive	2027-2031	18,149,178	0	18,149,178	1,814,918	16,334,260	16,334,260	0	11,683,591	2,180,907	2,432,205	37,557
33	Major Mackenzie Drive - Woodbine Avenue to Kennedy Road	2027-2031	40,828,329	0	40,828,329	4,082,833	36,745,497	36,745,497	0	26,283,366	4,906,162	5,471,479	84,489
34	Weston Road - Langstaff Road to Major Mackenzie Drive	2027-2031	37,017,429	0	37,017,429	3,701,743	33,315,686	33,315,686	0	23,830,087	4,448,223	4,960,774	76,603
35	Highway 7 - Kipling Avenue to Helen Street	2027-2031	65,608,779	0	65,608,779	6,560,878	59,047,901	59,047,901	0	42,235,859	7,883,920	8,792,353	135,769
	Subtotal		**586,673,153**	**0**	**586,673,153**	**58,667,315**	**528,005,838**	**528,005,838**	**0**	**377,672,698**	**70,497,948**	**78,621,146**	**1,214,046**
Maintain 6 lanes. Designate HOV.													
36	Warden Avenue - 14th Avenue to Highway 7	2027-2031	230,644	0	230,644	23,064	207,580	207,580	0	148,478	27,715	30,909	477
37	Rutherford Road - Weston Road to Jane Street	2027-2031	246,940	0	246,940	24,694	222,246	222,246	0	158,968	29,674	33,093	511
38	Woodbine Avenue - Steeles Avenue to Highway 7	2027-2031	2,592,000	0	2,592,000	259,200	2,332,800	2,332,800	0	1,668,608	311,469	347,359	5,364
39	Dufferin Street - Highway 407 to Langstaff Road	2027-2031	45,126	0	45,126	4,513	40,613	40,613	0	29,050	5,423	6,047	93
	Subtotal		**3,114,710**	**0**	**3,114,710**	**311,471**	**2,803,239**	**2,803,239**	**0**	**2,005,104**	**374,281**	**417,408**	**6,445**
Interchange (New)													
40	Hwy 404 New Interchange - at St. John's Sideroad	2027-2031	47,820,000	0	47,820,000	4,782,000	43,038,000	43,038,000	0	30,784,276	5,746,320	6,408,446	98,957
	Subtotal		**47,820,000**	**0**	**47,820,000**	**4,782,000**	**43,038,000**	**43,038,000**	**0**	**30,784,276**	**5,746,320**	**6,408,446**	**98,957**
Interchange Improvements													
41	Hwy 400 Interchange Improvements - at Langstaff Road	2027-2031	14,250,000	0	14,250,000	1,425,000	12,825,000	12,825,000	0	9,173,483	1,712,360	1,909,669	29,489
	Subtotal		**14,250,000**	**0**	**14,250,000**	**1,425,000**	**12,825,000**	**12,825,000**	**0**	**9,173,483**	**1,712,360**	**1,909,669**	**29,489**
Rail grade separation													
42	Barrie GO Grade Separation - St. John's Sideroad east of Yonge Street	2027-2031	54,126,873	0	54,126,873	0	54,126,873	54,126,873	0	38,715,939	7,226,877	8,059,602	124,454
43	Barrie GO Grade Separation - Davis Drive east of Main Street	2027-2031	42,026,658	0	42,026,658	0	42,026,658	42,026,658	0	30,060,882	5,611,289	6,257,855	96,632
44	Barrie GO Grade Separation - Langstaff Road east of Keele Street	2022-2026	16,385,991	0	16,385,991	0	16,385,991	16,385,991	0	11,720,593	2,187,814	2,439,908	37,676
45	Barrie GO Grade Separation - Teston Road east of Keele Street	2022-2026	22,180,498	0	22,180,498	0	22,180,498	22,180,498	0	15,865,295	2,961,482	3,302,721	51,000
46	Barrie GO Grade Separation - Mulock Drive west of Bayview Avenue	2022-2026	45,869,320	0	45,869,320	0	45,869,320	45,869,320	0	32,809,466	6,124,351	6,830,035	105,467
47	Barrie GO Grade Separation - Green Lane east of Second Concession	2022-2026	5,559,360	0	5,559,360	0	5,559,360	5,559,360	0	3,976,506	742,271	827,800	12,783
48	Richmond Hill GO Grade Separation - Leslie Street south of Stouffville Road (inc. Jog Elimination)	2027-2031	39,801,250	0	39,801,250	0	39,801,250	39,801,250	0	28,469,090	5,314,158	5,926,487	91,515
49	Richmond Hill GO Grade Separation - 19th Avenue west of Bayview Avenue	2027-2031	21,690,864	0	21,690,864	0	21,690,864	21,690,864	0	15,515,069	2,896,107	3,229,814	49,874
50	Stouffville GO Grade Separation - Highway 7 west of Kennedy Road	2022-2026	43,326,355	0	43,326,355	0	43,326,355	43,326,355	0	30,990,531	5,784,821	6,451,383	99,620
51	Stouffville GO Grade Separation - Kennedy Road north of Highway 7	2022-2026	39,016,623	0	39,016,623	0	39,016,623	39,016,623	0	27,907,860	5,209,397	5,809,655	89,711
52	Stouffville GO Grade Separation - McCowan Road north of Highway 7	2022-2026	39,275,873	0	39,275,873	0	39,275,873	39,275,873	0	28,093,297	5,244,011	5,848,258	90,307
	Subtotal		**369,259,664**	**0**	**369,259,664**	**0**	**369,259,664**	**369,259,664**	**0**	**264,124,529**	**49,302,577**	**54,983,517**	**849,040**

Table 7-7

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotels
										71.53%	13.35%	14.89%	0.23%
New arterial corridor													
53	Donald Cousens Parkway - Major Mackenzie Drive to Markham Road / Highway 48	2027-2031	17,040,000	0	17,040,000	0	17,040,000	17,040,000	0	12,188,393	2,275,136	2,537,291	39,180
54	Donald Cousens Parkway - 19th Avenue to Warden Avenue	2027-2031	10,076,365	0	10,076,365	0	10,076,365	10,076,365	0	7,207,436	1,345,370	1,500,391	23,169
	Subtotal		**27,116,365**	**0**	**27,116,365**	**0**	**27,116,365**	**27,116,365**	**0**	**19,395,829**	**3,620,506**	**4,037,682**	**62,349**
Misc & Int Capital													
55	Intersection, Bottleneck and Miscellaneous Capital	2017-2031	57,467,490	0	57,467,490	5,746,749	51,720,741	51,720,741	0	36,994,878	6,905,617	7,701,324	118,922
56	Various Road Improvements	2017-2031	44,603,492	0	44,603,492	33,452,619	11,150,873	11,150,873	0	7,976,011	1,488,835	1,660,388	25,639
	Subtotal		**102,070,982**	**0**	**102,070,982**	**39,199,368**	**62,871,614**	**62,871,614**	**0**	**44,970,889**	**8,394,452**	**9,361,712**	**144,561**
Total			**1,488,292,799**	**0**	**1,488,292,799**	**138,183,947**	**1,350,108,852**	**1,350,108,852**	**0**	**965,707,604**	**180,262,976**	**201,033,962**	**3,104,310**

8. TRANSIT – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS

8.1 Program description

The Transit growth program includes fleet expansion (YRT/Viva/Mobility Plus), support vehicles, terminals, garages, stops/viva stations, shelters, bus pads, land acquisition, Transit Management Systems including Presto and fare collection systems, ITS infrastructure and parking facilities.

8.2 Level of service calculation

The Development Charges Act was amended in several significant ways with respect to the provisions for transit services. Transit is no longer subject to the statutory 10% reduction in capital costs and is now 100% cost-recovery eligible. Most importantly, the Transit Level of Service is now to be determined using a forward-looking planned level of service as opposed to a historical ten-year average level of service.

For the purpose of the development charge calculations for transit, the “planned level of service” is considered to be the Regional Council-approved 10-year capital plan (2017 capital budget). Through its approval of the program, Council has indicated that it intends to ensure that the increase in need for transit service will be met by the transit network defined in the 2016 Transportation Master Plan and YRT/Viva’s service guidelines within the YRT/Viva 2016-2020 Strategic Plan as adopted by Regional Council. Service guidelines define how new services are designed, and how existing transit routes are evaluated for service adjustments. They are applied in tandem with route performance measures. For Mobility Plus specialized transportation service standards, all policies meet or exceed the standards and requirements outlined in the Accessibility for Ontarians with Disabilities Act (AODA), and the Integrated Accessibility Standards Regulation, Ontario Regulation 191/11 (O.Reg.191/11). The service guidelines include:

- Service Coverage
- Span of Service
- Service Frequency
- Vehicle Capacity
- New Service Implementation
- Mobility Plus Service Area
- Mobility Plus Days and Hours of Service

8.2.1 *Ridership Forecasts*

Estimated ridership, measured by trips, is obtained from the Regional transportation demand forecast model. This provides a basis for estimating the total number of trips during the AM peak period for local transit, GO Rail and auto trips:

- All trips originating from York Region to all destinations
- All trips with destinations to York Region from all origins
- All trips with origins in York Region and destinations in York Region were calculated and excluded from the analysis to account for double counting of trips, as these trips were already captured in all trip origins and all trip destinations

The following horizons were evaluated.

- Total Trips – Total Auto and Local Transit Trips in the AM Peak Period at the end of 2016 (a)
- 2016 Local transit trips – trips in the AM Peak Period at the end of 2016 (b)
- 2021 Local transit trips – trips in the AM Peak Period at the end of 2021 (c)
- 2026 Local transit trips – trips in the AM Peak Period at the end of 2026 assuming that the Yonge North Subway Extension is not in service (d)

The model extractions are summarized in the following table.

TABLE 8-1

TRANSIT MODEL EXTRACTIONS

				Exc. GO Rail	
Horizon	**Local Transit**	**GO Rail**	**Auto Trips**	**Total Trips**	**Transit Mode Share**
2016	48,021 (b)	16,857	617,294	665,315 (a)	7.22%
2021	55,474 (c)	20,457	677,212	732,686	7.57%
2026 *	62,276 (d)	22,455	727,595	790,962	7.88%
2031	72,808	38,174	775,817	789,871	8.58%

***Without Yonge Subway Extension**

8.3 Benefit to existing development deduction

The Local Transit Modal Split for existing development (f) is applied to total trips (a) in the Base Year to determine forecasted transit trips in the 10 Year by existing development (BTE).

The growth in transit trips between the Base Year (b) and 10-Year (d - b), is attributed to a split between growth in ridership from existing residents versus planned new development for the forward looking 10 year horizon. Estimate transit trips in the 10 year horizon is estimated by applying the forecasted mode split in the 10 year horizon (f) to the total trips in the base year (a).

Local Transit Mode Split (f) for the existing development is estimated based an average of base, base+5 years and base + 10-year local transit mode split.

165,771	Transit Trips (Sum of 2016, 2021, 2026 forecasted trips)
2,187,872	Total Trips (Sum of 2016, 2021, 2026 forecasted trips)
7.58%	Weighted Mode Split (f)

The justification of a step increase in the local transit mode share for existing residents is based on the anticipated faster uptake in transit use by new development compared to existing residents and employees. This is supported by the requirements in the Provincial Growth Plan promoting transit supportive growth density targets and with transit-oriented street configurations for new development within the existing built boundary and urban growth area.

$$\text{BTE} = \frac{(a \times (\text{avg } f)) - b}{d - b} = \frac{(665{,}315 \times (7.58\%)) - 48{,}021}{62{,}276 - 48{,}021} = 0.1675$$

Based on the above methodology, the benefit to existing share is 17%

The increase in transit trips attributed to growth is calculated as the growth in transit trips between the base year (b) and the 10 year horizon (d) minus the BTE.

$$\text{Growth} = \frac{(d\text{-}b) - ((a \times (\text{avg } f) - b)}{d - b} = \frac{(62{,}276 - 48{,}021) - ((665{,}315 \times (7.58\%)) - 48{,}021\ )}{62{,}276 - 48{,}021} = 0.8324$$

Based on the above methodology, the growth share is 83%

8.4 Post period benefit deduction

The Region provides services to meet Council directed *York Region Transit Strategic Plan and the expansion of transit services as identified in the 2016 Transportation Master Plan*. Transit service usage is monitored throughout the year and adjustments are made to the routes and frequency based on demand and revenue to cost ratios for specific routes. Where routes are not sustainable, alternative transit solutions are implemented including dial-a-ride. There is no uncommitted excess capacity in the transit network.

- Headways and vehicle types and sizes are scheduled to meet the service standards of Regional Council as outline in the York Region Transit Strategic Plan, as amended.

- Transit routes and services are monitored and adjusted periodically throughout the year to optimize the use of fleet and to provide cost-effective services.

8.5 Grants, subsidies and other contributions

Any anticipated grants, subsidies and other contributions have been deducted from the development charge eligible costs in accordance with the requirements of the *Development Charges Act*. The grants are primarily from senior levels of government; however, the amounts vary by project and are not based on a set formula. For the projects included in the 2017 Development Charge Background Study, the anticipated grants/subsidies are approximately $163.4 million.

8.6 10% statutory deduction

Transit services are no longer subject to a 10 per cent deduction under s.s. 5(1) 8 of the *Development Charges Act*.

8.7 Residential vs. non-residential allocation

The net growth-related costs have been allocated between residential and non-residential development on the same basis as the roads calculation in subsection 7.7, yielding a 72:28 split.

Table 8-2

Transit

Growth related Capital Costs

Council Approved Standard of Service Provided:

10 Year Average	2002-2011	Development Charge Amount (before deductions)	10 Year
Quantity Standard (Vehicles per Capita)	0.00	Net Population Increase + Employment Increase	345,565
Quality Standard ($ per Vehicle)	572,631.16	$ per Capita	130.16
Service Standard ($ per Capita)	130.16	Eligible Amount	$44,979,563

Recoverable Cost Calculations:

Project Number	Project Description (2017-2026)	Timing	Gross Project Cost (2017-2026)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2026)	Post Period Benefit/ Level of Service Deduction (Beyond 2026)	Residential and Non-residential Split: Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotels
										69.48%	14.31%	15.96%	0.25%
York Regional Transit													
1	Conventional buses expansion	2017-2026	56,400,000	43,201,000	13,199,000	9,588,000	3,611,000	3,611,000	0	2,508,938	516,806	576,356	8,900
2	Viva buses expansion	2017-2025	49,200,000	0	49,200,000	8,364,000	40,836,000	40,836,000	0	28,373,027	5,844,447	6,517,879	100,647
3	Mobility Plus Buses Expansion	2018-2025	1,300,000	969,000	331,000	221,000	110,000	110,000	0	76,428	15,743	17,557	271
4	Support Vehicles	2017-2026	750,000	622,500	127,500	127,500	0	0	0	0	0	0	0
5	Transit Vehicle Garage - North	2017-2018	29,268,000	20,194,440	9,073,560	4,975,560	4,098,000	4,098,000	0	2,847,308	586,506	654,086	10,100
6	Transit Vehicle Garage - Southeast	2017-2022	101,183,000	39,150,890	62,032,110	17,201,110	44,831,000	44,831,000	0	31,148,770	6,416,211	7,155,525	110,494
7	Transit Vehicle Garage - South	2021-2025	27,000,000	0	27,000,000	4,590,000	22,410,000	22,410,000	0	15,570,564	3,207,318	3,576,885	55,233
8	BRT Garage Expansion	2026	1,000,000	793,000	207,000	170,000	37,000	0	37,000	0	0	0	0
9	Major Mackenzie W. Terminal	2017-2019	9,000,000	0	9,000,000	1,530,000	7,470,000	7,470,000	0	5,190,188	1,069,106	1,192,295	18,411
10	Major Mackenzie E. Parking Facility	2017	1,500,000	1,245,000	255,000	255,000	0	0	0	0	0	0	0
11	Bus Terminals, Loops & Stops-Expansion	2017-2026	13,254,000	7,139,820	6,114,180	2,253,180	3,861,000	3,861,000	0	2,682,639	552,586	616,258	9,516
12	Intelligent Transportation System	2017-2026	12,358,000	10,257,140	2,100,860	2,100,860	0	0	0	0	0	0	0
13	Presto Next Phase/Upgrades	2017-2026	7,399,000	6,141,170	1,257,830	1,257,830	0	0	0	0	0	0	0
14	Viva 2017 Network - TMS	2017-2020	8,456,000	2,840,480	5,615,520	1,437,520	4,178,000	4,178,000	0	2,902,892	597,955	666,855	10,297
	Subtotal		**318,068,000**	**132,554,440**	**185,513,560**	**54,071,560**	**131,442,000**	**131,405,000**	**37,000**	**91,300,755**	**18,806,678**	**20,973,697**	**323,870**
York Region Rapid Transit Corporation													
15	Operations Maintenance and Storage Facility	2017	260,000	215,800	44,200	44,200	0	0	0	0	0	0	0
16	Park and Ride Facilities	2017-2021	8,875,000	0	8,875,000	1,508,750	7,366,250	7,366,250	0	5,118,102	1,054,257	1,175,735	18,155
17	Cornell Terminal	2017-2019	21,111,000	11,031,410	10,079,590	3,588,870	6,490,720	6,490,720	0	4,509,780	928,952	1,035,991	15,997
18	Toronto York Subway Extension Vaughan Metropolitan Centre Terminal	2017-2021	32,881,000	19,617,880	13,263,120	5,589,770	7,673,350	7,673,350	0	5,331,476	1,098,210	1,224,752	18,912
19	Future BRTs	2017-2021	772,000	0	772,000	131,240	640,760	640,760	0	445,203	91,706	102,272	1,579
	Subtotal		**63,899,000**	**30,865,090**	**33,033,910**	**10,862,830**	**22,171,080**	**22,171,080**	**0**	**15,404,561**	**3,173,124**	**3,538,751**	**54,644**
	Total		**381,967,000**	**163,419,530**	**218,547,470**	**64,934,390**	**153,613,080**	**153,576,080**	**37,000**	**106,705,316**	**21,979,802**	**24,512,448**	**378,514**

9. TORONTO-YORK SUBWAY EXTENSION – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS

9.1 2017 – 2031 Capital program description

This service involves York Region's share of costs for the Toronto-York Subway Extension (TYSE) including rights of way, system tracks, tunnel and single system, crossovers, subway stations and subway commuter facilities. The gross project cost is the updated estimate as of 2017 and is net of any expenditure to date (Table 9-1). As this project was included in York Region's 2012 Development Charge Study, the existing reserve fund balance for this service has been deducted from the development charge recoverable share in the cash flow calculation.

9.2 Level of service calculation

Pursuant to s.s.5.1 (2) of the *Development Charges Act*, this service is not limited by a historic level of service calculation.

9.3 Benefit to existing development deduction

The deduction for benefit to existing development for this service was established in the 2007 and 2012 Development Charge studies at 26 per cent. As this project is currently under construction and the funding plan prepared based on this assumption, the 26 per cent benefit to existing share has been maintained.

9.4 Post period benefit deduction

Consistent with the 2007 and 2012 Development Charge studies, no deduction has been made for post period capacity as the costs are being recovered over the entire benefiting period.

9.5 Grants, subsidies and other contributions

The capital costs have been reduced to exclude the portion attributable to grants and subsidies. The grant share for the remainder of the project is expected to be approximately $21.4 million.

9.6 10% statutory deduction

The Toronto-York Subway Extension does not require a 10% deduction under s.s. 5(1) 8 of the *Development Charges Act*.

9.7 Residential vs. non-residential allocation

The net growth related costs have been allocated between residential and non-residential development on the same basis as the roads calculation in subsection 7.7, yielding a 72:28 split.

Table 9-1

Toronto-York Spadina Subway Extension

Growth related Capital Costs

Council Approved Standard of Service Provided:

Recoverable Cost Calculations:

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less	New Municipal Cost	Less	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies		Benefit to Existing	Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential	Non-Residential Share		
											Retail	Industrial/Office/ Institutional	Hotel
										71.53%	13.35%	14.89%	0.23%
1	Toronto York Spadina Subway Extension	2017-2019	281,500,000	21,436,000	260,064,000	67,616,640	192,447,360	**192,447,360**	0	137,653,996	25,695,064	28,655,804	442,495
Total			**281,500,000**	**21,436,000**	**260,064,000**	**67,616,640**	**192,447,360**	**192,447,360**	**0**	**137,653,996**	**25,695,064**	**28,655,804**	**442,495**

10. GENERAL SERVICES – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS

10.1 Introduction

This Chapter of the Background Study is organized into the following nine sections by service:

10.2 Police;
10.3 Waste Diversion;
10.4 Public Works;
10.5 Paramedic Services (formerly Emergency Medical Services);
10.6 Public Health;
10.7 Social Housing;
10.8 Court Services;
10.9 Growth Studies; and
10.10 Senior Services – Capital Component (formerly Long Term Care)

There is no development charge rate proposed for two services; Growth Studies and Senior Services – Capital Component. For Growth Studies (section 10.9) no rate will be levied as the available reserve funds are sufficient to fund the proposed projects.

Similarly, for Senior Services – Capital Component (section 10.10), the available reserves are also sufficient to fund any potential projects. Having said that, the province has not indicated they will be building/funding new senior home facilities in the future. Without provincial participation, no senior home facilities can be built. Senior Services – Capital Component will therefore be placed in the contingent projects list (Schedule G).

Each eligible service contains an outline of the following components of the development charge calculation, based on a set of assumptions and methodology devised by York Region which addresses the requirements of the *Development Charges Act* and municipal best practices, in the context of York Region's specific circumstances:

- Program Description;
- Level of Service Calculation;
- Benefit to Existing Development Deduction;
- Post Period Benefit Deduction;

- Grants, Subsidies and Other Contributions;
- 10% Statutory Deduction;
- Residential vs. Non-residential Allocation; and
- Capital Program, Deductions and Development Charge Recoverable Cost.

The following general discussion provides context for the service-specific deductions that have been made in the sections which follow.

10.1.1 Level of service calculation

Pursuant to subsection 5(1)4 of the *Development Charges Act,* the estimated increase in need for service attributable to 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. All services in this section are subject to this service level cap.

In particular, *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 typical 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 (including land value, site works etc.). This approach helps to ensure that the growth-related capital facilities that are to be funded by new growth reflects not only the quantity (number and size) but also the quality (replacement value or cost) of service provided by the Region in the past. Both the quantitative and qualitative aspects of service levels are used in the current analysis.

10.1.2 Post period benefit

General services are subject to a per capita or per capita and employee service level cap, based on the 10-year historical average that generally ensures that the development charge eligible amount encompasses only the needs of growth over the next ten years (2017 to 2026). Police and public works are subject to a fifteen-year planning horizon (2017 to 2031). Often it is the case that deductions made for costs beyond the service level cap include the share attributable to over sizing to accommodate development post-2026 or 2031. For this reason, no additional deduction for Post Period Benefit is required beyond the amount that exceeds the service level cap.

10.1.3 Benefit to existing development

Subsection 5 (1) 6 of the *Development Charges Act* requires that the increase in service planned to benefit growth must be reduced by the extent to which that increase would benefit existing development. Therefore, in some cases, deductions for benefit to existing development are made from the eligible increase in need and reflect any potential benefit that existing development might derive from that eligible share.

In other cases, the benefit to existing development provided by the project is (largely) confined to that portion that is beyond the level of service cap. The portion of the project that is within the cap, in itself, may not be providing any benefit to existing development as it involves no change to York Region's level of service.

The amount of the deduction can vary considerably based on a range of circumstances including:

- The service involved; and
- The nature of the subject work (e.g., does it increase capacity to accommodate additional development).

10.1.4 Grants, subsidies and other contributions

Subject to section 5(2) of the *Development Charges Act* and section 6(1) of *O.Reg. 82/98*, capital costs must be reduced to adjust for capital grants, subsidies and other contributions made to a municipality or that the Council of a municipality anticipates will be made in respect of the capital costs.

10.1.5 10 % statutory deduction

When calculating development charges, the development-related net capital costs must be reduced by ten per cent for all services with the exception of protection services and engineered services (*Development Charges Act s.5.(1)8*). In addition, under the *Development Charges Act*, 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).

In accordance with the *Development Charges Act*, the ten per cent deduction does not apply to:

- Police Services - pursuant to subsection 5(1)8, police is delineated in section 5(5) as a service for which there is no percentage reduction; and

- Public Works – This service is considered to be a component of roads and pursuant to subsection 5(1)8, roads is delineated in section 5(5) as a service for which there is no percentage reduction.

10.1.6 Residential versus non-residential allocation

Capital costs are apportioned for each service based on the type of development which is benefiting from it. The methodology used to allocate the development-related costs is discussed for each service in the following sections.

10.2 Police

10.2.1 *Program description*

The 15-year Police Service capital program (Table 10-6) consists of four sub-services, as follows:

Facilities	Largely a #1 district multi-function building, a training facility, a sub-station outlook, and a #3 district marine headquarters.
Land	One land bank acquisition
Vehicles	Increase of inventory by adding new vehicles, marine boats and police helicopter
Equipment	Mostly specialized equipment, portable and mobile gear, business intelligence and data governance retention management.

10.2.2 *Level of service*

The 10-year historical level of service is comprised of the following:

- Existing owned and leased facilities net of general administrative space, including district stations and substations and the Central Services Building. This space has been valued based on 2017 replacement cost per square foot, including an allowance for land purchase and site servicing (Tables 10-2 and 10-3);
- Vehicles including patrol cars, vans, specialty vehicles, boats and helicopters.
- The 2016 replacement cost includes an average cost of $12,500 per vehicle for specialized equipment (Table 10-4);
- Equipment such as communication and radio infrastructure, data network equipment, computer aided dispatch and specialized equipment (Table 10-5); and

10.2.3 *Benefit to existing development deduction*

Benefit to existing deduction applied to facilities, land, vehicles and equipment is summarized as follows:

Facilities	Training facilities, sub-station outlook and district headquarters and expansions involve the establishment of use-specific facilities for functions that are currently being undertaken in York Region. A deduction of 10% has been made to recognize any potential benefit to existing development as a result of improved service. #1 district multi-function has a 10% benefit to existing deduction, because the project involves the replacement of an existing building with a large facility. This replacement will provide some service to existing population.
Land	Land acquisition is primarily done to service new population with more facilities and equipment. There is a 10% benefit to existing deduction to recognize non-growth related service.
Vehicles	Vehicle costs are incurred through rehabilitation and replacement costs with a growth component included through the addition of new vehicles. These vehicles service existing and new population. The portion that services the growth in population is estimated as the share of net population growth and total population in York Region in 2031 (i.e.: 541,203 ÷ 2,294,303 = 22%). Therefore, the benefit to existing deduction is calculated as the non-growth component of 78%.
Equipment	Specialized equipment added for additional staff to support growth has no benefit to existing deduction applied to it. All other projects include supplies to support existing police staff that will provide an improved service to existing population. Following the same methodology as for vehicles, a deduction of 78% is made to recognize any potential benefit to existing population as a result of the added and improved equipment.

10.2.4 *Post period benefit deduction*

The development charge program consists of 15 years of requirements. No deduction for post period benefit has been made.

10.2.5 *Grants, subsidies and other contributions*

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

10.2.6 *10% statutory deduction*

Pursuant to s.s.5 (1)8 of the *Development Charges Act*, no deduction is required for police service.

10.2.7 *Residential versus non-residential allocation*

Based on the net increment in population and employment between 2017 and 2031 as follows:

TABLE 10-1

NET POPULATION AND EMPLOYMENT INCREMENT

	2017-31 Growth Increment	%
Net Residential Population Retail	367,800	71.5*
Employment	40,020	7.8
Non-retail Employment (IOI)	105,640	20.5
Hotel Employment	742	0.1
Total Population and Employment	**514,203**	**100.0**

*Note: Numbers may not add due to rounding

Table 10-2

Police - Facilities (Excluding Land)

Square Footage

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Value ($ per Sqft)
Owned Sites											
Central Services Building (47 Don Hillock Dr., Aurora)	0	0	0	237,391	237,391	237,391	237,391	244,255	244,255	244,255	$400
Police Central Services Building - Parking Garage (55 Don Hillock Drive)	0	0	0	0	0	0	0	168,240	168,240	168,240	$103
District #1 (240 Prospect St. Newmarket)	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	$251
District #2 (171 Major Mackenzie Drive W.Richmond Hill)	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	$359
District #3 (3527 Baseline Rd. Sutton)	25,500	25,500	25,500	25,500	25,500	25,500	25,500	25,500	25,500	26,500	$315
District #4 (2700 Rutherford Rd. Vaughan)	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	$310
District#5 (8700 McCowan Rd. Markham)	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	$282
Safety Village (Stouffville)	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	17,533	$218
Other - Provided Space											
Headquarters (17250 Yonge Street)[1]	49,895	49,895	49,895	49,895	49,895	49,895	49,895	5,000	5,000	5,000	$223
Woodbine & St. John's (Aurora)	0	0	0	0	0	0	0	0	0	0	$223
90 Bales Drive (E. Gwillimbury)	13,598	13,598	13,598	13,598	13,598	13,598	13,598	13,598	13,598	13,598	$223
Court Services (50 Eagle Street, Newmarket)	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	$223
Vaughan Mills Substation (Vaughan)	949	949	949	949	949	949	949	949	949	949	$223
Leased Sites											
Yonge and Mulock Centre (Newmarket)	17,849	23,677	28,922	17,672	17,672	17,672	17,672	17,672	17,672	20,319	$223
Investigative Services Building- (confidential location Aurora)	12,464	12,464	12,464	0	0	0	0	0	0	0	$223
Support Services (200 Industrial Pkwy, Aurora)	15,000	15,000	15,000	0	0	0	0	0	0	0	$223
Air Support -Hangar #19 and office- (Toronto Buttonville Municipal Airport, Markham, ON)	2,094	2,094	2,094	2,094	2,094	2,094	2,094	2,094	2,094	2,414	$223
Community Resource Centre (Hillcrest Mall, 9350 Yonge St. Richmond Hill, ON)	8,224	8,224	8,224	8,224	8,224	8,224	8,224	8,224	0	0	$223
Community Resource Centre (10720 Yonge Street, #112, Richmond Hill)	0	0	0	0	0	0	0	0	7,603	7,603	$223
Drugs & Vice Offsite - Downsview Airport (North York)	2,700	2,700	2,700	2,700	2,700	0	0	0	0	0	$223
Stouffville Substation	1,000	1,000	1,000	10,000	1,000	1,000	1,000	1,000	4,500	4,500	$223
Development Charge Amount (before deductions)	0	0	0	0	1,000	1,000	1,000	1,000	1,000	1,000	$223
East Gwillimbury/Mount Albert Substation	0	0	0	0	1,000	1,000	1,000	1,000	1,000	1,000	$223
Total (Sqft)	**318,773**	**324,601**	**329,846**	**537,523**	**530,523**	**527,823**	**527,823**	**658,032**	**660,911**	**672,411**	**$299**

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per Capita Standard	0.2187	0.2176	0.2178	0.3462	0.3326	0.3226	0.3155	0.3854	0.3794	0.3777

10 Year Average	2007-2016
Quantity Standard (Sqft per Capita)	0.3114
Quality Standard ($ per Sqft)	$298.95
Service Standard ($ per Capita)	$93.08

Development Charge Amount (before deductions)	15 Year
Net Population Increase + Employment Increase	514,203
$ per Capita	$93.08
Eligible Amount	$47,862,392

Notes:

1. HQ (17250 Yonge Street) is net of Administration related square footage.

Table 10-3

Police - Facilities (Land)

Acres

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Value ($ per Acre)
OWNED SITES											
Central Services Building (47 Don Hillock Dr., Aurora)	8.10	8.10	8.10	8.10	8.10	8.10	8.10	8.10	8.10	8.10	$288,000
District #1 (240 Prospect St. Newmarket)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	$692,000
District #1 (Harry Walker Pkwy. Newmarket)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	3.00	$810,000
District #2 (171 Major Mackenzie Drive W.Richmond Hill)	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	2.99	$969,000
District #3 (3527 Baseline Rd. Sutton)	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.43	$69,000
District #4 (2700 Rutherford Rd. Vaughan)	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.03	$1,246,000
District#5 (8700 McCowan Rd. Markham)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	$1,246,000
Egypt Tower Site (Township of Georgina)	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	$69,000
Other - Provided Space											
Headquarters (17250 Yonge Street)	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	$692,000
90 Bales Drive (E. Gwillimbury)	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	$208,000
Court Services (50 Eagle Street, Newmarket)	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	$692,000
Vaughan Mills Substation (Vaughan)	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	$1,384,000
LEASED SITES											
Yonge and Mulock Centre (Newmarket)	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	$692,000
Drugs & Vice Offsite - Downsview Airport (North York)	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	$1,384,000
Air Support -Hangar #19 and office- (Toronto Buttonville Municipal Airport, Markham, ON)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	$1,384,000
Community Resource Centre (Hillcrest Mall, 9350 Yonge St. Richmond Hill, ON)	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	$1,384,000
Investigative Services Building - (Confidential Location)	0.36	0.36	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$692,000
Support Services (200 Industrial Parkway, Aurora)	0.43	0.43	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	$692,000
Hope Tower Site (North Maple Reservoir, Vaughan)	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	$484,000
Safety Village (Stouffville)	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	5.70	$69,000
King Tower (King)	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	$55,000
Development Charge Amount (before deductions)											
Total (Acres)	**33.03**	**33.03**	**33.03**	**32.24**	**32.24**	**32.24**	**32.24**	**32.24**	**35.24**	**35.24**	**$547,212**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per 1,000 Capita Standard	0.0227	0.0221	0.0218	0.0208	0.0202	0.0197	0.0193	0.0189	0.0202	0.0198

10 Year Average	2007-2016
Quantity Standard (Sqft per 1,000 Capita)	0.0205
Quality Standard ($ per Acre)	$547,212.39
Service Standard ($ per Capita)	$11.24

Development Charge Amount (before deductions)	15 Year
Net Population Increase + Employment Increase	514,203
$ per Capita	$11.24
Eligible Amount	$5,781,574

Table 10-4

Police - Vehicles

Number of Vehicles

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Replacement Value ($ per Vehicle)
Marked 24/7 Equivalent to = or > 7 years	188	199	201	222	223	170	173	173	181	177	$35,475
Unmarked & Vans - All < 7 years	190	190	122	143	143	202	203	206	215	219	$24,733
Specialty Vehicles:											
~~Trucks~~ Operation Specialty	23	24	21	21	25	22	24	28	22	41	$31,317
~~Cargo Vans~~ Operational Support	0	0	1	6	7	69	78	75	72	81	$37,814
Command Post	1	1	1	1	1	1	1	1	1	1	$351,399
Boats	4	4	4	4	4	8	8	8	8	8	$177,938
Tractor	1	1	1	1	1	1	1	1	2	2	$32,928
Motorcycle	12	12	12	18	18	14	12	14	13	18	$29,971
Helicopter	1	1	1	1	1	1	1	1	1	1	$3,400,000
Tactical Support Vehicle	0	0	0	1	1	1	1	1	1	1	$360,300
Vehicle Equipment[1]	420	432	364	418	424	489	502	508	516	549	$12,500
Total (#)	**420**	**432**	**364**	**418**	**424**	**489**	**502**	**508**	**516**	**549**	**$53,822**

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per 1,000 Capita Standard	0.2881	0.2896	0.2404	0.2692	0.2659	0.2988	0.3000	0.2976	0.2962	0.3084

10 Year Average	2007-2016
Quantity Standard (Vehicles per 1,000 Capita)	0.2854
Quality Standard ($ per Vehicle)	$53,821.86
Service Standard ($ per Capita)	$15.36

Development Charge Amount (before deductions)	15-Year
Net Population Increase + Employment Increase	514,203
$ per Capita	$15.36
Eligible Amount	$7,899,104

Notes:

1. Vehicle Equipment includes specialized equipment to outfit all police vehicles for use. Value included in calculation of quality standard.

Table 10-5

Police - Equipment

Dollar Value of Equipment

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Voice Communication User Gear	7,384,466	6,888,495	6,591,861	6,755,373	6,533,126	4,235,271	4,235,271	4,235,271	6,260,271	3,324,275
Voice Communication Infrastructure & Equipment	8,851,870	12,830,258	12,277,758	12,582,309	12,168,361	11,653,500	11,653,500	21,103,889	23,300,889	23,642,080
Backup Radio Infrastructure & Operations Centre	590,125	550,489	526,784	539,851	522,090	379,716	379,716	379,716	379,716	116,093
Data Network Equipment	2,714,574	2,532,251	2,423,207	2,483,315	11,244,402	13,063,783	14,148,760	16,174,310	16,174,310	19,416,827
External Assets - Fire Services	0	0	0	0	1,092,524	1,046,298	1,046,298	1,046,298	1,046,298	0
Use of Force Equipment	0	0	0	0	3,030,054	3,299,547	3,647,727	4,101,788	4,101,788	2,540,987
Generators	0	0	0	0	202,962	194,374	196,867	196,867	196,867	169,788
Computer Aided Dispatch/Records Mgmt System	2,306,406	4,141,883	3,963,524	4,061,840	3,928,208	3,762,000	3,762,000	3,762,000	3,762,000	3,762,000
Telephone Infrastructure & Equipment	2,065,436	1,926,713	1,843,745	1,889,479	1,762,108	530,527	530,527	530,527	530,527	530,527
Specialized Equipment	17,495,586	16,657,409	16,120,264	16,670,748	15,567,134	12,381,448	13,167,330	14,396,772	14,396,772	19,206,931
Employee Scheduling System	0	0	0	0	0	0	0	356,654	356,654	356,654
Total ($)	**41,408,463**	**45,527,497**	**43,747,143**	**44,982,914**	**56,050,970**	**50,546,464**	**52,767,997**	**66,284,092**	**70,506,092**	**73,066,162**

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per Capita Standard	28.40	30.52	28.89	28.97	35.14	30.89	31.54	38.83	40.48	41.05

10 Year Average	2007-2016
Quantity Standard	n/a
Quality Standard	n/a
Service Standard ($ per Capita)	$33.47

Development Charge Amount (before deductions)	15-Year
Net Population Increase + Employment Increase	514,203
$ per Capita	$33.47
Eligible Amount	$17,210,657

Table 10-6

Police - Facilities, Vehicles, and Equipment

Growth related Capital Costs

Council Approved Standard of Service Provided:

Facilities 10 Year Average	**2007-2016**	**Development Charge Amount (before deductions)**	**15 Year**
Quantity Standard (Sqft per Capita)	0.31	Net Population Increase + Employment Increase	514,203
Quality Standard ($ per Sqft)	298.95	$ per Capita	93.08
Service Standard ($ per Capita)	93.08	Eligible Amount	$47,862,392
Vehicles 10-Year Average	**2007-2016**	**Development Charge Amount (before deductions)**	**15-Year**
Quantity Standard (Vehicles per 1,000 Capita)	0.29	Net Population Increase + Employment Increase	514,203
Quality Standard ($ per Vehicle)	53,821.86	$ per Capita	15.36
Service Standard ($ per Capita)	15.36	Eligible Amount	$7,899,104
Equipment 10-Year Average	**2007-2016**	**Development Charge Amount (before deductions)**	**15-Year**
Quantity Standard	n/a	Net Population Increase + Employment Increase	514,203
Quality Standard	n/a	$ per Capita	33.47
Service Standard ($ per Capita)	33.47	Eligible Amount	$17,210,657
Land 10-Year Average	**2007-2016**	**Development Charge Amount (before deductions)**	**15-Year**
Quantity Standard (Sqft per 1,000 Capita)	0.02	Net Population Increase + Employment Increase	514,203
Quality Standard ($ per Acre)	547,212.39	$ per Capita	11.24
Service Standard ($ per Capita)	11.24	Eligible Amount	$5,781,574
Total Eligible Amount (Facilities + Vehicles + Equipment + Land)			**$78,753,726**

Recoverable Cost Calculations:

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less: Grants and Subsidies	New Municipal Cost	Less: Benefit to Existing	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential and Non-residential Split: Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotel
										71.53%	**7.78%**	**20.54%**	**0.14%**
Facilities													
1	#3 District Marine Headquarters	2017-2018	7,800,000	0	7,800,000	780,000	7,020,000	5,238,526	1,781,474	3,747,019	407,714	1,076,229	7,563
2	Training Facility	2017	5,715,000	0	5,715,000	571,500	5,143,500	3,838,227	1,305,273	2,745,412	298,729	788,545	5,541
3	Sub-Station Outlook	2017-2029	21,100,000	0	21,100,000	2,110,000	18,990,000	14,170,884	4,819,116	10,136,168	1,102,920	2,911,337	20,459
4	Community Safety Village Expansion	2017-2018	850,000	0	850,000	85,000	765,000	570,865	194,135	408,329	44,430	117,281	824
5	#1 District Multi-Function	2017-2020	25,750,000	0	25,750,000	8,088,075	17,661,925	13,179,836	4,482,089	9,427,290	1,025,787	2,707,731	19,028
6	#4 District Expansion	2017-2018	1,415,000	0	1,415,000	141,500	1,273,500	950,322	323,178	679,748	73,964	195,239	1,372
	Subtotal Facilities		62,630,000	0	62,630,000	11,776,075	50,853,925	37,948,660	12,905,265	27,143,966	2,953,544	7,796,362	54,787
Vehicles													
7	Vehicles	2017-2031	70,040,000	0	70,040,000	54,342,512	15,697,488	11,713,917	3,983,572	8,378,745	911,694	2,406,565	16,912
8	Marine Boats	2018-2030	1,620,000	0	1,620,000	1,256,923	363,077	270,939	92,139	193,797	21,087	55,663	391

Table 10-6

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less	New Municipal Cost	Less	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies		Benefit to Existing	Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential	Non-Residential Share		
											Retail	Industrial/Office/ Institutional	Hotel
										71.53%	7.78%	20.54%	0.14%
9	Air Operations	2018-2028	7,779,000	0	7,779,000	6,035,557	1,743,443	1,301,007	442,436	930,586	101,257	267,285	1,878
	Subtotal Vehicles		79,439,000	0	79,439,000	61,634,991	17,804,009	13,285,863	4,518,146	9,503,129	1,034,039	2,729,514	19,181
Equipment													
10	Business Intelligence	2017-2026	1,100,000	0	1,100,000	853,466	246,534	183,971	62,563	131,591	14,318	37,796	266
11	Specialized Equipment - Growth Staff	2017-2031	9,975,000	0	9,975,000	0	9,975,000	7,443,632	2,531,368	5,324,290	579,338	1,529,257	10,747
12	Data Governance Retention Management	2026	1,000,000	0	1,000,000	775,878	224,122	167,246	56,876	119,628	13,017	34,360	241
13	Police Talent Management	2024	150,000	0	150,000	116,382	33,618	25,087	8,531	17,944	1,953	5,154	36
14	Portable and Mobile User Gear	2021-2022	4,704,000	0	4,704,000	3,649,731	1,054,269	786,726	267,543	562,730	61,231	161,629	1,136
15	Specialized Equipment - In-Car Video	2017-2031	5,379,000	0	5,379,000	4,173,449	1,205,551	899,617	305,934	643,479	70,017	184,822	1,299
16	Specialized Equipment - Robotics / Support Services	2022-2030	800,000	0	800,000	620,703	179,297	133,797	45,501	95,702	10,413	27,488	193
17	Specialized Equipment - Forensic Equipment	2018-2030	7,468,000	0	7,468,000	5,794,259	1,673,741	1,248,994	424,747	893,382	97,209	256,600	1,803
18	Specialized Equipment - Closed-Circuit / Witness Rooms	2019-2029	1,432,000	0	1,432,000	1,111,058	320,942	239,496	81,446	171,307	18,640	49,203	346
19	Specialized Equipment - Technical Investigations	2017-2027	3,963,000	0	3,963,000	3,074,805	888,195	662,796	225,398	474,086	51,585	136,168	957
20	Radio System	2029-2030	27,500,000	0	27,500,000	21,336,652	6,163,348	4,599,268	1,564,081	3,289,770	357,961	944,896	6,640
21	YRP Net Rewrite	2017-2031	565,000	0	565,000	438,371	126,629	94,494	32,135	67,590	7,354	19,413	136
22	Specialized Equipment - Telephone	2021-2031	1,400,000	0	1,400,000	1,086,230	313,770	234,145	79,626	167,479	18,223	48,104	338
23	Computer Aided Dispatch - Records Management System	2026	3,700,000	0	3,700,000	2,870,749	829,251	618,811	210,440	442,624	48,162	127,132	893
24	Employee Scheduling	2017-2024	640,000	0	640,000	496,562	143,438	107,038	36,400	76,562	8,331	21,990	155
	Subtotal Equipment		69,776,000	0	69,776,000	46,398,294	23,377,706	17,445,115	5,932,590	12,478,165	1,357,753	3,584,011	25,186
Land													
20	Land Bank Acquisition	2017-2028	15,000,000	0	15,000,000	1,500,000	13,500,000	10,074,088	3,425,912	7,205,807	784,066	2,069,671	14,544
	Subtotal Land		15,000,000	0	15,000,000	1,500,000	13,500,000	10,074,088	3,425,912	7,205,807	784,066	2,069,671	14,544
Total			**226,845,000**	**0**	**226,845,000**	**121,309,361**	**105,535,639**	**78,753,726**	**26,781,913**	**56,331,067**	**6,129,403**	**16,179,558**	**113,699**

10.3 Waste Diversion

10.3.1 Overview

In 2015, amendments to the *Development Charges Act* and accompanying regulations made waste diversion an eligible service for development charge recovery. As per most general services, waste diversion is subject to a ten per cent statutory deduction and limited to a ten-year historical average service level and a ten-year planning horizon.

The Region provides waste diversion services to help reduce the volume of waste sent to landfills, and instead reuses, recycles, or recovers it for additional benefit. Conveniently located waste transfer stations, community environmental centers and waste depots allow the Region to provide this service primarily to the residents. Some examples of waste diversion include:

- Reuse of antiques, clothing and furniture;
- Recycling of electronic waste and scrap metals for its reusable components; and
- Disposal of household hazardous waste, such as batteries, paints and oils in an environmentally friendly manner.

10.3.2 Program description

The 10-year Waste Diversion capital program (Table 10-11) consists of two sub-services, as follows:

Facilities	Building structures for community environmental centers, including the Georgina transfer station #3 and household hazardous waste depots.
Equipment	Scales and household storage units for community environmental centers, and the relocation of a depot in Markham.

10.3.3 Level of service

The 10-year historical level of service is comprised of the following:

- Existing owned and leased facilities net of general administrative space, including recycling facilities, scale buildings, community environmental centers and household hazardous waste depots. This space has been valued based on 2017 replacement cost per square foot, including an allowance for land purchase and site servicing (Table 10-8);
- Region owned land includes depots, transfer stations, and environmental

centers. Land that is contracted includes SSO facilities (Table 10-9);

- Equipment such as hydraulic power washers, scales (hardware and software), balers, platforms, compactors, and various systems (compactors, sorting, etc). Also includes contracted equipment for the Source Separated Organics (SSO) facilities (10-10);
- Portions of the service related to landfill sites and servicing, and facilities and services for the incineration of waste have been removed from the calculation.

10.3.4 Benefit to existing development deduction

Benefit to existing deduction of 83 per cent is applied to the relocation of equipment in the Markham household hazardous waste and electronic recycling depot. This is based on the share of population growth during the first ten years of the fifteen year forecast.

10.3.5 Post period benefit deduction

The development charge program is related to development occurring over the 2017-2026 planning period. For projects where a benefit will be provided to development occurring beyond 2026, a reduction of 33 per cent has been applied. These costs will be considered for recovery under future development charges.

10.3.6 Grants, subsidies and other contributions

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

10.3.7 10% statutory deduction

Pursuant to s.s.5 (1)8 of the *Development Charges Act*, a 10 per cent deduction is applicable to this service and has been removed from the development charge eligible costs.

10.3.8 Residential versus non-residential allocation

The residential and non-residential allocations were determined based on the project type and who the main beneficiary is. The following table summarizes the allocation:

TABLE 10-7

RESIDENTIAL AND NON-RESIDENTIAL SPLITS

Project	Residential	Retail	Non-Retail	Hotel	Total
Transfer stations	33%	14%	52%	1%	100%
Household and Hazardous Waste	100%	0%	0%	0%	100%
Waste Depot	72%	6%	22%	0%	100%

Table 10-8

Waste Diversion - Facilities

Square Footage

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Value per Sqft with land, site works, etc.
Region Owned											
Municipal Recycling Facility / MRF and scale buildings at 83%(base on sq footage of MRF)- East Gwillimbury	78,317	78,317	78,317	78,317	78,317	78,317	78,317	78,317	78,317	78,317	$319
GTS Scale House at 20% (based on outbound jan to aug 2016 tonnes)	51	51	51	51	51	51	51	51	51	51	$1,363
Community Environmental Center - McCleary Ct, Vaughan Building at 33% diversion	0	0	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	$630
Community Environmental Center - McCleary Ct, Vaughan Shed at 33% diversion	0	0	165	165	165	165	165	165	165	165	$172
Community Environmental Center - Elgin Mills, Richmond Hill at 23% diversion	0	0	0	0	1,795	1,795	1,795	1,795	1,795	1,795	$1,787
Household Hazardous Waste Depot - Georgina	512	512	512	512	512	512	512	512	512	512	$2,587
Household Hazardous Waste Depot - East Gwillimbury	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	1,592	$1,412
Household Hazardous Waste Depot - Markham	530	530	530	530	530	530	530	530	530	530	$953
Household Hazardous Waste Depot - Vaughan	530	530	530	530	530	530	530	530	530	530	$830
Region Contracted											
Organics - SSO and Yard Waste	79,242	109,475	112,377	113,986	114,126	114,338	119,610	118,890	120,207	120,207	$272
Total (Sqft)	**160,775**	**191,007**	**198,217**	**199,825**	**201,761**	**201,973**	**207,245**	**206,525**	**207,842**	**207,842**	**$323**

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per Capita Standard	0.1103	0.1281	0.1309	0.1287	0.1265	0.1234	0.1239	0.1210	0.1193	0.1168

10 Year Average	2007-2016
Quantity Standard (Sqft per Capita)	0.1229
Quality Standard ($ per Sqft)	$323.01
Service Standard ($ per Capita)	$39.69

Development Charge Amount (before deductions)	10 Year
Net Population Increase + Employment Increase	345,565
$ per Capita	$39.69
Eligible Amount	$13,715,774

Table 10-9

Waste Diversion - Facilities (Land)

Acres

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Value ($ per Acre)
Region Owned											
HHW Depot East Gwillimbury	2	2	2	2	2	2	2	2	2	2	$57,224
HHW Georgina Transfer Stn	7	7	7	7	7	7	7	7	7	7	$25,635
HHW Depot Vaughan	8	8	8	8	8	8	8	8	8	8	$79,027
Waste Management Ctr East Gwillimbury @ 83% diversion (based on facility usage	28	28	28	28	28	28	28	28	28	28	$387,313
CEC McCleary Court @ 33% diversion	0	0	1	1	1	1	1	1	1	1	$860,157
Region Contracted											
Household Hazardous Waste Depot - Markham Rental	0	0	0	0	0	0	0	0	0	0	$187,500
Community Environmental Centre - Elgin Mills	0	0	0	0	4	4	4	4	4	4	$32,869
Organics - SSO Facility 1 and 2 weighted average plus Yard Waste	107	107	107	107	107	107	107	107	107	107	$420,413
Total (Acres)	**152**	**152**	**153**	**153**	**157**	**157**	**157**	**157**	**157**	**157**	**$371,163**

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per 1,000 Capita Standard	0.1041	0.1017	0.1011	0.0986	0.0987	0.0962	0.0941	0.0922	0.0904	0.0885

10 Year Average	2007-2016
Quantity Standard (Sqft per 1,000 Capita)	0.0966
Quality Standard ($ per Acre)	$371,163.06
Service Standard ($ per Capita)	$35.84

Development Charge Amount (before deductions)	10 Year
Net Population Increase + Employment Increase	345,565
$ per Capita	$35.84
Eligible Amount	$12,385,559

Table 10-10

Waste Diversion - Equipment

Number of Items

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Replacement Value ($ per Equipment)
Region Owned											
Hydraulic Power Wash at GTS at 8%	0	0	1	1	1	1	1	1	1	1	$20,330
GTS Scales at 8%	1	1	1	1	1	1	1	1	1	1	$17,832
CEC McCleary Ct Scales	0	0	1	1	1	1	1	1	1	1	$26,524
CEC McCleary Ct. POS Terminals	0	0	1	1	1	1	1	1	1	1	$18,475
CEC Elgin Mills, Richmond Hill furniture & fixtures	0	0	0	0	1	1	1	1	1	1	$5,047
CEC Elgin Mills, Richmond Hill Roll off bins	0	0	0	0	1	1	1	1	1	1	$36,635
CEC Elgin Mills, Richmond Hill scale hardware	0	0	0	0	1	1	1	1	1	1	$2,865
Scale software - various locations	0	0	0	0	1	1	1	1	1	1	$92,505
Scale hardware - various locations	0	0	0	0	1	1	1	1	1	1	$12,513
MRF Balers and feed system	1	1	1	1	2	2	2	2	2	2	$3,623,982
Baler at MRF	0	0	0	0	1	1	1	1	1	1	$901,276
MRF Platforms and stairs	1	1	1	1	1	1	1	1	1	1	$1,157,481
MRF Compactors	1	1	1	1	1	1	1	1	1	1	$501,464
MRF Instrumentation and controls	1	1	1	1	1	1	1	1	1	1	$2,410,735
WMC Weight Scales - diversion portion	2	2	2	2	2	2	2	2	2	2	$157,172
Mixed Paper sorting system at MRF in 2011 + betterment in 2015	0	0	0	0	1	1	1	1	1	1	$8,601,403
Hydro Power distribution system for MRF	0	0	0	0	1	1	1	1	1	1	$659,863
Scada System	0	0	0	0	1	1	1	1	1	1	$1,207,066
Bindicator	0	0	0	0	0	0	0	1	1	1	$60,553
Mixed Glass Clean Up system at MRF	0	0	0	0	0	0	0	0	1	1	$1,624,146
Mobile Signs	0	0	0	0	0	0	0	0	6	6	$4,453
Region Contracted											
Organics - SSO Facility 1 and 2 weighted average plus Yard Waste facility	2	2	2	2	2	2	2	2	2	2	$18,675,000
Total (#)	**9**	**9**	**12**	**12**	**22**	**22**	**22**	**23**	**30**	**30**	**$2,973,126**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per 1000 Capita Standard	0.0059	0.0058	0.0077	0.0075	0.0136	0.0132	0.0129	0.0133	0.0170	0.0167

10 Year Average	2007-2016
Quantity Standard (Number of Items per 1,000 Capita)	0.0114
Quality Standard ($ per Equipment)	$2,973,126.34
Service Standard ($ per Capita)	$33.80

Development Charge Amount (before deductions)	10 Year
Net Population Increase + Employment Increase	345,565
$ per Capita	$33.80
Eligible Amount	$11,679,662

Table 10-11

Waste Diversion - Facilities and Vehicles

Growth related Capital Costs

Council Approved Standard of Service Provided:

Facilities 10 Year Average	2007-2016	Development Charge Amount (before deductions)	10 Year
Quantity Standard (Sqft per Capita)	0.12	Net Population Increase + Employment Increase	345,565
Quality Standard ($ per Sqft)	323.01	$ per Capita	39.69
Service Standard ($ per Capita)	39.69	Eligible Amount	$13,715,774
Equipment 10 Year Average	**2007-2016**	**Development Charge Amount (before deductions)**	**10 Year**
Quantity Standard (Number of Items per 1,000 Capita)	0.01	Net Population Increase + Employment Increase	345,565
Quality Standard ($ per Equipment)	2,973,126.34	$ per Capita	33.80
Service Standard ($ per Capita)	33.80	Eligible Amount	$11,679,662
Land 10 Year Average	**2007-2016**	**Development Charge Amount (before deductions)**	**10 Year**
Quantity Standard (Sqft per 1,000 Capita)	0.10	Net Population Increase + Employment Increase	345,565
Quality Standard ($ per Acre)	371,163.06	$ per Capita	35.84
Service Standard ($ per Capita)	35.84	Eligible Amount	$12,385,559
Total Eligible Amount (Facilities + Vehicles)			**$37,780,995**

Recoverable Cost Calculations:

				Less		Less		Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
Project Number	Project Description (2017-2026)	Timing	Gross Project Cost (2017-2026)	Grants and Subsidies	New Municipal Cost	Benefit to Existing	10% Statutory Deduction	Total Development Charge Eligible Cost	Growth Costs (2017-2026)	Post Period Benefit / Level of Service Deduction (Beyond 2026)	Residential	Non-Residential Share		
												Retail	Industrial/Office/ Institutional	Hotels
											33.00%	13.61%	52.20%	1.19%
Facilities														
1	Community Environmental Centre - Georgina Transfer Station #3 - Building Structures	2017	3,277,294	0	3,277,294	0	327,729	2,949,565	1,966,377	983,188	648,904	267,538	1,026,514	23,420
Equipment														
2	Community Environmental Centre - Georgina Transfer Station #3 - Scale	2017	72,706	0	72,706	0	7,271	65,435	43,623	21,812	14,396	5,935	22,773	520
Total			**3,350,000**	**0**	**3,350,000**	**0**	**335,000**	**3,015,000**	**2,010,000**	**1,005,000**	**663,300**	**273,473**	**1,049,287**	**23,940**

Table 10-11

Project Number	Project Description (2017-2026)	Timing	Gross Project Cost	Less	New Municipal Cost	Less		Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies		Benefit to Existing	10% Statutory Deduction	Total Development Charge Eligible Cost	Growth Costs (2017-2026)	Post Period Benefit / Level of Service Deduction (Beyond 2026)	Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotels
											100.00%	0.00%	0.00%	0.00%
Facilities														
3	Richmond Hill Community Environmental Centre - Household Hazardous Waste Depot - Building Structures	2017-2018	1,760,711	0	1,760,711	0	176,071	1,584,640	1,584,640	0	1,584,640	0	0	0
Equipment														
4	Richmond Hill Community Environmental Centre - Household Hazardous Waste Depot - Storage Units	2017-2018	100,000	0	100,000	0	10,000	90,000	60,000	30,000	60,000	0	0	0
Total			**1,860,711**	**0**	**1,860,711**	**0**	**186,071**	**1,674,640**	**1,644,640**	**30,000**	**1,644,640**	**0**	**0**	**0**

Project Number	Project Description (2017-2026)	Timing	Gross Project Cost	Less	New Municipal Cost	Less		Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies		Benefit to Existing	10% Statutory Deduction	Total Development Charge Eligible Cost	Growth Costs (2017-2026)	Post Period Benefit / Level of Service Deduction (Beyond 2026)	Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotels
											72.00%	5.69%	21.82%	0.50%
Equipment														
5	Richmond Hill Community Environmental Centre - Household Hazardous Waste Depot - Scales (in and out)	2017-2018	282,289	0	282,289	0	28,229	254,060	169,373	84,687	121,949	9,630	36,951	843
Total			**282,289**	**0**	**282,289**	**0**	**28,229**	**254,060**	**169,373**	**84,687**	**121,949**	**9,630**	**36,951**	**843**

Project Number	Project Description (2017-2026)	Timing	Gross Project Cost	Less	New Municipal Cost	Less		Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies		Benefit to Existing	10% Statutory Deduction	Total Development Charge Eligible Cost	Growth Costs (2017-2026)	Post Period Benefit / Level of Service Deduction (Beyond 2026)	Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotels
											100.00%	0.00%	0.00%	0.00%
Equipment														
6	Markham Household Hazardous Waste & Electronic Recy	2017-2018	4,230,000	0	4,230,000	3,513,764	71,624	644,613	429,742	214,871	429,742	0	0	0
Total			**4,230,000**	**0**	**4,230,000**	**3,513,764**	**71,624**	**644,613**	**429,742**	**214,871**	**429,742**	**0**	**0**	**0**
Grand Total			**9,723,000**	**0**	**9,723,000**	**3,513,764**	**620,924**	**5,588,313**	**4,253,755**	**1,334,558**	**2,859,631**	**283,103**	**1,086,238**	**24,783**

10.4 Public Works

10.4.1 2017 – 2031 Capital program description

The 15-year Public Works program (Tables 10-17) consists of facilities, vehicles and equipment.

Facilities	Southeast patrol yard works yard
Vehicles	New additions to the fleet for growth
Equipment	Snow melting equipment

10.4.2 Level of service

The 10-year historical level of service is based on the following:

- The replacement cost (land and buildings) of the Operations Centre, patrol yards and salt/sand storage (Tables 10-13 and 10-14);
- The replacement cost of the fleet of dump trucks (Table 10-15); and
- The replacement cost of the York Region's equipment inventory (both York Region owned and contracted) (Table 10-16).

10.4.3 Benefit to existing development deduction

Benefit to existing deduction applied to facilities, land, vehicles and equipment using the same methodology as was done in the Region's 2012 Development Charge Bylaw:

Southeast Patrol Area Works Yard (Main and Satellite Facilities)	5% deduction made
York Region Roads Operations Facility Strategy	5% deduction made
Portable Snow Melting Facilities	No deduction made
Fleet New Additions	No deduction made
SW/Central Roads Maintenance Facilities	5% deduction made
Capital Requirement for Roads Maintenance Yards	5% deduction made

10.4.4 Post period benefit deduction

The development charge program consists of 15 years of requirements. As the development charge eligible costs do not exceed the maximum permissible funding envelope, no post-period benefit shares are identified.

10.4.5 *Grants, subsidies and other contributions*

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

10.4.6 *10% statutory deduction*

Under the *Development Charges Act,* 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 Public Works services are considered to be related to a highway, and as such, no 10% deduction has been made.

10.4.7 *Residential versus non-residential allocation*

Based on the net increment in population and employment between 2017 and 2031, as follows:

TABLE 10-12

NET INCREMENT IN POPULATION AND EMPLOYMENT

	2017-31 Growth Increment	%
Net Residential Population	367,800	71.5*
Retail Employment	40,020	7.8
Hotel Employment	742	0.1
Non-retail Employment	105,640	20.5
Total Population and Employment	**514,203**	**100.0**

*Note: Number may not add due to rounding

Table 10-13

Public Works - Facilities (Excluding Land)

Square Footage

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Value ($ per Sqft)
EG Roads / YRP Operations Centre	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500	$250
North District Patrol Yard	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	16,058	$250
Southeast District Patrol Yard	15,450	15,450	15,450	15,450	15,450	15,450	15,450	15,450	15,450	15,450	$250
Southwest District Patrol Yard	10,190	10,190	10,190	10,190	10,190	10,190	10,190	10,190	10,190	5,000	$250
Central District Patrol Yard	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	$250
Total (Sqft)	**107,540**	**107,540**	**107,540**	**107,540**	**107,540**	**107,540**	**107,540**	**107,540**	**122,694**	**121,562**	**$250**

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per Capita Standard	0.0738	0.0721	0.0710	0.0693	0.0674	0.0657	0.0643	0.0630	0.0704	0.0683

10 Year Average	2007 - 2016
Quantity Standard (Sqft per Capita)	0.0685
Quality Standard ($ per Sqft)	$163.42
Service Standard ($ per Capita)	$11.20

Development Charge Amount (before deductions)	15 Year
Net Population Increase + Employment Increase	514,203
$ per Capita	$11.20
Eligible Amount	$5,758,304

Table 10-14

Public Works - Facilities (Land)

Acres

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Value ($ per Acre)
EG Roads / YRP Operations Centre	20	20	20	20	20	20	20	20	20	20	$500,000
North District Patrol Yard	20	20	20	20	20	20	20	20	20	20	$500,000
Southeast District Patrol Yard	6	6	6	6	6	6	6	6	60	60	$1,000,000
Southwest District Patrol Yard	14	14	14	14	14	14	14	14	14	14	$1,000,000
Central District Patrol Yard	10	10	10	10	10	10	10	10	10	10	$1,000,000
Salt/Sand Storage											
Total (Sqft)	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**124**	**124**	**$749,575**

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per 1,000 Capita Standard	0.0480	0.0469	0.0462	0.0451	0.0439	0.0428	0.0418	0.0410	0.0712	0.0697

10 Year Average	2007 - 2016
Quantity Standard (Sqft per Capita)	0.0497
Quality Standard ($ per Sqft)	$749,574.92
Service Standard ($ per Capita)	$37.22

Development Charge Amount (before deductions)	15 Year
Net Population Increase + Employment Increase	514,203
$ per Capita	$37.22
Eligible Amount	$19,140,874

Note:

Land for Salt/Sand Storage included in acreage for yard on which dome is located.

Table 10-15

Public Works - Vehicles

Number of Vehicles

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Replacement Value ($ per Vehicle)
Region Owned											
Stake/Utility (Med. Duty)	0	0	0	0	0	0	0	0	0	0	$50,751
Dump HD Tri-axle	1	1	1	1	1	1	1	1	1	1	$334,011
Dump HD Tandem & S/A	24	24	26	26	27	27	27	27	27	27	$283,260
Dump MD Reg or Crew	5	6	7	8	8	8	8	8	8	8	$181,758
Region Contracted											
Stake/Utility (Med. Duty)	0	0	0	0	0	0	0	0	0	0	$50,751
Dump HD Tri-axle	1	3	5	5	6	6	6	6	6	6	$334,011
Dump HD Tandem & S/A	27	34	40	48	55	55	55	55	55	55	$283,260
Dump MD Reg or Crew	0	0	0	0	0	0	0	0	0	0	$181,758
Total (#)	**58**	**68**	**79**	**88**	**97**	**97**	**97**	**97**	**97**	**97**	**$278,122**

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per 1000 Capita Standard	0.0398	0.0456	0.0522	0.0567	0.0608	0.0593	0.0580	0.0568	0.0557	0.0545

10 Year Average	2007 - 2016
Quantity Standard (Vehicles per 1,000 Capita)	0.0539
Quality Standard ($ per Vehicle)	$278,122.45
Service Standard ($ per Capita)	$15.00

Development Charge Amount (before deductions)	15 Year
Net Population Increase + Employment Increase	514,203
$ per Capita	$15.00
Eligible Amount	$7,712,357

Table 10-16

Public Works - Equipment

Number of Items

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Replacement Value ($ per Equipment)
Region Owned											
HD Line Marking Truck	1	1	1	1	1	1	1	1	1	1	$800,000
HD Off Road Equipment	6	7	7	6	8	8	11	11	12	12	$200,000
HD Single Axle Truck	5	5	5	7	8	8	8	8	8	8	$240,000
HD Snowmelter	0	0	0	0	0	0	0	1	1	1	$340,000
HD Streetsweeper	2	2	2	2	2	2	2	2	3	3	$100,000
HD Tandem Truck	18	20	20	20	18	18	19	19	19	19	$325,000
HD Crane Truck	6	4	4	4	4	4	4	4	4	5	$260,000
LD Car	29	24	24	22	26	26	26	26	26	26	$36,000
LD EV-Hybrid	4	12	12	12	12	9	13	13	13	13	$34,000
LD Off Road Equipment	5	5	6	6	6	6	8	8	8	8	$25,000
LD Pick-up	72	79	81	82	90	90	97	100	105	106	$38,000
LD SUV	0	2	2	3	4	15	23	24	24	24	$35,000
LD Van	41	39	39	33	40	37	38	40	57	57	$38,000
MD Off Road Equipment	18	19	19	18	19	16	16	16	16	16	$75,000
MD Pick-up 3/4+	15	14	14	13	20	17	17	18	20	20	$50,000
MD Stake Truck	11	11	11	11	12	11	11	11	11	11	$90,000
MD Van 3/4 +	26	24	25	25	33	34	38	38	40	40	$50,000
Rear Sander	0	0	0	0	0	0	2	4	4	4	$95,000
Trailer	42	62	62	69	71	73	82	88	91	92	$12,000

Table 10-16

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Replacement Value ($ per Equipment)
Region Contracted											
HD Bucket/Boom/Crane	0	0	0	0	0	0	0	0	0	0	$300,000
Graders	1	1	1	1	1	1	1	1	1	4	$375,000
Sweepers	1	1	1	1	1	1	1	1	1	6	$285,620
Tractor	1	1	1	1	1	1	1	1	1	4	$85,000
Loaders	2	2	3	3	4	4	4	4	4	7	$375,000
MD Bucket/Boom/Crane	0	0	0	0	1	1	1	1	1	0	$300,000
Trailer	0	0	0	0	0	0	0	0	0	0	$18,884
Paint Zone Marker	3	3	3	3	3	3	3	3	3	2	$1,180,249
Rubber Tire Backhoe	0	0	0	0	0	0	0	0	0	2	$375,000
Utility Vehicle	4	4	4	4	4	4	4	4	4	4	$25,000
Sign	0	0	0	0	0	0	0	0	0	0	$300,000
Mower	0	0	0	0	0	0	0	0	0	12	$25,000
Plow	0	0	0	0	0	0	0	0	0	81	$360,000
Miscellaneous	0	0	0	0	0	0	0	0	0	10	$25,965
Total (#)	**313**	**342**	**347**	**347**	**389**	**390**	**431**	**447**	**478**	**598**	**$82,213**

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per 1,000 Capita Standard	0.2147	0.2293	0.2291	0.2235	0.2439	0.2383	0.2576	0.2618	0.2744	0.3359

10 Year Average	2007 - 2016
Quantity Standard (Sqft per 1,000 Capita)	0.2509
Quality Standard ($ per Equipment)	$82,212.71
Service Standard ($ per Capita)	$20.62

Development Charge Amount (before deductions)	15 Year
Net Population Increase + Employment Increase	514,203
$ per Capita	$20.62
Eligible Amount	$10,604,936

Table 10-17

Public Works - Facilities, Vehicles and Equipment

Growth related Capital Costs

Council Approved Standard of Service Provided:

Facilities 10-Year Average	2007 - 2016	Development Charge Amount (before deductions)	15 Year
Quantity Standard (Sqft per Capita)	0.07	Net Population Increase + Employment Increase	514,203
Quality Standard ($ per Sqft)	163.42	$ per Capita	11.20
Service Standard ($ per Capita)	11.20	Eligible Amount	$5,758,304
Land 10-Year Average	**2007 - 2016**	**Development Charge Amount (before deductions)**	**15 Year**
Quantity Standard (Sqft per Capita)	0.05	Net Population Increase + Employment Increase	514,203
Quality Standard ($ per Sqft)	749,574.92	$ per Capita	37.22
Service Standard ($ per Capita)	37.22	Eligible Amount	$19,140,874
Vehicles 10-Year Average	**2007 - 2016**	**Development Charge Amount (before deductions)**	**15 Year**
Quantity Standard (Vehicles per 1,000 Capita)	0.05	Net Population Increase + Employment Increase	514,203
Quality Standard ($ per Vehicle)	278,122.45	$ per Capita	15.00
Service Standard ($ per Capita)	15.00	Eligible Amount	$7,712,357
Equipment 10-Year Average	**2007 - 2016**	**Development Charge Amount (before deductions)**	**15 Year**
Quantity Standard (Sqft per 1,000 Capita)	0.25	Net Population Increase + Employment Increase	514,203
Quality Standard ($ per Equipment)	82,212.71	$ per Capita	20.62
Service Standard ($ per Capita)	20.62	Eligible Amount	$10,604,936
Total Eligible Amount (Facilities + Land + Vehicles + Equipment)			**$43,216,470**

Recoverable Cost Calculations:

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less	New Municipal Cost	Less Ineligible costs	Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies		Benefit to Existing	Total Development Charge Eligible Cost	Growth Costs (2017-2031)	Post Period Benefit / Level of Service Deduction (Beyond 2031)	Residential	Non-Residential Share: Retail	Industrial/Office/ Institutional	Hotel
										71.53%	7.78%	20.54%	0.14%
1	Fleet New Additions	2017-2031	6,600,000	0	6,600,000	0	6,600,000	1,967,101	4,632,899	1,407,031	153,099	404,131	2,840
2	Capital Requirement for Roads Maintenance Yards	2017-2020	6,840,000	0	6,840,000	342,000	6,498,000	1,936,701	4,561,299	1,385,286	150,733	397,885	2,796
3	Portable Snow Melting Facilities	2018	450,000	0	450,000	0	450,000	134,121	315,879	95,934	10,439	27,554	194
4	York Region Roads Operations Facility Strategy	2017-2021	600,000	0	600,000	30,000	570,000	169,886	400,114	121,516	13,222	34,902	245
5	SW/Central Roads Maintenance Facilities	2017-2029	80,200,000	0	80,200,000	4,010,000	76,190,000	22,708,098	53,481,902	16,242,678	1,767,371	4,665,265	32,784
6	Southeast Patrol Area Works Yard (Main & Satellite Facilities)	2017-2028	57,570,000	0	57,570,000	2,878,500	54,691,500	16,300,564	38,390,936	11,659,488	1,268,673	3,348,869	23,533
Total			**152,260,000**	**0**	**152,260,000**	**7,260,500**	**144,999,500**	**43,216,470**	**101,783,030**	**30,911,933**	**3,363,538**	**8,878,607**	**62,393**

10.5 Paramedic Services (formerly Emergency Medical Services)

10.5.1 2017 – 2026 Capital program description

The 10-year Paramedic Services capital program (Table 10-21) consists of:

Facilities	14 additional growth-related bays, four new stations, land acquisitions and station rebuilds for future growth.
Vehicles	New vehicles (e.g., ambulances).

10.5.2 Level of service

The 10-year historical level of service is comprised of the following:

- Existing paramedic response stations throughout York Region plus headquarters, net of general administration space (Table 10-19). This space has been valued based on estimated 2017 replacement cost per square foot, including an allowance for land purchase, site servicing and equipment;

- Vehicles, including ambulances, emergency response vehicles and support vehicles, inclusive of specialized equipment, administration vehicles, special response units (Table 10-20).

For services such as Paramedic Services, it is recognized that response times are critical measures of service delivery and that development can fundamentally impact the ability to provide such services at historical levels. The increase in need for service arising from new development, as identified in the capital program, has also been informed, in part, by the need to provide and meet identified response time measures.

10.5.3 Benefit to existing development deduction

Facilities	25% to 67% deduction made for additional bays added as a result of facilities being moved from leased sites to an owned site. No benefit to existing share was identified for new, additional facilities as they are 100% growth-related. 50% deduction made for Paramedic Response Station Rebuilds. 11% to 25% deduction made for land acquisitions.
Vehicles	No benefit to existing share was identified for additional vehicles added in proportion to the growth-related increment in call volume.

10.5.4 Post period benefit deduction

The development charge program consists of 10 years of requirements. No deduction for post period benefit has been made. The development charge program is related to development occurring over the 2017-2026 planning period.

10.5.5 Grants, subsidies and other contributions

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

10.5.6 10% statutory deduction

Pursuant to s.s.5 (1)8 of the *Development Charges Act*, a 10 per cent deduction is applicable to this service and has been removed from the development charge eligible costs.

10.5.7 Residential versus non-residential allocation

The residential versus non-residential allocation is based on the net increment in population and employment between 2017-2026, with population weighted at three times that of employment in order to reflect increased per capita needs related to age and time spent in residence.

TABLE 10-18

NET INCREMENT OF POPULATION AND EMPLOYMENT

	2017-26 Growth Increment	Weighted		%*
Net Residential Population	240,100	X 3	720,300	87.2
Retail Employment	28,803	X 1	28,803	3.5
Hotel Employment	507	X 1	507	0.1
Non-retail Employment	76,154	X 1	76,154	9.2
Total Population and Employment	**345,565**		**825,764**	**100.0**

*Note: Numbers may not add due to rounding

Table 10-19

Paramedic Services - Facilities

Square Footage

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Value ($ per Sqft)
Paramedic Response Stations											
Pefferlaw (Georgina)	655	655	655	655	655	655	655	655	2,279	2,279	$1,206
Sutton (Georgina)	1,937	1,937	1,937	1,937	1,937	1,937	1,937	1,937	1,937	1,937	$1,206
Keswick (Georgina)	2,278	2,278	2,278	2,278	2,278	2,278	2,278	2,278	2,278	2,278	$1,206
Queensville (East Gwillimbury)	957	957	957	957	957	957	957	957	0	0	$1,206
Mount Albert (East Gwillimbury)	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	$1,206
McCaffrey (Newmarket)	0	0	0	0	0	0	0	0	0	0	$0
Stevens Court (Newmarket)	0	0	0	0	0	0	0	0	0	0	$0
Gorham	0	0	0	0	0	0	0	0	0	0	$0
Cane Parkway	9,179	9,179	9,179	9,179	9,179	9,179	9,179	9,179	9,179	9,179	$1,206
Nobleton (King)	3,220	3,220	3,220	3,220	3,220	3,220	3,220	3,220	3,220	3,220	$1,206
King	3,724	3,724	3,724	3,724	3,724	3,724	3,724	3,724	3,724	3,724	$1,206
Stouffville (Whitchurch/Stouffville)	2,168	2,168	2,168	2,168	2,168	2,168	2,168	2,168	2,168	2,168	$1,206
Ballantrae Whitchurch/Stouffville)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	$1,206
Maple (Vaughan)	2,226	2,226	2,226	2,226	2,226	2,226	2,226	2,226	2,226	2,226	$1,206
Woodbridge (Vaughan)	0	0	0	0	0	0	0	0	0	0	$0
Bathurst/Clark (Vaughan)	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	$1,206
Racco Parkway (Vaughan)	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	$1,206
Rutherford / Islington (Vaughan)	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	$1,206
Thornhill (Markham)	0	0	0	0	0	0	0	0	0	0	$0
Unionville (Markham)	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	$1,206
280 Church St. (Markham)	6,276	6,276	6,276	6,276	6,276	6,276	6,276	6,276	6,276	6,276	$1,206
Woodbine / Riviera	4,445	4,445	4,445	4,445	4,445	4,445	4,445	4,445	4,445	4,445	$1,206
Aurora (Aurora)	2,037	2,037	2,037	2,037	2,037	2,037	2,037	2,037	2,037	2,037	$1,206
Richmond Hill (Richmond Hill)	0	0	0	0	0	0	0	0	0	0	$0
Major Mack / Yonge (Richmond Hill)	6,634	6,634	6,634	6,634	6,634	6,634	6,634	6,634	6,634	6,634	$1,206
Schomberg	0	0	0	0	2,200	2,200	2,200	2,200	2,200	2,200	$1,206
Sharon-Bales HQ[1]	0	0	0	0	63,564	63,564	63,564	63,564	63,564	63,564	$1,206
Holland Landing (replaced Queensville)	0	0	0	0	0	0	0	0	2,076	2,076	$1,206
Total (Sqft)	**65,689**	**65,689**	**65,689**	**65,689**	**131,453**	**131,453**	**131,453**	**131,453**	**134,196**	**134,196**	**$1,206**

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per Capita Standard	0.0451	0.0440	0.0434	0.0423	0.0824	0.0803	0.0786	0.0770	0.0770	0.0754

10 Year Average	2007-2016
Quantity Standard (Sqft per Capita)	0.0646
Quality Standard ($ per Sqft)	$1,205.85
Service Standard ($ per Capita)	$77.84

Development Charge Amount (before deductions)	10 Year
Net Population Increase + Employment Increase	345,565
$ per Capita	$77.84
Eligible Amount	$26,898,969

Table 10-20

Paramedic Services - Vehicles

Number of Vehicles

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Replacement Value ($ per Vehicle)
Paramedic Vehicles											
Ambulances (includes Stretcher & Defib)	43	46	46	46	47	49	54	54	56	58	$234,600
Emergency Response Vehicles (incl. Defib)	13	15	15	15	15	17	19	19	20	22	$122,400
Emergency Support Vehicles	1	1	1	1	1	1	1	1	1	1	$295,062
MPU	0	0	0	0	0	0	1	1	1	1	$1,100,000
Administration Vehicles	1	1	1	1	1	0	13	13	11	11	$65,000
Special Response Units (SRU)	0	0	0	0	0	0	4	4	4	4	$145,220
EPIC (Expanding Paramedicine in the Community) (incl. Defib)	0	0	0	0	0	0	2	2	2	2	$122,400
Total (#)	**58**	**63**	**63**	**63**	**64**	**67**	**94**	**94**	**95**	**99**	**$200,325**

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per 1,000 Capita Standard	0.0398	0.0422	0.0416	0.0406	0.0401	0.0409	0.0562	0.0551	0.0545	0.0556

10 Year Average	2007-2016
Quantity Standard (Vehicles per 1,000 Capita)	0.0467
Quality Standard ($ per Vehicle)	$200,324.56
Service Standard ($ per Capita)	$9.35

Development Charge Amount (before deductions)	10 Year
Net Population Increase + Employment Increase	345,565
$ per Capita	$9.35
Eligible Amount	$3,230,488

Notes:

1. Vehicles can be listed if growth related & they have a life of at least 7 years, or is deemed 7 years if 24/7.

2. Admin portion removal is applicable to Facilities only, not applicable to Vehicles.

Table 10-21

Paramedic Services - Facilities and Vehicles

Growth related Capital Costs

Council Approved Standard of Service Provided:

Facilities 10 Year Average	2007-2016	Development Charge Amount (before deductions)	10 Year
Quantity Standard (Sqft per Capita)	0.06	Net Population Increase + Employment Increase	345,565
Quality Standard ($ per Sqft)	1,205.85	$ per Capita	77.84
Service Standard ($ per Capita)	77.84	Eligible Amount	$26,898,969
Vehicles 10 Year Average	**2007-2016**	**Development Charge Amount (before deductions)**	**10 Year**
Quantity Standard (Vehicles per 1,000 Capita)	0.05	Net Population Increase + Employment Increase	345,565
Quality Standard ($ per Vehicle)	200,324.56	$ per Capita	9.35
Service Standard ($ per Capita)	9.35	Eligible Amount	$3,230,488
Total Eligible Amount (Facilities + Vehicles)			**$30,129,457**

Recoverable Cost Calculations:

Project Number	Project Description (2017-2026)	Timing	Gross Project Cost (2017-2026)	Less	New Municipal Cost	Less Ineligible costs		Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies		Benefit to Existing	10% Statutory Deduction	Total Development Charge Eligible Cost	Growth Costs (2017-2026)	Post Period Benefit / Level of Service Deduction (Beyond 2026)	Residential	Non-Residential Share		
												Retail	Industrial/Office/ Institutional	Hotel
											87.23%	3.49%	9.22%	0.06%
Facilities														
1	Holland Landing Paramedic Response Station #13 (from 1 to 4 bays)	2017	3,459,000	0	3,459,000	864,750	259,425	2,334,825	2,096,961	237,864	1,829,141	73,143	193,388	1,288
2	Maple Paramedic Response Station #32 (from 1 to 4 bays)	2017-2019	3,431,000	0	3,431,000	857,750	257,325	2,315,925	2,079,986	235,939	1,814,335	72,551	191,822	1,278
3	Ballantrae Paramedic Response Station #20 (from 1 to 2 bays)	2019	2,450,000	0	2,450,000	1,225,000	122,500	1,102,500	990,181	112,319	863,717	34,538	91,317	608
4	Newmarket NW Paramedic Response Station #16 (from one 8 bay to two 6 bays)	2017-2018	4,027,000	0	4,027,000	2,684,667	134,233	1,208,100	1,085,023	123,077	946,446	37,846	100,064	667
5	Newmarket SE Paramedic Response Station #19 (from one 8 bay to two 6 bays)	2017-2018	5,301,000	0	5,301,000	3,534,000	176,700	1,590,300	1,428,286	162,014	1,245,868	49,820	131,721	877
6	Thornhill Central - Paramedic Response Station #36 (from 1 to 4 bays)	2017-2019	3,432,000	0	3,432,000	858,000	257,400	2,316,600	2,080,593	236,007	1,814,864	72,572	191,878	1,278
7	Paramedic Response Station Rebuilds - Rehab Future Replacement	2024-2026	7,208,000	0	7,208,000	3,604,000	360,400	3,243,600	2,913,153	330,447	2,541,091	101,613	268,660	1,790
8	Land Acquisition - Growth	2017-2021	8,975,000	0	8,975,000	987,250	798,775	7,188,975	6,456,586	732,389	5,631,965	225,210	595,445	3,966
9	Land Acquisition - Replacement	2017	1,600,000	0	1,600,000	400,000	120,000	1,080,000	969,973	110,027	846,090	33,833	89,454	596
	Subtotal		**39,883,000**	**0**	**39,883,000**	**15,015,417**	**2,486,758**	**22,380,825**	**20,100,742**	**2,280,083**	**17,533,518**	**701,127**	**1,853,750**	**12,348**
Facilities - New Growth-related Projects														
10	South Woodbridge Paramedic Response Station #31	2017	424,000	0	424,000	0	42,400	381,600	342,724	38,876	298,952	11,954	31,607	211
11	Richmond Hill South East Paramedic Response Station #27	2019-2020	3,433,000	0	3,433,000	0	343,300	3,089,700	2,774,932	314,768	2,420,523	96,791	255,912	1,705
12	South Markham Paramedic Response Station #25	2017-2018	3,231,000	0	3,231,000	0	323,100	2,907,900	2,611,653	296,247	2,278,098	91,096	240,854	1,604
13	Oak Ridges Paramedic Response Station #29	2017-2019	2,450,000	0	2,450,000	0	245,000	2,205,000	1,980,362	224,638	1,727,434	69,076	182,635	1,217
14	Paramedic Response Station Rebuilds - Growth Future	2017-2026	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal		**9,538,000**	**0**	**9,538,000**	**0**	**953,800**	**8,584,200**	**7,709,671**	**874,529**	**6,725,008**	**268,918**	**711,009**	**4,736**

Table 10-21

Project Number	Project Description (2017-2026)	Timing	Gross Project Cost (2017-2026)	Less: Grants and Subsidies	New Municipal Cost	Less Ineligible costs: Benefit to Existing	Less Ineligible costs: 10% Statutory Deduction	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Potential Development Charge Recoverable Costs: Growth Costs (2017-2026)	Potential Development Charge Recoverable Costs: Post Period Benefit / Level of Service Deduction (Beyond 2026)	Residential and Non-residential Split: Residential	Non-Residential Share: Retail	Non-Residential Share: Industrial/Office/ Institutional	Non-Residential Share: Hotel
											87.23%	3.49%	9.22%	0.06%
Vehicles - Growth-related														
15	PS Vehicles New	2017-2026	2,869,000	0	2,869,000	0	286,900	2,582,100	2,319,044	263,056	2,022,861	80,890	213,869	1,425
	Subtotal		**2,869,000**	**0**	**2,869,000**	**0**	**286,900**	**2,582,100**	**2,319,044**	**263,056**	**2,022,861**	**80,890**	**213,869**	**1,425**
Total			**52,290,000**	**0**	**52,290,000**	**15,015,417**	**3,727,458**	**33,547,125**	**30,129,457**	**3,417,668**	**26,281,387**	**1,050,935**	**2,778,627**	**18,508**

10.6 Public Health

10.6.1 2017 – 2026 Capital program description

The 10-year Public Health capital program (Table 10-23) consists of the provision of additional space for growth-related service expansions as, in part, reflected in York Region's 2017 capital budget.

10.6.2 Level of service

The 10-year historical service level is made up of a number of operating locations, including the Administrative Building, net of Headquarters Administration functions. This space has been valued at 2017 replacement cost per square foot, including an allowance for land purchase and site servicing (Table 10-22). No deductions "Ineligible re level of service" have been made.

10.6.3 Benefit to existing development deduction

As the provision for future facilities is entirely related to the providing an increase in need for service arising from new development over the planning period, no benefit to existing deduction has been made.

10.6.4 Post period benefit deduction

The development charge program consists of 10 years of requirements. No deduction for post period benefit has been made.

10.6.5 Grants, subsidies and other contributions

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

10.6.6 10% statutory deduction

Pursuant to s.s.5 (1)8 of the *Development Charges Act*, a 10 per cent deduction is applicable to this service and has been removed from the development charge eligible costs.

10.6.7 Residential versus non-residential allocation

Public Health primarily provided services to residences of York Region; however, some of its functions benefit non-residential development. The basis for determining the allocation between residential and non-residential sectors is the proportionate share of the 2017 operating budget. The methodology for determining this share is two-fold:

Using the direct beneficiary where applicable (e.g., “Reproductive Health’s” direct beneficiary is residential development); and

- Where the service is provided in other locations, it is apportioned based on the location the service is provided (e.g., “Food Safety”; 80% of the service is provided in non-residential settings and as such the split would be apportioned as such).

Based on this methodology an allocation of 95:5, residential/non-residential split, is adopted for the purposes of allocating growth-related costs for the development charges calculation.

Table 10-22

Public Health - Facilities

Square Footage

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Value ($ per Sqft)
22 Prospect St. (Newmarket)	10,939	10,939	10,939	10,939	10,939	10,939	10,939	10,939	10,939	10,939	$720
4261 Highway 7 (Markham)	14,022	14,022	14,022	14,022	14,022	16,056	16,056	16,056	16,056	16,056	$783
465 Davis Drive	27,137	27,137	27,137	27,137	27,137	27,137	27,137	23,616	23,616	23,616	$720
50 High Tech Road	30,286	30,286	30,286	30,286	30,286	21,495	21,495	21,495	21,495	21,495	$962
194 Eagle Street (Newmarket)	6,828	6,828	6,828	6,828	6,828	6,670	6,670	6,670	6,670	6,670	$720
13990 Dufferin St. (King - Seneca Coll)	200	200	200	200	200	0	0	0	0	0	$738
71 Bruce St. (Woodbridge)	80	80	80	80	80	0	0	0	0	0	$780
100 Biscayne Blvd. (Keswick)	220	220	220	220	220	220	220	220	220	220	$696
20798 Dalton Road (Sutton)	300	300	300	300	300	300	300	300	300	300	$678
Vaughan Community Health Center	0	0	0	189	189	189	189	189	0	0	$780
520 Cane Parkway	0	0	0	0	0	3,818	3,818	3,818	3,818	3,818	$814
24262 Woodbine (Keswick)	0	0	0	0	0	812	812	812	812	812	$790
62 Bayview Parkway (Newmarket)	0	0	0	0	0	0	0	0	0	0	$720
13175 Yonge St (Oak Ridges)	0	0	0	0	0	0	0	0	0	0	$962
9060 Jane St (Vaughan)	0	0	0	0	0	0	0	34,215	34,215	34,215	$780
3901 Hwy 7 (Woodbridge)	0	0	0	0	0	48	48	48	0	0	$780
Total (Sqft)	**90,012**	**90,012**	**90,012**	**90,201**	**90,201**	**87,684**	**87,684**	**118,378**	**118,141**	**118,141**	**$802**

Net Population + Net Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per Capita Standard	0.0617	0.0603	0.0594	0.0581	0.0566	0.0536	0.0524	0.0693	0.0678	0.0664

10 Year Average	2007-2016
Quantity Standard (Sqft per Capita)	0.0606
Quality Standard ($ per Sqft)	$802.38
Service Standard ($ per Capita)	$48.60

Development Charge Amount (before deductions)	10 Year
Net Population Increase + Employment Increase	356,928
$ per Capita	$48.60
Eligible Amount	$17,346,712

Table 10-23

Public Health - Facilities

Growth related Capital Costs

Council Approved Standard of Service Provided:

10 Year Average	2007-2016	Development Charge Amount (before deductions)	10 Year
Quantity Standard (Sqft per Capita)	0.06	Net Population Increase + Employment Increase	356,928
Quality Standard ($ per Sqft)	802.38	$ per Capita	48.60
Service Standard ($ per Capita)	48.60	Eligible Amount	$17,346,712
Total Eligible Amount			**$17,346,712**

Recoverable Cost Calculations:

Project Number	Project Description (2017-2026)	Timing	Gross Project Cost (2017-2026)	Less	New Municipal Cost	Less Ineligible costs		Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies		Benefit to Existing	10% Statutory Deduction	Total Development Charge Eligible Cost	Growth Costs (2017-2026)	Post Period Benefit / Level of Service Deduction (Beyond 2026)	Residential	Non-Residential Share		
												Retail	Industrial/Office/ Institutional	Hotel
											95.00%	1.30%	3.68%	0.02%
1	Provision for Future Facilities	2017-2026	17,347,000	0	17,347,000	0	1,734,700	15,612,300	15,612,300	0	14,831,685	202,763	574,462	3,389
Total			**17,347,000**	**0**	**17,347,000**	**0**	**1,734,700**	**15,612,300**	**15,612,300**	**0**	**14,831,685**	**202,763**	**574,462**	**3,389**

10.7 Social Housing

10.7.1 2017 – 2026 capital program description

The 10-year capital plan (Table 10-25) involves redevelopment projects in Unionville and Woodbridge, the building of a housing and community hub in Richmond Hill, pre-development costs, land acquisitions and a regeneration expansion program.

10.7.2 Level of service

York Region's 10-year historical level of service is based on housing units operated by Housing York Inc., as well as and a large number of non-profit corporations, co-operatives and other providers. The average replacement cost, inclusive of land value and site servicing has been applied. No deductions re Ineligible level of service have been made.

10.7.3 Benefit to existing development deduction

A significant wait list exists in York Region for social housing. Due that the demand is largely drive by existing development, the growth-related cost has been calculated as 17% of total net capital program cost, with the benefit to existing share being 83%. That is, 240,100 person growth increment (2017 to 2026) ÷ 1,418,000 (total 2026 population) equals 17%.

10.7.4 Post period benefit deduction

The development charge program is entirely related to development occurring over the 2017 to 2026 period. No deduction for post period benefit has been made.

10.7.5 Grants, subsidies and other contributions

Any anticipated grants, subsidies and other contributions have been deducted from the development charge eligible costs in accordance with the requirements of the *Development Charges Act*. The grants are primarily from senior levels of government; however, the amounts vary by project and are not based on a set formula. For the projects listed, the anticipated grants are as follows:

- Unionville Redevelopment – $23,713,000
- Woodbridge Redevelopment – $10,408,000
- Regeneration-Expansion Program – $12,520,000

10.7.6 10% statutory deduction

Pursuant to s.s.5 (1)8 of the *Development Charges Act*, a 10% deduction has been made.

10.7.7 Residential versus non-residential allocation

This program is solely for the benefit of residential development. As such, 100% of the development charge eligible costs have been allocated to residential development.

Table 10-24

Social Housing - Facilities

Number of Units

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Value ($ per Sqft)
Projects Transferred to Region (Pre-2002)											
Annswell Court Foundation	39	39	39	39	39	39	39	39	39	39	$235,547
Bethany Co-operative Homes Inc.	68	68	68	68	68	68	68	68	68	68	$333,984
Bogart Creek Co-operative Homes Inc.	40	40	40	40	40	40	40	40	40	40	$304,979
Branch 414 Legion Village Non-Profit Housing Corp.	30	30	30	30	30	30	30	30	30	30	$600,409
Calvary House (Markham) Corp.	100	100	100	100	100	100	100	100	100	100	$401,962
Carpenters Local 27 Housing Co-operative Inc.	119	119	119	119	119	119	119	119	119	119	$283,122
Centre Green Co-operative Homes Inc.	42	42	42	42	42	42	42	42	42	42	$440,863
Charles Darrow Housing Co-operative Inc.	107	107	107	107	107	107	107	107	107	107	$597,263
City of Vaughan Non-Profit	31	31	31	31	31	0	0	0	0	0	$0
Davis Drive Non-Profit Homes Corp.	119	119	119	119	119	119	119	119	119	119	$219,346
Friuli Benevolent Corporation	113	113	113	113	113	113	113	113	113	113	$249,442
German-Canadian Housing of Newmarket Inc.	135	135	135	135	135	135	135	135	135	135	$380,594
Hagerman Corners Community Homes Inc.	81	81	81	81	81	81	81	81	81	81	$329,476
Inter Faith Homes (Centenary) Corporation	149	149	149	149	149	149	149	149	149	149	$347,255
Ja'fari Islamic Housing Corporation	170	170	170	170	170	170	170	170	170	170	$450,593
John Fitzpatrick Steelworkers Housing Co-operative Inc.	180	180	180	180	180	180	180	180	180	180	$428,322
Jubilee Garden Non-Profit Housing Corp.	100	100	100	100	100	100	100	100	100	100	$454,775
Kinsmen Non Profit Housing Corporation	187	187	187	187	187	187	187	187	187	187	$310,970
Landsberg Lewis Housing Co-operative Inc.	149	149	149	149	149	149	149	149	149	149	$429,890
Machell's Corners Housing Co-operative Inc.	67	67	67	67	67	67	67	67	67	67	$558,836
Mennonite Home Association	0	0	0	0	0	0	0	0	0	0	$0
Mount Albert United Church Seniors Foundation	52	52	0	0	0	0	0	0	0	0	$0
Oakwil Non-Profit Homes Corporation	28	28	28	28	28	28	28	28	28	28	$490,969
OHR Somayach Residential Centre Inc.	125	125	125	125	125	125	125	125	125	125	$214,135
Our Lady of Smolensk	35	35	35	35	35	35	35	35	35	35	$187,069
Parkview Retirement Assoc. of York Region	124	124	124	124	124	124	124	124	124	124	$211,808
Pefferlaw and Lions Housing Corp.	26	26	26	26	26	26	26	26	26	26	$267,024
Prophetic Non-Profit (Richmond Hill) Inc.	212	212	212	212	212	212	212	213	213	213	$288,871
Richmond Hill Co-operative Homes Inc.	105	105	105	105	105	105	105	105	105	105	$499,623
Richmond Hill Ecumenical Homes Corporation	500	500	500	500	500	500	500	500	500	500	$254,661
Robinson Street Non-Profit Homes (Markham) Inc.	26	26	26	26	26	26	26	26	26	26	$257,856

Table 10-24

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Value ($ per Sqft)
Rougebank Foundation	118	118	118	118	118	118	118	118	118	118	$186,838
Schomberg Lions Club Non-Profit Housing Corp.	32	32	32	32	32	32	32	32	32	32	$265,203
St. Matthew's Non-Profit Homes Inc.	23	23	23	23	23	23	23	23	23	23	$616,343
St. Peter's Seniors' Residence Woodbridge Inc.	65	65	65	65	65	65	65	65	65	65	$319,345
Thornhill St. Luke's Seniors Home Inc.	96	96	96	96	96	96	96	96	96	96	$271,828
Unionville Home Society	92	92	92	92	92	92	92	92	92	92	$280,512
United Church Developments (York Presbytery)	90	90	90	90	90	90	90	90	90	90	$376,750
Water Street Non-Profit Homes Inc.	150	150	150	150	150	150	150	150	150	150	$295,747
Housing York Inc. - Thornhill Green	101	101	101	101	101	102	102	102	102	102	$503,513
Housing York Inc. - 275 Woodbridge Ave.	32	32	32	32	32	32	32	32	32	32	$220,423
Housing York Inc. - Brayfield Manors	81	81	81	81	81	81	81	81	81	81	$596,253
Housing York Inc. - Dunlop Pines	133	133	133	133	133	133	133	133	133	133	$172,023
Housing York Inc. - East Court	10	10	10	10	10	10	10	10	10	10	$286,598
Housing York Inc. - Elmwood Gardens	51	51	51	51	51	51	51	51	51	51	$130,876
Housing York Inc. - Evergreen Terrace	56	56	56	56	56	56	56	56	56	56	$198,023
Housing York Inc. - Fairy Lake Gardens	153	153	153	153	153	153	153	153	153	153	$223,437
Housing York Inc. - Founders Place	100	100	100	100	100	100	100	100	100	100	$183,379
Housing York Inc. - Glenwood Mews	64	64	64	64	64	64	64	64	64	64	$269,930
Housing York Inc. - Hadley Grange	80	80	80	80	80	80	80	80	80	80	$321,637
Housing York Inc. - Heritage East	120	120	120	120	120	120	120	120	120	120	$262,520
Housing York Inc. - Keswick Gardens	120	120	120	120	120	120	120	120	120	120	$189,367
Housing York Inc. - Kingview Court	27	27	27	27	27	27	27	27	27	27	$151,896
Housing York Inc. - Maplewood Place	80	80	80	80	80	80	80	80	80	80	$217,468
Housing York Inc. - Mulock Village	104	104	104	104	104	104	104	104	104	104	$410,487
Housing York Inc. - Nobleview Pines	26	26	26	26	26	26	26	26	26	26	$407,278
Housing York Inc. - Northview Court	72	72	72	72	72	72	72	72	72	72	$158,546
Housing York Inc. - Orchard Heights Place	83	83	83	83	83	83	83	83	83	83	$169,709
Housing York Inc. - Oxford Village	36	36	36	36	36	36	36	36	36	36	$235,898
Housing York Inc. - Pineview Terrace	49	49	49	49	49	49	49	49	49	49	$167,177
Housing York Inc. - Porter Place	25	25	25	25	25	25	25	25	25	25	$297,878
Housing York Inc. - Leeder Place	0	0	0	0	15	15	15	15	15	15	$361,268
Housing York Inc. - Rosetown	125	125	125	125	125	125	125	125	125	125	$213,929
Housing York Inc. - Springbrook Gardens	93	93	93	93	93	93	93	93	93	93	$500,858
Housing York Inc. - Trinity Square	100	100	100	100	100	100	100	100	100	100	$405,757
Housing York Inc. - Woodbridge Lane	14	14	14	14	14	14	14	14	14	14	$480,535

Table 10-24

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Value ($ per Sqft)
Projects Added by Region (Since 2002)											
Housing York Inc. - Armitage Gardens	58	58	58	58	58	58	58	58	58	58	$445,471
Housing York Inc. - Blue Willow Terrace	60	60	60	60	60	60	60	60	60	60	$310,624
Housing York Inc. - Tom Taylor Place	0	50	50	50	50	50	50	50	50	50	$297,310
Housing York Inc. - Dew St. Kingview Court	0	0	0	0	39	39	39	39	39	39	$226,210
East Markham Non-Profit Homes Inc.	0	0	0	120	120	120	120	120	120	120	$309,278
Voice of Vedas Cultural Sabha Inc.	0	0	0	25	25	25	25	25	25	25	$277,107
Deafblind Ontario Services	0	0	0	4	4	4	4	4	4	4	$195,774
Deafblind Ontario Services	0	0	0	4	4	4	4	4	4	4	$194,292
Hesperus Fellowship Village	0	0	0	0	60	60	60	60	60	60	$403,915
REENA	0	0	0	0	0	60	60	60	60	60	$406,850
Mount Albert	0	0	0	0	0	30	30	30	30	30	$283,078
Housing York Inc. - Mackenzie Green	0	0	0	0	0	0	140	140	140	140	$236,479
Housing York Inc. - Mapleglen Residences	0	0	0	0	0	84	84	84	84	84	$258,647
Deafblind Ontario Services	0	0	0	0	0	0	4	4	4	4	$252,350
Housing York Inc. - Lakeside Residences	0	0	0	0	0	0	0	97	97	97	$180,901
Richmond Hill Hub	0	0	0	0	0	0	0	0	0	202	$253,599
Crescent Village	0	0	0	0	0	0	0	0	28	28	$136,151
Belinda's Place	0	0	0	0	0	0	0	0	0	37	$218,866
Total (#)	**5,978**	**6,028**	**5,976**	**6,129**	**6,243**	**6,387**	**6,531**	**6,629**	**6,657**	**6,896**	**$314,530**

Population	977,800	1,004,500	1,022,900	1,050,000	1,074,700	1,095,600	1,115,400	1,136,300	1,155,800	1,177,900
Per Capita Standard	0.0061	0.0060	0.0058	0.0058	0.0058	0.0058	0.0059	0.0058	0.0058	0.0059

10 Year Average	2007-2016
Quantity Standard (Sqft per Capita)	0.0059
Quality Standard ($ per Sqft)	$314,529.70
Service Standard ($ per Capita)	$1,847.42

Development Charge Amount (before deductions)	10 Year
Net Population Increase	240,100
$ per Capita	$1,847.42
Eligible Amount	$443,566,702

Table 10-25

Social Housing - Facilities

Growth related Capital Costs

Council Approved Standard of Service Provided:

10 Year Average	2007-2016	Development Charge Amount (before deductions)	10 Year
Quantity Standard (Sqft per Capita)	0.01	Net Population Increase	240,100
Quality Standard ($ per Sqft)	314,529.70	$ per Capita	1,847.42
Service Standard ($ per Capita)	1,847.42	Eligible Amount	$443,566,702
Total Eligible Amount			**$443,566,702**

Recoverable Cost Calculations:

Project Number	Project Description (2017-2026)	Timing	Gross Project Cost (2017-2026)	Less: Grants and Subsidies	New Municipal Cost	Less Ineligible costs: Benefit to Existing	Less Ineligible costs: 10% Statutory Deduction	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Potential Development Charge Recoverable Costs: Growth Costs (2017-2026)	Potential Development Charge Recoverable Costs: Post Period Benefit / Level of Service Deduction (Beyond 2026)	Residential and Non-residential Split: Residential 100.00%	Non-Residential Share: Retail 0.00%	Non-Residential Share: Industrial/Office/ Institutional 0.00%	Non-Residential Share: Hotel 0.00%
1	Pre-Development Costs	2017-2026	1,400,000	0	1,400,000	1,162,948	23,705	213,347	213,347	0	213,347	0	0	0
2	Unionville Redevelopment	2017-2020	74,292,000	23,713,000	50,579,000	42,014,812	856,419	7,707,769	7,707,769	0	7,707,769	0	0	0
3	Woodbridge Redevelopment	2017-2019	44,311,000	10,408,000	33,903,000	28,162,443	574,056	5,166,502	5,166,502	0	5,166,502	0	0	0
4	Richmond Hill Housing and Community Hub	2017-2017	171,000	0	171,000	142,046	2,895	26,059	26,059	0	26,059	0	0	0
5	Land Acquisition	2026-2026	5,000,000	0	5,000,000	4,153,385	84,661	761,953	761,953	0	761,953	0	0	0
6	Regeneration Expansion program	2020-2026	60,000,000	12,520,000	47,480,000	39,440,544	803,946	7,235,510	7,235,510	0	7,235,510	0	0	0
Total			**185,174,000**	**46,641,000**	**138,533,000**	**115,076,178**	**2,345,682**	**21,111,140**	**21,111,140**	**0**	**21,111,140**	**0**	**0**	**0**

10.8 Court Services

10.8.1 *Program description*

The 10-year Court Services capital program (Table 10-28) consists of:

Facilities	Court Services public facing share of the Annex building (e.g., Court intake facilities)

10.8.2 *Level of service*

York Region's 10-year historical level of service is based on square footage at the Region's two Court facilities; 465 Davis Drive (Tannery) and 50 High Tech Road (South Service Centre). The average replacement cost, inclusive of land value and site servicing has been applied. A $10.3 million deduction "Ineligible re level of service" has been made. A portion of this amount is fundable under future development charges.

10.8.3 *Benefit to existing deduction*

A deduction to account for benefit to existing has been made to the Courts portion of the Annex building. This is to reflect the portion of the Annex court facility gross floor area that would serve to replace existing facilities. Currently, the courts portion of the Tannery has 13,400 square foot of eligible space (i.e. not municipal administration). Service provided through the Tannery facility will be moved into the Annex, which will contain approximately 46,400 square feet of development charge eligible court spaces. Based on this, the benefit to existing deduction for court services in the Annex has been deemed to be approximately 29%.

10.8.4 *Post period benefit deduction*

The development charge program is entirely related to development occurring over the 2017 to 2026 period. No deduction for post period benefit has been made.

10.8.5 *Grants, subsidies and other contributions*

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

10.8.6 *10% statutory deduction*

Pursuant to s.s.5 (1)8 of the *Development Charges Act*, a 10% deduction has been made.

10.8.7 *Residential versus non-residential allocation*

The methodology to determine the residential versus non-residential allocation for Court Services is the same as what was used for Police.

Based on the net increment in population and employment between 2017-2026 as follows:

TABLE 10-26

NET POPULATION AND EMPLOYMENT INCREMENT

	2017-26 Growth Increment	%
Net Residential Population	**240,100**	**69**
Retail Employment	**28,803**	**8**
Hotel Employment	**507**	**1**
Non-retail Employment	**76,154**	**22**
Total Population and Employment	**345,565**	**100**

Table 10-27

Court Services - Facilities

Square Footage

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Value ($ per Sqft)
465 Davis Drive (Tannery)	11,354	11,354	11,354	13,353	13,353	13,353	13,353	13,353	13,353	13,353	$833
50 High Tech Road (South Service Centre)	7,611	7,611	7,611	7,611	7,611	7,611	7,611	7,611	7,611	7,611	$980
Total (Sqft)	18,965	18,965	18,965	20,964	20,964	20,964	20,964	20,964	20,964	20,964	$888

Population + Employment	1,457,850	1,491,650	1,514,350	1,552,650	1,594,850	1,636,400	1,673,200	1,707,250	1,741,850	1,780,100
Per Capita Standard	0.0130	0.0127	0.0125	0.0135	0.0131	0.0128	0.0125	0.0123	0.0120	0.0118

10 Year Average	2007-2016
Quantity Standard (Sqft per Capita)	0.0126
Quality Standard ($ per Sqft)	$888.26
Service Standard ($ per Capita)	$11.22

Development Charge Amount (before deductions)	10 Year
Net Population Increase + Employment Increase	345,565
$ per Capita	$11.22
Eligible Amount	$3,877,619

Table 10-28

Court Services - Facilities

Growth related Capital Costs

Council Approved Standard of Service Provided:

10 Year Average	2007-2016	Development Charge Amount (before deductions)	10 Year
Quantity Standard (Sqft per Capita)	0.01	Net Population Increase + Employment Increase	345,565
Quality Standard ($ per Sqft)	888.26	$ per Capita	11.22
Service Standard ($ per Capita)	11.22	Eligible Amount	3,877,619
Total Eligible Amount			**3,877,619**

Recoverable Cost Calculations:

				Less		Less Ineligible costs		Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
												Non-Residential Share		
Project Number	Project Description (2017-2026)	Timing	Gross Project Cost (2017-2026)	Grants and Subsidies	New Municipal Cost	Benefit to Existing	10% Statutory Deduction	Total Development Charge Eligible Cost	Growth Costs (2017-2026)	Post Period Benefit / Level of Service Deduction (Beyond 2026)	Residential	Retail	Industrial/Office/ Institutional	Hotel
											69.48%	8.34%	22.04%	0.15%
1	Annex - Courts Only	2017-2020	22,049,720	0	22,049,720	6,342,772	1,570,695	14,136,254	3,877,619	10,258,635	2,694,186	323,204	854,537	5,692
Total			**22,049,720**	**0**	**22,049,720**	**6,342,772**	**1,570,695**	**14,136,254**	**3,877,619**	**10,258,635**	**2,694,186**	**323,204**	**854,537**	**5,692**

10.9 Growth Studies

No development charge is proposed for Growth Studies in the 2017 DC Bylaw as the available reserves are sufficient to fund the growth-related projects.

10.9.1 2017-2026 Capital program description

The 10-year Growth Studies capital program (Table 10-30) consists of growth-related studies of a corporate nature, including Development Charge Background Studies, Official Plan updates and General Service Master plans.

10.9.2 Level of service

The Studies program is reflective of past study activity by York Region.

10.9.3 Benefit to existing development deduction

No deduction has been made for the studies, which are fully growth-related.

10.9.4 Post period benefit deduction

The studies identified in the capital program are entirely related to development occurring over the 2017-2026 planning period. As such, no post-period deduction has been made.

10.9.5 Grants, subsidies and other contributions

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

10.9.6 10% statutory deduction

A deduction has been made in calculating the charge, pursuant to s.s.5 (1)8. This deduction is in the amount of 2% (rather than 10%), in order to reflect the fact that the primary orientation of the studies is for services which require no statutory deduction (consistent with prior practice).

10.9.7 *Residential versus non-residential allocation*

The methodology to determine the residential versus non-residential allocation for Growth Studies is based on the net increment in population and employment 2017 – 2026, as follows:

TABLE 10-29

NET INCREMENT OF POPULATION AND EMPLOYMENT

	2017-26 Growth Increment	%
Net Residential Population	240,100	69
Retail Employment	28,803	8
Hotel Employment	507	1
Non-retail Employment	76,154	22
Total Population and Employment	**345,565**	**100**

Table 10-30

Growth Studies

Growth related Capital Costs

Council Approved Standard of Service Provided:

Recoverable Cost Calculations:

Project Number	Project Description (2017-2026)	Timing	Gross Project Cost (2017-2026)	Less: Grants and Subsidies	New Municipal Cost	Less Ineligible costs: Benefit to Existing	Less Ineligible costs: 2% Statutory Deduction	Potential Development Charge Recoverable Costs: Total Development Charge Eligible Cost	Potential Development Charge Recoverable Costs: Growth Costs (2017-2026)	Potential Development Charge Recoverable Costs: Post Period Benefit / Level of Service Deduction (Beyond 2026)	Residential and Non-residential Split: Residential 69.48%	Non-Residential Share: Retail 8.34%	Non-Residential Share: Industrial/Office/ Institutional 22.04%	Non-Residential Share: Hotel 0.15%
1	Growth Studies	2017-2026	4,416,323	0	4,416,323	0	88,326	4,327,997	4,327,997	0	3,007,111	360,743	953,790	6,353
2	Development Tracking System	2017	1,458,000	0	1,458,000	0	29,160	1,428,840	1,428,840	0	992,764	119,095	314,883	2,097
Total			**5,874,323**	**0**	**5,874,323**	**0**	**117,486**	**5,756,837**	**5,756,837**	**0**	**3,999,875**	**479,839**	**1,268,673**	**8,450**

10.10 Senior Services – Capital Component (formerly Long Term Care)

10.10.1 2017-2026 Capital program description

Senior Services – Capital Component, will be placed on the contingent projects list (Schedule “G” of the 2017 Bylaw). The rate associated with this service would become effective thirty days after the date of occurrence of the events shown on the schedule (trigger event) and would then be incorporated in the development charges by-law. The trigger event in this case would be the province indicating they would build/fund new senior services facilities. However, in the event the capital program was achieved due to initiatives by the province, no development charge rate would be implemented in the 2017 DC Bylaw as the reserves are sufficient to fund the Region’s share of the growth-related projects. See Table 10-32).

10.10.2 Level of service

The 10-year historical level of service cap is based on the construction cost (including an allowance for land purchase and site servicing) of replacing York Region’s 232 bed supply of senior services facilities. See Table (10-31).

10.10.3 Benefit to existing development deduction

A significant wait list exists in York Region for senior care beds. Due to the fact that the demand is largely driven by existing development; the growth-related cost has been calculated as 17% of total net capital program cost, with the benefit to existing share being 83%. That is, 240,100 person growth increment (2017 to 2026) ÷ 1,418,000 (total 2026 population) equals 17%.

10.10.4 Post period benefit deduction

The development charge program is entirely related to development occurring over the 2017 to 2026 period. As such, no post period deduction is applicable.

10.10.5 Grants, subsidies and other contributions

No grants, subsidies or other contributions have been identified for this service and as such, no adjustments have been made.

10.10.6 10% statutory deduction

Pursuant to s.s.5 (1)8 of the *Development Charges Act*, a 10% deduction has been made.

10.10.7 Residential versus non-residential allocation

Senior Services – Capital Component is provided solely for the benefit of residential development.

Table 10-31

Senior Services - Facilities

Square Footage

Historic Level of Service

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 Building Value ($/bed)	2017 Value/bed with land, site works, etc.
Bed Count	232	232	232	232	232	232	232	232	232	232	$389,395	$562,593
Total (#)	232	232	232	232	232	232	232	232	232	232	$389,395	$562,593

Population	977,800	1,004,500	1,022,900	1,050,000	1,074,700	1,095,600	1,115,400	1,136,300	1,155,800	1,177,900
Per 1,000 Capita Standard	0.2373	0.2310	0.2268	0.2210	0.2159	0.2118	0.2080	0.2042	0.2007	0.1970

10 Year Average	2007-2016
Quantity Standard (per 1,000 Capita)	0.2153
Quality Standard ($ per bed)	$562,593
Service Standard ($ per Capita)	$121.15

Development Charge Amount (before deductions)	10 Year
Net. Pop. Inc. + Empl. Inc.	240,100
$ per Capita	$121.15
Eligible Amount	$29,088,811

Table 10-32

Senior Services Contingent Items

Growth related Capital Costs

Council Approved Standard of Service Provided:

10 Year Average	2007-2016	Development Charge Amount (before deductions)	10 Year
Quantity Standard (per 1,000 Capita)	0.22	Net Population Increase	240,100
Quality Standard ($ per bed)	562,593.11	$ per Capita	121.15
Service Standard ($ per Capita)	121.15	Eligible Amount	$29,088,811
Total Eligible Amount			**$29,088,811**

Recoverable Cost Calculations:

Project Number	Project Description (2017-2026)	Timing	Gross Project Cost	Less	New Municipal Cost	Less Ineligible costs		Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies		Benefit to Existing	10% Statutory Deduction	Net Development Charge Eligible Cost	Growth Costs (2017-2026)	Post Period Benefit / Level of Service Deduction (Beyond 2026)	Residential	Non-Residential Share		
												Retail	Industrial/Office/ Institutional	Hotel
											100.00%	0.00%	0.00%	0.00%
1	Construction of a new Senior Services Facility	2017-2026	56,259,300	0	56,259,300	46,733,307	952,599	8,573,394	8,573,394	0	8,573,394	0	0	0
Total			**56,259,300**	**0**	**56,259,300**	**46,733,307**	**952,599**	**8,573,394**	**8,573,394**	**0**	**8,573,394**	**0**	**0**	**0**

11. DEVELOPMENT CHARGE CASH FLOW CALCULATIONS

This Chapter provides the development charge calculations, based on the "Potential Development Charge Recoverable Cost" by service in Chapters 5-10 and the development forecasts in Chapter 3. Where applicable, the residential per capita calculation commences with the inclusion of the uncommitted development charge reserve fund balance for the service, as of the end of 2016. The expenditures to be development charge funded are set out by year and inflated (at 2 per cent per year) in the next column. Existing debt payments, plus additional debt payments (associated with debt proceeds revenue which is also shown) are also tabulated. The interest rates assumed for the additional debt payments are consistent with the Region's debt program.

For residential rates, the annual gross Regional population growth forecast is shown and multiplied by the development charge per capita (also inflated at 2 per cent per year). The development charge is set in order that that revenue stream is sufficient to fund the capital expenditures and debt payments, while leaving the development charge reserve fund balance at nil by the end of the period in 2031 (or 2026 in the case of most General Services, except Police and Public Works).

The final adjustment that is made to this calculation is to provide for interest earnings/expense on the annual reserve fund transactions. The interest earnings/expense assumed differs for water, wastewater and the subway. This is because these projects tend to have a longer duration. In addition, it is assumed that the various rates applied will increase in the long term. Positive interest earnings are shown for the year where the opening reserve balance for the year is above zero. This earnings figure is then adjusted up or down, depending on whether the in-year transactions were in a surplus or deficit position.

The resultant development charge charge/capita is then carried forward to the summary page at the beginning of each section and multiplied by the average persons per unit occupancy for each residential unit type in order to yield the development charge.

A similar set of calculations has been made for non-residential development, based on the forecast growth in floor area and the share of costs attributable to non-residential development.

Tables 11-1 and 11-2 present the development charges which result from these cash flow calculations. Table 11-1 covers roads, water, wastewater, police, public works and the Toronto-York Subway Extension, which are calculated using a planning period to 2031, while Table 11-2 covers the remaining services, which are calculated using a planning period to 2026.

Tables 11-3 to 11-50 set out the calculation sheets used to arrive at these development charges.

Table 11-1

15-Year Services

2017-2031

	Residential Development Charges ($ per Unit)					Non-Residential Development Charges ($ per Sqft)			Non-Residential Development Charges ($/Sqm)		
	Calculated Charge per Capita	Single & Semi-Detached	Multiple Unit Dwelling	Apartment ≥700 Sqft	Apartment <700 Sqft	Industrial/Office/ Institutional	Retail	Hotel	Industrial/Office/ Institutional	Retail	Hotel
	PPU	3.74	3.01	2.19	1.60						
Roads	$3,795	$14,206	$11,435	$8,311	$6,072	$5.26	$17.87	$3.69	$56.58	$192.39	$39.68
Water	$2,450	$9,170	$7,382	$5,365	$3,920	$3.44	$5.54	$0.98	$37.00	$59.60	$10.59
Wastewater	$5,036	$18,853	$15,177	$11,030	$8,058	$7.02	$10.67	$1.98	$75.59	$114.81	$21.28
Public Works	$54	$203	$163	$118	$87	$0.13	$0.12	$0.05	$1.37	$1.24	$0.50
Subway	$676	$2,531	$2,038	$1,481	$1,082	$0.91	$3.11	$0.61	$9.81	$33.46	$6.61
Police	$241	$903	$727	$528	$386	$0.49	$0.63	$0.14	$5.28	$6.74	$1.50
Total	**$12,253**	**$45,866**	**$36,922**	**$26,834**	**$19,604**	**$17.25**	**$37.93**	**$7.45**	**$185.63**	**$408.23**	**$80.16**

Table 11-2

10-Year Services

2017-2026

	Residential Development Charges ($ per Unit)					Non-Residential Development Charges ($ per Sqft)			Non-Residential Development Charges ($/Sqm)		
	Calculated Charge per Capita	Single & Semi-Detached	Multiple Unit Dwelling	Apartment ≥700 Sqft	Apartment <700 Sqft	Industrial/Office/ Institutional	Retail	Hotel	Industrial/Office/ Institutional	Retail	Hotel
	PPU	3.74	3.01	2.19	1.60						
Transit	$350	$1,309	$1,053	$766	$559	$0.53	$1.82	$0.43	$5.75	$19.59	$4.60
Waste Diversion	$11	$42	$34	$25	$18	$0.03	$0.03	$0.03	$0.28	$0.28	$0.28
Paramedic Services	$106	$396	$318	$231	$169	$0.07	$0.08	$0.02	$0.70	$0.83	$0.23
Public Health	$31	$116	$93	$68	$50	$0.01	$0.01	$0.00	$0.08	$0.10	$0.04
Social Housing	$56	$209	$168	$122	$89	$0.00	$0.00	$0.00	$0.00	($0.00)	($0.00)
Court Services	$11	$40	$33	$24	$17	$0.02	$0.03	$0.01	$0.22	$0.32	$0.07
Total	**$564**	**$2,112**	**$1,700**	**$1,235**	**$903**	**$0.65**	**$1.96**	**$0.48**	**$7.03**	**$21.13**	**$5.21**

Table 11-3

Water - Residential Development Charge Calculations

Assumptions		
Gross Population Growth	395,379	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	2.25% - 4.10%	3.65% - 5.50%
In-year Transactions	1.13% - 2.05%	1.83% - 2.75%
New Debt Term (Years)	20	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$260,368,549	
Discount Rate Applied to Post 2031 Debt Payments	4.10%	

Calculated Development Charge per Capita	**$2,450**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth (To mid-year 2031)	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	(23,166,205)	(7,823,056)	(7,823,056)	(57,944,116)	7,823,056	(71,385)	22,682	2,450	55,566,213	(2,449,289)	(845,566)	(44,700)	(26,505,760)
2018	(26,505,760)	(5,038,623)	(5,157,485)	(57,432,256)	5,157,485	(643,367)	25,047	2,508	62,807,343	4,731,720	(1,060,230)	61,512	(22,772,758)
2019	(22,772,758)	(4,553,091)	(4,770,442)	(57,002,581)	4,770,442	(1,043,663)	25,047	2,567	64,288,987	6,242,743	(967,842)	88,959	(17,408,898)
2020	(17,408,898)	(1,765,110)	(1,892,998)	(56,730,547)	1,892,998	(1,392,754)	25,047	2,627	65,805,583	7,682,282	(783,400)	119,075	(10,390,942)
2021	(10,390,942)	(2,747,425)	(3,015,994)	(54,292,668)	3,015,994	(1,560,434)	25,692	2,689	69,092,496	13,239,393	(493,570)	221,760	2,576,642
2022	2,576,642	(2,534,148)	(2,847,494)	(56,238,712)	2,847,494	(1,809,030)	26,445	2,753	72,793,775	14,746,033	92,759	265,429	17,680,863
2023	17,680,863	(2,132,779)	(2,453,030)	(56,227,076)	2,453,030	(2,045,129)	26,445	2,818	74,511,002	16,238,798	680,713	312,597	34,912,971
2024	34,912,971	(8,733,344)	(10,281,671)	(56,215,519)	10,281,671	(2,358,189)	26,552	2,884	76,578,774	18,005,065	1,344,149	346,598	54,608,783
2025	54,608,783	(17,570,162)	(21,173,129)	(56,203,804)	21,173,129	(3,382,637)	26,552	2,952	78,385,290	18,798,849	2,102,438	361,878	75,871,948
2026	75,871,948	(18,358,817)	(22,645,407)	(56,391,331)	22,645,407	(5,217,234)	28,595	3,022	86,406,300	24,797,736	2,921,070	477,356	104,068,110
2027	104,068,110	(8,952,059)	(11,302,761)	(57,193,261)	11,302,761	(7,016,925)	30,422	3,093	94,097,128	29,886,942	4,266,793	612,682	138,834,527
2028	138,834,527	(27,838,627)	(35,977,880)	(57,193,261)	35,977,880	(8,343,845)	30,530	3,166	96,657,249	31,120,143	5,692,216	637,963	176,284,848
2029	176,284,848	(23,310,927)	(30,837,095)	(56,544,378)	30,837,095	(11,416,913)	30,530	3,241	98,937,422	30,976,131	7,227,679	635,011	215,123,669
2030	215,123,669	(24,081,903)	(32,608,503)	(52,619,480)	32,608,503	(14,135,821)	30,530	3,317	101,271,385	34,516,084	8,820,070	707,580	259,167,403
2031	259,167,403	(1,890,703)	(2,620,533)	(111,351,599)	2,620,533	(203,051,126)	15,265	3,395	51,830,203	(262,572,522)	10,625,864	(7,220,744)	0
Total		**(157,330,775)**	**(195,407,477)**	**(899,580,589)**	**195,407,477**	**(263,488,452)**	**395,379**		**1,149,029,149**		**39,623,141**	**(2,417,044)**	

Table 11-4

Water - Retail Development Charge Calculations

Assumptions		
Retail - GFA Growth	16,043,274	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	2.25% - 4.10%	3.65% - 5.50%
In-year Transactions	1.13% - 2.05%	1.83% - 2.75%
New Debt Term (Years)	20	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$29,724,828	
Discount Rate Applied to Post 2031 Debt Payments		4.10%

Calculated Development Charge per Sqft	**$5.54**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	(3,372,249)	(656,922)	(656,922)	(4,865,717)	656,922	(5,994)	1,458,420	5.54	8,074,652	3,202,941	(123,087)	36,033	(256,362)
2018	(256,362)	(423,106)	(433,087)	(4,822,734)	433,087	(70,448)	1,453,659	5.67	8,238,153	3,344,970	(10,254)	43,485	3,121,838
2019	3,121,838	(382,335)	(400,586)	(4,786,653)	400,586	(116,405)	1,453,659	5.80	8,432,493	3,529,435	88,972	50,294	6,790,540
2020	6,790,540	(148,221)	(158,960)	(4,763,810)	158,960	(158,137)	1,458,537	5.94	8,660,380	3,738,433	210,507	57,946	10,797,425
2021	10,797,425	(230,708)	(253,261)	(4,559,095)	253,261	(177,543)	1,218,291	6.08	7,404,521	2,667,883	361,714	44,687	13,871,708
2022	13,871,708	(212,799)	(239,111)	(4,722,509)	239,111	(207,536)	907,415	6.22	5,645,184	715,139	499,382	12,872	15,099,101
2023	15,099,101	(179,095)	(205,987)	(4,721,532)	205,987	(236,567)	907,415	6.37	5,778,355	820,256	581,315	15,790	16,516,462
2024	16,516,462	(733,361)	(863,378)	(4,720,562)	863,378	(271,301)	907,415	6.52	5,914,668	922,805	635,884	17,764	18,092,915
2025	18,092,915	(1,475,412)	(1,777,962)	(4,719,578)	1,777,962	(392,725)	898,077	6.67	5,991,895	879,591	696,577	16,932	19,686,016
2026	19,686,016	(1,541,637)	(1,901,593)	(4,735,325)	1,901,593	(619,678)	926,103	6.83	6,324,639	969,636	757,912	18,665	21,432,229
2027	21,432,229	(751,727)	(949,122)	(4,802,665)	949,122	(848,768)	987,763	6.99	6,904,869	1,253,436	878,721	25,695	23,590,081
2028	23,590,081	(2,337,681)	(3,021,155)	(4,802,665)	3,021,155	(1,001,479)	987,763	7.16	7,067,757	1,263,612	967,193	25,904	25,846,791
2029	25,846,791	(1,957,479)	(2,589,470)	(4,748,177)	2,589,470	(1,390,953)	987,763	7.32	7,234,487	1,095,357	1,059,718	22,455	28,024,321
2030	28,024,321	(2,022,219)	(2,738,220)	(4,418,593)	2,738,220	(1,731,909)	992,437	7.50	7,440,191	1,289,689	1,148,997	26,439	30,489,446
2031	30,489,446	(158,767)	(220,053)	(9,350,480)	220,053	(25,365,344)	498,555	7.67	3,825,787	(30,890,038)	1,250,067	(849,476)	0
Total		**(13,211,470)**	**(16,408,869)**	**(75,540,097)**	**16,408,869**	**(32,594,788)**	**16,043,274**		**102,938,030**		**9,003,618**	**(434,514)**	

Table 11-5

Water - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Industrial/Office/Institutional - GFA Growth	61,144,441	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	2.25% - 4.10%	3.65% - 5.50%
In-year Transactions	1.13% - 2.05%	1.83% - 2.75%
New Debt Term (Years)	20	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$57,713,111	
Discount Rate Applied to Post 2031 Debt Payments	4.10%	

Calculated Development Charge per Sqft	**$3.44**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	(3,571,413)	(1,734,053)	(1,734,053)	(12,843,852)	1,734,053	(15,823)	5,530,404	3.44	19,009,165	6,149,489	(130,357)	69,182	2,516,901
2018	2,516,901	(1,116,858)	(1,143,205)	(12,730,394)	1,143,205	(142,608)	5,530,404	3.52	19,457,596	6,584,594	65,439	85,600	9,252,534
2019	9,252,534	(1,009,235)	(1,057,413)	(12,635,152)	1,057,413	(231,338)	5,530,404	3.60	19,916,607	7,050,117	263,697	100,464	16,666,813
2020	16,666,813	(391,253)	(419,601)	(12,574,854)	419,601	(308,717)	5,548,360	3.69	20,452,635	7,569,065	516,671	117,321	24,869,869
2021	24,869,869	(608,992)	(668,523)	(12,034,475)	668,523	(345,885)	4,668,523	3.77	17,615,310	5,234,951	833,141	87,685	31,025,646
2022	31,025,646	(561,717)	(631,173)	(12,465,834)	631,173	(400,988)	3,521,469	3.86	13,600,689	733,867	1,116,923	13,210	32,889,646
2023	32,889,646	(472,750)	(543,737)	(12,463,254)	543,737	(453,322)	3,521,469	3.95	13,921,533	1,004,957	1,266,251	19,345	35,180,199
2024	35,180,199	(1,935,827)	(2,279,028)	(12,460,693)	2,279,028	(522,715)	3,521,469	4.05	14,249,946	1,266,539	1,354,438	24,381	37,825,556
2025	37,825,556	(3,894,590)	(4,693,221)	(12,458,096)	4,693,221	(749,793)	3,487,932	4.14	14,447,191	1,239,302	1,456,284	23,857	40,544,999
2026	40,544,999	(4,069,403)	(5,019,565)	(12,499,663)	5,019,565	(1,156,448)	3,605,314	4.24	15,285,678	1,629,566	1,560,982	31,369	43,766,917
2027	43,766,917	(1,984,307)	(2,505,362)	(12,677,418)	2,505,362	(1,555,367)	3,699,037	4.34	16,053,008	1,820,223	1,794,444	37,315	47,418,898
2028	47,418,898	(6,170,691)	(7,974,832)	(12,677,418)	7,974,832	(1,849,491)	3,699,037	4.44	16,431,704	1,904,794	1,944,175	39,048	51,306,916
2029	51,306,916	(5,167,084)	(6,835,329)	(12,533,587)	6,835,329	(2,530,665)	3,699,037	4.55	16,819,332	1,755,080	2,103,584	35,979	55,201,558
2030	55,201,558	(5,337,978)	(7,227,978)	(11,663,597)	7,227,978	(3,133,336)	3,715,550	4.65	17,292,963	2,496,029	2,263,264	51,169	60,012,020
2031	60,012,020	(419,092)	(580,865)	(24,682,118)	580,865	(45,008,171)	1,866,032	4.76	8,889,790	(60,800,499)	2,460,493	(1,672,014)	0
Total		**(34,873,830)**	**(43,313,885)**	**(199,400,407)**	**43,313,885**	**(58,404,667)**	**61,144,441**		**243,443,148**		**18,869,429**	**(936,090)**	

Table 11-6

Water - Hotel Development Charge Calculations

Assumptions		
Hotel - GFA Growth		1,484,734
Inflation		2%
Interest	Earned	Charged
Opening Balance	2.25% - 4.10%	3.65% - 5.50%
In-year Transactions	1.13% - 2.05%	1.83% - 2.75%
New Debt Term (Years)		20
New Debt interest		From 2.85% to 5.00%
Target Reserve Balance 2031		$405,567
Discount Rate Applied to Post 2031 Debt Payments		4.10%

Calculated Development Charge per Sqft	**$0.98**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(12,186)	(12,186)	(90,258)	12,186	(111)	106,037	0.98	104,280	13,911	0	157	14,068
2018	14,068	(7,848)	(8,034)	(89,460)	8,034	(1,002)	110,798	1.01	111,533	21,070	366	274	35,778
2019	35,778	(7,092)	(7,431)	(88,791)	7,431	(1,626)	110,798	1.03	114,164	23,747	1,020	338	60,883
2020	60,883	(2,749)	(2,949)	(88,367)	2,949	(2,169)	111,000	1.05	117,070	26,533	1,887	411	89,715
2021	89,715	(4,280)	(4,698)	(84,570)	4,698	(2,431)	102,354	1.08	110,498	23,498	3,005	394	116,612
2022	116,612	(3,947)	(4,435)	(87,601)	4,435	(2,818)	93,714	1.11	103,557	13,138	4,198	236	134,184
2023	134,184	(3,322)	(3,821)	(87,583)	3,821	(3,186)	93,714	1.13	106,000	15,231	5,166	293	154,875
2024	154,875	(13,604)	(16,015)	(87,565)	16,015	(3,673)	93,714	1.16	108,500	17,262	5,963	332	178,432
2025	178,432	(27,368)	(32,981)	(87,547)	32,981	(5,269)	93,517	1.19	110,827	18,011	6,870	347	203,660
2026	203,660	(28,597)	(35,274)	(87,839)	35,274	(8,127)	98,863	1.21	119,926	23,960	7,841	461	235,922
2027	235,922	(13,944)	(17,606)	(89,088)	17,606	(10,930)	104,405	1.24	129,637	29,619	9,673	607	275,821
2028	275,821	(43,363)	(56,042)	(89,088)	56,042	(12,997)	104,405	1.27	132,695	30,610	11,309	628	318,367
2029	318,367	(36,311)	(48,034)	(88,077)	48,034	(17,784)	104,405	1.30	135,825	29,964	13,053	614	361,999
2030	361,999	(37,512)	(50,793)	(81,964)	50,793	(22,019)	104,607	1.33	139,298	35,316	14,842	724	412,880
2031	412,880	(2,945)	(4,082)	(173,449)	4,082	(316,286)	52,404	1.36	71,430	(418,305)	16,928	(11,503)	(0)
Total		**(245,069)**	**(304,380)**	**(1,401,246)**	**304,380**	**(410,427)**	**1,484,734**		**1,715,240**		**102,120**	**(5,687)**	

Table 11-7

Wastewater - Residential Development Charge Calculations

Assumptions		
Gross Population Growth	395,379	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	2.25% - 4.10%	3.65% - 5.50%
In-year Transactions	1.13% - 2.05%	1.83% - 2.75%
New Debt Term (Years)	20	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$832,209,757	
Discount Rate Applied to Post 2031 Debt Payments		4.10%

Calculated Development Charge per Capita	**$5,036**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth (To mid-year 2031)	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	(88,408,703)	(40,327,315)	(40,327,315)	(81,464,430)	40,211,460	(366,930)	22,682	5,036	114,237,865	32,290,650	(3,226,918)	363,270	(58,981,701)
2018	(58,981,701)	(46,522,470)	(47,619,949)	(72,336,498)	47,619,949	(3,518,081)	25,047	5,155	129,124,812	53,270,233	(2,359,268)	692,513	(7,378,223)
2019	(7,378,223)	(36,613,917)	(38,361,759)	(70,590,392)	38,361,759	(7,153,688)	25,047	5,277	132,170,904	54,426,824	(313,574)	775,582	47,510,609
2020	47,510,609	(56,519,962)	(60,615,032)	(72,175,077)	60,615,032	(10,471,585)	25,047	5,401	135,288,855	52,642,192	1,472,829	815,954	102,441,584
2021	102,441,584	(58,416,754)	(64,127,168)	(71,796,281)	64,127,168	(15,455,508)	25,692	5,529	142,046,376	54,794,587	3,431,793	917,809	161,585,774
2022	161,585,774	(67,937,388)	(76,337,800)	(72,776,581)	76,337,800	(20,938,662)	26,445	5,659	149,655,790	55,940,547	5,817,088	1,006,930	224,350,339
2023	224,350,339	(65,005,246)	(74,766,209)	(72,776,581)	74,766,209	(27,386,346)	26,445	5,793	153,186,214	53,023,288	8,637,488	1,020,698	287,031,813
2024	287,031,813	(70,306,683)	(82,771,290)	(72,776,581)	82,771,290	(33,901,477)	26,552	5,929	157,437,320	50,759,262	11,050,725	977,116	349,818,916
2025	349,818,916	(66,939,277)	(80,665,957)	(72,776,581)	80,665,957	(40,970,223)	26,552	6,069	161,151,313	47,404,509	13,468,028	912,537	411,603,990
2026	411,603,990	(61,475,878)	(75,829,845)	(73,204,617)	75,829,845	(47,822,628)	28,595	6,212	177,641,606	56,614,361	15,846,754	1,089,826	485,154,931
2027	485,154,931	(61,521,192)	(77,675,907)	(74,310,433)	77,675,907	(54,396,660)	30,422	6,359	193,453,080	64,745,987	19,891,352	1,327,293	571,119,563
2028	571,119,563	(42,708,303)	(55,195,041)	(74,310,433)	55,195,041	(60,874,883)	30,530	6,509	198,716,400	63,531,084	23,415,902	1,302,387	659,368,936
2029	659,368,936	(40,763,436)	(53,924,322)	(71,498,230)	23,523,750	(65,262,356)	30,530	6,663	203,404,179	36,243,021	27,034,126	742,982	723,389,066
2030	723,389,066	(35,258,246)	(47,742,017)	(58,278,690)	25,358,220	(67,343,089)	30,530	6,820	208,202,543	60,196,966	29,658,952	1,234,038	814,479,022
2031	814,479,022	(1,819,170)	(2,521,387)	(206,361,619)	2,521,387	(725,375,638)	15,265	6,981	106,557,051	(825,180,206)	33,393,640	(22,692,456)	(0)
Total		**(752,135,237)**	**(878,480,998)**	**(1,217,433,023)**	**825,580,774**	**(1,181,237,755)**	**395,379**		**2,362,274,308**		**187,218,917**	**(9,513,520)**	

Table 11-8

Wastewater - Retail Development Charge Calculations

Assumptions		
Retail - GFA Growth	16,043,274	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	2.25% - 4.10%	3.65% - 5.50%
In-year Transactions	1.13% - 2.05%	1.83% - 2.75%
New Debt Term (Years)	20	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$69,882,795	
Discount Rate Applied to Post 2031 Debt Payments		4.10%

Calculated Development Charge per Sqft	**$10.67**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	(12,869,445)	(3,386,388)	(3,386,388)	(6,840,778)	3,376,660	(30,812)	1,458,420	10.67	15,555,495	8,674,177	(469,735)	97,584	(4,567,418)
2018	(4,567,418)	(3,906,612)	(3,998,770)	(6,074,282)	3,998,770	(295,422)	1,453,659	10.92	15,870,473	9,500,769	(182,697)	123,510	4,874,164
2019	4,874,164	(3,074,565)	(3,221,336)	(5,927,657)	3,221,336	(600,714)	1,453,659	11.18	16,244,863	9,716,492	138,914	138,460	14,868,030
2020	14,868,030	(4,746,127)	(5,090,000)	(6,060,727)	5,090,000	(879,326)	1,458,537	11.44	16,683,878	9,743,825	460,909	151,029	25,223,793
2021	25,223,793	(4,905,405)	(5,384,923)	(6,028,918)	5,384,923	(1,297,839)	1,218,291	11.71	14,264,514	6,937,757	844,997	116,207	33,122,754
2022	33,122,754	(5,704,877)	(6,410,281)	(6,111,237)	6,410,281	(1,758,273)	907,415	11.98	10,875,221	3,005,711	1,192,419	54,103	37,374,988
2023	37,374,988	(5,458,658)	(6,278,311)	(6,111,237)	6,278,311	(2,299,702)	907,415	12.27	11,131,771	2,720,832	1,438,937	52,376	41,587,133
2024	41,587,133	(5,903,833)	(6,950,518)	(6,111,237)	6,950,518	(2,846,794)	907,415	12.56	11,394,373	2,436,342	1,601,105	46,900	45,671,479
2025	45,671,479	(5,621,063)	(6,773,728)	(6,111,237)	6,773,728	(3,440,375)	898,077	12.85	11,543,146	1,991,535	1,758,352	38,337	49,459,702
2026	49,459,702	(5,162,288)	(6,367,627)	(6,147,180)	6,367,627	(4,015,789)	926,103	13.16	12,184,164	2,021,195	1,904,199	38,908	53,424,004
2027	53,424,004	(5,166,093)	(6,522,646)	(6,240,038)	6,522,646	(4,567,828)	987,763	13.47	13,301,955	2,494,089	2,190,384	51,129	58,159,606
2028	58,159,606	(3,586,326)	(4,634,870)	(6,240,038)	4,634,870	(5,111,821)	987,763	13.78	13,615,752	2,263,893	2,384,544	46,410	62,854,453
2029	62,854,453	(3,423,011)	(4,528,164)	(6,003,890)	1,975,350	(5,480,248)	987,763	14.11	13,936,951	(100,001)	2,577,033	(2,750)	65,328,734
2030	65,328,734	(2,960,726)	(4,009,020)	(4,893,812)	2,129,395	(5,654,972)	992,437	14.44	14,333,232	1,904,822	2,678,478	39,049	69,951,083
2031	69,951,083	(152,760)	(211,727)	(17,328,716)	211,727	(60,911,659)	498,555	14.78	7,370,226	(70,870,149)	2,867,994	(1,948,929)	0
Total		**(63,158,731)**	**(73,768,310)**	**(102,230,983)**	**69,326,142**	**(99,191,574)**	**16,043,274**		**198,306,014**		**21,385,833**	**(957,677)**	

Table 11-9

Wastewater - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Industrial/Office/Institutional - GFA Growth	61,144,441	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	2.25% - 4.10%	3.65% - 5.50%
In-year Transactions	1.13% - 2.05%	1.83% - 2.75%
New Debt Term (Years)	20	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$184,467,035	
Discount Rate Applied to Post 2031 Debt Payments		4.10%

Calculated Development Charge per Sqft	**$7.02**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	(13,629,509)	(8,938,925)	(8,938,925)	(18,057,349)	8,913,244	(81,333)	5,530,404	7.02	38,838,218	20,673,855	(497,477)	232,581	6,779,450
2018	6,779,450	(10,312,138)	(10,555,405)	(16,034,058)	10,555,405	(779,815)	5,530,404	7.19	39,754,423	22,940,550	176,266	298,227	30,194,493
2019	30,194,493	(8,115,815)	(8,503,241)	(15,647,017)	8,503,241	(1,585,682)	5,530,404	7.36	40,692,241	23,459,543	860,543	334,298	54,848,877
2020	54,848,877	(12,528,175)	(13,435,886)	(15,998,277)	13,435,886	(2,321,124)	5,548,360	7.53	41,787,418	23,468,016	1,700,315	363,754	80,380,963
2021	80,380,963	(12,948,617)	(14,214,383)	(15,914,314)	14,214,383	(3,425,857)	4,668,523	7.71	35,990,391	16,650,220	2,692,762	278,891	100,002,836
2022	100,002,836	(15,058,954)	(16,920,984)	(16,131,606)	16,920,984	(4,641,249)	3,521,469	7.89	27,787,992	7,015,136	3,600,102	126,272	110,744,347
2023	110,744,347	(14,409,018)	(16,572,626)	(16,131,606)	16,572,626	(6,070,438)	3,521,469	8.08	28,443,519	6,241,474	4,263,657	120,148	121,369,627
2024	121,369,627	(15,584,130)	(18,347,026)	(16,131,606)	18,347,026	(7,514,578)	3,521,469	8.27	29,114,510	5,468,326	4,672,731	105,265	131,615,948
2025	131,615,948	(14,837,714)	(17,880,360)	(16,131,606)	17,880,360	(9,081,431)	3,487,932	8.46	29,517,507	4,304,470	5,067,214	82,861	141,070,494
2026	141,070,494	(13,626,700)	(16,808,391)	(16,226,484)	16,808,391	(10,600,330)	3,605,314	8.66	31,230,646	4,403,831	5,431,214	84,774	150,990,312
2027	150,990,312	(13,636,745)	(17,217,587)	(16,471,599)	17,217,587	(12,057,526)	3,699,037	8.87	32,798,403	4,269,278	6,190,603	87,520	161,537,714
2028	161,537,714	(9,466,693)	(12,234,494)	(16,471,599)	12,234,494	(13,493,484)	3,699,037	9.08	33,572,127	3,607,044	6,623,046	73,944	171,841,748
2029	171,841,748	(9,035,595)	(11,952,828)	(15,848,248)	5,214,258	(14,466,008)	3,699,037	9.29	34,364,103	(2,688,723)	7,045,512	(73,940)	176,124,597
2030	176,124,597	(7,815,318)	(10,582,462)	(12,918,014)	5,620,885	(14,927,222)	3,715,550	9.51	35,331,793	2,524,980	7,221,108	51,762	185,922,447
2031	185,922,447	(403,236)	(558,889)	(45,741,973)	558,889	(160,786,259)	1,866,032	9.73	18,163,007	(188,365,224)	7,622,820	(5,180,044)	0
Total		**(166,717,773)**	**(194,723,486)**	**(269,855,356)**	**182,997,659**	**(261,832,338)**	**61,144,441**		**497,386,297**		**62,670,417**	**(3,013,684)**	

Table 11-10

Wastewater - Hotel Development Charge Calculations

Assumptions		
Hotel - GFA Growth	1,484,734	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	2.25% - 4.10%	3.65% - 5.50%
In-year Transactions	1.13% - 2.05%	1.83% - 2.75%
New Debt Term (Years)	20	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$1,296,305	
Discount Rate Applied to Post 2031 Debt Payments		4.10%

Calculated Development Charge per Sqft	**$1.98**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(62,816)	(62,816)	(126,894)	62,636	(572)	106,037	1.98	209,590	81,943	0	922	82,865
2018	82,865	(72,466)	(74,176)	(112,676)	74,176	(5,480)	110,798	2.02	224,167	106,011	2,154	1,378	192,409
2019	192,409	(57,032)	(59,755)	(109,956)	59,755	(11,143)	110,798	2.07	229,455	108,356	5,484	1,544	307,792
2020	307,792	(88,039)	(94,418)	(112,425)	94,418	(16,311)	111,000	2.12	235,296	106,560	9,542	1,652	425,545
2021	425,545	(90,994)	(99,889)	(111,835)	99,889	(24,075)	102,354	2.17	222,087	86,178	14,256	1,443	527,423
2022	527,423	(105,824)	(118,909)	(113,362)	118,909	(32,615)	93,714	2.22	208,136	62,159	18,987	1,119	609,688
2023	609,688	(101,256)	(116,461)	(113,362)	116,461	(42,659)	93,714	2.27	213,046	57,026	23,473	1,098	691,284
2024	691,284	(109,514)	(128,930)	(113,362)	128,930	(52,807)	93,714	2.33	218,072	51,903	26,614	999	770,801
2025	770,801	(104,269)	(125,651)	(113,362)	125,651	(63,818)	93,517	2.38	222,748	45,569	29,676	877	846,923
2026	846,923	(95,759)	(118,118)	(114,028)	118,118	(74,492)	98,863	2.44	241,036	52,516	32,607	1,011	933,056
2027	933,056	(95,829)	(120,993)	(115,751)	120,993	(84,732)	104,405	2.50	260,553	60,071	38,255	1,231	1,032,613
2028	1,032,613	(66,525)	(85,975)	(115,751)	85,975	(94,823)	104,405	2.55	266,700	56,126	42,337	1,151	1,132,228
2029	1,132,228	(63,496)	(83,996)	(111,370)	36,642	(101,657)	104,405	2.61	272,991	12,610	46,421	259	1,191,518
2030	1,191,518	(54,921)	(74,366)	(90,779)	39,500	(104,898)	104,607	2.68	279,971	49,428	48,852	1,013	1,290,811
2031	1,290,811	(2,834)	(3,927)	(321,442)	3,927	(1,129,893)	52,404	2.74	143,564	(1,307,771)	52,923	(35,964)	0
Total		**(1,171,575)**	**(1,368,380)**	**(1,896,354)**	**1,285,979**	**(1,839,974)**	**1,484,734**		**3,447,413**		**391,582**	**(20,267)**	

Table 11-11

Roads - Residential Development Charge Calculations

Assumptions		
Gross Population Growth	395,379	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$497,641,603	
Discount Rate Applied to Post 2031 Debt Payments		3.60%

Calculated Development Charge per Capita	**$3,795**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth (To mid-year 2031)	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	200,129,816	(101,543,304)	(101,543,304)	(23,840,009)	53,724,063	(382,784)	22,682	3,795	86,077,826	14,035,791	2,901,882	101,759	217,169,249
2018	217,169,249	(119,577,302)	(122,398,166)	(21,800,408)	67,938,848	(7,074,236)	25,047	3,884	97,295,088	13,961,125	4,234,800	136,121	235,501,296
2019	235,501,296	(109,222,648)	(114,436,620)	(21,731,464)	65,180,008	(15,540,365)	25,047	3,976	99,590,307	13,061,867	5,534,280	153,477	254,250,920
2020	254,250,920	(108,877,906)	(116,766,493)	(19,282,826)	66,708,564	(23,831,880)	25,047	4,070	101,939,672	8,767,037	6,610,524	113,971	269,742,452
2021	269,742,452	(106,794,026)	(117,233,463)	(19,282,826)	62,821,725	(32,359,955)	25,692	4,166	107,031,441	976,923	7,687,660	13,921	278,420,956
2022	278,420,956	(139,244,642)	(156,462,148)	(19,282,826)	87,106,956	(40,797,133)	26,445	4,264	112,765,107	(16,670,044)	8,631,050	(375,076)	270,006,885
2023	270,006,885	(119,668,314)	(137,637,294)	(19,282,826)	63,989,780	(51,973,612)	26,445	4,365	115,425,269	(29,478,684)	9,045,231	(700,119)	248,873,314
2024	248,873,314	(90,921,523)	(107,040,916)	(19,282,826)	53,831,355	(60,321,913)	26,552	4,468	118,628,462	(14,185,838)	8,337,256	(336,914)	242,687,818
2025	242,687,818	(97,319,606)	(117,276,127)	(19,282,826)	53,546,673	(67,443,015)	26,552	4,573	121,426,942	(29,028,353)	8,130,042	(689,423)	221,100,084
2026	221,100,084	(72,159,620)	(89,008,128)	(14,085,325)	43,442,609	(74,409,835)	28,595	4,681	133,852,320	(208,359)	7,406,853	(4,949)	228,293,629
2027	228,293,629	(73,556,564)	(92,871,621)	(6,501,320)	79,894,059	(80,259,397)	30,422	4,791	145,766,209	46,027,930	8,218,571	828,503	283,368,633
2028	283,368,633	(70,124,080)	(90,626,442)	(6,501,320)	90,626,442	(84,397,680)	30,530	4,905	149,732,102	58,833,103	10,201,271	1,058,996	353,462,002
2029	353,462,002	(72,105,794)	(95,385,876)	(6,501,320)	95,385,876	(88,123,390)	30,530	5,020	153,264,327	58,639,618	12,724,632	1,055,513	425,881,765
2030	425,881,765	(55,781,891)	(75,532,403)	(6,501,320)	75,532,403	(92,353,208)	30,530	5,139	156,879,877	58,025,350	15,331,744	1,044,456	500,283,315
2031	500,283,315	(54,521,589)	(75,567,444)	(21,906,975)	75,567,444	(564,035,595)	15,265	5,260	80,290,360	(505,652,209)	18,010,199	(12,641,305)	(0)
Total		**(1,391,418,810)**	**(1,609,786,443)**	**(245,066,413)**	**1,035,296,803**	**(1,283,303,998)**	**395,379**		**1,779,965,308**		**133,005,994**	**(10,241,067)**	

Table 11-12

Roads - Retail Development Charge Calculations

Assumptions		
Retail - GFA Growth	16,043,274	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$92,891,840	
Discount Rate Applied to Post 2031 Debt Payments		3.60%

Calculated Development Charge per Sqft	**$17.87**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	29,132,422	(18,954,493)	(18,954,493)	(4,450,075)	10,028,356	(71,452)	1,458,420	17.87	26,066,870	12,619,206	422,420	91,489	42,265,537
2018	42,265,537	(22,320,794)	(22,847,348)	(4,069,354)	12,681,746	(1,320,506)	1,453,659	18.29	26,594,689	11,039,227	824,178	107,632	54,236,574
2019	54,236,574	(20,387,951)	(21,361,213)	(4,056,485)	12,166,770	(2,900,829)	1,453,659	18.73	27,222,066	11,070,309	1,274,559	130,076	66,711,519
2020	66,711,519	(20,323,600)	(21,796,117)	(3,599,412)	12,452,096	(4,448,557)	1,458,537	19.17	27,957,738	10,565,749	1,734,499	137,355	79,149,122
2021	79,149,122	(19,934,615)	(21,883,283)	(3,599,412)	11,726,563	(6,040,443)	1,218,291	19.62	23,903,529	4,106,954	2,255,750	58,524	85,570,350
2022	85,570,350	(25,991,981)	(29,205,872)	(3,599,412)	16,259,745	(7,615,362)	907,415	20.08	18,223,976	(5,936,924)	2,652,681	(133,581)	82,152,526
2023	82,152,526	(22,337,783)	(25,691,947)	(3,599,412)	11,944,597	(9,701,610)	907,415	20.56	18,653,885	(8,394,486)	2,752,110	(199,369)	76,310,781
2024	76,310,781	(16,971,788)	(19,980,700)	(3,599,412)	10,048,383	(11,259,938)	907,415	21.04	19,093,936	(5,697,731)	2,556,411	(135,321)	73,034,140
2025	73,034,140	(18,166,080)	(21,891,247)	(3,599,412)	9,995,243	(12,589,192)	898,077	21.54	19,343,241	(8,741,367)	2,446,644	(207,607)	66,531,810
2026	66,531,810	(13,469,613)	(16,614,625)	(2,629,225)	8,109,177	(13,889,648)	926,103	22.05	20,417,416	(4,606,905)	2,228,816	(109,414)	64,044,307
2027	64,044,307	(13,730,373)	(17,335,801)	(1,213,563)	14,913,356	(14,981,551)	987,763	22.57	22,290,536	3,672,976	2,305,595	66,114	70,088,991
2028	70,088,991	(13,089,651)	(16,916,707)	(1,213,563)	16,916,707	(15,754,020)	987,763	23.10	22,816,376	5,848,793	2,523,204	105,278	78,566,266
2029	78,566,266	(13,459,566)	(17,805,122)	(1,213,563)	17,805,122	(16,449,476)	987,763	23.64	23,354,621	5,691,581	2,828,386	102,448	87,188,681
2030	87,188,681	(10,412,479)	(14,099,191)	(1,213,563)	14,099,191	(17,239,032)	992,437	24.20	24,018,681	5,566,086	3,138,793	100,190	95,993,749
2031	95,993,749	(10,177,225)	(14,105,732)	(4,089,246)	14,105,732	(105,285,217)	498,555	24.77	12,350,538	(97,023,926)	3,455,775	(2,425,598)	0
Total		**(259,727,991)**	**(300,489,397)**	**(45,745,110)**	**193,252,784**	**(239,546,833)**	**16,043,274**		**332,308,099**		**33,399,820**	**(2,311,784)**	

Table 11-13

Roads - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Industrial/Office/Institutional - GFA Growth	61,144,441	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$103,595,398	
Discount Rate Applied to Post 2031 Debt Payments		3.60%

Calculated Development Charge per Sqft	**$5.26**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	30,852,971	(21,138,544)	(21,138,544)	(4,962,839)	11,183,883	(79,685)	5,530,404	5.26	29,068,847	14,071,662	447,368	102,020	45,474,021
2018	45,474,021	(24,892,730)	(25,479,957)	(4,538,250)	14,143,014	(1,472,663)	5,530,404	5.38	29,754,590	12,406,734	886,743	120,966	58,888,464
2019	58,888,464	(22,737,174)	(23,822,580)	(4,523,898)	13,568,698	(3,235,080)	5,530,404	5.51	30,456,510	12,443,650	1,383,879	146,213	72,862,206
2020	72,862,206	(22,665,408)	(24,307,596)	(4,014,158)	13,886,902	(4,961,147)	5,548,360	5.64	31,276,205	11,880,206	1,894,417	154,443	86,791,272
2021	86,791,272	(22,231,601)	(24,404,807)	(4,014,158)	13,077,768	(6,736,459)	4,668,523	5.77	26,937,363	4,859,707	2,473,551	69,251	94,193,781
2022	94,193,781	(28,986,933)	(32,571,148)	(4,014,158)	18,133,290	(8,492,850)	3,521,469	5.91	20,798,197	(6,146,669)	2,920,007	(138,300)	90,828,820
2023	90,828,820	(24,911,676)	(28,652,328)	(4,014,158)	13,320,925	(10,819,487)	3,521,469	6.05	21,288,832	(8,876,215)	3,042,765	(210,810)	84,784,560
2024	84,784,560	(18,927,379)	(22,282,997)	(4,014,158)	11,206,219	(12,557,376)	3,521,469	6.19	21,791,042	(5,857,270)	2,840,283	(139,110)	81,628,463
2025	81,628,463	(20,259,285)	(24,413,688)	(4,014,158)	11,146,956	(14,039,795)	3,487,932	6.33	22,092,670	(9,228,016)	2,734,553	(219,165)	74,915,835
2026	74,915,835	(15,021,663)	(18,529,063)	(2,932,180)	9,043,565	(15,490,097)	3,605,314	6.48	23,374,885	(4,532,889)	2,509,680	(107,656)	72,784,970
2027	72,784,970	(15,312,469)	(19,333,336)	(1,353,397)	16,631,762	(16,707,816)	3,699,037	6.64	24,548,288	3,785,501	2,620,259	68,139	79,258,869
2028	79,258,869	(14,597,919)	(18,865,951)	(1,353,397)	18,865,951	(17,569,293)	3,699,037	6.79	25,127,390	6,204,699	2,853,319	111,685	88,428,572
2029	88,428,572	(15,010,458)	(19,856,736)	(1,353,397)	19,856,736	(18,344,884)	3,699,037	6.95	25,720,152	6,021,871	3,183,429	108,394	97,742,265
2030	97,742,265	(11,612,267)	(15,723,784)	(1,353,397)	15,723,784	(19,225,417)	3,715,550	7.12	26,444,429	5,865,615	3,518,722	105,581	107,232,182
2031	107,232,182	(11,349,907)	(15,731,079)	(4,560,434)	15,731,079	(117,416,814)	1,866,032	7.29	13,594,282	(108,382,966)	3,860,359	(2,709,574)	0
Total		**(289,655,415)**	**(335,113,595)**	**(51,016,138)**	**215,520,534**	**(267,148,862)**	**61,144,441**		**372,273,681**		**37,169,335**	**(2,537,926)**	

Table 11-14

Roads - Hotel Development Charge Calculations

Assumptions		
Hotel - GFA Growth	1,484,734	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$1,599,691	
Discount Rate Applied to Post 2031 Debt Payments		3.60%

Calculated Development Charge per Sqft	**$3.69**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(326,415)	(326,415)	(76,635)	172,698	(1,230)	106,037	3.69	390,942	159,360	0	1,155	160,515
2018	160,515	(384,387)	(393,454)	(70,078)	218,392	(22,740)	110,798	3.77	418,133	150,252	3,130	1,465	315,362
2019	315,362	(351,101)	(367,862)	(69,857)	209,524	(49,955)	110,798	3.86	427,996	149,847	7,411	1,761	474,381
2020	474,381	(349,993)	(375,351)	(61,985)	214,438	(76,609)	111,000	3.95	438,891	139,383	12,334	1,812	627,910
2021	627,910	(343,294)	(376,852)	(61,985)	201,943	(104,022)	102,354	4.05	414,253	73,336	17,895	1,045	720,187
2022	720,187	(447,608)	(502,954)	(61,985)	280,009	(131,144)	93,714	4.14	388,231	(27,844)	22,326	(626)	714,042
2023	714,042	(384,679)	(442,441)	(61,985)	205,698	(167,071)	93,714	4.24	397,389	(68,411)	23,920	(1,625)	667,927
2024	667,927	(292,271)	(344,088)	(61,985)	173,043	(193,907)	93,714	4.34	406,764	(20,174)	22,376	(479)	669,650
2025	669,650	(312,838)	(376,989)	(61,985)	172,128	(216,799)	93,517	4.44	415,486	(68,159)	22,433	(1,619)	622,305
2026	622,305	(231,960)	(286,121)	(45,278)	139,648	(239,194)	98,863	4.55	449,598	18,654	20,847	312	662,119
2027	662,119	(236,451)	(298,540)	(20,899)	256,823	(257,997)	104,405	4.65	486,003	165,390	23,836	2,977	854,323
2028	854,323	(225,417)	(291,323)	(20,899)	291,323	(271,300)	104,405	4.76	497,468	205,269	30,756	3,695	1,094,043
2029	1,094,043	(231,787)	(306,622)	(20,899)	306,622	(283,277)	104,405	4.88	509,204	205,028	39,386	3,691	1,342,147
2030	1,342,147	(179,313)	(242,802)	(20,899)	242,802	(296,873)	104,607	4.99	522,223	204,451	48,317	3,680	1,598,596
2031	1,598,596	(175,262)	(242,915)	(70,421)	242,915	(1,813,117)	52,404	5.11	267,787	(1,615,751)	57,549	(40,394)	0
Total		**(4,472,777)**	**(5,174,729)**	**(787,777)**	**3,328,007**	**(4,125,237)**	**1,484,734**		**6,430,369**		**352,517**	**(23,150)**	

Table 11-15

Transit - Residential Development Charge Calculations

Assumptions		
Gross Population Growth	270,120	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$58,523,130	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Capita	**$350**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth (To mid-year 2031)	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve Fund Closing Balance
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year Transactions	
2017	27,686,143	(22,628,917)	(22,628,917)	(1,378,818)	22,628,917	(161,231)	23,738	350	8,298,758	6,758,708	401,449	49,001	34,895,302
2018	34,895,302	(7,993,113)	(8,181,673)	(1,281,697)	8,181,673	(2,808,573)	26,213	358	9,380,213	5,289,943	680,458	51,577	40,917,280
2019	40,917,280	(15,783,613)	(16,537,077)	(1,048,069)	16,537,077	(3,909,571)	26,213	366	9,601,495	4,643,855	961,556	54,565	46,577,256
2020	46,577,256	(3,429,097)	(3,677,547)	(565,564)	3,677,547	(5,880,770)	26,213	375	9,827,997	3,381,663	1,211,009	43,962	51,213,889
2021	51,213,889	(26,607,629)	(29,208,604)	(372,362)	29,208,604	(6,624,455)	26,888	384	10,318,894	3,322,077	1,459,596	47,340	56,042,902
2022	56,042,902	(16,452,154)	(18,486,452)	(185,928)	18,486,452	(10,299,622)	27,676	393	10,871,677	386,127	1,737,330	5,985	58,172,343
2023	58,172,343	(5,893,917)	(6,778,927)	(183,297)	6,778,927	(12,590,806)	27,676	402	11,128,143	(1,645,960)	1,948,773	(39,092)	58,436,065
2024	58,436,065	(422,503)	(497,408)	(81,266)	497,408	(13,413,392)	27,788	412	11,436,962	(2,057,695)	1,957,608	(48,870)	58,287,108
2025	58,287,108	(6,130,461)	(7,387,584)	(81,266)	7,387,584	(13,561,044)	27,788	421	11,706,764	(1,935,546)	1,952,618	(45,969)	58,258,210
2026	58,258,210	(1,363,913)	(1,682,372)	(627,129)	1,682,372	(71,090,615)	29,926	431	12,904,693	(58,813,051)	1,951,650	(1,396,810)	0
Total		**(106,705,316)**	**(115,066,560)**	**(5,805,395)**	**115,066,560**	**(140,340,079)**	**270,120**		**105,475,595**		**14,262,048**	**(1,278,312)**	

Table 11-16

Transit - Retail Development Charge Calculations

Assumptions		
Retail - GFA Growth	11,588,993	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$12,054,946	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**$1.82**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	4,030,206	(4,661,240)	(4,661,240)	(284,017)	4,661,240	(33,211)	1,458,420	1.82	2,654,118	2,336,889	58,438	16,942	6,442,476
2018	6,442,476	(1,646,469)	(1,685,310)	(264,012)	1,685,310	(578,527)	1,453,659	1.86	2,707,860	1,865,322	125,628	18,187	8,451,613
2019	8,451,613	(3,251,203)	(3,406,406)	(215,888)	3,406,406	(805,317)	1,453,659	1.91	2,771,739	1,750,535	198,613	20,569	10,421,329
2020	10,421,329	(706,346)	(757,523)	(116,498)	757,523	(1,211,356)	1,458,537	1.95	2,846,645	1,518,790	270,955	19,744	12,230,818
2021	12,230,818	(5,480,799)	(6,016,564)	(76,701)	6,016,564	(1,364,545)	1,218,291	2.00	2,433,847	992,601	348,578	14,145	13,586,142
2022	13,586,142	(3,388,914)	(3,807,951)	(38,299)	3,807,951	(2,121,578)	907,415	2.04	1,855,558	(304,319)	421,170	(6,847)	13,696,146
2023	13,696,146	(1,214,064)	(1,396,364)	(37,757)	1,396,364	(2,593,530)	907,415	2.09	1,899,331	(731,956)	458,821	(17,384)	13,405,628
2024	13,405,628	(87,030)	(102,459)	(16,740)	102,459	(2,762,971)	907,415	2.14	1,944,137	(835,574)	449,089	(19,845)	12,999,297
2025	12,999,297	(1,262,789)	(1,521,739)	(16,740)	1,521,739	(2,793,385)	898,077	2.19	1,969,521	(840,604)	435,476	(19,964)	12,574,205
2026	12,574,205	(280,947)	(346,545)	(129,180)	346,545	(14,643,672)	926,103	2.24	2,078,893	(12,693,959)	421,236	(301,482)	0
Total		**(21,979,802)**	**(23,702,102)**	**(1,195,830)**	**23,702,102**	**(28,908,093)**	**11,588,993**		**23,161,648**		**3,188,004**	**(275,935)**	

Table 11-17

Transit - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Industrial/Office/Institutional - GFA Growth	44,465,748	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$13,443,990	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**$0.53**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	4,268,229	(5,198,336)	(5,198,336)	(316,743)	5,198,336	(37,038)	5,530,404	0.53	2,954,039	2,600,258	61,889	18,852	6,949,227
2018	6,949,227	(1,836,186)	(1,879,502)	(294,433)	1,879,502	(645,188)	5,530,404	0.55	3,023,726	2,084,105	135,510	20,320	9,189,162
2019	9,189,162	(3,625,827)	(3,798,913)	(240,763)	3,798,913	(898,110)	5,530,404	0.56	3,095,056	1,956,183	215,945	22,985	11,384,275
2020	11,384,275	(787,735)	(844,810)	(129,922)	844,810	(1,350,936)	5,548,360	0.57	3,178,356	1,697,497	295,991	22,067	13,399,831
2021	13,399,831	(6,112,330)	(6,709,829)	(85,539)	6,709,829	(1,521,776)	4,668,523	0.59	2,737,433	1,130,118	381,895	16,104	14,927,948
2022	14,927,948	(3,779,405)	(4,246,726)	(42,712)	4,246,726	(2,366,039)	3,521,469	0.60	2,113,558	(295,193)	462,766	(6,642)	15,088,880
2023	15,088,880	(1,353,956)	(1,557,262)	(42,107)	1,557,262	(2,892,372)	3,521,469	0.61	2,163,417	(771,062)	505,477	(18,313)	14,804,983
2024	14,804,983	(97,058)	(114,265)	(18,668)	114,265	(3,081,337)	3,521,469	0.63	2,214,453	(885,553)	495,967	(21,032)	14,394,365
2025	14,394,365	(1,408,295)	(1,697,083)	(18,668)	1,697,083	(3,115,256)	3,487,932	0.64	2,245,105	(888,820)	482,211	(21,109)	13,966,647
2026	13,966,647	(313,319)	(386,476)	(144,065)	386,476	(16,331,004)	3,605,314	0.66	2,375,406	(14,099,663)	467,883	(334,867)	(0)
Total		**(24,512,448)**	**(26,433,201)**	**(1,333,621)**	**26,433,201**	**(32,239,058)**	**44,465,748**		**26,100,549**		**3,505,536**	**(301,634)**	

Table 11-18

Transit - Hotel Development Charge Calculations

Assumptions		
Hotel - GFA Growth	1,014,508	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$207,598	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**$0.43**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(80,271)	(80,271)	(4,891)	80,271	(572)	106,037	0.43	45,354	39,891	0	289	40,180
2018	40,180	(28,354)	(29,023)	(4,547)	29,023	(9,963)	110,798	0.44	48,509	33,999	784	331	75,295
2019	75,295	(55,989)	(58,662)	(3,718)	58,662	(13,868)	110,798	0.45	49,653	32,067	1,769	377	109,508
2020	109,508	(12,164)	(13,045)	(2,006)	13,045	(20,861)	111,000	0.46	50,917	28,050	2,847	365	140,769
2021	140,769	(94,385)	(103,611)	(1,321)	103,611	(23,499)	102,354	0.47	48,059	23,239	4,012	331	168,351
2022	168,351	(58,360)	(65,577)	(660)	65,577	(36,536)	93,714	0.48	45,040	7,844	5,219	122	181,536
2023	181,536	(20,907)	(24,047)	(650)	24,047	(44,663)	93,714	0.49	46,102	789	6,081	13	188,420
2024	188,420	(1,499)	(1,764)	(288)	1,764	(47,581)	93,714	0.50	47,190	(680)	6,312	(16)	194,036
2025	194,036	(21,746)	(26,206)	(288)	26,206	(48,105)	93,517	0.52	48,202	(192)	6,500	(5)	200,340
2026	200,340	(4,838)	(5,968)	(2,225)	5,968	(252,182)	98,863	0.53	52,159	(202,248)	6,711	(4,803)	0
Total		**(378,514)**	**(408,174)**	**(20,593)**	**408,174**	**(497,830)**	**1,014,508**		**481,183**		**40,236**	**(2,996)**	

Table 11-19

Toronto-York Subway Extension - Residential Development Charge Calculations

Assumptions		
Gross Population Growth	395,379	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	20	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$66,254,436	
Discount Rate Applied to Post 2031 Debt Payments		4.10%

Calculated Development Charge per Capita	**$676**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth (To mid-year 2031)	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	16,406,012	(109,829,419)	(109,829,419)	(8,585,041)	83,837,405	(765,016)	22,682	676	15,338,512	(20,003,559)	369,135	(365,065)	(3,593,477)
2018	(3,593,477)	(27,802,525)	(28,458,395)	(8,585,041)	15,709,008	(6,499,149)	25,047	692	17,337,355	(10,496,222)	(143,739)	(209,924)	(14,443,362)
2019	(14,443,362)	(22,053)	(23,105)	(8,585,041)	23,105	(7,564,261)	25,047	709	17,746,349	1,597,047	(613,843)	22,758	(13,437,401)
2020	(13,437,401)	0	0	(8,477,677)	0	(7,565,849)	25,047	725	18,164,990	2,121,464	(604,683)	32,883	(11,887,737)
2021	(11,887,737)	0	0	(8,605,148)	0	(7,565,849)	25,692	742	19,072,310	2,901,314	(564,668)	48,597	(9,502,494)
2022	(9,502,494)	0	0	(8,605,148)	0	(7,565,849)	26,445	760	20,094,013	3,923,016	(475,125)	70,614	(5,983,988)
2023	(5,983,988)	0	0	(8,605,148)	0	(7,565,849)	26,445	778	20,568,036	4,397,040	(314,159)	84,643	(1,816,465)
2024	(1,816,465)	0	0	(8,605,148)	0	(7,565,849)	26,552	796	21,138,825	4,967,828	(95,364)	95,631	3,151,629
2025	3,151,629	0	0	(8,605,148)	0	(7,565,849)	26,552	815	21,637,496	5,466,499	121,338	105,230	8,844,696
2026	8,844,696	0	0	(8,820,052)	0	(7,565,849)	28,595	834	23,851,617	7,465,717	340,521	143,715	16,794,648
2027	16,794,648	0	0	(9,009,704)	0	(7,565,849)	30,422	854	25,974,595	9,399,042	688,581	192,680	27,074,951
2028	27,074,951	0	0	(9,009,704)	0	(7,565,849)	30,530	874	26,681,292	10,105,739	1,110,073	207,168	38,497,931
2029	38,497,931	0	0	(9,009,704)	0	(7,565,849)	30,530	895	27,310,712	10,735,158	1,578,415	220,071	51,031,575
2030	51,031,575	0	0	(8,841,504)	0	(7,565,849)	30,530	916	27,954,979	11,547,627	2,092,295	236,726	64,908,223
2031	64,908,223	0	0	(32,764,789)	0	(47,303,465)	15,265	937	14,307,223	(65,761,031)	2,661,237	(1,808,428)	0
Total		**(137,653,996)**	**(138,310,919)**	**(154,713,998)**	**99,569,518**	**(145,356,228)**	**395,379**		**317,178,303**		**6,150,013**	**(922,702)**	

Table 11-20

Toronto-York Subway Extension - Retail Development Charge Calculations

Assumptions		
Retail - GFA Growth	16,043,274	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	20	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$12,367,327	
Discount Rate Applied to Post 2031 Debt Payments		4.10%

Calculated Development Charge per Sqft	**$3.11**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	2,388,184	(20,501,214)	(20,501,214)	(1,602,519)	15,649,437	(142,801)	1,458,420	3.11	4,533,478	(2,063,619)	53,734	(37,661)	340,639
2018	340,639	(5,189,734)	(5,312,162)	(1,602,519)	2,932,308	(1,213,158)	1,453,659	3.18	4,625,275	(570,255)	8,857	(11,405)	(232,165)
2019	(232,165)	(4,116)	(4,313)	(1,602,519)	4,313	(1,411,976)	1,453,659	3.26	4,734,387	1,719,891	(9,867)	24,508	1,502,368
2020	1,502,368	0	0	(1,582,478)	0	(1,412,273)	1,458,537	3.33	4,862,333	1,867,582	46,573	28,948	3,445,471
2021	3,445,471	0	0	(1,606,272)	0	(1,412,273)	1,218,291	3.41	4,157,236	1,138,691	115,423	19,073	4,718,658
2022	4,718,658	0	0	(1,606,272)	0	(1,412,273)	907,415	3.49	3,169,464	150,919	169,872	2,717	5,042,165
2023	5,042,165	0	0	(1,606,272)	0	(1,412,273)	907,415	3.58	3,244,233	225,687	194,123	4,344	5,466,320
2024	5,466,320	0	0	(1,606,272)	0	(1,412,273)	907,415	3.66	3,320,765	302,220	210,453	5,818	5,984,811
2025	5,984,811	0	0	(1,606,272)	0	(1,412,273)	898,077	3.75	3,364,123	345,578	230,415	6,652	6,567,457
2026	6,567,457	0	0	(1,646,387)	0	(1,412,273)	926,103	3.83	3,550,941	492,281	252,847	9,476	7,322,062
2027	7,322,062	0	0	(1,681,789)	0	(1,412,273)	987,763	3.92	3,876,709	782,647	300,205	16,044	8,420,958
2028	8,420,958	0	0	(1,681,789)	0	(1,412,273)	987,763	4.02	3,968,161	874,100	345,259	17,919	9,658,236
2029	9,658,236	0	0	(1,681,789)	0	(1,412,273)	987,763	4.11	4,061,772	967,710	395,988	19,838	11,041,772
2030	11,041,772	0	0	(1,650,392)	0	(1,412,273)	992,437	4.21	4,177,263	1,114,599	452,713	22,849	12,631,933
2031	12,631,933	0	0	(6,116,011)	0	(8,829,860)	498,555	4.31	2,147,972	(12,797,900)	517,909	(351,942)	0
Total		**(25,695,064)**	**(25,817,688)**	**(28,879,555)**	**18,586,058**	**(27,132,795)**	**16,043,274**		**57,794,112**		**3,284,505**	**(222,821)**	

Table 11-21

Toronto-York Subway Extension - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Industrial/Office/Institutional - GFA Growth	61,144,441	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	20	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$13,792,365	
Discount Rate Applied to Post 2031 Debt Payments	4.10%	

Calculated Development Charge per Sqft	**$0.91**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	2,529,229	(22,863,487)	(22,863,487)	(1,787,171)	17,452,659	(159,256)	5,530,404	0.91	5,042,048	(2,315,206)	56,908	(42,253)	228,678
2018	228,678	(5,787,727)	(5,924,261)	(1,787,171)	3,270,187	(1,352,945)	5,530,404	0.93	5,160,991	(633,199)	5,946	(12,664)	(411,240)
2019	(411,240)	(4,591)	(4,810)	(1,787,171)	4,810	(1,574,673)	5,530,404	0.96	5,282,741	1,920,897	(17,478)	27,373	1,519,552
2020	1,519,552	0	0	(1,764,821)	0	(1,575,003)	5,548,360	0.98	5,424,919	2,085,094	47,106	32,319	3,684,072
2021	3,684,072	0	0	(1,791,357)	0	(1,575,003)	4,668,523	1.00	4,672,338	1,305,978	123,416	21,875	5,135,341
2022	5,135,341	0	0	(1,791,357)	0	(1,575,003)	3,521,469	1.02	3,607,488	241,128	184,872	4,340	5,565,681
2023	5,565,681	0	0	(1,791,357)	0	(1,575,003)	3,521,469	1.05	3,692,589	326,229	214,279	6,280	6,112,469
2024	6,112,469	0	0	(1,791,357)	0	(1,575,003)	3,521,469	1.07	3,779,699	413,338	235,330	7,957	6,769,095
2025	6,769,095	0	0	(1,791,357)	0	(1,575,003)	3,487,932	1.10	3,832,016	465,656	260,610	8,964	7,504,325
2026	7,504,325	0	0	(1,836,094)	0	(1,575,003)	3,605,314	1.12	4,054,419	643,322	288,917	12,384	8,448,947
2027	8,448,947	0	0	(1,875,575)	0	(1,575,003)	3,699,037	1.15	4,257,948	807,371	346,407	16,551	9,619,276
2028	9,619,276	0	0	(1,875,575)	0	(1,575,003)	3,699,037	1.18	4,358,395	907,817	394,390	18,610	10,940,093
2029	10,940,093	0	0	(1,875,575)	0	(1,575,003)	3,699,037	1.21	4,461,210	1,010,633	448,544	20,718	12,419,988
2030	12,419,988	0	0	(1,840,560)	0	(1,575,003)	3,715,550	1.23	4,586,838	1,171,275	509,219	24,011	14,124,493
2031	14,124,493	0	0	(6,820,735)	0	(9,847,290)	1,866,032	1.26	2,357,955	(14,310,070)	579,104	(393,527)	(0)
Total		**(28,655,804)**	**(28,792,558)**	**(32,207,231)**	**20,727,656**	**(30,259,199)**	**61,144,441**		**64,571,593**		**3,677,571**	**(247,061)**	

Table 11-22

Toronto-York Subway Extension - Hotel Development Charge Calculations

Assumptions		
Hotel - GFA Growth	1,484,734	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	20	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$212,978	
Discount Rate Applied to Post 2031 Debt Payments		4.10%

Calculated Development Charge per Sqft	**$0.61**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(353,052)	(353,052)	(27,597)	269,499	(2,459)	106,037	0.61	65,152	(48,457)	0	(884)	(49,341)
2018	(49,341)	(89,372)	(91,481)	(27,597)	50,497	(20,892)	110,798	0.63	69,683	(19,789)	(1,974)	(396)	(71,500)
2019	(71,500)	(71)	(74)	(27,597)	74	(24,316)	110,798	0.64	71,327	19,414	(3,039)	277	(54,848)
2020	(54,848)	0	0	(27,252)	0	(24,321)	111,000	0.66	73,142	21,570	(2,468)	334	(35,412)
2021	(35,412)	0	0	(27,662)	0	(24,321)	102,354	0.67	69,037	17,054	(1,682)	286	(19,754)
2022	(19,754)	0	0	(27,662)	0	(24,321)	93,714	0.69	64,700	12,717	(988)	229	(7,796)
2023	(7,796)	0	0	(27,662)	0	(24,321)	93,714	0.71	66,226	14,244	(409)	274	6,313
2024	6,313	0	0	(27,662)	0	(24,321)	93,714	0.72	67,788	15,806	243	304	22,666
2025	22,666	0	0	(27,662)	0	(24,321)	93,517	0.74	69,242	17,260	873	332	41,131
2026	41,131	0	0	(28,352)	0	(24,321)	98,863	0.76	74,927	22,254	1,584	428	65,396
2027	65,396	0	0	(28,962)	0	(24,321)	104,405	0.78	80,994	27,711	2,681	568	96,357
2028	96,357	0	0	(28,962)	0	(24,321)	104,405	0.79	82,905	29,622	3,951	607	130,536
2029	130,536	0	0	(28,962)	0	(24,321)	104,405	0.81	84,860	31,577	5,352	647	168,113
2030	168,113	0	0	(28,421)	0	(24,321)	104,607	0.83	87,030	34,288	6,893	703	209,996
2031	209,996	0	0	(105,324)	0	(152,059)	52,404	0.85	44,627	(212,755)	8,610	(5,851)	0
Total		**(442,495)**	**(444,607)**	**(497,335)**	**320,071**	**(467,254)**	**1,484,734**		**1,071,640**		**19,626**	**(2,141)**	

Table 11-23

Police - Residential Development Charge Calculations

Assumptions		
Gross Population Growth	395,379	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$26,092,732	
Discount Rate Applied to Post 2031 Debt Payments		3.60%

Calculated Development Charge per Capita	**$241**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth (To mid-year 2031)	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	6,980,616	(7,501,763)	(7,501,763)	(2,977,648)	6,396,761	(45,577)	22,682	241	5,472,370	1,344,142	101,219	9,745	8,435,722
2018	8,435,722	(6,341,597)	(6,491,197)	(2,943,512)	6,313,788	(827,438)	25,047	247	6,185,504	2,237,145	164,497	21,812	10,859,175
2019	10,859,175	(8,832,451)	(9,254,086)	(2,829,532)	9,254,086	(1,644,193)	25,047	253	6,331,421	1,857,696	255,191	21,828	12,993,890
2020	12,993,890	(4,865,617)	(5,218,148)	(2,961,326)	4,960,476	(2,776,294)	25,047	259	6,480,781	485,489	337,841	6,311	13,823,532
2021	13,823,532	(1,289,606)	(1,415,669)	(2,954,304)	1,415,669	(3,375,853)	25,692	265	6,804,489	474,333	393,971	6,759	14,698,594
2022	14,698,594	(1,841,211)	(2,068,876)	(3,004,711)	1,682,342	(3,562,825)	26,445	271	7,169,005	214,935	455,656	3,331	15,372,517
2023	15,372,517	(2,357,289)	(2,711,251)	(3,004,711)	2,145,844	(3,789,489)	26,445	277	7,338,124	(21,483)	514,979	(510)	15,865,503
2024	15,865,503	(3,400,607)	(4,003,497)	(3,004,711)	3,218,766	(4,086,228)	26,552	284	7,541,766	(333,904)	531,494	(7,930)	16,055,162
2025	16,055,162	(1,006,925)	(1,213,407)	(3,004,711)	1,213,407	(4,488,412)	26,552	291	7,719,678	226,555	537,848	3,795	16,823,360
2026	16,823,360	(1,726,488)	(2,129,604)	(3,068,003)	2,129,604	(4,659,884)	28,595	298	8,509,618	781,730	563,583	13,094	18,181,767
2027	18,181,767	(1,377,533)	(1,739,256)	(3,321,170)	1,739,256	(4,892,608)	30,422	305	9,267,039	1,053,260	654,544	18,959	19,908,530
2028	19,908,530	(3,926,452)	(5,074,439)	(3,321,170)	4,291,688	(4,375,490)	30,530	312	9,519,170	1,039,757	716,707	18,716	21,683,710
2029	21,683,710	(7,777,122)	(10,288,044)	(3,127,763)	6,437,532	(4,160,095)	30,530	319	9,743,730	(1,394,641)	780,614	(34,866)	21,034,816
2030	21,034,816	(2,975,285)	(4,028,734)	(2,212,636)	4,028,734	(3,859,690)	30,530	327	9,973,587	3,901,262	757,253	70,223	25,763,554
2031	25,763,554	(1,111,121)	(1,540,025)	(7,430,422)	1,540,025	(23,714,052)	15,265	334	5,104,433	(26,040,041)	927,488	(651,001)	0
Total		**(56,331,067)**	**(64,677,997)**	**(49,166,330)**	**56,767,977**	**(70,258,130)**	**395,379**		**113,160,715**		**7,692,884**	**(499,734)**	

Table 11-24

Police - Retail Development Charge Calculations

Assumptions		
Retail - GFA Growth	16,043,274	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$2,839,159	
Discount Rate Applied to Post 2031 Debt Payments		3.60%

Calculated Development Charge per Sqft	**$0.63**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	1,016,152	(816,269)	(816,269)	(323,999)	696,034	(4,959)	1,458,420	0.63	913,690	464,496	14,734	3,368	1,498,749
2018	1,498,749	(690,031)	(706,309)	(320,285)	687,005	(90,034)	1,453,659	0.64	932,191	502,568	29,226	4,900	2,035,443
2019	2,035,443	(961,062)	(1,006,940)	(307,882)	1,006,940	(178,905)	1,453,659	0.66	954,181	467,394	47,833	5,492	2,556,162
2020	2,556,162	(529,429)	(567,788)	(322,223)	539,751	(302,090)	1,458,537	0.67	979,968	327,618	66,460	4,259	2,954,499
2021	2,954,499	(140,323)	(154,039)	(321,459)	154,039	(367,328)	1,218,291	0.69	837,861	149,074	84,203	2,124	3,189,901
2022	3,189,901	(200,343)	(225,115)	(326,944)	183,056	(387,672)	907,415	0.70	638,782	(117,892)	98,887	(2,653)	3,168,243
2023	3,168,243	(256,497)	(295,012)	(326,944)	233,490	(412,336)	907,415	0.72	653,851	(146,950)	106,136	(3,490)	3,123,939
2024	3,123,939	(370,021)	(435,622)	(326,944)	350,235	(444,624)	907,415	0.74	669,276	(187,678)	104,652	(4,457)	3,036,455
2025	3,036,455	(109,564)	(132,031)	(326,944)	132,031	(488,386)	898,077	0.75	678,015	(137,315)	101,721	(3,261)	2,997,601
2026	2,997,601	(187,860)	(231,723)	(333,830)	231,723	(507,044)	926,103	0.77	715,666	(125,208)	100,420	(2,974)	2,969,839
2027	2,969,839	(149,890)	(189,249)	(361,378)	189,249	(532,366)	987,763	0.79	781,322	(112,422)	106,914	(2,811)	2,961,521
2028	2,961,521	(427,239)	(552,151)	(361,378)	466,980	(476,099)	987,763	0.81	799,754	(122,894)	106,615	(3,072)	2,942,170
2029	2,942,170	(846,231)	(1,119,446)	(340,333)	700,470	(452,661)	987,763	0.83	818,621	(393,349)	105,918	(9,834)	2,644,905
2030	2,644,905	(323,742)	(438,368)	(240,758)	438,368	(419,974)	992,437	0.85	841,897	181,165	95,217	3,261	2,924,547
2031	2,924,547	(120,901)	(167,571)	(808,507)	167,571	(2,580,334)	498,555	0.87	432,908	(2,955,933)	105,284	(73,898)	0
Total		**(6,129,403)**	**(7,037,635)**	**(5,349,805)**	**6,176,943**	**(7,644,811)**	**16,043,274**		**11,647,983**		**1,274,219**	**(83,046)**	

Table 11-25

Police - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Industrial/Office/Institutional - GFA Growth	61,144,441	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$6,784,389	
Discount Rate Applied to Post 2031 Debt Payments		3.60%

Calculated Development Charge per Sqft	**$0.49**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	1,076,165	(2,154,676)	(2,154,676)	(855,248)	1,837,294	(13,091)	5,530,404	0.49	2,712,180	1,526,460	15,604	11,067	2,629,296
2018	2,629,296	(1,821,450)	(1,821,450)	(845,443)	1,813,463	(237,659)	5,530,404	0.49	2,712,180	1,621,091	51,271	15,806	4,317,464
2019	4,317,464	(2,536,880)	(2,536,880)	(812,706)	2,536,880	(471,114)	5,530,404	0.49	2,712,180	1,428,360	101,460	16,783	5,864,068
2020	5,864,068	(1,397,515)	(1,397,515)	(850,560)	1,397,515	(781,841)	5,548,360	0.49	2,720,986	1,088,585	152,466	14,152	7,119,270
2021	7,119,270	(370,404)	(370,404)	(848,543)	370,404	(950,452)	4,668,523	0.49	2,289,503	490,508	202,899	6,990	7,819,667
2022	7,819,667	(528,837)	(528,837)	(863,021)	483,207	(999,857)	3,521,469	0.49	1,726,973	(181,536)	242,410	(4,085)	7,876,456
2023	7,876,456	(677,067)	(677,067)	(863,021)	616,335	(1,064,960)	3,521,469	0.49	1,726,973	(261,739)	263,861	(6,216)	7,872,362
2024	7,872,362	(976,731)	(976,731)	(863,021)	924,502	(1,150,190)	3,521,469	0.49	1,726,973	(338,467)	263,724	(8,039)	7,789,581
2025	7,789,581	(289,212)	(289,212)	(863,021)	289,212	(1,265,002)	3,487,932	0.49	1,710,526	(417,497)	260,951	(9,916)	7,623,119
2026	7,623,119	(495,886)	(495,886)	(881,200)	495,886	(1,305,733)	3,605,314	0.49	1,768,092	(418,842)	255,374	(9,947)	7,449,704
2027	7,449,704	(395,659)	(395,659)	(953,915)	395,659	(1,357,329)	3,699,037	0.49	1,814,055	(497,190)	268,189	(12,430)	7,208,274
2028	7,208,274	(1,127,766)	(1,127,766)	(953,915)	1,127,766	(1,194,880)	3,699,037	0.49	1,814,055	(334,741)	259,498	(8,369)	7,124,662
2029	7,124,662	(2,233,766)	(2,233,766)	(898,364)	1,849,005	(1,121,417)	3,699,037	0.49	1,814,055	(590,487)	256,488	(14,762)	6,775,901
2030	6,775,901	(854,569)	(854,569)	(635,519)	854,569	(1,045,790)	3,715,550	0.49	1,822,153	140,844	243,932	2,535	7,163,213
2031	7,163,213	(319,139)	(319,139)	(2,134,185)	319,139	(6,021,027)	1,866,032	0.49	915,126	(7,240,087)	257,876	(181,002)	0
Total		**(16,179,558)**	**(16,179,558)**	**(14,121,683)**	**15,310,837**	**(18,980,342)**	**61,144,441**		**29,986,009**		**3,096,005**	**(187,433)**	

Table 11-26

Police - Hotels Development Charge Calculations

Assumptions		
Hotels - GFA Growth		1,484,734
Inflation		2%
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)		10
New Debt interest		From 2.85% to 5.00%
Target Reserve Balance 2031		$52,666
Discount Rate Applied to Post 2031 Debt Payments		3.60%

Calculated Development Charge per Sqft	**$0.14**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(15,142)	(15,142)	(6,010)	12,911	(92)	106,037	0.14	14,751	6,419	0	47	6,466
2018	6,466	(12,800)	(13,102)	(5,941)	12,744	(1,670)	110,798	0.14	15,777	7,808	126	76	14,476
2019	14,476	(17,827)	(18,678)	(5,711)	18,678	(3,319)	110,798	0.15	16,150	7,120	340	84	22,020
2020	22,020	(9,821)	(10,532)	(5,977)	10,012	(5,604)	111,000	0.15	16,561	4,460	573	58	27,110
2021	27,110	(2,603)	(2,857)	(5,963)	2,857	(6,814)	102,354	0.15	15,631	2,854	773	41	30,777
2022	30,777	(3,716)	(4,176)	(6,065)	3,396	(7,191)	93,714	0.16	14,649	613	954	10	32,354
2023	32,354	(4,758)	(5,472)	(6,065)	4,331	(7,649)	93,714	0.16	14,995	140	1,084	2	33,580
2024	33,580	(6,864)	(8,081)	(6,065)	6,497	(8,248)	93,714	0.16	15,348	(548)	1,125	(13)	34,144
2025	34,144	(2,032)	(2,449)	(6,065)	2,449	(9,059)	93,517	0.17	15,678	553	1,144	9	35,851
2026	35,851	(3,485)	(4,298)	(6,192)	4,298	(9,406)	98,863	0.17	16,965	1,367	1,201	23	38,442
2027	38,442	(2,780)	(3,511)	(6,703)	3,511	(9,875)	104,405	0.18	18,338	1,760	1,384	32	41,617
2028	41,617	(7,925)	(10,242)	(6,703)	8,662	(8,831)	104,405	0.18	18,771	1,656	1,498	30	44,801
2029	44,801	(15,697)	(20,765)	(6,313)	12,994	(8,397)	104,405	0.18	19,214	(3,268)	1,613	(82)	43,064
2030	43,064	(6,005)	(8,132)	(4,466)	8,132	(7,790)	104,607	0.19	19,705	7,449	1,550	134	52,197
2031	52,197	(2,243)	(3,108)	(14,998)	3,108	(47,864)	52,404	0.19	10,104	(52,758)	1,879	(1,319)	0
Total		**(113,699)**	**(130,546)**	**(99,237)**	**114,580**	**(141,809)**	**1,484,734**		**242,637**		**15,243**	**(869)**	

Table 11-27

Waste Diversion - Residential Development Charge Calculations

Assumptions		
Gross Population Growth	270,120	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$367,948	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Capita	**$11.32**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth (To mid-year 2031)	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(2,502,172)	(2,502,172)	0	2,502,172	(17,828)	23,738	11	268,729	250,901	0	1,819	252,720
2018	252,720	(357,459)	(365,892)	0	365,892	(306,043)	26,213	12	303,748	(2,295)	4,928	(38)	255,315
2019	255,315	0	0	0	0	(348,347)	26,213	12	310,914	(37,433)	6,000	(702)	223,180
2020	223,180	0	0	0	0	(348,347)	26,213	12	318,249	(30,099)	5,803	(602)	198,282
2021	198,282	0	0	0	0	(348,347)	26,888	12	334,145	(14,203)	5,651	(302)	189,428
2022	189,428	0	0	0	0	(348,347)	27,676	13	352,045	3,697	5,872	57	199,055
2023	199,055	0	0	0	0	(348,347)	27,676	13	360,350	12,002	6,668	201	217,927
2024	217,927	0	0	0	0	(348,347)	27,788	13	370,350	22,002	7,301	369	247,599
2025	247,599	0	0	0	0	(348,347)	27,788	14	379,086	30,739	8,295	515	287,147
2026	287,147	0	0	0	0	(707,759)	29,926	14	417,878	(289,882)	9,619	(6,885)	0
Total		**(2,859,631)**	**(2,868,063)**	**0**	**2,868,063**	**(3,470,062)**	**270,120**		**3,415,493**		**60,137**	**(5,568)**	

Table 11-28

Waste Diversion - Retail Development Charge Calculations

Assumptions		
Retail - GFA Growth	11,588,993	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2021	$31,971	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**$0.03**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(283,005)	(283,005)	0	283,005	(2,016)	1,458,420	0.03	37,901	35,884	0	260	36,144
2018	36,144	(99)	(101)	0	101	(34,269)	1,453,659	0.03	38,668	4,399	705	43	41,291
2019	41,291	0	0	0	0	(34,281)	1,453,659	0.03	39,580	5,300	970	62	47,624
2020	47,624	0	0	0	0	(34,281)	1,458,537	0.03	40,650	6,369	1,238	83	55,314
2021	55,314	0	0	0	0	(34,281)	1,218,291	0.03	34,755	475	1,576	7	57,372
2022	57,372	0	0	0	0	(34,281)	907,415	0.03	26,497	(7,783)	1,779	(175)	51,192
2023	51,192	0	0	0	0	(34,281)	907,415	0.03	27,122	(7,158)	1,715	(170)	45,579
2024	45,579	0	0	0	0	(34,281)	907,415	0.03	27,762	(6,518)	1,527	(155)	40,433
2025	40,433	0	0	0	0	(34,281)	898,077	0.03	28,125	(6,156)	1,355	(146)	35,485
2026	35,485	0	0	0	0	(65,510)	926,103	0.03	29,686	(35,823)	1,189	(851)	(0)
Total		**(283,103)**	**(283,106)**	**0**	**283,106**	**(341,759)**	**11,588,993**		**330,747**		**12,053**	**(1,042)**	

Table 11-29

Waste Diversion - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Industrial/Office/Institutional - GFA Growth	44,465,748	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2021	$122,669	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**$0.03**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(1,085,859)	(1,085,859)	0	1,085,859	(7,737)	5,530,404	0.03	143,735	135,998	0	986	136,984
2018	136,984	(379)	(388)	0	388	(131,486)	5,530,404	0.03	147,126	15,640	2,671	152	155,448
2019	155,448	0	0	0	0	(131,531)	5,530,404	0.03	150,596	19,066	3,653	224	178,390
2020	178,390	0	0	0	0	(131,531)	5,548,360	0.03	154,649	23,119	4,638	301	206,447
2021	206,447	0	0	0	0	(131,531)	4,668,523	0.03	133,195	1,665	5,884	24	214,020
2022	214,020	0	0	0	0	(131,531)	3,521,469	0.03	102,840	(28,691)	6,635	(646)	191,317
2023	191,317	0	0	0	0	(131,531)	3,521,469	0.03	105,266	(26,265)	6,409	(624)	170,838
2024	170,838	0	0	0	0	(131,531)	3,521,469	0.03	107,749	(23,782)	5,723	(565)	152,214
2025	152,214	0	0	0	0	(131,531)	3,487,932	0.03	109,240	(22,291)	5,099	(529)	134,493
2026	134,493	0	0	0	0	(251,354)	3,605,314	0.03	115,580	(135,774)	4,506	(3,225)	(0)
Total		**(1,086,238)**	**(1,086,247)**	**0**	**1,086,247**	**(1,311,292)**	**44,465,748**		**1,269,976**		**45,218**	**(3,901)**	

Table 11-30

Waste Diversion - Hotels Development Charge Calculations

Assumptions		
Hotels - GFA Growth	1,014,508	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2021	$2,799	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**$0.03**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(24,774)	(24,774)	0	24,774	(177)	106,037	0.03	2,760	2,583	0	19	2,602
2018	2,602	(9)	(9)	0	9	(3,000)	110,798	0.03	2,952	(48)	51	(1)	2,604
2019	2,604	0	0	0	0	(3,001)	110,798	0.03	3,021	20	61	0	2,685
2020	2,685	0	0	0	0	(3,001)	111,000	0.03	3,098	97	70	1	2,854
2021	2,854	0	0	0	0	(3,001)	102,354	0.03	2,924	(77)	81	(2)	2,857
2022	2,857	0	0	0	0	(3,001)	93,714	0.03	2,741	(260)	89	(6)	2,679
2023	2,679	0	0	0	0	(3,001)	93,714	0.03	2,805	(196)	90	(5)	2,568
2024	2,568	0	0	0	0	(3,001)	93,714	0.03	2,871	(130)	86	(3)	2,522
2025	2,522	0	0	0	0	(3,001)	93,517	0.03	2,933	(68)	84	(2)	2,537
2026	2,537	0	0	0	0	(5,735)	98,863	0.03	3,174	(2,561)	85	(61)	0
Total		**(24,783)**	**(24,783)**	**0**	**24,783**	**(29,918)**	**1,014,508**		**29,279**		**697**	**(58)**	

Table 11-31

Public Works - Residential Development Charge Calculations

Assumptions		
Gross Population Growth	395,379	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$11,681,289	
Discount Rate Applied to Post 2031 Debt Payments		3.60%

Calculated Development Charge per Capita	**$54**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth (To mid-year 2031)	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	12,414,794	(1,610,411)	(1,610,411)	0	1,610,411	(11,474)	22,682	54	1,227,154	1,215,680	180,015	8,814	13,819,302
2018	13,819,302	(4,501,219)	(4,607,404)	0	4,607,404	(233,586)	25,047	55	1,387,071	1,153,485	269,476	11,246	15,253,511
2019	15,253,511	(4,852,870)	(5,084,532)	0	5,084,532	(813,960)	25,047	57	1,419,793	605,833	358,457	7,119	16,224,919
2020	16,224,919	(3,179,890)	(3,410,284)	0	3,410,284	(1,442,826)	25,047	58	1,453,286	10,460	421,848	136	16,657,364
2021	16,657,364	(466,026)	(511,581)	0	511,581	(1,850,111)	25,692	59	1,525,876	(324,236)	474,735	(6,890)	16,800,973
2022	16,800,973	(399,192)	(448,551)	0	448,551	(1,915,885)	26,445	61	1,607,617	(308,268)	520,830	(6,936)	17,006,599
2023	17,006,599	(2,799,138)	(3,219,447)	0	3,219,447	(2,007,755)	26,445	62	1,645,541	(362,214)	569,721	(8,603)	17,205,504
2024	17,205,504	(2,815,341)	(3,314,470)	0	3,314,470	(2,434,972)	26,552	64	1,691,207	(743,765)	576,384	(17,664)	17,020,459
2025	17,020,459	(253,372)	(305,329)	0	305,329	(2,837,902)	26,552	65	1,731,103	(1,106,799)	570,185	(26,286)	16,457,558
2026	16,457,558	(3,507,984)	(4,327,061)	0	4,327,061	(2,926,070)	28,595	67	1,908,243	(1,017,827)	551,328	(24,173)	15,966,886
2027	15,966,886	(1,946,499)	(2,457,626)	0	2,457,626	(3,466,611)	30,422	68	2,078,092	(1,388,519)	574,808	(34,713)	15,118,462
2028	15,118,462	(3,524,186)	(4,554,561)	0	4,554,561	(3,599,718)	30,530	70	2,134,631	(1,465,088)	544,265	(36,627)	14,161,012
2029	14,161,012	(885,257)	(1,171,071)	0	1,171,071	(3,586,779)	30,530	72	2,184,987	(1,401,792)	509,796	(35,045)	13,233,971
2030	13,233,971	(85,275)	(115,467)	0	115,467	(3,101,492)	30,530	73	2,236,532	(864,960)	476,423	(21,624)	12,823,810
2031	12,823,810	(85,275)	(118,191)	0	118,191	(14,106,077)	15,265	75	1,144,646	(12,961,431)	461,657	(324,036)	0
Total		**(30,911,933)**	**(35,255,987)**	**0**	**35,255,987**	**(44,335,217)**	**395,379**		**25,375,777**		**7,059,929**	**(515,283)**	

Table 11-32

Public Works - Retail Development Charge Calculations

Assumptions		
Retail GFA Growth	16,043,274	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$1,271,045	
Discount Rate Applied to Post 2031 Debt Payments		3.60%

Calculated Development Charge per Capita	**$0.12**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	1,807,192	(175,229)	(175,229)	0	175,229	(1,249)	1,458,420	0.12	167,745	166,497	26,204	1,207	2,001,100
2018	2,001,100	(489,779)	(501,333)	0	501,333	(25,417)	1,453,659	0.12	171,142	145,726	39,021	1,421	2,187,268
2019	2,187,268	(528,042)	(553,250)	0	553,250	(88,567)	1,453,659	0.12	175,179	86,612	51,401	1,018	2,326,299
2020	2,326,299	(346,005)	(371,074)	0	371,074	(156,994)	1,458,537	0.12	179,914	22,919	60,484	298	2,410,000
2021	2,410,000	(50,708)	(55,665)	0	55,665	(201,311)	1,218,291	0.13	153,824	(47,487)	68,685	(1,009)	2,430,188
2022	2,430,188	(43,436)	(48,807)	0	48,807	(208,468)	907,415	0.13	117,275	(91,193)	75,336	(2,052)	2,412,279
2023	2,412,279	(304,575)	(350,309)	0	350,309	(218,465)	907,415	0.13	120,041	(98,423)	80,811	(2,338)	2,392,330
2024	2,392,330	(306,338)	(360,649)	0	360,649	(264,950)	907,415	0.14	122,873	(142,077)	80,143	(3,374)	2,327,022
2025	2,327,022	(27,570)	(33,223)	0	33,223	(308,793)	898,077	0.14	124,478	(184,316)	77,955	(4,377)	2,216,284
2026	2,216,284	(381,705)	(470,829)	0	470,829	(318,387)	926,103	0.14	131,390	(186,997)	74,246	(4,441)	2,099,092
2027	2,099,092	(211,799)	(267,415)	0	267,415	(377,203)	987,763	0.15	143,444	(233,759)	75,567	(5,844)	1,935,056
2028	1,935,056	(383,468)	(495,583)	0	495,583	(391,687)	987,763	0.15	146,828	(244,859)	69,662	(6,121)	1,753,738
2029	1,753,738	(96,325)	(127,425)	0	127,425	(390,279)	987,763	0.15	150,292	(239,987)	63,135	(6,000)	1,570,886
2030	1,570,886	(9,279)	(12,564)	0	12,564	(337,474)	992,437	0.16	154,565	(182,909)	56,552	(4,573)	1,439,956
2031	1,439,956	(9,279)	(12,860)	0	12,860	(1,534,887)	498,555	0.16	79,478	(1,455,409)	51,838	(36,385)	(0)
Total		**(3,363,538)**	**(3,836,216)**	**0**	**3,836,216**	**(4,824,130)**	**16,043,274**		**2,138,468**		**951,041**	**(72,571)**	

Table 11-33

Public Works - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Retail GFA Growth	61,144,441	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$3,355,131	
Discount Rate Applied to Post 2031 Debt Payments		3.60%

Calculated Development Charge per Capita	**$0.13**

Year	Development Charge Reserve	Development Related Expenditures					Annual Gross Floor Area in Sqft Growth	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt	Debt	Additional Debt					Opening Reserve Balances	In-Year	
2017	1,913,924	(462,546)	(462,546)	0	462,546	(3,296)	5,530,404	0.13	705,550	702,254	27,752	5,091	2,649,022
2018	2,649,022	(1,292,852)	(1,323,351)	0	1,323,351	(67,091)	5,530,404	0.13	722,194	655,103	51,656	6,387	3,362,168
2019	3,362,168	(1,393,854)	(1,460,393)	0	1,460,393	(233,788)	5,530,404	0.13	739,231	505,443	79,011	5,939	3,952,561
2020	3,952,561	(913,336)	(979,511)	0	979,511	(414,412)	5,548,360	0.14	759,126	344,714	102,767	4,481	4,404,524
2021	4,404,524	(133,853)	(146,938)	0	146,938	(531,394)	4,668,523	0.14	653,815	122,421	125,529	1,745	4,654,218
2022	4,654,218	(114,657)	(128,834)	0	128,834	(550,285)	3,521,469	0.14	504,807	(45,478)	144,281	(1,023)	4,751,998
2023	4,751,998	(803,976)	(924,698)	0	924,698	(576,673)	3,521,469	0.15	516,716	(59,957)	159,192	(1,424)	4,849,809
2024	4,849,809	(808,630)	(951,991)	0	951,991	(699,379)	3,521,469	0.15	528,905	(170,474)	162,469	(4,049)	4,837,755
2025	4,837,755	(72,774)	(87,697)	0	87,697	(815,110)	3,487,932	0.15	536,226	(278,883)	162,065	(6,623)	4,714,314
2026	4,714,314	(1,007,572)	(1,242,830)	0	1,242,830	(840,434)	3,605,314	0.16	567,348	(273,086)	157,930	(6,486)	4,592,672
2027	4,592,672	(559,079)	(705,886)	0	705,886	(995,689)	3,699,037	0.16	595,828	(399,861)	165,336	(9,997)	4,348,151
2028	4,348,151	(1,012,226)	(1,308,173)	0	1,308,173	(1,033,921)	3,699,037	0.16	609,884	(424,036)	156,533	(10,601)	4,070,047
2029	4,070,047	(254,266)	(336,358)	0	336,358	(1,030,204)	3,699,037	0.17	624,272	(405,933)	146,522	(10,148)	3,800,488
2030	3,800,488	(24,493)	(33,165)	0	33,165	(890,819)	3,715,550	0.17	641,851	(248,968)	136,818	(6,224)	3,682,113
2031	3,682,113	(24,493)	(33,947)	0	33,947	(4,051,585)	1,866,032	0.18	329,956	(3,721,629)	132,556	(93,041)	(0)
Total		**(8,878,607)**	**(10,126,318)**	**0**	**10,126,318**	**(12,734,078)**	**61,144,441**		**9,035,712**		**1,910,415**	**(125,973)**	

Table 11-34

Public Works - Hotels Development Charge Calculations

Assumptions		
Retail GFA Growth	1,484,734	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2031	$23,578	
Discount Rate Applied to Post 2031 Debt Payments		3.60%

Calculated Development Charge per Capita	**$0.05**

Year	Development Charge Reserve	Development Related Expenditures					Annual Gross Floor Area in Sqft Growth	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt	Debt	Additional Debt					Opening Reserve Balances	In-Year	
2017	0	(3,250)	(3,250)	0	3,250	(23)	106,037	0.05	4,920	4,897	0	36	4,932
2018	4,932	(9,085)	(9,300)	0	9,300	(471)	110,798	0.05	5,262	4,790	96	47	9,865
2019	9,865	(9,795)	(10,263)	0	10,263	(1,643)	110,798	0.05	5,386	3,743	232	44	13,884
2020	13,884	(6,418)	(6,883)	0	6,883	(2,912)	111,000	0.05	5,523	2,611	361	34	16,890
2021	16,890	(941)	(1,033)	0	1,033	(3,734)	102,354	0.05	5,213	1,479	481	21	18,872
2022	18,872	(806)	(905)	0	905	(3,867)	93,714	0.05	4,886	1,019	585	16	20,491
2023	20,491	(5,650)	(6,498)	0	6,498	(4,052)	93,714	0.05	5,001	948	686	16	22,142
2024	22,142	(5,682)	(6,690)	0	6,690	(4,915)	93,714	0.05	5,119	204	742	3	23,091
2025	23,091	(511)	(616)	0	616	(5,728)	93,517	0.06	5,229	(499)	774	(12)	23,353
2026	23,353	(7,081)	(8,734)	0	8,734	(5,906)	98,863	0.06	5,658	(248)	782	(6)	23,882
2027	23,882	(3,929)	(4,960)	0	4,960	(6,997)	104,405	0.06	6,116	(881)	860	(22)	23,839
2028	23,839	(7,113)	(9,193)	0	9,193	(7,266)	104,405	0.06	6,260	(1,005)	858	(25)	23,666
2029	23,666	(1,787)	(2,364)	0	2,364	(7,240)	104,405	0.06	6,408	(832)	852	(21)	23,666
2030	23,666	(172)	(233)	0	233	(6,260)	104,607	0.06	6,572	312	852	6	24,835
2031	24,835	(172)	(239)	0	239	(28,472)	52,404	0.06	3,370	(25,102)	894	(628)	0
Total		**(62,393)**	**(71,161)**	**0**	**71,161**	**(89,486)**	**1,484,734**		**80,922**		**9,055**	**(491)**	

Table 11-35

Paramedic Services - Residential Development Charge Calculations

Assumptions		
Gross Population Growth	270,120	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$9,370,965	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Capita	**$106**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth (To mid-year 2031)	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	2,274,245	(9,651,716)	(9,651,716)	(185,834)	6,457,505	(46,010)	23,738	106	2,508,194	(917,861)	32,977	(13,080)	1,376,281
2018	1,376,281	(5,673,329)	(5,807,165)	(185,834)	3,767,386	(813,467)	26,213	108	2,835,050	(204,029)	26,837	(3,417)	1,195,672
2019	1,195,672	(4,286,329)	(4,490,946)	(185,834)	2,571,488	(1,273,159)	26,213	111	2,901,930	(476,521)	28,098	(8,935)	738,315
2020	738,315	(564,765)	(605,685)	(185,834)	605,685	(1,580,015)	26,213	113	2,970,387	1,204,538	19,196	15,659	1,977,708
2021	1,977,708	(2,595,382)	(2,849,088)	(177,369)	2,849,088	(1,681,658)	26,888	116	3,118,755	1,259,728	56,365	17,951	3,311,752
2022	3,311,752	(322,924)	(362,854)	(187,332)	362,854	(2,023,940)	27,676	119	3,285,826	1,074,554	102,664	16,656	4,505,627
2023	4,505,627	0	0	(187,332)	0	(2,067,331)	27,676	122	3,363,340	1,108,676	150,938	18,570	5,783,812
2024	5,783,812	(1,593,470)	(1,875,975)	(187,332)	1,441,010	(2,084,443)	27,788	124	3,456,677	749,936	193,758	12,561	6,740,068
2025	6,740,068	0	0	(187,332)	0	(2,258,046)	27,788	127	3,538,221	1,092,842	225,792	18,305	8,077,007
2026	8,077,007	(1,593,470)	(1,965,529)	(1,713,366)	1,532,600	(9,907,916)	29,926	130	3,900,280	(8,153,931)	270,580	(193,656)	(0)
Total		**(26,281,387)**	**(27,608,957)**	**(3,383,398)**	**19,587,615**	**(23,735,985)**	**270,120**		**31,878,660**		**1,107,206**	**(119,385)**	

Table 11-36

Paramedic Services - Retail Development Charge Calculations

Assumptions		
Retail - GFA Growth		11,588,993
Inflation		2%
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)		10
New Debt interest		From 2.85% to 5.00%
Target Reserve Balance 2026		$374,724
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**$0.08**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	331,056	(385,951)	(385,951)	(7,431)	258,221	(1,840)	1,458,420	0.08	112,635	(24,365)	4,800	(347)	311,144
2018	311,144	(226,864)	(232,216)	(7,431)	150,650	(32,529)	1,453,659	0.08	114,916	(6,610)	6,067	(111)	310,490
2019	310,490	(171,401)	(179,583)	(7,431)	102,828	(50,911)	1,453,659	0.08	117,627	(17,470)	7,297	(328)	299,989
2020	299,989	(22,584)	(24,220)	(7,431)	24,220	(63,181)	1,458,537	0.08	120,806	50,193	7,800	653	358,635
2021	358,635	(103,784)	(113,929)	(7,093)	113,929	(67,246)	1,218,291	0.08	103,287	28,949	10,221	413	398,217
2022	398,217	(12,913)	(14,510)	(7,491)	14,510	(80,933)	907,415	0.09	78,746	(9,678)	12,345	(218)	400,666
2023	400,666	0	0	(7,491)	0	(82,668)	907,415	0.09	80,604	(9,556)	13,422	(227)	404,306
2024	404,306	(63,719)	(75,016)	(7,491)	57,623	(83,352)	907,415	0.09	82,505	(25,732)	13,544	(611)	391,507
2025	391,507	0	0	(7,491)	0	(90,294)	898,077	0.09	83,582	(14,203)	13,115	(337)	390,083
2026	390,083	(63,719)	(78,597)	(68,514)	61,285	(396,196)	926,103	0.10	88,224	(393,798)	13,068	(9,353)	0
Total		**(1,050,935)**	**(1,104,022)**	**(135,295)**	**783,266**	**(949,150)**	**11,588,993**		**982,931**		**101,680**	**(10,466)**	

Table 11-37

Paramedic Services - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Industrial/Office/Institutional - GFA Growth	44,465,748	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$990,755	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**$0.07**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	350,609	(1,020,438)	(1,020,438)	(19,647)	682,727	(4,864)	5,530,404	0.07	360,157	(2,067)	5,084	(29)	353,596
2018	353,596	(599,819)	(613,969)	(19,647)	398,311	(86,005)	5,530,404	0.07	368,653	47,343	6,895	462	408,296
2019	408,296	(453,177)	(474,810)	(19,647)	271,873	(134,606)	5,530,404	0.07	377,350	20,159	9,595	237	438,287
2020	438,287	(59,710)	(64,037)	(19,647)	64,037	(167,049)	5,548,360	0.07	387,505	200,809	11,395	2,611	653,102
2021	653,102	(274,400)	(301,223)	(18,753)	301,223	(177,795)	4,668,523	0.07	333,748	137,201	18,613	1,955	810,871
2022	810,871	(34,142)	(38,363)	(19,806)	38,363	(213,983)	3,521,469	0.07	257,685	23,896	25,137	370	860,275
2023	860,275	0	0	(19,806)	0	(218,571)	3,521,469	0.07	263,764	25,387	28,819	425	914,907
2024	914,907	(168,471)	(198,339)	(19,806)	152,352	(220,380)	3,521,469	0.08	269,986	(16,187)	30,649	(384)	928,985
2025	928,985	0	0	(19,806)	0	(238,734)	3,487,932	0.08	273,723	15,183	31,121	254	975,544
2026	975,544	(168,471)	(207,808)	(181,147)	162,036	(1,047,525)	3,605,314	0.08	289,610	(984,834)	32,681	(23,390)	0
Total		**(2,778,627)**	**(2,918,986)**	**(357,713)**	**2,070,921**	**(2,509,512)**	**44,465,748**		**3,182,181**		**199,990**	**(17,490)**	

Table 11-38

Paramedic Services - Hotels Development Charge Calculations

Assumptions		
Hotels - GFA Growth	1,014,508	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$6,599	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Sqft	**$0.02**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(6,797)	(6,797)	(131)	4,548	(32)	106,037	0.02	2,267	(146)	0	(2)	(148)
2018	(148)	(3,995)	(4,090)	(131)	2,653	(573)	110,798	0.02	2,425	285	(5)	3	135
2019	135	(3,019)	(3,163)	(131)	1,811	(897)	110,798	0.02	2,482	103	3	1	242
2020	242	(398)	(427)	(131)	427	(1,113)	111,000	0.02	2,545	1,302	6	17	1,566
2021	1,566	(1,828)	(2,006)	(125)	2,006	(1,184)	102,354	0.02	2,402	1,093	45	16	2,720
2022	2,720	(227)	(256)	(132)	256	(1,425)	93,714	0.02	2,251	694	84	11	3,509
2023	3,509	0	0	(132)	0	(1,456)	93,714	0.02	2,304	717	118	12	4,355
2024	4,355	(1,122)	(1,321)	(132)	1,015	(1,468)	93,714	0.03	2,359	453	146	8	4,961
2025	4,961	0	0	(132)	0	(1,590)	93,517	0.03	2,409	687	166	12	5,826
2026	5,826	(1,122)	(1,384)	(1,207)	1,079	(6,977)	98,863	0.03	2,607	(5,882)	195	(140)	(0.000)
Total		**(18,508)**	**(19,443)**	**(2,383)**	**13,794**	**(16,715)**	**1,014,508**		**24,052**		**758**	**(63)**	

Table 11-39

Public Health - Residential Development Charge Calculations

Assumptions		
Gross Population Growth	270,120	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$10,893,559	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Capita	**$31**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth (To mid-year 2031)	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	7,793,958	(1,483,169)	(1,483,169)	0	1,483,169	(10,568)	23,738	31	736,508	725,941	113,012	5,263	8,638,174
2018	8,638,174	(1,483,169)	(1,518,157)	0	1,518,157	(192,306)	26,213	32	832,487	640,181	168,444	6,242	9,453,041
2019	9,453,041	(1,483,169)	(1,553,971)	0	1,553,971	(382,403)	26,213	33	852,125	469,722	222,146	5,519	10,150,428
2020	10,150,428	(1,483,169)	(1,590,629)	0	1,590,629	(580,085)	26,213	33	872,227	292,142	263,911	3,798	10,710,279
2021	10,710,279	(1,483,169)	(1,628,153)	0	1,628,153	(784,816)	26,888	34	915,794	130,978	305,243	1,866	11,148,367
2022	11,148,367	(1,483,169)	(1,666,561)	0	1,666,561	(996,834)	27,676	35	964,853	(31,981)	345,599	(720)	11,461,265
2023	11,461,265	(1,483,169)	(1,705,876)	0	1,705,876	(1,216,385)	27,676	36	987,614	(228,771)	383,952	(5,433)	11,611,013
2024	11,611,013	(1,483,169)	(1,746,118)	0	1,746,118	(1,442,633)	27,788	37	1,015,022	(427,611)	388,969	(10,156)	11,562,215
2025	11,562,215	(1,483,169)	(1,787,310)	0	1,787,310	(1,674,217)	27,788	37	1,038,966	(635,251)	387,334	(15,087)	11,299,211
2026	11,299,211	(1,483,169)	(1,829,473)	0	1,829,473	(12,552,104)	29,926	38	1,145,282	(11,406,823)	378,524	(270,912)	(0)
Total		**(14,831,685)**	**(16,509,415)**	**0**	**16,509,415**	**(19,832,351)**	**270,120**		**9,360,877**		**2,957,136**	**(279,620)**	

Table 11-40

Public Health - Retail Development Charge Calculations

Assumptions		
Retail - GFA Growth	11,588,993	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$148,925	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**$0.01**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	108,332	(20,276)	(20,276)	0	20,276	(144)	1,458,420	0.01	14,156	14,011	1,571	102	124,016
2018	124,016	(20,276)	(20,755)	0	20,755	(2,629)	1,453,659	0.01	14,443	11,814	2,418	115	138,363
2019	138,363	(20,276)	(21,244)	0	21,244	(5,228)	1,453,659	0.01	14,783	9,555	3,252	112	151,282
2020	151,282	(20,276)	(21,745)	0	21,745	(7,930)	1,458,537	0.01	15,183	7,252	3,933	94	162,562
2021	162,562	(20,276)	(22,258)	0	22,258	(10,729)	1,218,291	0.01	12,981	2,252	4,633	32	169,479
2022	169,479	(20,276)	(22,784)	0	22,784	(13,628)	907,415	0.01	9,897	(3,731)	5,254	(84)	170,918
2023	170,918	(20,276)	(23,321)	0	23,321	(16,629)	907,415	0.01	10,130	(6,499)	5,726	(154)	169,991
2024	169,991	(20,276)	(23,871)	0	23,871	(19,722)	907,415	0.01	10,369	(9,353)	5,695	(222)	166,110
2025	166,110	(20,276)	(24,434)	0	24,434	(22,888)	898,077	0.01	10,505	(12,384)	5,565	(294)	158,997
2026	158,997	(20,276)	(25,011)	0	25,011	(171,599)	926,103	0.01	11,088	(160,511)	5,326	(3,812)	(0)
Total		**(202,763)**	**(225,700)**	**0**	**225,700**	**(271,127)**	**11,588,993**		**123,534**		**43,372**	**(4,111)**	

Table 11-41

Public Health - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Industrial/Office/Institutional - GFA Growth	44,465,748	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$421,930	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**0.01**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	301,876	(57,446)	(57,446)	0	57,446	(409)	5,530,404	0.01	40,275	39,865	4,377	289	346,408
2018	346,408	(57,446)	(58,801)	0	58,801	(7,448)	5,530,404	0.01	41,225	33,776	6,755	329	387,268
2019	387,268	(57,446)	(60,189)	0	60,189	(14,811)	5,530,404	0.01	42,197	27,386	9,101	322	424,077
2020	424,077	(57,446)	(61,608)	0	61,608	(22,468)	5,548,360	0.01	43,333	20,865	11,026	271	456,239
2021	456,239	(57,446)	(63,062)	0	63,062	(30,398)	4,668,523	0.01	37,321	6,924	13,003	99	476,264
2022	476,264	(57,446)	(64,549)	0	64,549	(38,609)	3,521,469	0.01	28,816	(9,794)	14,764	(220)	481,014
2023	481,014	(57,446)	(66,072)	0	66,072	(47,113)	3,521,469	0.01	29,495	(17,618)	16,114	(418)	479,092
2024	479,092	(57,446)	(67,631)	0	67,631	(55,876)	3,521,469	0.01	30,191	(25,685)	16,050	(610)	468,846
2025	468,846	(57,446)	(69,226)	0	69,226	(64,846)	3,487,932	0.01	30,609	(34,237)	15,706	(813)	449,503
2026	449,503	(57,446)	(70,859)	0	70,859	(486,169)	3,605,314	0.01	32,386	(453,784)	15,058	(10,777)	(0)
Total		**(574,462)**	**(639,444)**	**0**	**639,444**	**(768,148)**	**44,465,748**		**355,847**		**121,954**	**(11,529)**	

Table 11-42

Public Health - Hotels Development Charge Calculations

Assumptions		
Hotels - GFA Growth	1,014,508	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$2,489	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**$0.00**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(339)	(339)	0	339	(2)	106,037	0.00	388	386	0	3	389
2018	389	(339)	(347)	0	347	(44)	110,798	0.00	415	371	8	4	771
2019	771	(339)	(355)	0	355	(87)	110,798	0.00	425	338	18	4	1,131
2020	1,131	(339)	(363)	0	363	(133)	111,000	0.00	436	303	29	4	1,468
2021	1,468	(339)	(372)	0	372	(179)	102,354	0.00	412	232	42	3	1,745
2022	1,745	(339)	(381)	0	381	(228)	93,714	0.00	386	158	54	2	1,960
2023	1,960	(339)	(390)	0	390	(278)	93,714	0.00	395	117	66	2	2,144
2024	2,144	(339)	(399)	0	399	(330)	93,714	0.00	404	74	72	1	2,292
2025	2,292	(339)	(408)	0	408	(383)	93,517	0.00	413	30	77	1	2,399
2026	2,399	(339)	(418)	0	418	(2,868)	98,863	0.00	447	(2,422)	80	(58)	0
Total		**(3,389)**	**(3,773)**	**0**	**3,773**	**(4,532)**	**1,014,508**		**4,120**		**446**	**(34)**	

Table 11-43

Social Housing - Residential Development Charge Calculations

Assumptions		
Gross Population Growth		270,120
Inflation		2%
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)		10
New Debt interest		From 2.85% to 5.00%
Target Reserve Balance 2021		$8,983,584
Discount Rate Applied to Post 2021 Debt Payments		3.35%

Calculated Development Charge per Capita	**$56**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth (to 2031)	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	6,244,377	(2,557,546)	(2,557,546)	(314,338)	2,557,546	(18,223)	23,738	56	1,324,491	991,931	90,543	7,191	7,334,042
2018	7,334,042	(4,978,969)	(5,096,425)	(314,338)	5,096,425	(352,366)	26,213	57	1,497,092	830,389	143,014	8,096	8,315,541
2019	8,315,541	(3,298,969)	(3,456,453)	(314,338)	1,809,000	(958,573)	26,213	58	1,532,409	(1,387,953)	195,415	(26,024)	7,096,979
2020	7,096,979	(2,205,044)	(2,364,807)	(314,338)	2,364,807	(1,193,828)	26,213	60	1,568,559	60,393	184,521	785	7,342,679
2021	7,342,679	(12,191)	(13,383)	(314,338)	13,383	(1,472,627)	26,888	61	1,646,907	(140,058)	209,266	(2,976)	7,408,911
2022	7,408,911	(12,191)	(13,699)	(314,338)	13,699	(1,474,370)	27,676	63	1,735,132	(53,576)	229,676	(1,205)	7,583,806
2023	7,583,806	(12,191)	(14,022)	(314,338)	14,022	(1,476,175)	27,676	64	1,776,064	(14,448)	254,058	(343)	7,823,072
2024	7,823,072	(12,191)	(14,353)	(314,338)	14,353	(1,478,034)	27,788	66	1,825,352	32,980	262,073	552	8,118,678
2025	8,118,678	(12,191)	(14,691)	(314,338)	14,691	(1,479,938)	27,788	67	1,868,413	74,137	271,976	1,242	8,466,032
2026	8,466,032	(774,145)	(954,899)	(4,839,971)	954,899	(5,766,293)	29,926	69	2,059,603	(8,546,661)	283,612	(202,983)	(0)
Total		**(13,875,630)**	**(14,500,277)**	**(7,669,009)**	**12,852,824**	**(15,670,427)**	**270,120**		**16,834,023**		**2,124,155**	**(215,665)**	

Table 11-44

Social Housing - Retail Development Charge Calculations

Assumptions		
Retail - GFA Growth	11,588,993	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2021	$0	
Discount Rate Applied to Post 2021 Debt Payments		0.00%

Calculated Development Charge per Sqft	**$0.00**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (to 2026)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	0	0	0	0	0	1,458,420	0.00	0	0	0	0	0
2018	0	0	0	0	0	0	1,453,659	0.00	0	0	0	0	0
2019	0	0	0	0	0	0	1,453,659	0.00	0	0	0	0	0
2020	0	0	0	0	0	0	1,458,537	0.00	0	0	0	0	0
2021	0	0	0	0	0	0	1,218,291	0.00	0	0	0	0	0
2022	0	0	0	0	0	0	907,415	0.00	0	0	0	0	0
2023	0	0	0	0	0	0	907,415	0.00	0	0	0	0	0
2024	0	0	0	0	0	0	907,415	0.00	0	0	0	0	0
2025	0	0	0	0	0	0	898,077	0.00	0	0	0	0	0
2026	0	0	0	0	0	0	926,103	0.00	0	0	0	0	0
Total		**0**	**0**	**0**	**0**	**0**	**11,588,993**		**0**		**0**	**0**	

Table 11-45

Social Housing - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Industrial/Office/Institutional - GFA Growth		44,465,748
Inflation		2%
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)		10
New Debt interest		From 2.85% to 5.00%
Target Reserve Balance 2021		$0
Discount Rate Applied to Post 2021 Debt Payments		0.00%

Calculated Development Charge per Sqft	**$0.00**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	0	0	0	0	0	5,530,404	0.00	0	0	0	0	0
2018	0	0	0	0	0	0	5,530,404	0.00	0	0	0	0	0
2019	0	0	0	0	0	0	5,530,404	0.00	0	0	0	0	0
2020	0	0	0	0	0	0	5,548,360	0.00	0	0	0	0	0
2021	0	0	0	0	0	0	4,668,523	0.00	0	0	0	0	0
2022	0	0	0	0	0	0	3,521,469	0.00	0	0	0	0	0
2023	0	0	0	0	0	0	3,521,469	0.00	0	0	0	0	0
2024	0	0	0	0	0	0	3,521,469	0.00	0	0	0	0	0
2025	0	0	0	0	0	0	3,487,932	0.00	0	0	0	0	0
2026	0	0	0	0	0	0	3,605,314	0.00	0	0	0	0	0
Total		**0**	**0**	**0**	**0**	**0**	**44,465,748**		**0**		**0**	**0**	

Table 11-46

Social Housing - Hotels Development Charge Calculations

Assumptions		
Hotels - GFA Growth	1,014,508	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	2.85% - 5.00%
In-year Transactions	0.73% - 1.80%	1.43% - 2.50%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2021	$0	
Discount Rate Applied to Post 2021 Debt Payments	0.00%	

Calculated Development Charge per Sqft	**$0.00**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2012	0	0	0	0	0	0	106,037	0.00	0	0	0	0	0
2013	0	0	0	0	0	0	110,798	0.00	0	0	0	0	0
2014	0	0	0	0	0	0	110,798	0.00	0	0	0	0	0
2015	0	0	0	0	0	0	111,000	0.00	0	0	0	0	0
2016	0	0	0	0	0	0	102,354	0.00	0	0	0	0	0
2017	0	0	0	0	0	0	93,714	0.00	0	0	0	0	0
2018	0	0	0	0	0	0	93,714	0.00	0	0	0	0	0
2019	0	0	0	0	0	0	93,714	0.00	0	0	0	0	0
2020	0	0	0	0	0	0	93,517	0.00	0	0	0	0	0
2021	0	0	0	0	0	0	98,863	0.00	0	0	0	0	0
Total		**0**	**0**	**0**	**0**	**0**	**1,014,508**		**0**		**0**	**0**	

Table 11-47

Courts - Residential Development Charge Calculations

Assumptions		
Gross Population Growth	270,120	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$605,350	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Capita	**$10.80**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Population Growth (To 2026)	Development Charge (Inflated) per Capita	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(983,082)	(983,082)	0	983,082	(7,004)	23,738	11	256,301	249,297	0	1,807	251,104
2018	251,104	(1,109,921)	(1,136,104)	0	1,136,104	(128,553)	26,213	11	289,701	161,149	4,897	1,571	418,721
2019	418,721	(560,847)	(587,621)	0	587,621	(265,418)	26,213	11	296,536	31,118	9,840	366	460,044
2020	460,044	(40,335)	(43,258)	0	43,258	(334,587)	26,213	12	303,531	(31,056)	11,961	(621)	440,328
2021	440,328	0	0	0	0	(339,684)	26,888	12	318,692	(20,992)	12,549	(446)	431,439
2022	431,439	0	0	0	0	(339,684)	27,676	12	335,764	(3,920)	13,375	(88)	440,805
2023	440,805	0	0	0	0	(339,684)	27,676	12	343,685	4,001	14,767	67	459,640
2024	459,640	0	0	0	0	(339,684)	27,788	13	353,223	13,538	15,398	227	488,803
2025	488,803	0	0	0	0	(339,684)	27,788	13	361,555	21,871	16,375	366	527,416
2026	527,416	0	0	0	0	(930,991)	29,926	13	398,553	(532,439)	17,668	(12,645)	(0)
Total		**(2,694,186)**	**(2,750,065)**	**0**	**2,750,065**	**(3,364,975)**	**270,120**		**3,257,542**		**116,830**	**(9,396)**	

Table 11-48

Courts - Retail Development Charge Calculations

Assumptions		
Retail - GFA Growth	11,588,993	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$72,620	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Sqft	**$0.03**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(117,934)	(117,934)	0	117,934	(840)	1,458,420	0.03	43,910	43,070	0	312	43,382
2018	43,382	(133,150)	(136,291)	0	136,291	(15,422)	1,453,659	0.03	44,799	29,378	846	286	73,893
2019	73,893	(67,281)	(70,493)	0	70,493	(31,840)	1,453,659	0.03	45,856	14,016	1,736	165	89,810
2020	89,810	(4,839)	(5,189)	0	5,189	(40,138)	1,458,537	0.03	47,096	6,957	2,335	90	99,192
2021	99,192	0	0	0	0	(40,750)	1,218,291	0.03	40,266	(484)	2,827	(10)	101,526
2022	101,526	0	0	0	0	(40,750)	907,415	0.03	30,699	(10,051)	3,147	(226)	94,396
2023	94,396	0	0	0	0	(40,750)	907,415	0.03	31,423	(9,327)	3,162	(222)	88,010
2024	88,010	0	0	0	0	(40,750)	907,415	0.04	32,164	(8,585)	2,948	(204)	82,169
2025	82,169	0	0	0	0	(40,750)	898,077	0.04	32,584	(8,165)	2,753	(194)	76,562
2026	76,562	0	0	0	0	(111,685)	926,103	0.04	34,394	(77,291)	2,565	(1,836)	(0)
Total		**(323,204)**	**(329,907)**	**0**	**329,907**	**(403,674)**	**11,588,993**		**383,192**		**22,320**	**(1,838)**	

Table 11-49

Courts - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Industrial/Office/Institutional - GFA Growth	44,465,748	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$192,004	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**$0.02**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(311,812)	(311,812)	0	311,812	(2,222)	5,530,404	0.02	114,751	112,529	0	816	113,345
2018	113,345	(352,043)	(360,348)	0	360,348	(40,774)	5,530,404	0.02	117,458	76,684	2,210	748	192,987
2019	192,987	(177,889)	(186,380)	0	186,380	(84,185)	5,530,404	0.02	120,229	36,044	4,535	424	233,990
2020	233,990	(12,793)	(13,720)	0	13,720	(106,124)	5,548,360	0.02	123,465	17,341	6,084	225	257,640
2021	257,640	0	0	0	0	(107,740)	4,668,523	0.02	106,337	(1,404)	7,343	(30)	263,550
2022	263,550	0	0	0	0	(107,740)	3,521,469	0.02	82,102	(25,638)	8,170	(577)	245,505
2023	245,505	0	0	0	0	(107,740)	3,521,469	0.02	84,039	(23,701)	8,224	(563)	229,465
2024	229,465	0	0	0	0	(107,740)	3,521,469	0.02	86,022	(21,719)	7,687	(516)	214,917
2025	214,917	0	0	0	0	(107,740)	3,487,932	0.03	87,212	(20,528)	7,200	(488)	201,101
2026	201,101	0	0	0	0	(295,290)	3,605,314	0.03	92,274	(203,016)	6,737	(4,822)	(0)
Total		**(854,537)**	**(872,261)**	**0**	**872,261**	**(1,067,297)**	**44,465,748**		**1,013,889**		**58,190**	**(4,782)**	

Table 11-50

Courts - Hotels Development Charge Calculations

Assumptions		
Hotels - GFA Growth	1,014,508	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.35%	2.85% - 4.75%
In-year Transactions	0.73% - 1.68%	1.43% - 2.38%
New Debt Term (Years)	10	
New Debt interest	From 2.85% to 5.00%	
Target Reserve Balance 2026	$1,279	
Discount Rate Applied to Post 2026 Debt Payments		3.35%

Calculated Development Charge per Sqft	**$0.01**

Year	Development Charge Reserve Fund Opening Balance	Development Related Expenditures					Annual Gross Floor Area in Sqft (To mid-year 2031)	Development Charge (Inflated) per Sqft	Anticipated Development Charge Revenues	In Year Transactions Surplus/ (Deficit)	Interest Revenue/(Expense)		Development Charge Reserve
		Nominal	Inflated	Existing Debt Payments	Debt Proceeds	Additional Debt Payments					Opening Reserve Balances	In-Year	
2017	0	(2,077)	(2,077)	0	2,077	(15)	106,037	0.01	643	628	0	5	633
2018	633	(2,345)	(2,400)	0	2,400	(272)	110,798	0.01	688	416	12	4	1,066
2019	1,066	(1,185)	(1,241)	0	1,241	(561)	110,798	0.01	704	143	25	2	1,236
2020	1,236	(85)	(91)	0	91	(707)	111,000	0.01	722	15	32	0	1,284
2021	1,284	0	0	0	0	(718)	102,354	0.01	682	(36)	37	(1)	1,283
2022	1,283	0	0	0	0	(718)	93,714	0.01	639	(79)	40	(2)	1,242
2023	1,242	0	0	0	0	(718)	93,714	0.01	654	(64)	42	(2)	1,219
2024	1,219	0	0	0	0	(718)	93,714	0.01	669	(48)	41	(1)	1,210
2025	1,210	0	0	0	0	(718)	93,517	0.01	684	(34)	41	(1)	1,216
2026	1,216	0	0	0	0	(1,967)	98,863	0.01	740	(1,227)	41	(29)	0
Total		**(5,692)**	**(5,810)**	**0**	**5,810**	**(7,109)**	**1,014,508**		**6,824**		**310**	**(25)**	

12. DEVELOPMENT CHARGE BYLAW AND POLICY REVIEW

The following sections outline the development charge policies and bylaw considerations that will be part of the 2017 Bylaw:

- Existing development charge policies that have not been reviewed;
- Policies that have been reviewed but remain unchanged;
- Areas of the Bylaw that have been reviewed and updated; and
- Policies that have been reviewed and expanded.

12.1 Existing development charge policies – Not Reviewed

The following are the bylaw considerations and policies that were not reviewed for the 2017 Bylaw:

TABLE 12-1

DEVELOPMENT CHARGE EXISTING POLICIES AND BYLAW CONSIDERATIONS

Policy	Description
Non-Statutory Exemptions	• Heritage house relocation[1] • Non-profit community uses[1] • Tax-exempt burial grounds • Tax exempt private schools[1] • s.39 *Planning Act* non-residential uses • Non-residential development not creating additional floor area • Agricultural uses • Accessory uses not exceeding 100 square meters of gross floor area • A public hospital • Area of worship or 5,000 square feet, whichever is greater • Affordable rental housing owned by a non-profit organization • Enlargement of the gross floor area of an office or institutional building by 50 per cent or less • Vacant lots of record
Statutory Exemptions[2]	• Enlargement of the gross floor area of an industrial building by 50 per cent of less • Public schools • Single family detached home adding up to two additional dwelling unit • Semi-detached or row dwelling adding one additional dwelling unit

Policy	Description
	• Other residential buildings adding one additional dwelling unit
Applicability of Water and Wastewater Charges	• Only where the lands, buildings or structures are serviced by regional water supply and/or wastewater service
Non-Residential Charges	• Different sets of charges are imposed—one for industrial/office/institutional, one for retail uses and one for hotels
Timing of Payment	• For residential plans of subdivision, development charges for hard services are payable when the owner enters into a Regional development charge agreement with respect to a plan of subdivision • For other services and development circumstances, payment is to be made as of building permit issuance, with additional clarifying conditions
Current Deferral Options	• Retail developments • High-rise condominium developments • Office developments
Indexing	• The development charges shall be adjusted on July 1st of each year
Reserve Funds	• Development charges shall be deposited in a specific reserve fund established for each individual service
Roadworks Credits	• York Region will consider development charge credits for road related works constructed to the ultimate location, which is defined by the next planned upgrade for a road section as detailed in the background report for the Development Charge Bylaw
Undesignated Areas	• The entire municipality must be designated for the purposes of the *Development Charges Act*
Complaints	• York Region has established a detailed Development Charge Complaint procedure under authority of the *Development Charges Act* (see section 13.2.4)

[1]Only exempt in the Area Municipality also exempts that type of development
[2] No charges may be imposed against land owned and used by a municipality or lands owned by a Board

12.2 Policies reviewed but unchanged

The following are areas of the Bylaw and associated policies that were reviewed but remain unchanged.

12.2.1 Region-wide versus area-specific development charges

For the 2017 Bylaw, the Region will continue to levy region-wide charges and will revisit the issue of area-specific development charges once revised growth and capital cost forecasts are available.

Under the amended *Development Charges Act*, a municipality must consider area-specific development charges as part of its development charge background study. However, the province has not defined what the term ‘consider’ entails.

As noted previously, the Region currently applies a region-wide charge for its services, with the exception of the water resource recovery facility located in the Village of Nobleton. This is because growth-related services delivered by the Region tend to result in region-wide benefits, such as water and wastewater treatment plants, trunk sewers and arterial roads (making it difficult to delineate a ‘benefitting population’). Area-specific development charges are usually more suitable for new or currently unfunded standalone water/wastewater systems such as the Nobleton water resource recovery facility.

In addition, the proposed changes to the Growth Plan, if implemented, could significantly affect the spatial distribution of the growth forecast, an essential input in determining the benefiting population that is necessary to create an area- specific development charge.

12.2.2 Development charge treatment of Leadership in Energy and Environmental Design (LEED) certified buildings

At this time the Region will not be providing a development charge reduction for LEED buildings.

The Region conducted a study of LEED buildings built between 2009 and 2014 and found the following:

- The cost of the infrastructure that the Region puts in place does not change with the usage rates of a building;
- Changes to the Ontario Building Code have significantly narrowed the savings between LEED and non-LEED buildings; and
- Water efficiency tends not to have a significant impact on the requirement for wastewater treatment, which is mainly determined by the volume of solid material received.

Staff will continue to collect data on this issue and monitor water usage for these buildings.

12.2.3 Regional Municipality of York 2013 Development Charge Pre-paid Credit Policy

The Region's 2013 development charge credit policy requires the developer to make a non-refundable contribution to the non-growth costs of projects in order to expedite the work's construction/reconstruction timing. This was the subject of review to ensure compliance with section 59.1 (1) of the *Development Charges Act.* Section 59.1(1) states that a municipality shall not impose, directly or indirectly, a charge related to a development or a requirement to construct a service related to development, except as permitted by this *Act* or another Act.

The review of the credit policy confirmed that it complies with the *Development Charges Act* and no further work or changes were required.

12.3 Areas of the Bylaw that have been reviewed and changed

The following are proposed modifications to the development charge bylaw:

12.3.1 Threshold to delineate large and small apartments

In June 2012, the Region agreed to work with the Building Industry and Land Development Association to study the relationship between apartment size and occupancy. The study also examined whether or not a per square foot charge could be used.

During the term of the 2012 Bylaw, the study was completed. Assisted by the Region's consultant, Hemson Consulting Inc., the study used 2011 Statistics Canada Census data to determine apartment occupancy and RealNet data to determine apartment sizes. 35,000 units were examined over a 15 year period. The results of the study were further augmented by data provided by the Building Industry and Land Development Association. Key findings of the study were:

- The share of small apartments in York Region is growing;
- The difference in size between one and two bedroom apartments is apparent, but has been decreasing over time;
- A per square foot charge would be difficult to implement given the restrictive legislative context in Ontario; and
- A 700 square foot threshold is an appropriate threshold to delineate apartments.

It is important to note that while Statistics Canada recognizes "1 bedroom plus den" as a one-bedroom apartment, in the past the Region recognized them as large for the purpose of development charges rate setting.

Based on the results of the study, the Region will be using 700 square feet as the delineation point between small and large apartments when levying apartment development charges (also has the effect of bringing the Region in line with Statistics Canada and our neighboring municipalities).

12.3.2 Hotel development charge rate structure

The current treatment for hotel developments is to charge hotels on two separate bases. The first is to levy the small residential apartment charge on each overnight room or suite of rooms. The second basis is to levy the gross floor area for the entire hotel at 25 per cent of the retail charge. In June 2016, Regional Council directed staff to consider a non-residential, non-retail development charge rate structure for hotels under the 2017 Bylaw. This Council report can be found in Appendix B.

The 2017 development charge bylaw puts hotels in their own class, and levies a per square foot charge. In addition, the definition of hotels has been modified to recognize a hotel's lodging and non-lodging nature. In this regard, if the non-lodging use of a hotel is more than 33 per cent of the gross floor area of the lodging gross floor area of the hotel, the entirety of the structure will be assessed at the rate applicable to such other services.

12.3.3 Timing of payment

Under the Region's 2012 Bylaw, section 3.15-3.21 of the Regional Bylaw (No. 2012-36) provides that development charges are payable at the issuance of a building permit. The Bylaw also provides that development charges for hard services are payable prior to the registration of a residential plan of subdivision, and upon the owner entering into a Regional Development Charge Agreement. The Bylaw specifically addresses the question regarding future development blocks. Section 3.16 states that DCs will be paid for the maximum number and type of dwelling units permitted by the Zoning Bylaw in effect at the time of registration.

In the 2017 Bylaw this section will be updated in instances where there are future development blocks, development charges for those blocks are payable on the day at which a building permit is issued.

12.3.4 Treatment of multi-tenanted development and redevelopment (multiple non-residential uses)

The Region's 2012 bylaw made changes to address the issue of development charges on mixed use buildings. In the case of a non-residential building used for both retail and non-retail uses, the development charge rate is based on the principal use of the building, as long as the principal use is more than 55 per cent of the total gross floor area. If no single use is 55 per cent or more of the total gross floor area, then the development charge payable on the total gross floor area is the average of the two non-residential charges.

In the draft 2017 Development Charge Bylaw, staff amended this section to capture instances of multi-tenanted development and redevelopment, where the building contains multiple individually owned units. Whereas previously individually owned units in a multi-tenanted structure would be levied development charges based on the principal use of the entirety of the structure, they are now assessed individually based on the predominant use of each unit within that structure.

12.3.5 Definition of ‘general services’

The definition of general services will be added to in order to capture the two new services the Region is collecting for: Waste Diversion and Court Services. The definition will also be amended in order reflect a change in service description:

a. Emergency Medical Services to Paramedic Services
b. Long Term Care to Seniors Services – Capital Component

12.3.6 Definition of ‘building permit’

Building permit will mean a permit issued under the *Building Code Act,* which permits the construction of a building or structure, or which permits the construction of the foundation of a building or structure. This will be in line with the Region’s area-specific development charge bylaw for wastewater services in the Village of Nobleton (No. 2016 – 40).

12.3.7 Development charge credits for derelict non-residential buildings

For non-residential buildings deemed to be derelict by the relevant area municipal Council, the development charge credit is extended for an additional 72 months in a declining scale (in the same way as was done for derelict residential buildings under the 2012 Development Charge Bylaw). The table below details the calculation of credits provided to residential derelict buildings.

TABLE 12-2

CALCULATION OF CREDITS FOR DERELICT NON-RESIDENTIAL BUILDINGS

Number of months from date of demolition permit to date of building permit issuance	Credit provided (%)[1]
Up to and including 48 months	100
Greater than 48 months up to and including 72 months	75
Greater than 72 months up to and including 96 months	50
Greater than 96months up to and including 120 months	25
Greater than 120 months	0

[1] Credits are calculated as a percentage of the prevailing development charge rates for the class of non-residential development demolished.

12.3.8 Parking structures/Gross floor area definition

The definition of gross floor area has been revised such that the gross floor area of a parking structure, whether above/below grade or stand-alone, which is accessory to an IOI structure, shall not be counted in the calculation of total gross floor area.

12.4 Development charge policies that have been expanded

12.4.1 Deferral policy for purpose-built high density rental buildings

Currently, the Region does not have a formal policy to allow the deferral of development charges for purpose-built rhigh density rental buildings. However, policies do exist for the deferral of development charges for high-rise condominiums, offices and retail developments.

Through a pilot project, the Region has provided a development charge deferral for a purpose-built rental building at 212 Davis Drive located in the Town of Newmarket. This 36-month deferral agreement helped facilitate the development of 225 rental units, including up to 56 subsidized units.

Modelled off of the 212 Davis Drive project, the table below provides details of the Region's proposed deferral policy for purpose-built high density rental buildings. Further details are available in Attachment 2 to the May Council report accompanying this background study.

TABLE 12-3

PROPOSED REGIONAL DEFERRAL POLICY FOR PURPOSE-BUILT HIGH DENSITY RENTAL BUILDINGS

Issue	Description
Duration	36 months
Interest Charged	No
Restrictive covenant (registered on title)	Yes – change of use covenant lasting 20 years
When development charge calculated	At building permit
Form of security	Charge against land
Local municipal participation	Yes (same or better)

13. OTHER POLICY DETAIL

13.1 Collection responsibility policy

The Treasurer of the York Region shall collect development charges as follows:

- In the case of a residential subdivision, collection will occur upon the owner entering into the development charge agreement respecting such plan of subdivision for the applicable roads, water and sewer components of the development charge at the prevailing rate as determined by the designated schedule to the Development Charge Bylaw; and
- In cases where a special agreement has been entered into between York Region and the owner providing for either provision of services in lieu of payment and/or providing for a payment at a time other than building permit issuance or subdivision agreement execution.

Where York Region has collected a development charge in a format acceptable to the Treasurer of York Region, the Treasurer of York Region will notify the Treasurer of the Area Municipality in which the lands are located that the charge has been collected.

The Treasurer of the Area Municipality where development is located and is subject to development charges shall collect such Regional charges at the prevailing rate when due, as follows:

- In the case of residential subdivisions, collection will occur at building permit issuance stage for the general services component of Regional development charges, unless notified otherwise by York Region;
- In the case of non-residential subdivisions, collection will occur at building permit issuance for all services, unless notified by York Region that it has entered into an agreement concerning payment with a particular landowner;
- In the case of non-subdivision developments, collection will occur at building permit issuance for all services, unless notified by York Region that it has entered into an agreement concerning payment with a particular landowner; and
- The Treasurer of the Area Municipality shall collect the charge imposed by the upper tier municipality when due and shall remit the amount of the charges collected to the Treasurer of York Region, on or before the 25th day of the month following the month in which the charge is received by the Area Municipality.

13.1.1 Full registration/phased development charges payment – residential subdivisions

York Region's Solicitor is authorized to prepare agreements pursuant to the *Development Charges Act* for the purposes of allowing subdivision registration/phased payment of development charges if the following conditions are met:

- The Regional Corporation is in receipt of a written request from a sub-divider to enter into such an agreement;
- The draft approved plan of subdivision is a minimum of approximately 100 units;
- The phases contemplated shall be a minimum of approximately 50 units;
- The full development charge payment for the initial phase is made at the time of the execution of the agreement;
- The registration/phased development charge method of payment proposal be coordinated with and incorporated into the Area Municipality and Regional subdivision agreements;
- The payment of development charges for a subsequent phase must be coordinated with the provisions of the subdivision securities related to Area Municipal services for a subsequent phase; and
- For all subsequent phases of the development as specified in the agreement, the full Regional development charge shall be paid directly to the Region prior to any building permit issuance in that phase.

(Adopted by Regional Council June 22, 1995 and amended January 15, 1998)

13.1.2 Deferral of development charges leading to positive business expansion

Adopted by Regional Council on January 15, 1998, Bylaw No. A-243-98-5, the Chief Administrative Officer and Regional Treasurer will be authorized to negotiate deferred non-residential development charge agreements with non-residential development proponents, as long as the Area Municipality has agreed to a similar deferral. Deferrals, in these instances should lead to:

- Increased long term non-residential assessment;
- Job creation for Regional residents; and
- Economic activity (including construction, business spin-offs, etc.).

In instances where a deferral agreement has been executed under this Bylaw, the Chief Administrative Office and Regional Treasurer shall submit a report to Council immediately following the negotiation and execution of any agreement, setting out the terms of the agreement.

13.1.3 Issuance of any building permits prior to registration

If an Area Municipality issues building permits for any reason prior to execution of York Region's development charge agreement and/or registration of the subdivision (e.g. model homes), the Area Municipality is responsible for collecting the entire Regional development charge at the time of building permit issuance, and so advising York Region's Finance Department.

13.1.4 Land severances on or after November 23, 1991

Land severances approved on or after November 23, 1991 will not have a condition attached with respect to the payment of York Region's development charges. Any resulting new lots will be subject to York Region's development charges, at the prevailing rate, prior to building permit issuance.

13.1.5 Part lot control exemption approved by York Region after November 23, 1991

Any additional residential units created in a Registered Plan of Subdivision by Part Lot Control Exemption, where the exemption has received York Region's approval, will be subject to York Region's development charges. The applicant will be required to enter into an agreement with York Region pursuant to the *Development Charges Act*, with respect to payment of the appropriate development charges. York Region will collect the road/sewer/water component of the development charges at time of execution of the agreement, and the Area Municipality will be forwarded a copy of the Agreement to ensure the appropriate general services component is collected at building permit issuance.

13.2 Alternative collection policies (old s.13, s.14 -DC Act, 1990 credits)

13.2.1 Development charge credit area - Kleinburg

Specific lots in the Kleinburg area within the City of Vaughan, as identified in Schedules "C" and "D", be incorporated as a water and/or sewage development charge credit area with respect to payments previously made for growth-related water and sewage infrastructure.

13.2.2 Contingent development charges

Specific contingent growth-related capital costs may be incorporated into the calculation of a particular component of York Region's development charges rate. A schedule of pending rate increases that become effective thirty days after the date of occurrence of the events shown on the schedule shall be incorporated in the Development Charges Bylaw.

13.2.3 Reserve funds

Development charges shall be deposited in a specific reserve fund established for each individual Regional (and local boards) service, in accordance with the *Development Charges Act.*

- The Treasurer shall prepare and present to Council an annual statement of the development charge reserve fund in accordance with the *Development Charges Act*, including, for the preceding year:
- Statements of the opening and closing balances of the reserve funds and of the transactions relating to the funds;
- Statements identifying all assets whose capital costs were funded under a development charge bylaw during the year, and for each asset mentioned previously, the manner in which any capital cost not funded under the Bylaw was or will be funded;
- A statement as to compliance with subsection 59.1 (1) of the *Development Charges Act* (prohibition against additional levies); and
- Any other information that is prescribed.

13.2.4 Complaints

Under section 20 of the *Development Charges Act*, any person required to pay a development charge, or the person's agent, may complain to the council of the municipality imposing the development charge that,

- The amount of the development charge was incorrectly determined;
- Whether a credit is available to be used against the development charge, or the amount of the credit or the service with respect to which the credit was given, was incorrectly determined; or
- There was an error in the application of the Development Charge Bylaw.

York Region has established a detailed Development Charge Complaint procedure under authority of the *Development Charges Act*.

13.3 Development charge credit policy

A developer may undertake or finance York Region's capital works prior to the planned York Region's capital program in consideration for development charge credits and potential recovery of non-growth costs, provided the following:

- For purposes of quantifying the costs of works eligible for development charge credits, York Region will establish a scale of project(s) to allow for unit prices for smaller sized projects—projects that have an estimated cost lower than $1 million—undertaken by developers, to be differentiated from large sized projects—projects that have an estimated cost greater than $1 million;

- York Region shall endeavour to assist developers by liaising with utilities when possible where projects require utility relocation;

- Non-growth recovery – Developers are not eligible to recover non-growth costs;

- For capital works not included in the ten year forecast, York Region will continue to require the developer to make a non-refundable contribution to the non-growth costs of projects in order to expedite the works' construction/reconstruction timing.

- Application for development charge credits will only be considered if the works are included in the Regional DC Bylaw. The eligible credit shall be limited to the value of the works in the DC Bylaw.

- To be considered for advancement, generally the service-specific development charges, and in all cases the total development charges generated by the development associated with the capital works must be at least twice the value of the works for which the credit/reimbursement is being requested.

- Development charge credits will not be offered unless the previous year's DC collections exceed the estimated current year DC-related debt servicing obligations (principal and interest) by at least the amount of the DC credit requested, both in total and for the specific service as determined by the Commissioner of Finance .

- Advancement of the project cannot result in a negative impact to the Region's Annual Repayment Limit, as determined by the Commissioner of Finance.

- The developer will be required to fund 100% of the cost of the capital works, and recover eligible growth-related costs, discounted for financing costs based on the project's timing in the Capital Plan as determined by the Commissioner of Finance. Non-growth costs will not be eligible for recovery.

- Development charge credits will be issued up to a maximum 50% of the service-specific DCs payable upon each subdivision registration or building permit issuance, as applicable, until the total eligible growth-related costs are recovered.
- The Region will pay for intersection and minor road improvements that are recommended in a development-related traffic study approved by the Region and are constructed in their ultimate location.
- Reimbursement will be provided from the Roads DC reserve in the year the works are completed, provided sufficient funds are available in the Regional annual budget.
- For roads (intersections and minor road improvements) reimbursement requests, the Commissioner of Transportation Services shall be authorized to approve the eligible cost of the works.

The Region's development charge credit policy was first adopted by Regional Council on May 9, 1996 and May 23, 1996, with subsequent revisions adopted by Council on June 25, 1998 and November 21, 2013.

Under the previous policy (1998), in circumstances where a landowner has paid for services that were intended to be funded by development charges, that landowner receives a credit against development charges that were otherwise payable, in the full amount of the development charge payable for the particular service involved. This created financing difficulty in that it confines the use of such development charges to the particular work involved and thereby reduces the development charge funds available for system-wide costs, such as major trunk sewers, treatment plants and pumping stations. In 2013, revisions to the development charge credit policy were made in order to address this issue and are outlined below:

13.3.2 The developer shall forward a written request to Regional Council to consider a development charge credit matter, prior to construction of the works. There are no retroactive development charge credit provisions for works previously constructed by a developer without Regional Council approval.

13.3.3 The costs for the works to be considered for development charge credit must be included in York Region's Development Charge Bylaw.

13.3.4 Regional Council shall authorize and agree to a fixed development charge credit amount prior to allowing the construction of the works to be carried out. This is particularly important when the developer is constructing the works and the contract award process may not be as public as York Region's tendering process. Any amount agreed to for credit will be compared against awarded York Region's contracts in order to verify pricing accuracy. The developer will be required to provide York Region with a tender form in York Region's format for comparison with recent York Region tenders.

13.3.5 For Regional water and wastewater infrastructure, York Region will determine responsibility for the design, tendering and construction with the developer responsible for the front-end financing.

13.3.6 In instances where York Region agrees to permit a landowner to construct and front-end finance a work that is within the development charge program, the development charge credit shall be paid as follows:

a) Where the cost of the work is less than the development charges payable for the service involved, by the build-out of the landowner's development, a development charge credit will be issued at subdivision registration. This credit is for the units involved in each subdivision, and will amount to the average cost of the work per unit. The average cost per unit is calculated as the cost of the infrastructure project involved, divided by the number of single detached equivalent units within the landowner's total development, and shall not exceed the prevailing rate for the service component. The landowner will continue to receive such credits until reimbursed for the cost of the infrastructure project, without interest or indexing.

b) Where the cost of the work exceeds the development charge payable for the service involved, by build-out of the landowner's development, the development charge credit will amount to 50 per cent of the development charge payable for the service involved. The remaining development charge credits will be paid beginning in the year that the project was originally scheduled to commence on an equal basis over the remaining term of the Bylaw i.e. 2017 to 2031. This payment will be based on a long term credit payment arrangement, as approved by Regional Council, the timing of which recognizes the need to provide for the financing requirements of broader system-wide costs for the service involved and may include indexing provision.

13.3.7 The credit will be restricted to the service component of the Regional development charge that the developer is required to pay at the registration/subdivision agreement stage (i.e. roads credits restricted to road development charge component that the developer is required to pay at registration).

13.3.8 Any development charge credit request that exceeds the development charges payable by the subdivider for a particular service (i.e. roads, water or sewer) will be subject to a negotiated long-term credit arrangement as approved by Regional Council and shall include a provision to consider the system-wide costs for the service component.

13.3.9 The developer shall, where warranted, be required to make a contribution toward the non-growth component costs based on the fact that the works are being constructed in advance of the Regional capital program (to minimize impacts on existing residents), particularly if the Regional Corporation is not in a position to adjust budgets, to provide for the non-growth portion of the project in a budget year.

a) Where the capital works are included in the ten year capital program forecast and the works are advanced for construction to the current budget year, York Region shall reimburse the developer for an amount equivalent to the present value of York Region funding the non-growth portion ahead of the planned program expenditure. The present value will be calculated based on the subject works, and will be based on an interest rate reflecting an average of long term investment and debenture rates available to the Regional Corporation, adjusted to reflect future capital cost indexing.

b) In situations where York Region cannot adjust its capital budget to fund the Regional share of the growth and non-growth costs in a budget year, the development charge credit request may be denied and/or the developer requested to make a larger non-recoverable contribution. In addition, York Region may enter into a deferred repayment of the growth and non-growth components until a time consistent with the planned capital program, subject to approval by Council.

c) Where the capital works are not included in York Region's ten year capital program forecast, the developer will be required to make a non-recoverable contribution for the full value of the non-growth costs.

13.3.10 The credit for services constructed will be included in the York Region's subdivision agreement.

13.3.11 The developer shall secure the total costs of the works by a Letter of Credit, in a format satisfactory to York Region's Treasurer. The Letter of Credit will also secure payment of the development charge component under consideration for credit. The Letter of Credit will be held until such time as the capital works are constructed to the satisfaction of the Regional Corporation.

13.3.12 The Letter of Credit will be released in the following manner:

a) Where York Region has constructed the capital works the Letter of Credit shall be released in accordance with the holdback release provisions in the terms of the construction contract entered into by the Regional Corporation; or

b) Where the developer has constructed the capital works, a 10 per cent holdback of the value of the works shall be retained by York Region for a one-year maintenance/warranty period after satisfactory construction of the works.

13.3.13 A cost-recovery fee applicable to each credit request will be charged for engineering, legal and finance department costs incurred related to preparation and administration of the development charge credit agreement. The fee will be structured in the following manner when the developer constructs the capital works, the credit arrangement is incorporated in the subdivision agreement and the credits achieved upon satisfactory construction of the works:

b) A minimum fee of $1,000 shall be required to review a development charge credit request.

c) A fee equivalent to 1.0 per cent of the value of the works shall be applicable for all capital works under $1 million.

d) A fee up to 1.0 per cent of the value of the works shall be applicable for all capital works greater than $1 million.

e) In instances where York Region's fees to prepare and administer the agreement are beyond the cost recovery provisions outlined above, such fees shall be separately quantified and invoiced to the developer.

13.3.14 Where York Region constructs the capital works and the credit arrangement is to be administered in lieu of payment of development charges at the time of subdivision(s) registration, an administration fee up to 1.0 per cent of the value of the works shall be required, in addition to the fees outlined above.

Note: Where York Region enters into an agreement to advance the construction timing of capital works in lieu of payment of development charges at the time of subdivision(s) registration, the above mentioned fee shall be based on the awarded price of the works. If the total project cost exceeds the awarded price by 20 per cent, York Region's Treasurer may apply an additional administration fee to cover the cost associated with administering the agreement.

13.4 Development charge roadworks credits

General conditions

In general, York Region will consider development charge credits for road related works constructed to the ultimate location. The ultimate location is defined by the next planned upgrade for a road section as detailed in the background report for the Development Charge Bylaw. The credit will be based on the capital cost of the works with each credit application being reviewed individually. The credit will be defined by that portion of materials placed in their ultimate location that can be reused by York Region. Development charge credits will be considered for the following:

- Construction of intersection improvements;
- Construction of complete road sections;
- Utility relocations (York Region's share of the cost); and
- Contract design and inspection costs where the developer submits the contract drawings, design files and specification documents in the York Region approved format and the work is constructed in the ultimate location.

In calculating the credit, staff will determine the work and materials that do not require further reconstruction by York Region in the development of the ultimate configuration. Development Charge credits will not apply to the following:

- Land purchases;
- Overall project management, co-ordination or administration;
- Construction contingencies;
- Road improvements required for the exclusive use of a private entrance including new signals or signal alterations, turning lanes, etc.;
- Construction of that portion of a local road within the York Region's Right of Way; and
- Removals, unless the new works are constructed to the ultimate location.

To obtain credits, the developer must submit a list in York Region's tender format of detailed items which are to be considered as recoverable, including percentages recoverable from York Region. These prices will be compared to recent unit prices for York Region's contract prices. York Region will establish a scale of project(s) to allow for unit prices for smaller sized projects undertaken by developers to be differentiated from larger sized projects.

Other costs may be recommended to be eligible by the Commissioner of Transportation Services, when such services are deemed to be in the interest of York Region subject to approval by Regional Council.

Non-growth recovery

For capital works included in the ten year forecast York Region will endeavour to recognize intersection improvements (and scheduling) as part of the capital forecast, and consider their improvement prior to the ultimate reconstruction of a road. The discount rate used by York Region to account for the differential in non-growth expenditure timing will be adjusted to reflect future capital cost indexing.

For capital works not included in the ten year forecast, York Region will continue to require the developer to make a non-refundable contribution to the non-growth costs of projects in order to expedite the works' construction timing. In order to recover a portion of the non-growth costs, Regional Council is required to endorse the projects for construction in York Region's ten year capital program.

Note: York Region shall endeavour to assist developers by liaising with utilities when possible where projects require utility relocation.

A cost-recovery fee applicable to each credit request will be charged for preparation and administration of the development charge credit will be structured in the following manner where the developer constructs the capital works and the credit arrangement is incorporated in the subdivision agreement and the credits achieved upon satisfactory construction of the works:

- A minimum fee of $1,000 shall be required to review a development charge credit request;
- A fee equivalent to 1.0 per cent of the value of the works shall be applicable for all capital works under $1 million; or
- A fee up to 1.0 per cent of the value of the works shall be applicable for all capital works greater than $1 million.

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- A fee up to 1.0 per cent of the value of the works shall be applicable for all capital works greater than $1 million.

CHAPTER 14

ASSET MANAGEMENT PLAN

Table of Contents

1. Background

Under the Province of Ontario's Development Charges Act, municipalities proposing to enact a Development Charges Bylaw are required to submit an Asset Management Plan (AMP) as part of the Development Charges Background Study. A key function of the Asset Management Plan is to demonstrate that all assets proposed to be funded under the development charge bylaw are financially sustainable over their full lifecycle. This document has been prepared based on the *Development Charges Act, 1997* and *Ontario Regulation 82/98* and includes the analysis pertaining to assets that are proposed to be funded, in whole or in part, by Development Charges (DC).

Assets included in this AMP are summarized in *Section 3.1 - Figure 2* and support the following service areas:

- Wastewater
- Water
- Roads
- Transit
- Toronto – York Spadina Extension
- Police
- Waste diversion
- Public works
- Paramedic services
- Public health
- Social housing
- Court services

1.1. Growth to 2031

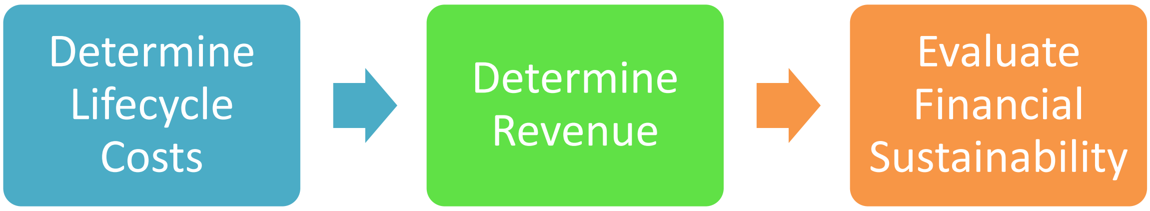
In 2014 York Region initiated the Municipal Comprehensive Review (MCR) process to update the Region's Official Plan, and address growth to 2041. In conjunction with the MCR, the Region has completed an update of the Transportation and Water & Wastewater Master Plans in 2016. Through these Master Plans, infrastructure required to meet growth demands were identified.

This background study uses a population and employment forecast to 2031 and infrastructure master plans as the basis for determining growth related infrastructure needs. The 2031 mid-year population forecast of 1,545,700 (excluding institutional population) is based on anticipated levels of housing growth in York Region, taking into consideration demographic trends, the timing of servicing infrastructure, market demand and provincial intensification policy target. The employment forecast for mid-2031 is 780,000. Both the population and employment forecast is on the trajectory to meeting the provincially mandated growth target for 2041, as envisaged by the Growth Plan Amendment II.

1.2. Development Charges Act Requirements

The *Development Charges Act* requires that analysis demonstrating to support proposed infrastructure be prepared as shown in *Figure 1*. Additionally, a summary of current state of infrastructure, planned level of service and potential asset management strategies must be prepared for proposed development charge funded transit infrastructure.

***Figure 1-1* – Asset Management Plan Requirements**



2. Transit Infrastructure

2.1. Requirements under the Development Charges Act and Regulation

Section 8(3) of Ontario Regulation 82/98 under the Development Charges Act identifies what must be included in an asset management plan for transit services. Specifically the plan must include:

- A section setting out the state of local infrastructure
- A section that sets out the proposed level of service
- An asset management strategy, including considerations for life cycle costs

- A financial strategy

This section of the asset management plan addresses the first three requirements. The financial strategy will be set out in section 5.3 of this document.

2.2. State of Infrastructure

2.1.1 Asset Type and Historical Cost

York Region currently owns approximately $796 million dollars' worth of transit infrastructure, including bus fleet, loops and terminals, transit stops, technology and equipment.

Table 2-1: Transit Asset Type and Historical Cost (source: 2015 State of Infrastructure Report Card)

<table>
<tr><th>Asset Type</th><th>2015 Inventory</th><th>2015 Historical Cost ($M)</th></tr>
<tr><td>Bus Fleet</td><td>528</td><td>285</td></tr>
<tr><td>Building loops and terminals</td><td>36</td><td rowspan="2">376</td></tr>
<tr><td>Transit stops</td><td>5,078</td></tr>
<tr><td>Technology (IT)</td><td>Various</td><td>56</td></tr>
<tr><td>Equipment</td><td>Various</td><td>79</td></tr>
<tr><td colspan="2" align="right">TOTAL</td><td>796</td></tr>
</table>

Note: Only Transit Fleet (Conventional, BRT (Viva), and Mobility Plus) and Facilities (Garages, Terminals, Transit loops, and Transit Stops) have been included in the current Transit Asset Management Plan.

2.3. Growth Planning Level of Service

The Development Charges Act requires that planned level of service be defined if development charges are levied for Transit infrastructure. For the purpose of the development charge background study, the planned level of transit is defined as the Region's 10-year capital plan. Through its approval of the program, Council has indicated that it intends to ensure that the increase in need for transit service will meet the transit network defined in the 2016 Transportation Master Plan and YRT/Viva's service guidelines within the YRT/Viva 2016-2020 Strategic Plan as adopted by Regional Council. Service guidelines define how new services are designed, and how existing transit routes are evaluated for service adjustments. They are applied in tandem with route performance measures.

The development of levels of service starts with mapping York Region's strategic objectives and the Transportation Services vision and mission. Based on these directions focusing on safety, reliability and efficiency, a mapping of levels of service at the customer, technical and operational levels were developed. Tables 2-2 and 2-3 provide the levels of service as indicated in Transit AMP.

Table 2-2: Fleet Levels of Service Categories

Service	Performance Metric	Grade				
		1 (Lowest)	2	3	4	5 (Highest)
Fleet Reliability	Distance between failures (km)	<10,000	10,000-12,000	>12,000-14,000	>14,000-16,000	>16,000
Capacity	Demand to capacity ratio by route	<50%	50-59%	60-69%	70-90%	>90%
Operating Efficiencies (Net Cost per Passenger)	Vehicle and overhead cost per passenger (as multiples of the average fare)	>5x	>4x – less and equal 5x	>3x – less and equal 4x	>2x – less and equal 3x	<=2x
Operating Reliabilities (On-time Performance)	Early/late trip starts	<91%	91-<92%	92-<93%	93-<94%	>=94%
Fleet Cleanliness	Cleanliness score based on sample inspected	<93%	93- <95%	95- <97%	97 - <99%	>=99%

York Region’s strategy evaluates asset performance by looking beyond the physical infrastructure condition and incorporating other factors impacting service quality and satisfaction. These levels of service are defined by current and future Regional needs, and can be defined at three levels: corporate, customer, and technical and operational. Indicators have been established to support assessment and reporting. These levels of service have been measured at the technical and operational level and linked to the Region’s strategic objectives and the Transportation Services mission.

Table 2-3: Facilities Levels of Service Categories

Service	Performance Metric	Grade				
		1 (Lowest)	**2**	**3**	**4**	**5 (Highest)**
Condition	Assessment results for Garages	Architectural components are well maintained / functional and all other components are either Poor or higher	Architectural components are well maintained / functional and all other components are either Fair or higher except one component in Poor condition	Architectural components are well maintained/ functional and all other components are either Fair or higher	Architectural components are well maintained/ functional and all other components are either Good or Very Good except one component in Fair condition	Architectural components are well maintained/ functional and all other components are either Good or Very Good
Capacity	Capacity as a percentage of fleet size ratio for each garage	>85%	70% - 85%	60% - <70%	50% - <60%	<50%
Service Coverage	Location	<50%	50-69%	70-84%	85-89%	>=90%

Note that the level of service in this asset management plan refers to the metric that is used to identify infrastructure needs due to growth. This metric also underpins the Region's growth-related capital program, which is designed to meet these targets. This metric is not the same as metrics used to determine long-term lifecycle needs.

Growth planning level of service for transit infrastructure is planned based on the average annual increase in ridership based on projections from the Regional Transportation Demand Forecasting Mode (EMME) and the network of transportation improvements identified in Transportation Master Plan Updates in terms of modal splits and forecast trips in the peak hour and peak direction. Improvements as identified in the 2016 Transportation Master Plan Update have been used in this AMP.

2.3.3 Current Level of Performance Relative to the Targets

The current Transit asset management plan focuses on the following levels of service categories (Table 2-4 and Table 2-5) that are linked to York Region's strategic objectives and the Department's mission.

Table 2-4: Fleet Levels of Service Categories (Based on 2015 Data)

Service Category	Performance Metric	Level of Service Summary (Grade 5 = Highest)
Fleet Reliability	Distance between failures	**Grade 5 -** Average for conventional and Viva bus routes was greater than 16,000 km
Capacity	Demand to capacity ratio	**Number of Routes by Grade:** **Grade 5** – 24 routes **Grade 4** – 16 routes **Grade 3** – 9 routes **Grade 2** – 11 routes **Grade 1** – 14 routes *Values based on 2015*
Operating Efficiencies (Net Cost per Passenger)	Vehicle and overhead cost per passenger	**Number of Routes by Grade:** **Grade 5** – 37 routes **Grade 4** – 16 routes **Grade 3** – 7 routes **Grade 2** – 12 routes

Service Category	Performance Metric	Level of Service Summary (Grade 5 = Highest)
		Grade 1 – 27 routes
Operating Reliabilities (On-time Performance)	Early/late trip start time	**Grade 5** – The percentage of on-time trip starts for conventional and Viva bus routes was greater than 94%
Cleanliness	Vehicle condition (vandalism/ paint)	**Grade 5** – Viva and Mobility Plus buses achieved a cleanliness score above 99% **Grade 4** – Conventional buses achieved a 97% score

Table 2-5 – Facilities Levels of Service Categories (Based on 2015 Data)

Service Category	Performance Metric	Level of Service Summary (Grade 5 = Best)
Facility Condition	Condition inspection for garages	**Grade 5 and 4** – The majority of inspected garages had all or most components in Good condition **Grade 3** – One inspected garage had more than one component in Fair condition
Garage Capacity	Fleet size as a percentage of garage capacity	**Grade 1, 2, and 3** – In 2015, two of the transit garages had a capacity to fleet ratio of 85% or higher, while one garage was at 70% and another at 62% capacity
Service Coverage	Location of transit stops relative to population	**Grade 5** – 90.4% of urban residents are within 500m of a transit stop

2.4. Transit Asset Management Strategy

2.3.1 Estimated Useful Life

Table 2-6 shows the average useful life for Transit assets. Mobility Plus vehicles vary by type with Eldorado vehicles having a useful life of 12 years and other vehicles estimated to have a useful life of only seven years.

Table 2-6: Useful Life Estimates (source: 2015 State of Infrastructure Report Card)

Asset Type	Useful Life (years)
Bus fleet (60' and 30')	12
Bus fleet (40')	18
Garages, terminals, and transit loops	50
Transit stops (shelters and platforms)	15

2.3.2 Fleet Age

The following figure provides the age profile for the YRT/Viva conventional fleet. York Region own and operates conventional buses, Viva buses and the mobility plus program. Table2-7 shows the replacement cost profile by age of asset and type of fleet.

Figure 2-1: Age Profile for All Transit Buses by Replacement Cost (2015 Data)

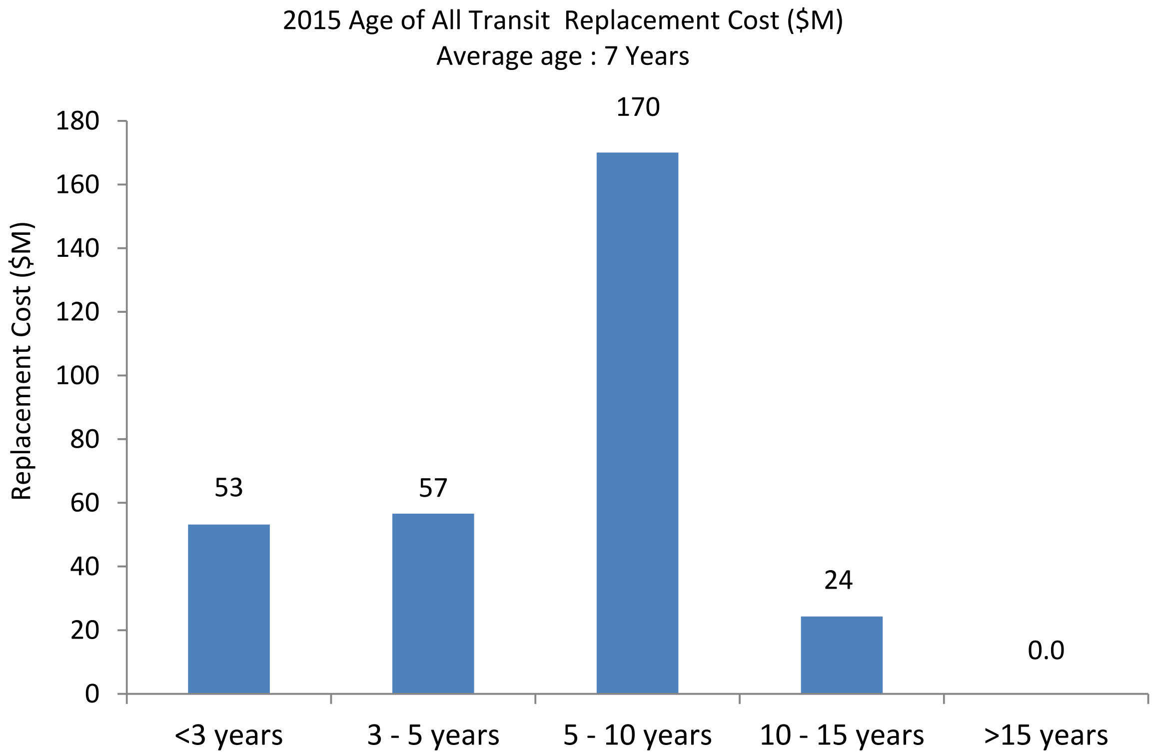
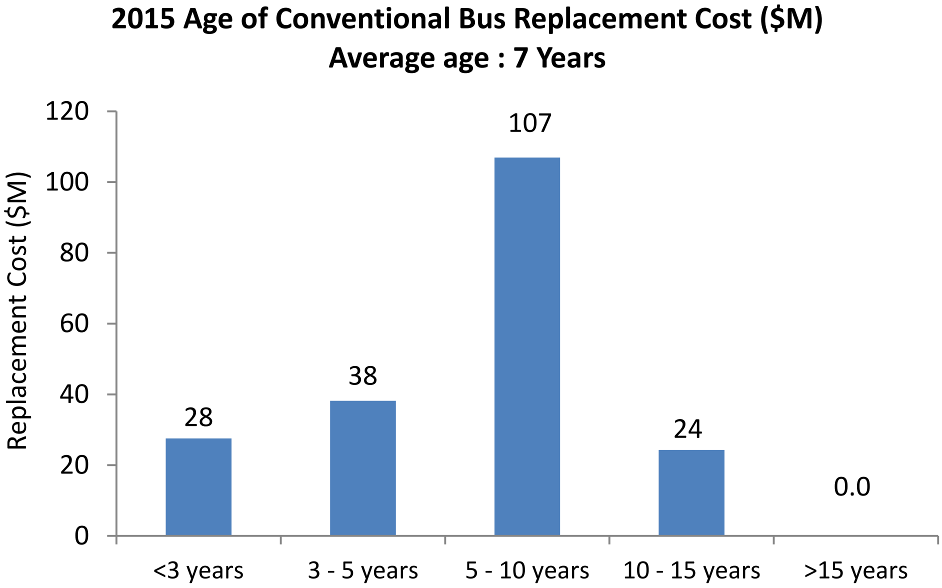
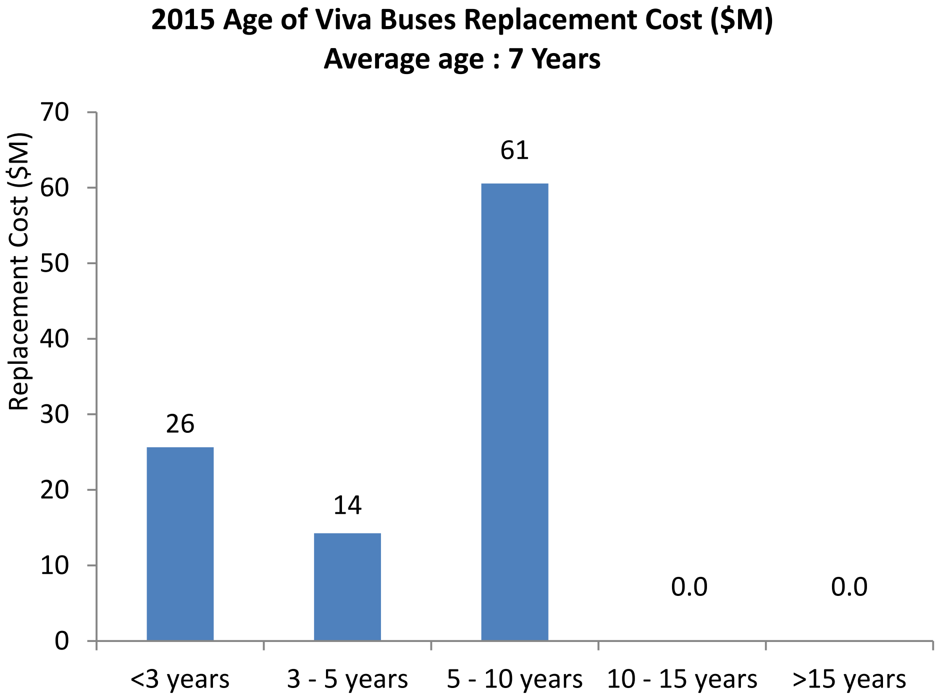
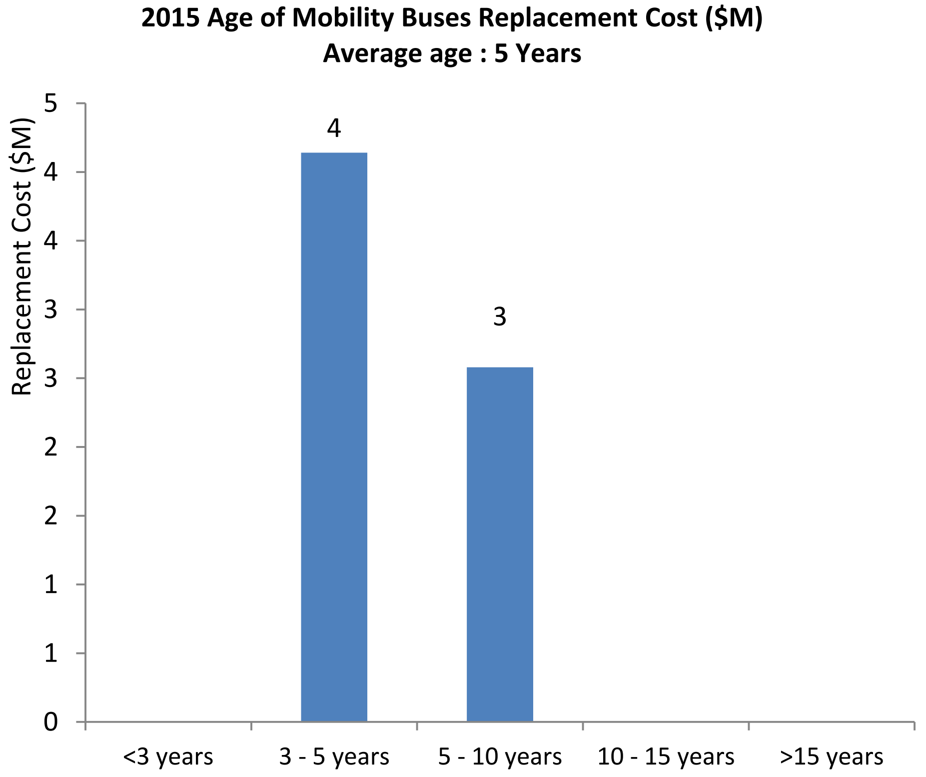


Table 2-7 – Replacement cost profile by type of fleet

Type of Fleet	Replacement Cost Profile
Age Profile for Conventional Buses by Replacement Cost (2015 Data)	
Age Profile for Viva Buses by Replacement Cost (2015 Data)	

Type of Fleet	Replacement Cost Profile
Age Profile for Mobility Plus Buses by Replacement Cost	

2.3.4 Fleet remedial schedule and costs

Table 2-8 provides the planned fleet remedial schedule.

Table 2-8: Fleet Capital Refresh, Rehabilitation, and Replacement Schedule (Source Transit AMP)

Vehicle Type	30 ft. (years)	40 ft. (years)	60 ft. (years)	Mobility Plus (years)
Total Life	12	18	12	7 - 12
Capital Refresh	None	None	6	None
Mid-Life (Rehabilitation)	None	10	None	None

Table 2-9 shows the estimated cost of remedial activities for Transit fleet.

Table 2-9: Cost Associated with Remedial Action (Source Transit AMP)

Action Type		Cost
Capital Refresh		$70k
Midlife Rehabilitation		$210k
Replacement/ Growth	Conventional	$600k
	Viva	$700k to $1,200k
	Mobility Plus	$260k

Note: Facilities costs are calculated using the inspection report performed by third party engineers and based on replacement cost of separate components within the building.

2.3.5 Average Sustainment Requirements

Figures 2-10 and 2-11 provide the estimated Transit average sustainment needs (excluding maintenance) for fleet and facilities for 2016 to 2031 is ($30.2M + $4.1M) = $34.3M.

Figure 2-10: Anticipated Fleet Sustainment Needs

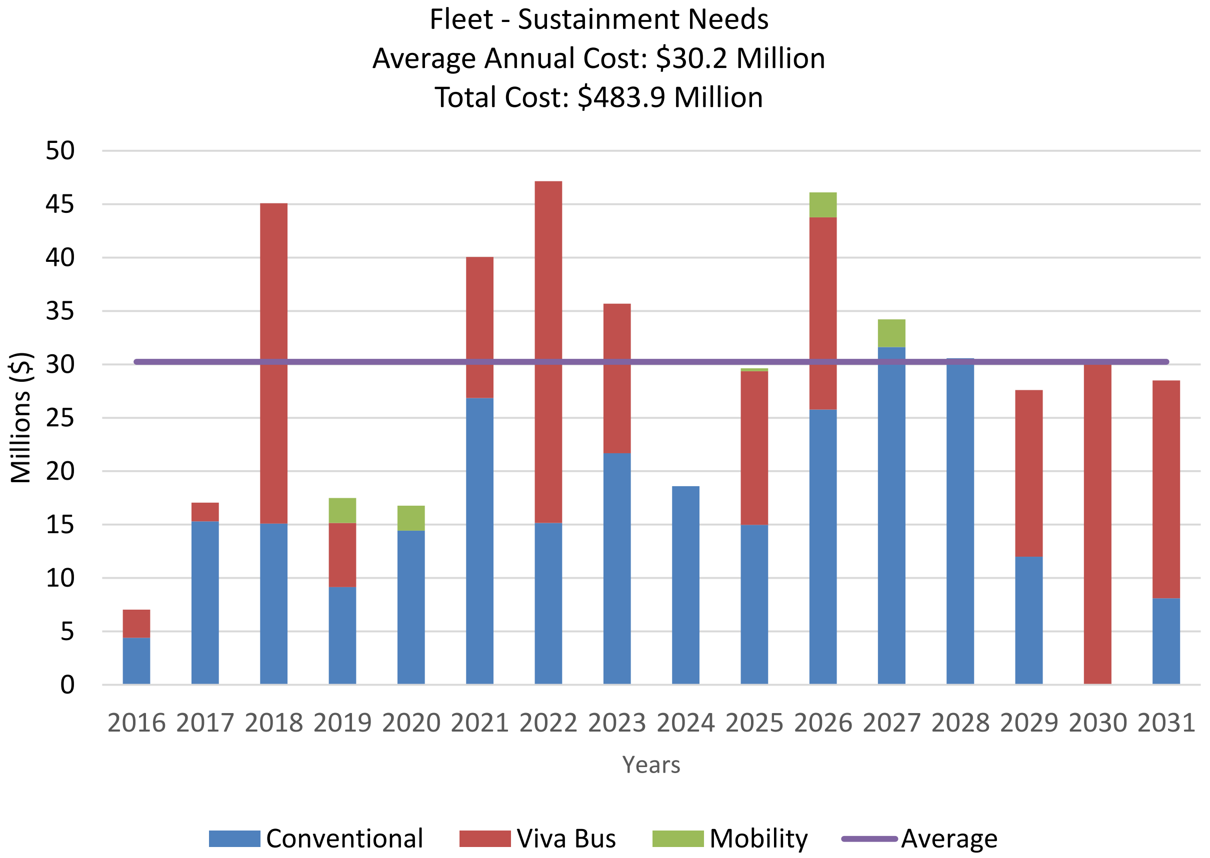
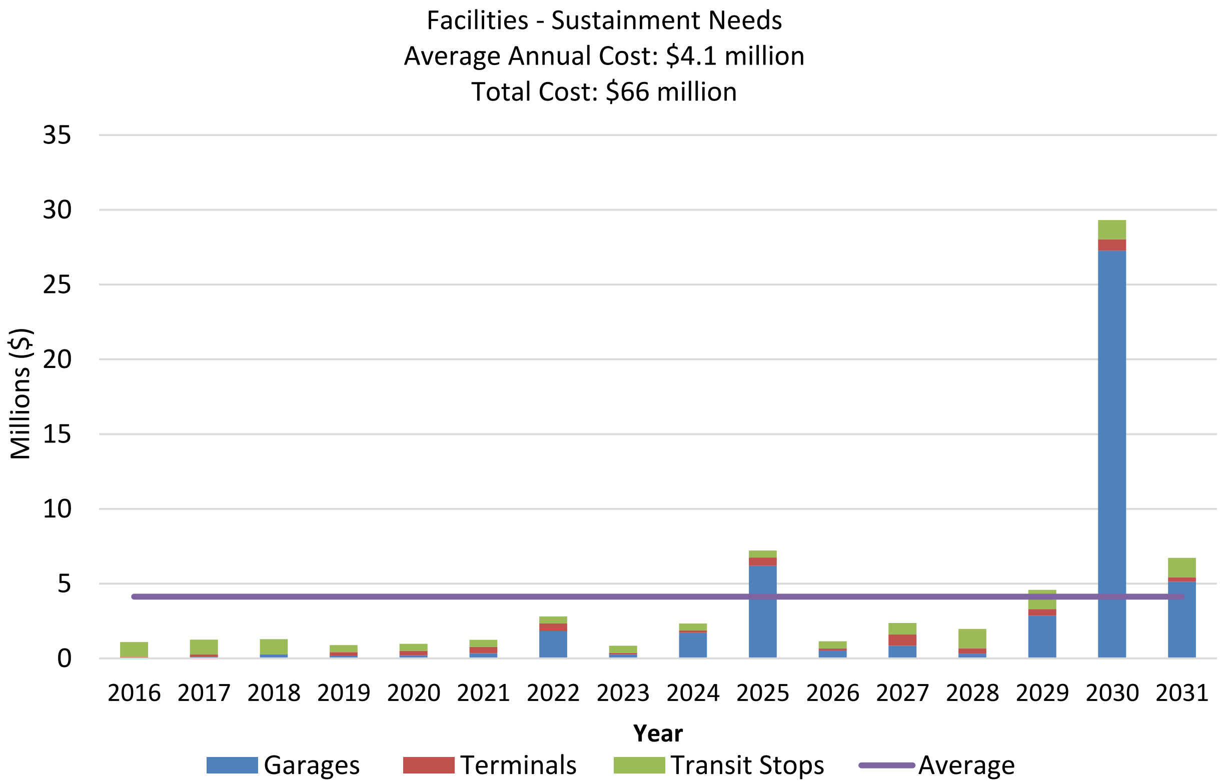


Figure 2-11: Anticipated Facilities Sustainment Needs



Based on Transit AMP, the average annual growth needs for fleet and facilities for 2016 to 2031 is ($12 + $19.5) = $31.5M as indicated in figures 2-12 and 2-13 below.

Figure 2-12: Anticipated Fleet Growth Needs

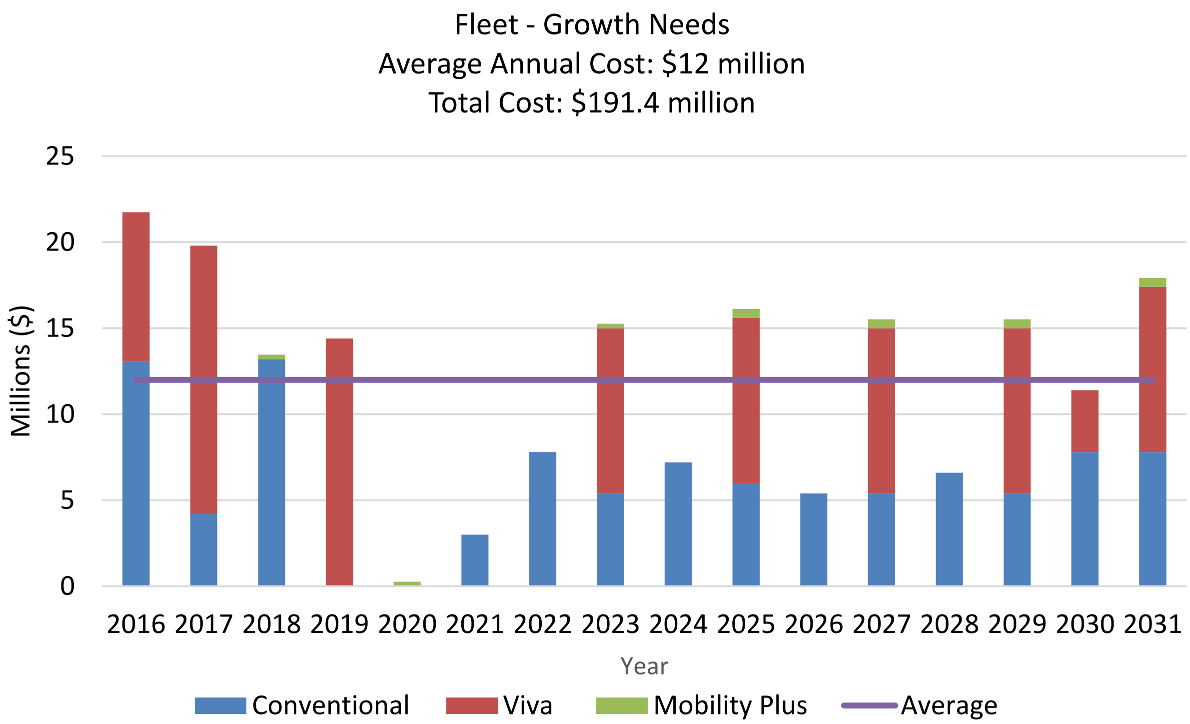
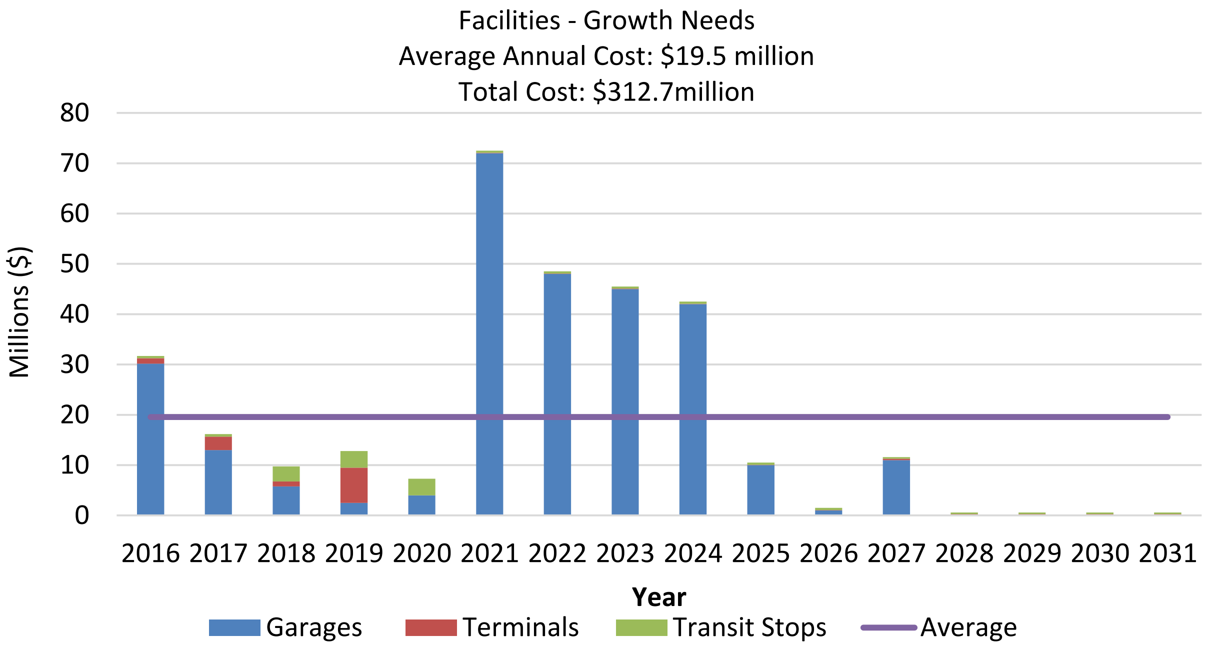
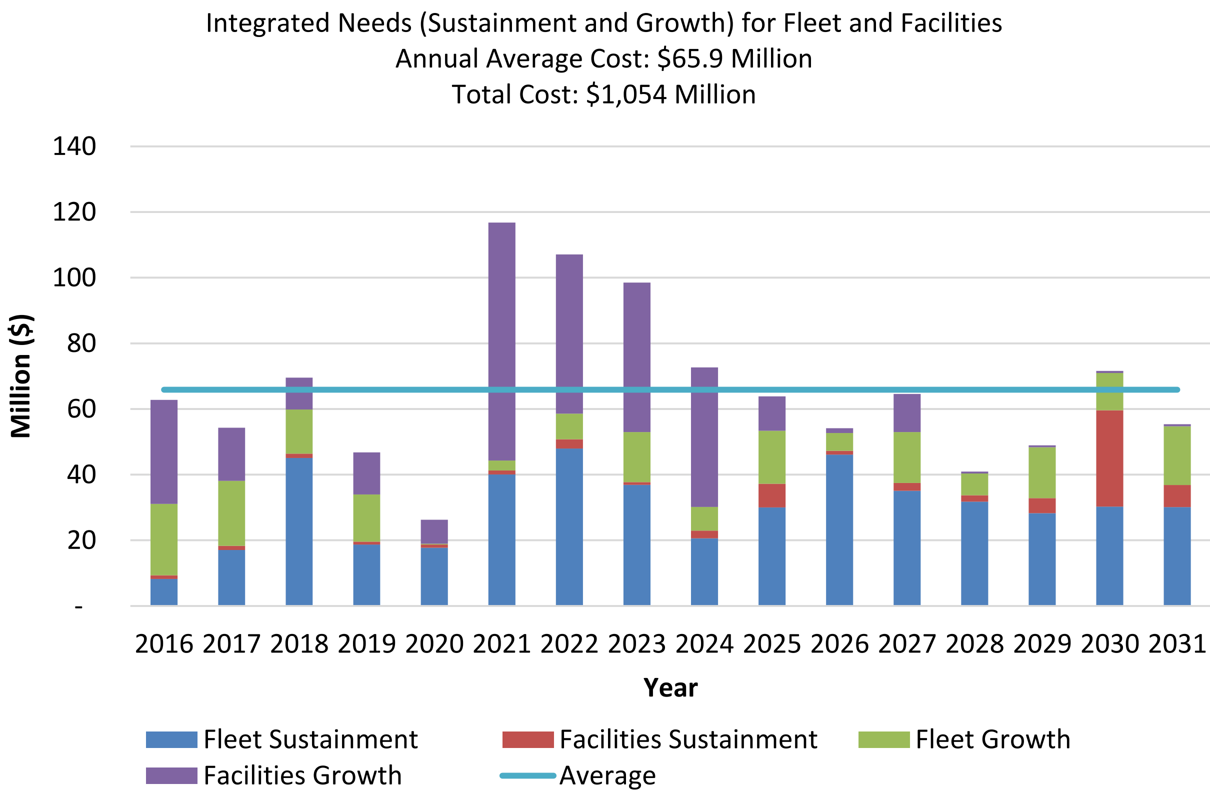


Figure 2-13: Anticipated Facilities Growth Needs



Based on Transit AMP, the average sustainment and growth needs for fleet and facilities for 2016 to 2031 is $65.9M as indicated in Figure 2-14 below.

Figure 2-14: Integrated Needs for Fleet and Facilities



2.3.5 Transit Asset Management Strategy

For transit vehicles, maintenance is managed through third party maintenance contracts. These performance-based contracts help incentivize the contractors to maintain appropriate levels of service. The service contract defines the criteria the third party has to follow which outline preventative maintenance, routine maintenance, and proactive maintenance requirements. These allow the Region to better benchmark and evaluate its current state.

Rehabilitation, defined as remedial actions increasing the life of the asset, are generally considered as capital expenditures. Remedial actions can increase the asset life by increasing its useful life as a whole or by installing new components to stretch out the useful life of the asset.

The purpose of replacement is to acquire an asset to substitute a current asset because the asset is at its end of life. This may slightly increase capacity and condition because of technological reasons. However the main purpose is to replace the asset due to age.

For transit fleet, the capital budget also includes capital refresh as part of sustainment in addition to rehabilitation and replacement. Although capital refresh may not extend the life of the asset beyond its design life it is part of capital expenses.

For transit fleet, York Region proactively performs midlife overhauls. Buses purchased by York Region Transit (YRT / Viva) have a design life of 12 years as specified by the original equipment manufacturer. The midlife overhaul extends the life of a normal vehicle of 12 years to 18 years as required by Regional Council. Additionally, a major overhaul of the mechanical systems is conducted, including engine, transmission, radiator, charge air cooler and drive axle assessment, brake relining, suspension replacement, and auxiliary heater and air conditioning refresh.

3. Estimated Lifecycle Costs

3.1. Lifecycle Cost Projection Methodology

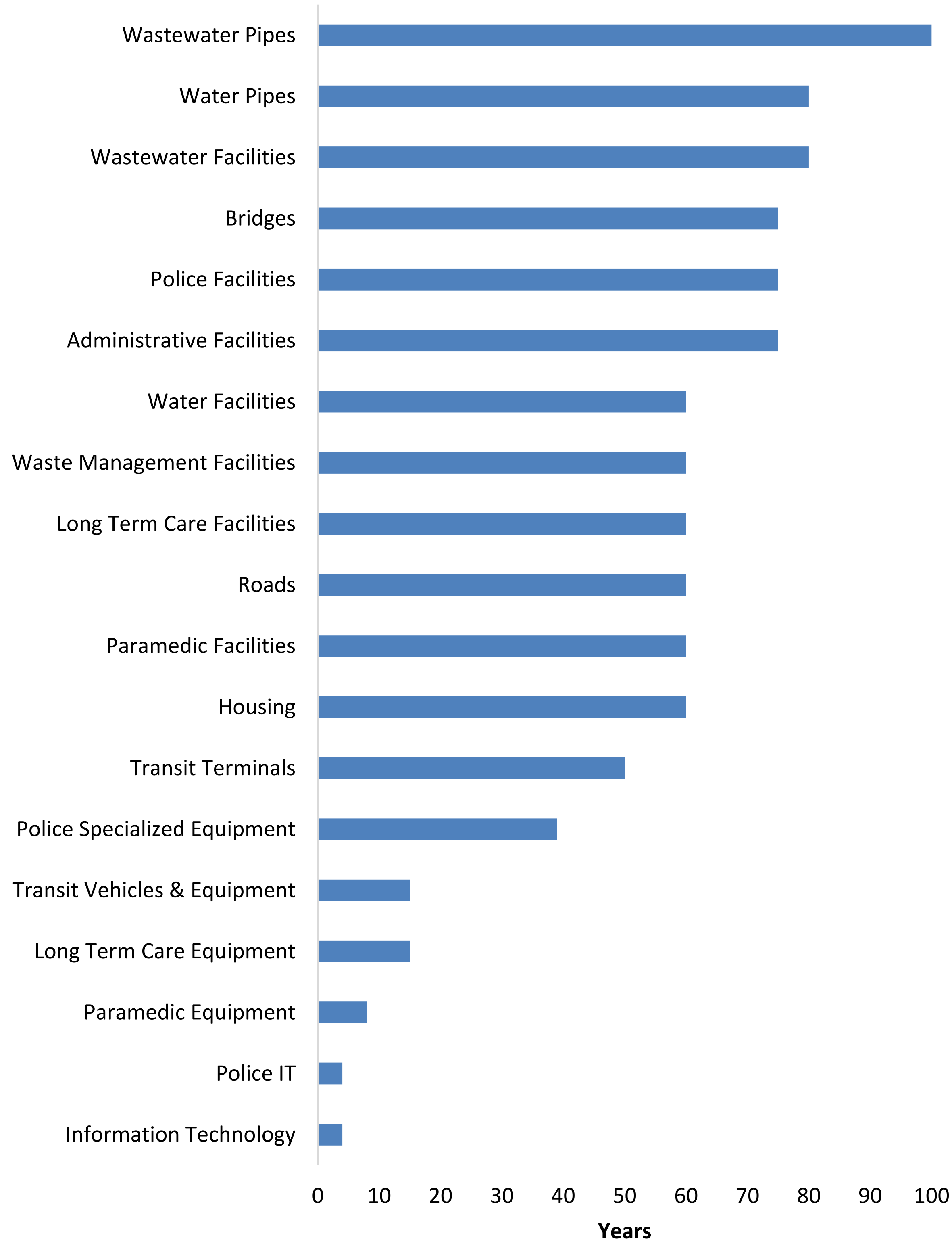
Asset lifecycles have been projected based on two methods depending on whether sufficient condition information is available. Typically, meaningful condition assessment information is not available until determinate signs of deterioration are observable. The two methods are summarized below in *Table 3-1*.

Table 3-1 – Lifecycle Cost Projection Methodology

Assets	Projection Method
Newly constructed assets and assets planned but not yet designed or constructed	**Method A** Expected Service Life for Asset-Type Estimated Replacement Cost
Existing assets with condition assessment information	**Method B** Detailed Condition Assessment and Deterioration Projection results

Lifecycle costs for the majority of assets included in this plan have been projected based on Method A in *Table 1* which assumes that assets will be replaced at the end of expected service life. Generally, the service life for the asset types included in this plan is presented in *Figure 3-1*.

Figure 3-1 - Expected Service Life



3.2. Lifecycle Cost Summary

This section summarizes the long-term investment needs to sustain the DC-funded infrastructure required to enable growth to 2031. Table 3-2 summarizes the total lifecycle costs over a 100-year period. Detailed discussion regarding life cycle costs of transit assets can be found in section 2.3.5 of this asset management plan.

Table 3-2: Lifecycle Cost Summary of Growth Related Assets ($Millions)

Service Area	Gross Project Costs (Emplacement)	100-Year Lifecycle Needs (Excluding Emplacement)
Rate-Funded:		
Water*	603	1,207
Wastewater*	1,793	6,675
Sub-Total – Rate	**2,395**	**7,883**
Tax Levy-Funded		
Roads*	2,799	4,739
Transit	382	2,752
Toronto-York Spadina Extension**	282	-
Police*	227	1,098
Waste Diversion	10	56
Public Works*	152	311
Paramedic Services	52	123
Public Health	17	156
Social Housing	185	294
Courts	22	40
Sub-Total: Tax Levy	**4,128**	**9,569**
GRAND TOTAL	**6,523**	**17,451**

*2017-2031 planning period. For all other services, a 2017-2026 planning period was used.

**Lifecycle needs are 100% funded by the City of Toronto

4. Potential Asset Management Strategies

In general, assets included in this plan have yet to undergo environmental assessments and detailed design. This section identifies potential asset management strategies that may apply and will be considered in future lifecycle planning. Transit specific asset management strategies are discussed in section 2.3.5 of this asset management plan.

4.1. Asset Condition Monitoring

Increased need for condition monitoring and assessment across all infrastructure assets have been identified in York Region's Corporate State of Infrastructure Report and asset management plans. The most critical infrastructure assets receive the most asset management activity as York Region's relatively young assets continue to age. Continuous improvement in the areas of climate change impacts are ongoing as part of asset management activity.

Condition monitoring and assessments will support the refinement of asset management decision making from methods such as age-based planning to risk/condition/performance-based planning which may allow for the greatest service life to be realized, reducing lifecycle costs.

4.2. Asset Lifecycle Rehabilitation & Replacement Analysis

In order to realize designed service lives, asset rehabilitation may be required for some assets. In most cases, lifecycle cost projections have included rehabilitation typical for each asset type, however, as more information is known about an asset, this broad projection can be tailored to consider specific factors affecting each asset for example, changing regulations or construction quality may apply to specific assets differently, impacting the lifecycle cost.

For major assets where rehabilitation or replacement is expected in the next 10 years, detailed condition assessments and monitoring is undertaken to verify asset deterioration and program short-term budget priorities as part of the annual budget process.

5. Financial Strategy

A detailed analysis was undertaken to evaluate the financial sustainability of the full life cycle costs of assets that are proposed to be funded under the development charges by-law as per subsection 10(3) of the *Development Charges Act, 1997* (the Act). Financial sustainability is defined, based on the Region's Fiscal Strategy, as:

1. Balancing the current and long-term needs of the Region by:
   - managing the capital plan, which sets priorities among infrastructure projects;
   - reducing reliance on debt; and
   - saving for the future by building up reserves
2. Generating stable and adequate financing to maintain Regional infrastructure and operational capacity to provide core services
   - Stable and adequate financing will rely on revenue sources available or confirmed at the time, without relying on additional support from higher levels of government
3. Aiming for equitable outcomes by ensuring benefiting users pay for the services they are provided (i.e., growth pays for growth)

In order to fully assess the financial impact of the proposed projects in the Region's proposed 2017 Development Charge Bylaw, it is necessary to consider all of the financial requirements that the Region will likely face in the future.

This analysis incorporates the full operating and capital requirements related to both existing and future assets as well as service areas without capital plans (e.g., Office of the Regional Chair, etc.). Consistent with the Region's Fiscal Strategy, the analysis assumes that capital reserves will be built up adequately to avoid the use of future user rate or tax levy debt for any foreseen asset lifecycle needs, including growth related capital. It also takes intergenerational equity into account by attempting to spread the cost of capital equitably across the tax base over time. This approach was used for both user rate and tax levy funded service areas.

Asset management and lifecycle assumptions were derived from departmental asset management plans that are currently being developed. These plans will be finalized in 2018 in lock-step with asset management regulations being finalized by the province. To facilitate analysis of assets yet to be emplaced, weighted average useful lives have been used to estimate their lifecycle needs. It is acknowledged that these assets might be further componentized into smaller asset elements as they come on line but since they are similar to assets currently in use, the weighted useful life is deemed to be a reasonable proxy.

Water and wastewater infrastructure lifecycle costs are funded through water and wastewater rates while all other infrastructure is funded primarily through the tax levy. As such, the Region's analysis looks at services funded through water and wastewater user rates separately from all tax-supported services.

5.1. Rate Funded (Water and Wastewater)

In 2015, York Region's Council approved six years of water and wastewater rate increases with the goal of reaching full cost recovery by 2021. Given the capital project plan at the time, the approved rates were thought to be sufficient to ensure that the full cost of water and wastewater services would not need to be subsidized by funds raised through the tax levy.

The approved rate increases also ensure that asset management activities can be afforded when they are required to minimize lifecycle costs and that there will be adequate reserve balances to avoid any future user rate debt. A description of the work that supported Council's 2015 rate approvals can be found in the Water and Wastewater Financial Sustainability Plan (the Plan) on the York Region website.

Tables 5-1 and 5-2 summarize the capital funding and additional (incremental) operating revenues and expenses related to the growth-related infrastructure identified in the 2017 DC Background Study. Operating expenditures include provisions for the emplacement of infrastructure and contributions to the replacement of new and existing assets to reflect their impact on billings.

Table 5-1: Capital Funding Sources for Rate Supported Growth Projects 2017-2031 (Cost of emplacement)

Funding Sources ($000s)	Total	2017-2021	2022-2026	2027-2031
User Rate Funding (Reserves)	**15,455**	15,455	-	-
Development Charges	**2,304,507**	521,012	865,494	918,001
Other Funding	**75,262**	21,030	18,644	35,588
Total	**2,395,224**	**557,497**	**884,138**	**953,589**

Table 5-2: Incremental Growth-Related operating Revenues and Expenses 2017-2031 – Rate Funded

Operating Impact of Growth ($000's)	Total	2017-2021	2022-2026	2027-2031
Salaries and Benefits	**30,351**	9,795	9,107	11,449
Program Specific Expenses	**39,803**	12,132	15,765	11,907
Financing Costs	**197,378**	10,177	90,448	96,753
Contribution to Replacement of New Assets	**102,575**	72,476	10,933	19,166
Other Expenses*	**14,064**	2,361	5,164	6,538
Gross Expenditures	**384,171**	**106,941**	**131,418**	**145,813**
User Rates	**(181,486)**	(98,582)	(39,456)	(43,448)
Fees and Charges	**(1,225)**	(228)	(437)	(559)
Development Charges	**(171,688)**	(6,177)	(81,140)	(84,371)
Total Revenue	**(354,399)**	**(104,987)**	**(121,033)**	**(128,379)**
Potential Billing Revenue Requirements	**29,773**	**1,954**	**10,385**	**17,434**

*Other Expenses include General Expenses; Professional Contracted Services; Occupancy & R&M Costs; Minor Capital; and Allocations and Capital Recoveries

Overall, the additional costs for water and wastewater services due to growth are paid for through revenues generated by growth. Over the 15-year period from 2017-2031, it is anticipated that growth will increase expenditures by $384 million and increase revenue by $354 million, resulting in a net impact of $30 million on the existing user base over 15 years.

The water and wastewater projects in the DC Background Study are consistent with those identified in the Plan and based on the anticipated revenues generated by the rates approved by Council, are deemed to be financially sustainable.

5.2. Tax Levy Funded

A similar methodology to that which was used in the water and wastewater analysis was also applied to services funded by property taxes.

Tables 5-3 and 5-4 summarize the capital funding and additional (incremental) operating revenues and expenses related to growth. Similar to the user rate analysis, the incremental operating requirements calculated here include operating costs resulting from the emplacement of infrastructure and contributions to the replacement of new and existing assets.

Table 5-3: Capital Funding Sources for Tax Levy Supported Growth Projects 2017-2031(cost of emplacement)

Funding Sources ($000s)	Total	2017-2021	2022-2026	2027-2031
Tax Levy Funding (Reserves)	**899,844**	399,409	257,503	242,932
Development Charges	**2,634,043**	1,258,626	855,388	520,028
Other Funding	**593,938**	325,412	184,974	83,551
Total	**4,127,824**	**1,983,447**	**1,297,866**	**846,511**

As shown in Table 5-4, it is anticipated that growth will increase operating expenditures by $722 million and increase operating and assessment growth revenue by $421 million, resulting in a net impact of $300 million to be recovered from the existing tax base over the 15-year forecast period. This funding requirement is considered to be financially sustainable as it is expected that it can be absorbed by the tax base over the forecast period through tax levy increases.

Table 5-4: Incremental Growth-Related Operating Revenues and Expenses 2017-2031 – Tax Levy Funded

Operating Impact of Growth ($000s)	Total	2017-2021	2022-2026	2027-2031
Salaries and Benefits	**291,757**	78,264	94,594	118,898
General Expenses	**53,946**	14,920	17,315	21,710
Program Specific Expenses	**176,077**	42,589	59,798	73,690
Financing Costs	**(11,341)**	(2,822)	(3,312)	(5,208)
Professional Contracted Services	**26,373**	5,645	9,270	11,459
Occupancy & R&M Costs	**55,053**	12,375	18,750	23,928
Contributions to Operating Reserves	**8,369**	(4,198)	5,557	7,011
Contribution to Asset Emplacement	**96,811**	27,498	33,747	35,565
Contribution to Replacement of New Assets	**62,116**	17,643	21,653	22,819
Allocations and Capital Recoveries	**(37,587)**	(12,022)	(11,231)	(14,335)
Other Expenses*	**3**	(328)	149	183
Gross Expenditures	**721,576**	**179,565**	**246,290**	**295,721**
Grant Subsidies	**(117,803)**	(27,034)	(40,499)	(50,270)
User Rates	**(32,751)**	(10,798)	(9,893)	(12,060)
Contribution from Reserves	**(3,628)**	6,006	(4,276)	(5,358)
Development Charges	**8,252**	(4,884)	5,270	7,866
Other Revenues**	**(30,301)**	(5,768)	(10,963)	(13,569)
Total Revenue	**(176,231)**	**(42,478)**	**(60,362)**	**(73,391)**
Net Budget Before Assessment Growth	**545,345**	**137,087**	**185,928**	**222,330**
Assessment Growth Revenue	**(245,196)**	(81,259)	(81,671)	(82,266)
Potential Tax Levy Requirements	**300,149**	**55,828**	**104,257**	**140,064**

*Other Expenses include Chair & Council Expenses, Minor Capital and Departmental Recoveries
**Other Revenues include User Rate Recoveries (Water/Wastewater); Third Party Recoveries; Fees and Charges; and Court Revenues Disbursement

The results of this analysis reflect the best information available at this time and are based on a number of critical assumptions, which carry an inherent degree of uncertainty. However, detailed analysis will continue through the annual budget process to confirm actual levels of spending, mitigate tax rate impacts and employ other funding mechanisms where possible and subject to the Fiscal Strategy. For example, revising service levels, asset management and/or financing strategies could also contribute to alleviating the funding need.

5.3. Transit Services

The preceding analysis includes Transit related growth costs. However, Regulation 82/98 (as amended) of the *Development Charges Act* prescribes specific requirements for Transit services. One of the requirements is a detailed financial strategy that:

- shows the yearly expenditure forecasts that are proposed to achieve the proposed level of service, categorized by,
    - A. non-infrastructure solutions,
    - B. maintenance activities,
    - C. renewal and rehabilitation activities,
    - D. replacement activities,
    - E. disposal activities, and
    - F. expansion activities,
- Provides actual expenditures in respect of the categories set out above from the previous two years, if available, for comparison purposes,
- Gives a breakdown of yearly revenues by source,
- Discusses key assumptions and alternative scenarios where appropriate, and
- Identifies any funding shortfall relative to financial requirements that cannot be eliminated by revising service levels, asset management or financing strategies, and discusses the impact of the shortfall and how the impact will be managed.

Tables 5-5 and 5-6 summarize the capital funding and additional (incremental) operating revenues and expenses specifically related to growth in Transit services.

Table 5-5: Capital Funding Sources for Growth Related Transit Projects 2017-2031 (cost of emplacement)

Funding Sources ($000s)	Total	2017-2021	2022-2026	2027-2031
Tax Levy Funding (Reserves)	**64,934**	45,027	19,908	-
Development Charges	**153,613**	110,020	43,593	-

Other Funding	**163,420**	109,815	53,604	-
Total	**381,967**	**264,862**	**117,105**	**-**

Table 5-6: Incremental Growth-Related Operating Revenues and Expenses 2017-2031 – Transit Services

Operating Impact of Growth ($000s)	Total	2017-2021	2022-2026	2027-2031
Maintenance/Non-Infrastructure Solutions				
Salaries and Benefits	**14,244**	3,989	4,272	5,983
General Expenses	**17,397**	814	7,380	9,203
Program Specific Expenses	**95,375**	29,911	29,502	35,963
Financing Costs	**2,785**	(1,445)	1,741	2,489
Professional Contracted Services	**(563)**	(563)	0	0
Occupancy & R&M Costs	**23,794**	4,552	8,649	10,593
Minor Capital	**7**	7	0	0
Allocations and Capital Recoveries	**(365)**	44	(169)	(240)
Renewal/Rehabilitation & Replacement/Disposal Activities				
Contribution to Replacement of New Assets	**10,793**	7,265	1,570	1,958
Expansion Activities				
Contribution to Asset Emplacement	**5,652**	3,804	822	1,025
Gross Expenditures	**169,119**	**48,378**	**53,767**	**66,975**
User Rates	**(32,677)**	(10,741)	(9,885)	(12,050)
Third Party Recoveries	**(2)**	0	(1)	(1)
Contribution from Reserves	**(4,198)**	(301)	(1,734)	(2,163)
Development Charges	**108**	19	44	44
Total Revenue	**(36,768)**	**(11,023)**	**(11,576)**	**(14,169)**
Potential Tax Levy Requirements	**132,351**	**37,355**	**42,191**	**52,805**

As shown in the table, growth in Transit services is projected to create an additional $169 million in expenses for the Region, of which only $37 million (22%) will be recuperated through new user rates (transit fares) and other funding sources. The remainder will have to be collected through higher property taxes on existing residents. As noted in the aggregate analysis discussed in section 5.2 above, this funding requirement is considered to be financially sustainable as it is expected that it can be absorbed by the tax base over the forecast period through tax levy increases. Alternatively, revising service levels, asset management and/or financing strategies could contribute to alleviating the funding need. These alternatives will be examined in more detail through the annual budget process.

5.4. Contingency Schedule (Schedule 'G' to the 2017 Development Charge Bylaw)

There is also the potential for other growth-related projects to move forward if the Region is able to secure addition revenue. These projects are listed in Schedule 'G' of the background study. The gross capital costs of these projects is $1.49 billion, with $1.35 billion to come from Development Charges revenue and the remaining $138 million to come from the tax levy.

Table 5-7: Comparison of Capital Funding Sources for Tax Levy Supported Growth Projects 2017-2031(cost of emplacement)

Funding Sources ($000s)	Main DC List with Schedule 'G'* Projects	Main DC List	Variance
Tax Levy Funding (Reserves)	1,038,028	899,844	138,184
Development Charges	3,984,151	2,634,043	1,350,109
Other Funding	593,938	593,938	-
Total	**5,616,117**	**4,127,824**	**1,488,293**

*Only includes those assets for which the Region is currently responsible

In the absence of addition revenue, these projects would increase the tax levy requirements over the 2017-2031 period by approximately $65 million compared to the projects in the main DC project list to fund the capital and operating costs related to these projects. Table 5- below compares the incremental growth-related costs of the DC project list with and without the projects in Schedule 'G'. (This analysis only includes those assets for which the Region is currently responsible).

Table 5-8: Comparison of Incremental Growth-related Operating Revenues and Expenses 2017-2031 – Tax Levy Funded

Operating Impact of Growth ($000s)	Main DC List with Schedule 'G'* Projects	Main DC List	Variance
Salaries and Benefits	307,122	291,757	15,365
General Expenses	58,218	53,946	4,272
Program Specific Expenses	176,078	176,077	1
Financing Costs	(11,333)	(11,341)	8
Professional Contracted Services	26,416	26,373	43
Occupancy & R&M Costs	55,482	55,053	429
Contributions to Operating Reserves	8,369	8,369	0
Contribution to Asset Emplacement	123,873	96,811	27,062
Contribution to Replacement of New Assets	85,721	62,116	23,605
Allocations and Capital Recoveries	(43,570)	(37,587)	(5,983)
Other Expenses**	5	3	2
Gross Expenditures	**786,380**	**721,576**	**64,804**
Grant Subsidies	(117,803)	(117,803)	-
User Rates	(32,751)	(32,751)	-
Contribution from Reserves	(3,628)	(3,628)	-
Development Charges	8,252	8,252	-
Other Revenues***	(30,301)	(30,301)	-
Total Revenue	**(176,231)**	**(176,231)**	**-**
Net Budget Before Assessment Growth	**610,149**	**545,345**	**64,804**
Assessment Growth Revenue	(245,196)	(245,196)	-
Potential Tax Levy Requirements	**364,954**	**300,149**	**64,804**

*Only includes those assets for which the Region is currently responsible
**Other Expenses include Chair & Council Expenses, Minor Capital and Departmental Recoveries
***Other Revenues include User Rate Recoveries (Water/Wastewater); Third Party Recoveries; Fees and Charges; and Court Revenues Disbursement

6. Conclusion

York Region has undertaken asset management planning analysis to ensure that assets required to enable growth to 2031 are financially sustainable.

APPENDIX A

INTERJURISDICTIONAL SCAN OF DEVELOPMENT CHARGE RATES

This Appendix is split into two parts:

This first part provides an interjurisdictional scan of development charge rates in neighboring municipalities (as of March 17, 2017). It compares, across municipalities:

- Residential development charge rates (single family detached, large apartments and small apartments)
- Non-residential development charge rates (retail, office and industrial)

York Region rates are as proposed under the 2017 Development Charge Bylaw.

Figure A-1 provides a comparison of **total** development charge rates for all Greater Toronto Area municipalities per single detached dwelling as of March 17, 2017.

Figure A-2 provides a comparison of **total** development charge rates for all Greater Toronto Area municipalities per large apartments as of March 17, 2017.

Figure A-3 provides a comparison of **total** development charge rates for all Greater Toronto Area municipalities per small apartments as of March 17, 2017.

Figure A-4 provides a comparison of **total** development charge rates for all Greater Toronto Area municipalities per square foot for retail developments as of March 17, 2017.

Figure A-5 provides a comparison of **total** development charge rates for all Greater Toronto Area municipalities per square foot for industrial developments as of March 17, 2017.

Figure A-6 provides a comparison of **total** development charge rates for all Greater Toronto Area municipalities per square foot for office developments as of March 17, 2017.

This second part provides an interjurisdictional scan of development charge rates in Barrie and Simcoe County (as of March 17, 2017). It compares, across municipalities:

- Residential development charge rates (single family detached, large apartments and small apartments)
- Non-residential development charge rates (retail, office and industrial)

York Region rates are as proposed under the 2017 Development Charge Bylaw.

Figure A-7 provides a comparison of **total** development charge rates for Barrie and all Simcoe County municipalities per single detached dwelling as of March 17, 2017.

Figure A-8 provides a comparison of **total** development charge rates for Barrie and all Simcoe County municipalities per large apartments as of March 17, 2017.

Figure A-9 provides a comparison of **total** development charge rates for Barrie and all Simcoe County per small apartments as of March 17, 2017.

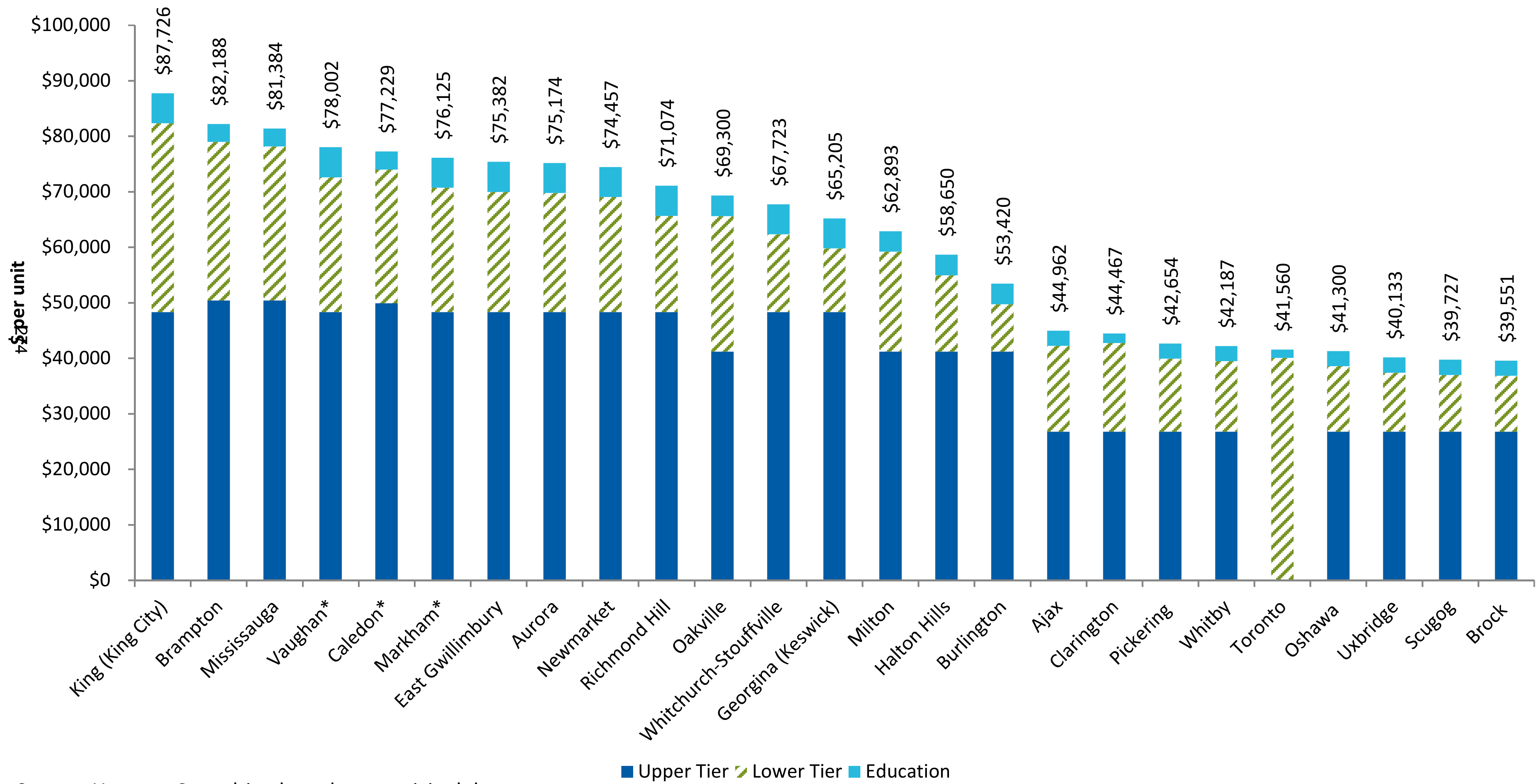
Figure A-10 provides a comparison of **total** development charge rates for Barrie and all Simcoe County municipalities per square foot for retail developments as of March 17, 2017.

Figure A-11 provides a comparison of **total** development charge rates for Barrie and all Simcoe County per square foot for industrial developments as of March 17, 2017.

Figure A-12 provides a comparison of **total** development charge rates for Barrie and all Simcoe County municipalities per square foot for office developments as of March 17, 2017.

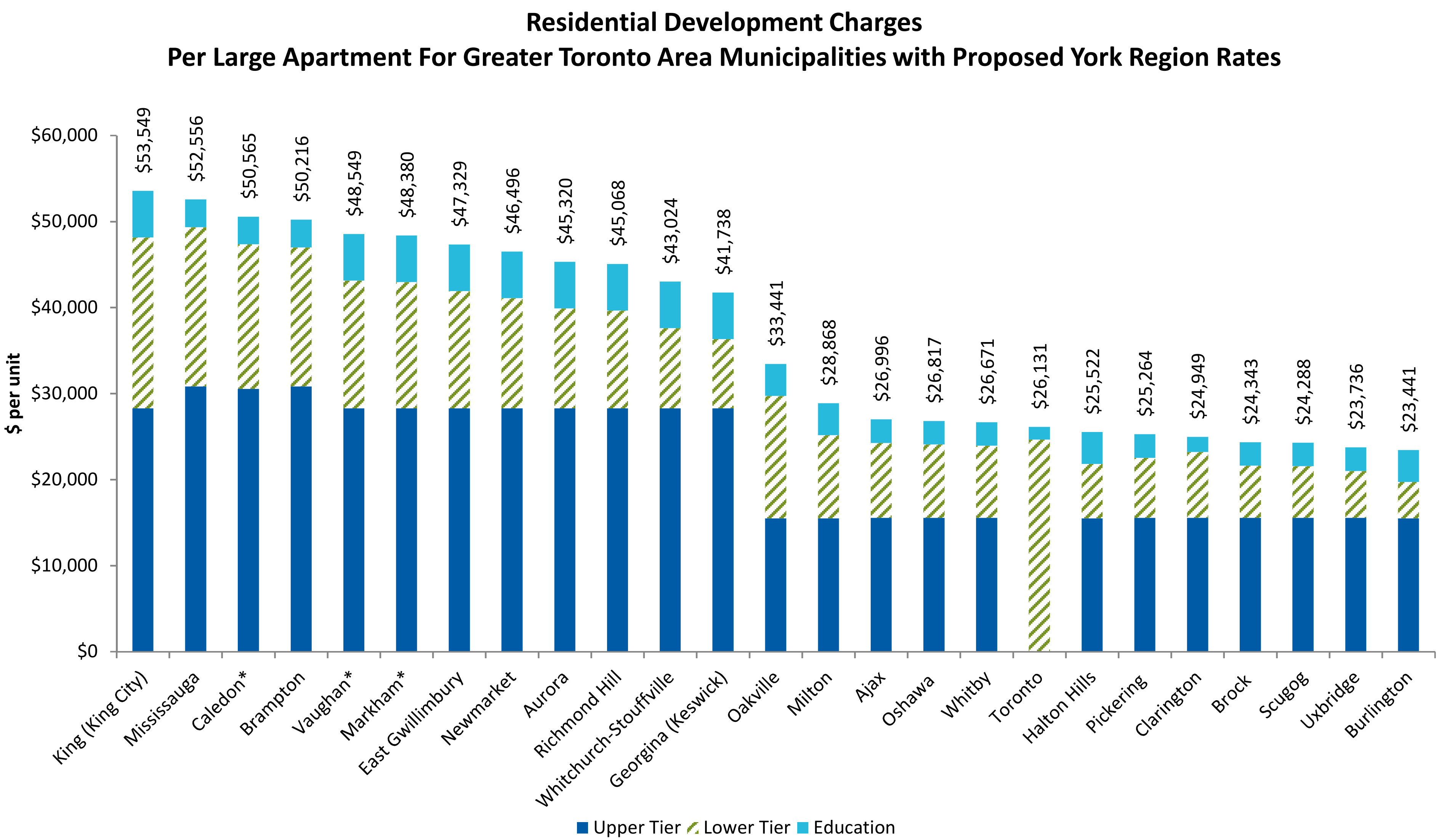
Figure A-1

Residential Development Charges
Per Single Detached Dwelling For Greater Toronto Area Municipalities with Proposed York Region Rates



Source: Hemson Consulting based on municipal data
*Area-specific development charges may apply
Note: York Region rates as of May 12, 2017, all other rates as of March 17, 2017

Figure A-2

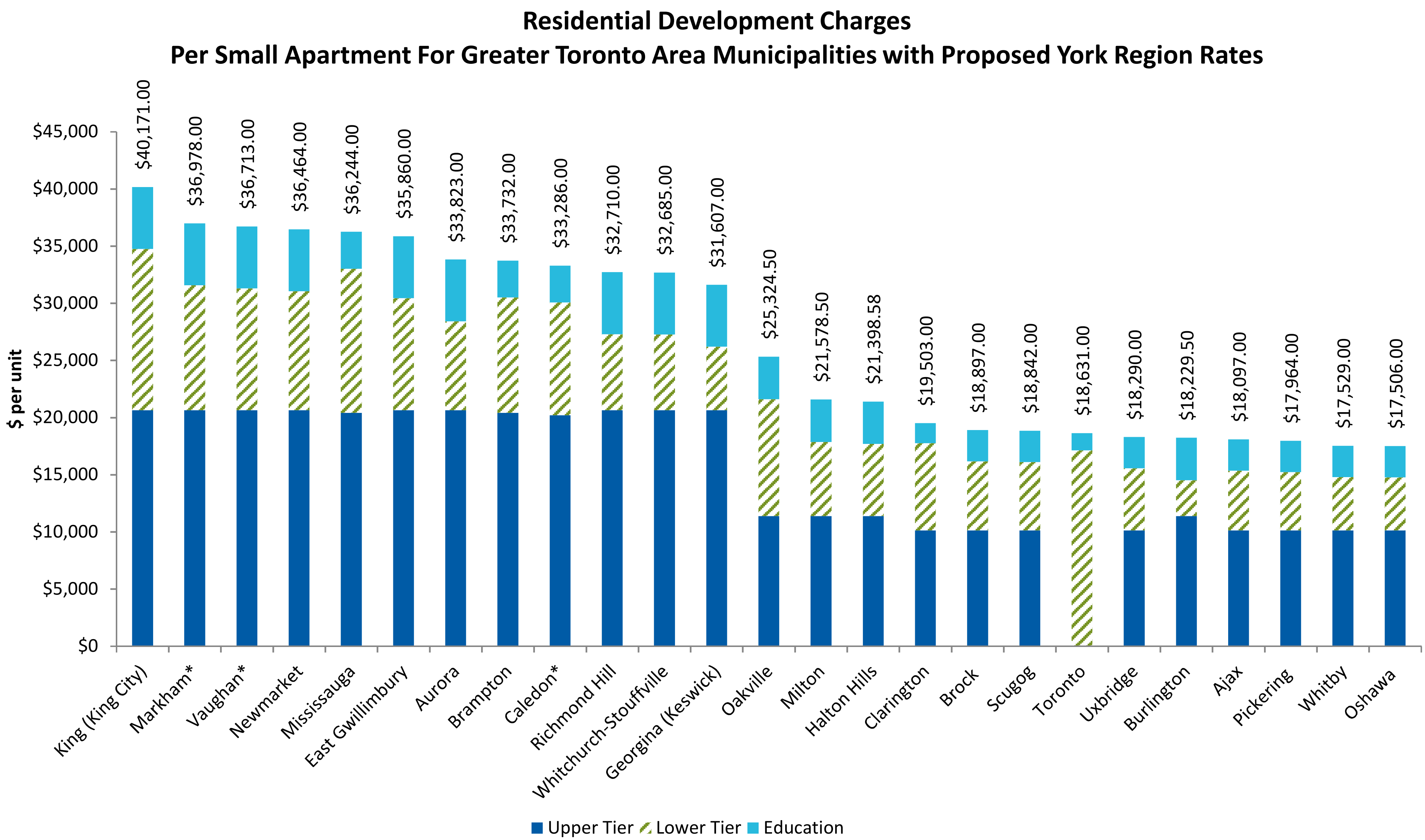


Source: Hemson Consulting based on municipal data

*Area-specific development charges may apply

Note: York Region rates as of May 12, 2017, all other rates as of March 17, 2017

Figure A-3



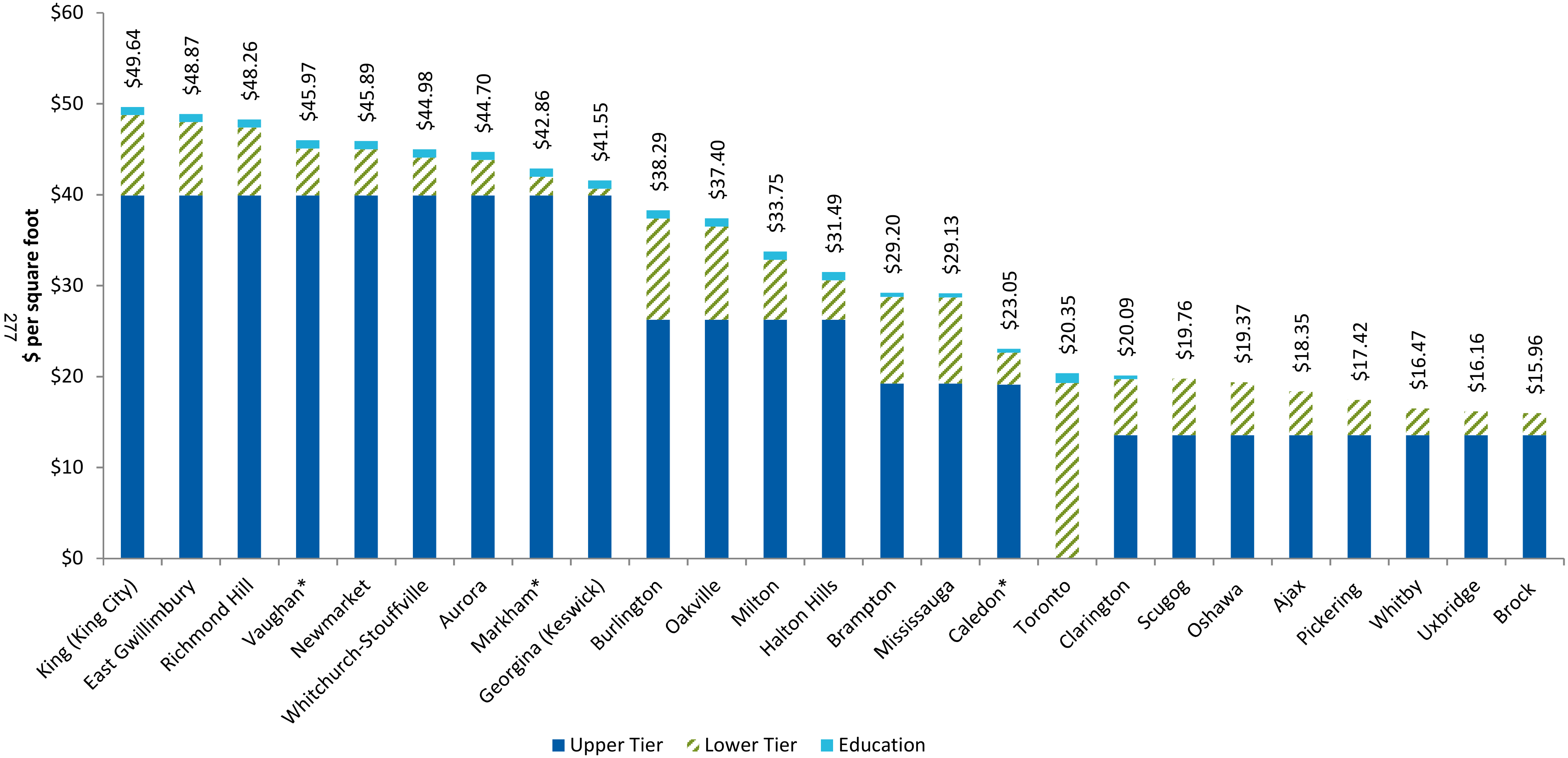
Source: Hemson Consulting based on municipal data

*Area-specific development charges may apply

Note: York Region rates as of May 12, 2017, all other rates as of March 17, 2017

Figure A-4

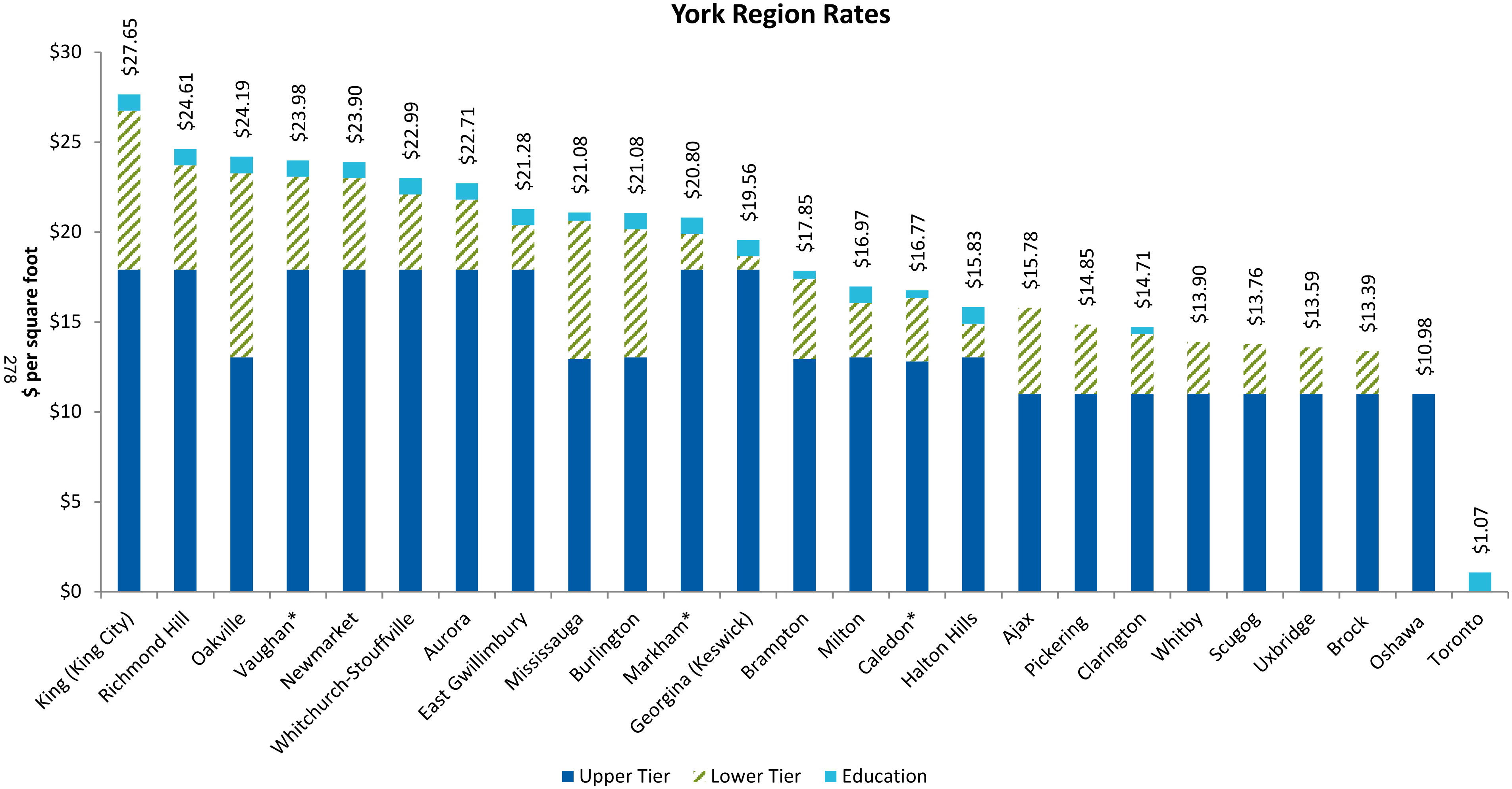
Non-Residential Development Charges
Per Gross Floor Area of Retail Floor Area For Greater Toronto Area Municipalities with Proposed York Region Rates



Source: Hemson Consulting based on municipal data
*Area-specific development charges may apply
Note: York Region rates as of May 12, 2017, all other rates as of March 17, 2017

Figure A-5

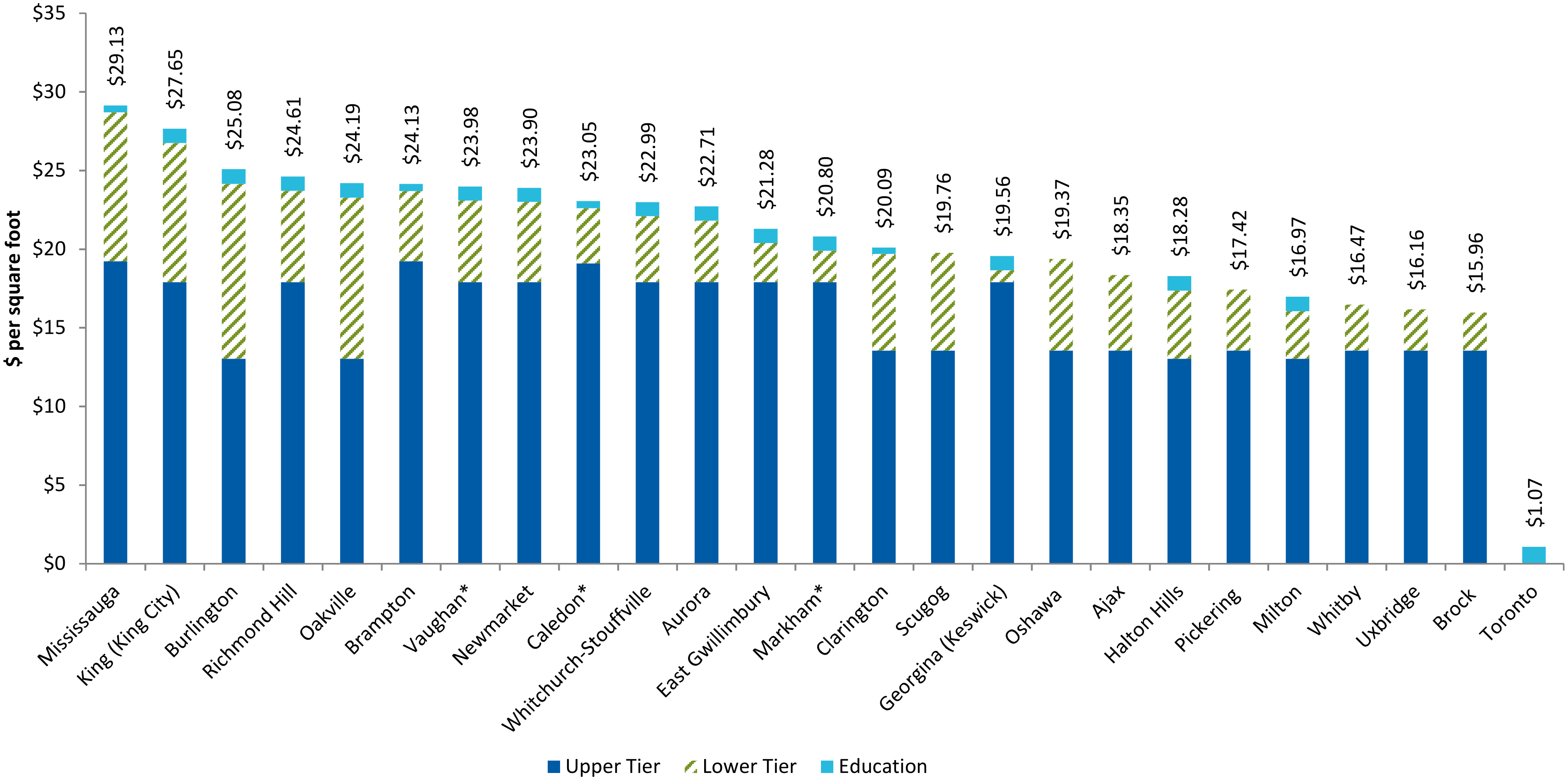
Non-Residential Development Charges
Per Gross Floor Area of Industrial Floor Area for Greater Toronto Area Municipalities with Proposed York Region Rates



Source: Hemson Consulting based on municipal data
*Area-specific development charges may apply
Note: York Region rates as of May 12, 2017, all other rates as of March 17, 2017

Figure A-6

Non-Residential Development Charges
Per Gross Floor Area of Office Floor Area for Greater Toronto Area Municipalities with Proposed York Region Rates

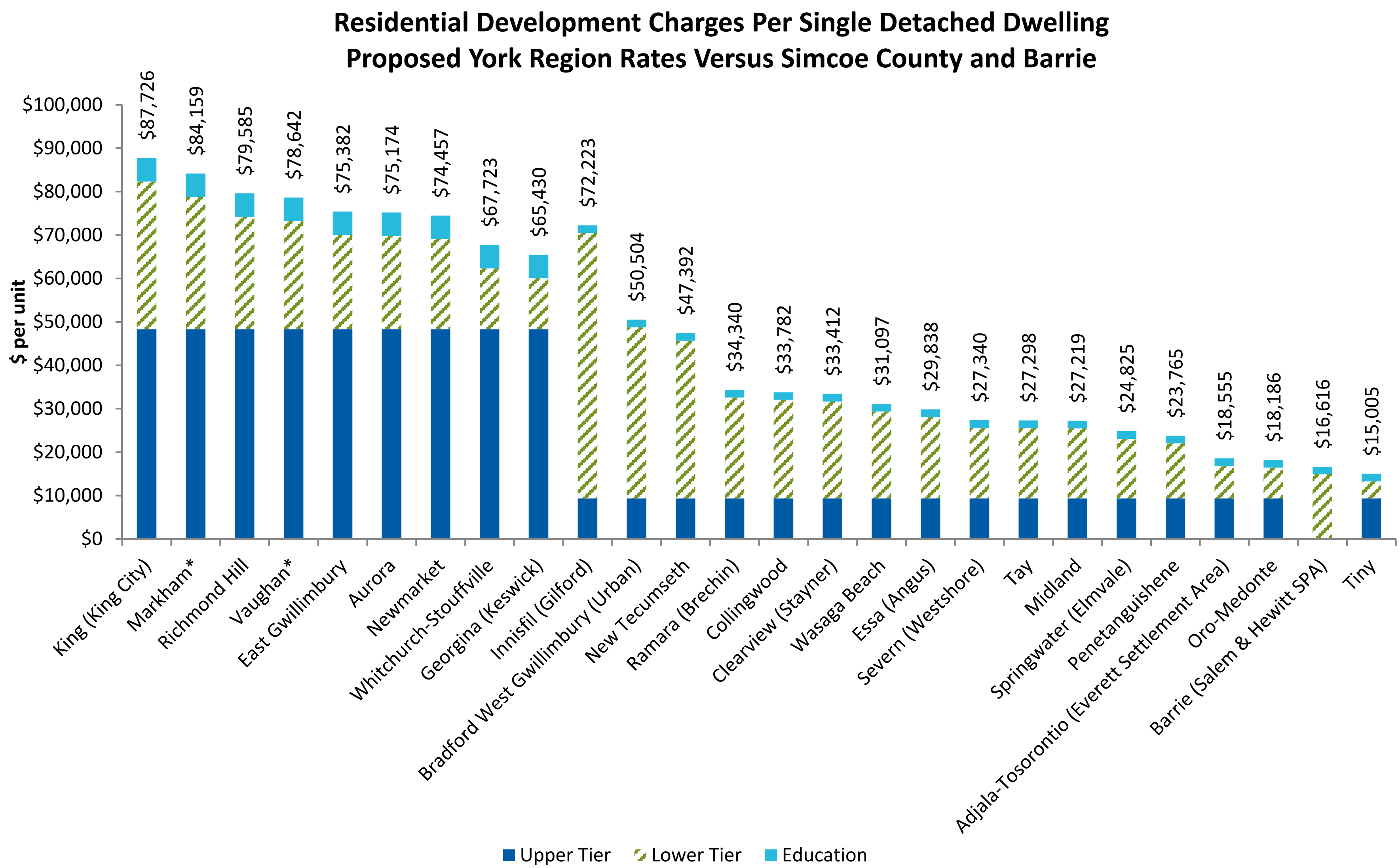


Source: Hemson Consulting based on municipal data

*Area-specific development charges may apply

Note: York Region rates as of May 12, 2017, all other rates as of March 17, 2017

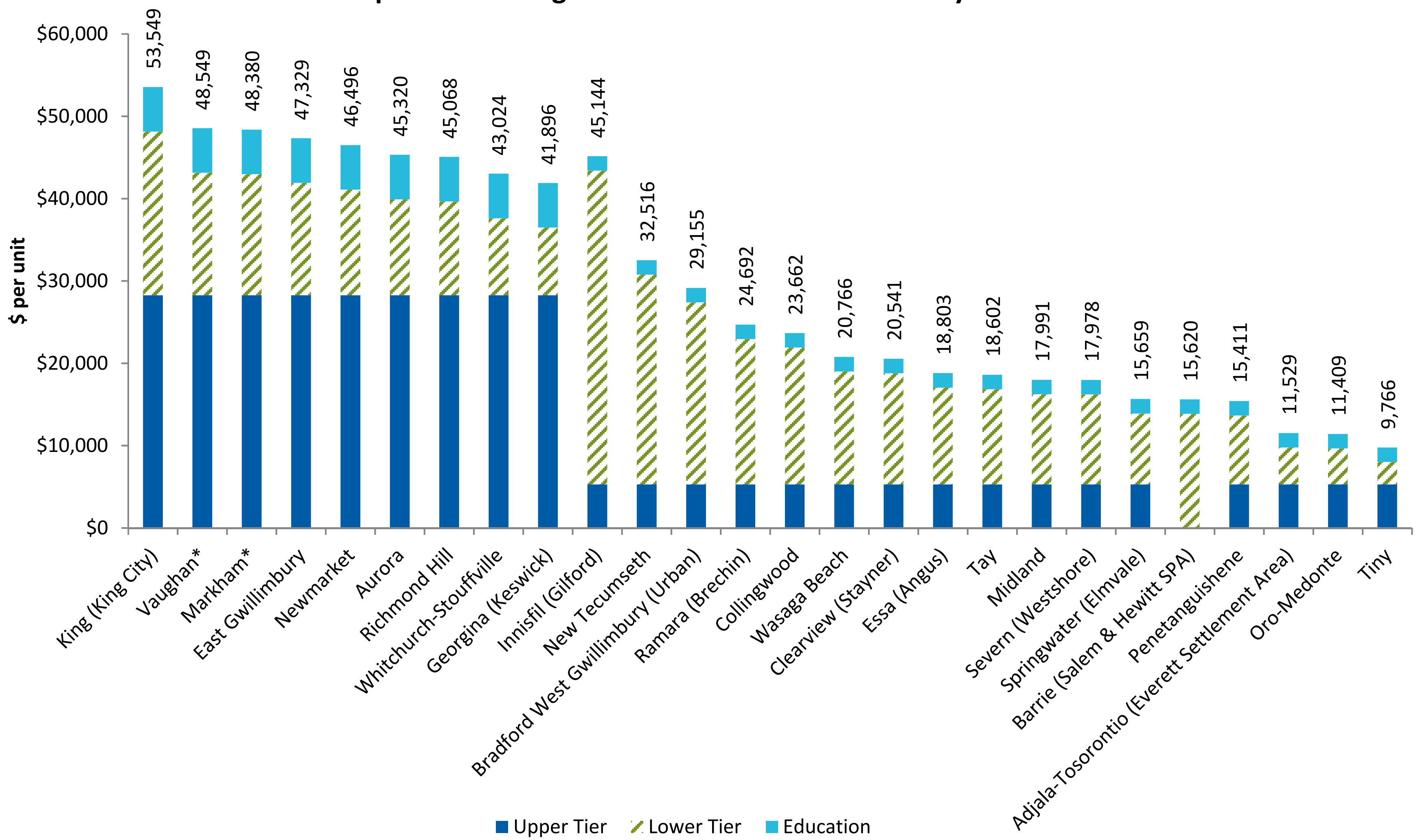
Figure A-7



Source: Hemson Consulting based on municipal data
*Area-specific development charges may apply
Note: York Region rates as of May 12, 2017, all other rates as of March 17, 2017

Figure A-8

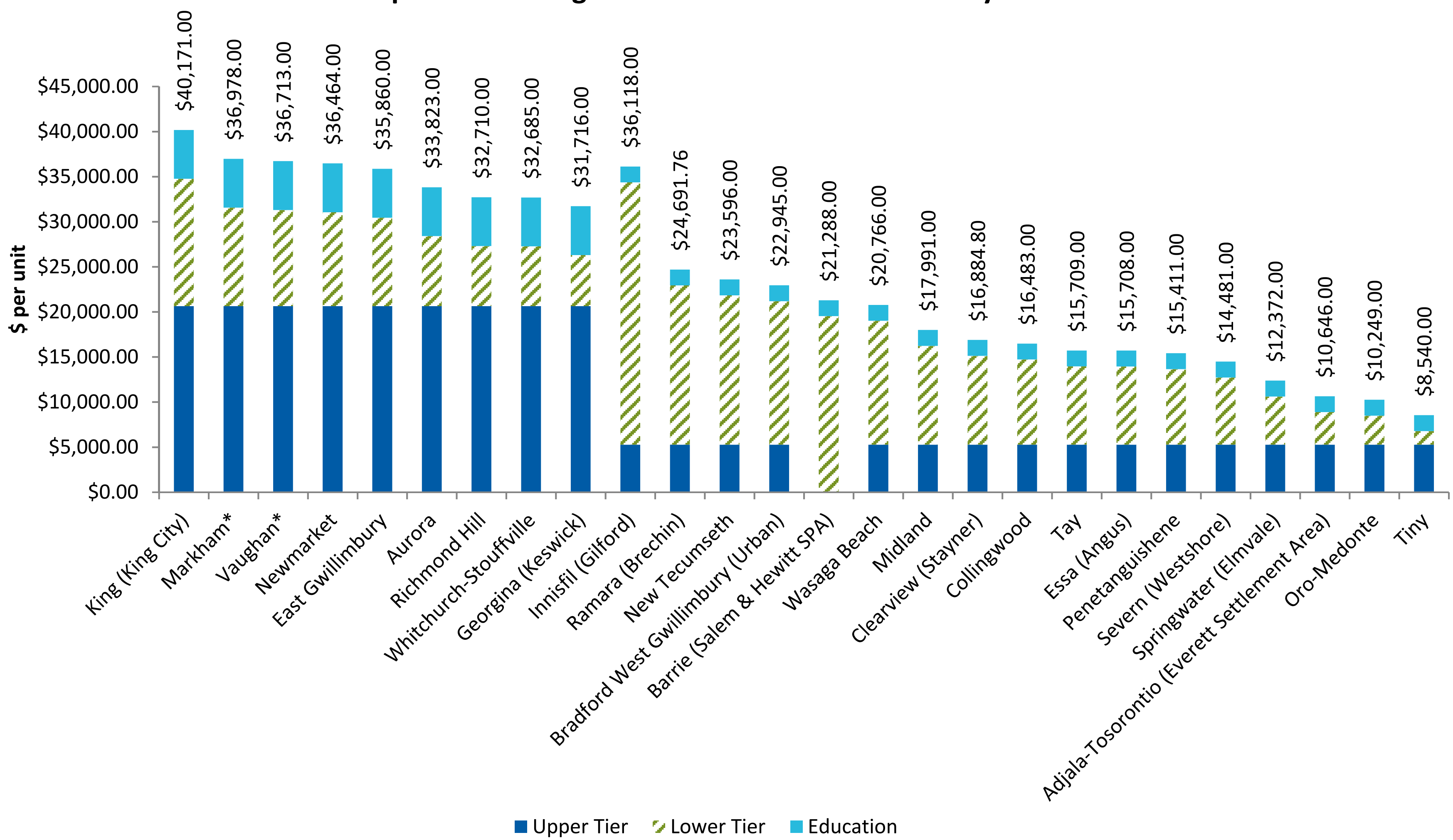
Residential Development Charges Per Large Apartment
Proposed York Region Rates Versus Simcoe County and Barrie



Source: Hemson Consulting based on municipal data
*Area-specific development charges may apply
Note: York Region rates as of May 12, 2017, all other rates as of March 17, 2017

Figure A-9

Residential Development Charges Per Small Apartment
Proposed York Region Rates Versus Simcoe County and Barrie



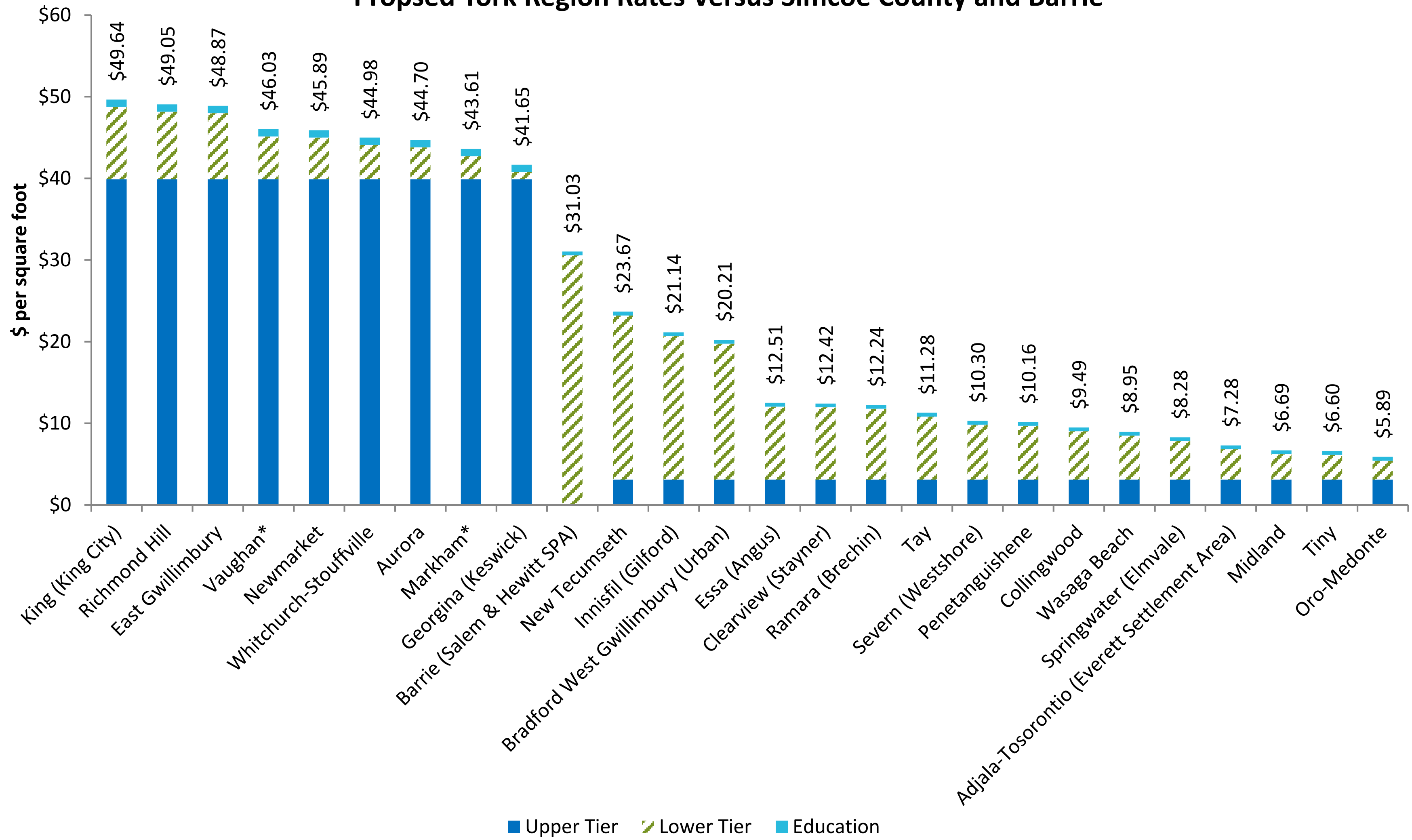
Source: Hemson Consulting based on municipal data

*Area-specific development charges may apply

Note: York Region rates as of May 12, 2017, all other rates as of March 17, 2017

Figure A-10

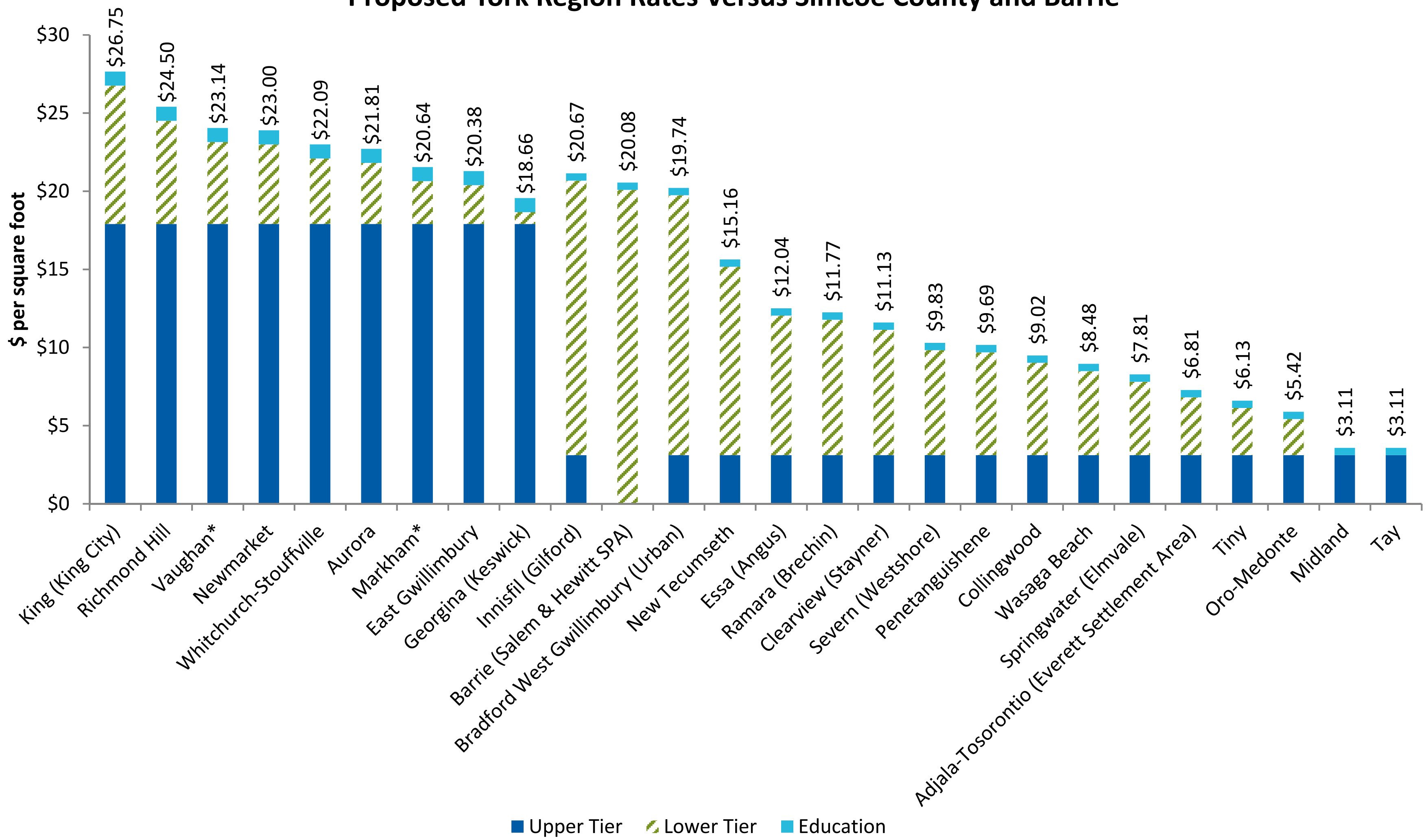
Non-Residential Development Charges Per Gross Floor Area of Retail Floor Area
Propsed York Region Rates Versus Simcoe County and Barrie



Source: Hemson Consulting based on municipal data
*Area-specific development charges may apply
Note: York Region rates as of May 12, 2017, all other rates as of March 17, 2017

Figure A-11

Non-Residential Development Charges Per Gross Floor Area of Industrial Floor Area Proposed York Region Rates Versus Simcoe County and Barrie

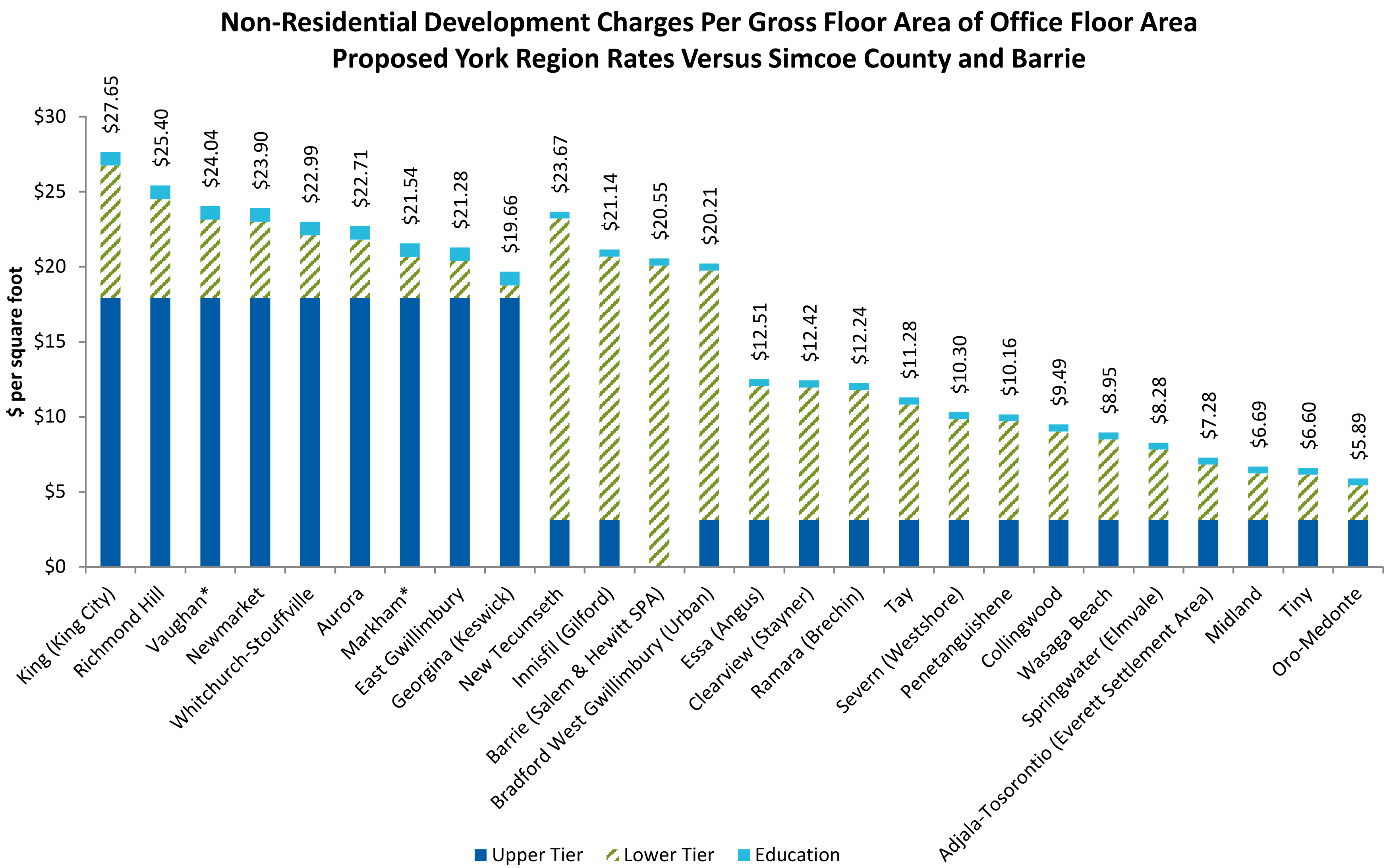


Source: Hemson Consulting based on municipal data

*Area-specific development charges may apply

Note: York Region rates as of May 12, 2017, all other rates as of March 17, 2017

Figure A-12



Source: Hemson Consulting based on municipal data

*Area-specific development charges may apply

Note: York Region rates as of May 12, 2017, all other rates as of March 17, 2017

APPENDIX B

STAFF REPORTS

2017 DEVELOPMENT CHARGE BYLAW UPDATE REPORTS AND PRESENTATIONS

The Regional Municipality of York

Committee of the Whole
Finance and Administration
May 18, 2017

Report of the
Commissioner of Finance

2017 Development Charge Background Study and Bylaw

1. Recommendations

It is recommended that:

1. Council approve the 2017 Development Charge Bylaw incorporating the policies and rates set out in the 2017 Development Charge Background Study (Attachment 1), as revised in this report, with an effective date of June 17, 2017.

2. Council approve the accompanying policy to defer development charges on purpose-built high density rental buildings for three years (Attachment 2).

3. Staff be authorized to take all necessary steps required to make adjustments to the Background Study to incorporate all the information and rates contained in this report.

4. Council determine that no further public meeting is required pursuant to the *Development Charges Act, 1997*.

5. Council extend development charge credits for derelict buildings to non-residential developments in the same manner as is currently provided to residential developments (Schedule ‘H’ to the 2017 Development Charge Bylaw).

6. Notice of the adoption of this bylaw be given as required under the *Development Charges Act, 1997.*

7. Regional staff be authorized to attend at the Ontario Municipal Board or the courts, as appropriate, to defend the Region's position if the Development Charge Bylaw is appealed.

8. The Regional Clerk circulate this report to the local municipalities and to the Building Industry and Land Development Association – York Chapter (BILD).

2. Purpose

This report seeks approval of the 2017 Development Charge Bylaw and rates, taking into account input from the Region's local municipalities, Building Industry and Land Development Association – York Chapter, and deputations made at the two public meetings.

3. Background

The *Development Chares Act*, 1997 requires that a new Development Charge Bylaw be passed prior to June 17, 2017

The Region's current development charge bylaw came into force on June 18, 2012 and is set to expire on June 16, 2017. The *Development Charges Act*, *1997* requires any municipality wishing to levy development charges to pass a new bylaw every five years, if not sooner. A development charge bylaw must be supported by a background study describing the methodologies and assumptions that inform the development charge rates.

Council has provided direction throughout the process

Regional staff began the update of the Development Charge Bylaw in early 2016. Council has made numerous decisions related to the bylaw, including endorsing:

- The application of development charges on a region-wide basis (with the exception of wastewater services for the Village of Nobleton)
- The use of the 2031 population and employment growth projections as the basis for the development charge calculation
- The creation of a new hotel development charge rate class
- A threshold of 700 square feet to delineate small and large apartments
- A policy to not offer transition policies for the 2017 Development Charge Bylaw

Prescribed timelines have been met

The *Development Charges Act, 1997* prescribes statutory timelines to ensure that all stakeholders have an opportunity to comment on a municipality's proposed development charge bylaw. Key statutory timelines include:

- Background study must be made publicly available 60 days prior to passing the bylaw
- A public meeting must be held:
  - At least 20 days' notice of the meeting must be given in the local newspapers
  - The proposed Background Study and Bylaw must be available at least two weeks prior to the public meeting

Table 1 shows key dates in the bylaw update process. This timeline meets all legislative obligations.

Table 1
Key Dates in Regional Bylaw Process

Deliverables	Proposed Dates		
Notice of public meeting	February 2, 2017		**Time Elapsed**
Draft 2017 Background Study and Bylaw released with a report and presentation to council	February 16, 2017		
Public meeting prior to Committee of the Whole	March 9, 2017		
Revised 2017 Background Study and Bylaw publicly released with a report and presentation to Council	March 23, 2017		63 days*
Notice of public meeting	March 30, 2017	21 days	
Public meeting prior to Regional Council	April 20, 2017	35 days	
2017 Development Charge Bylaw to Council for anticipated approval	May 25, 2017		
2017 Development Charge Bylaw comes into force	June 17, 2017		

*The amended *Development Charges Act, 1997* requires that a background study be available to the public at least 60 days prior to passing the Bylaw

Staff consulted with stakeholders throughout the update process

Prior to tabling the initial background study and bylaw in February, staff consulted with representatives from local municipalities and the Building Industry and Land Development Association – York Chapter (BILD). Staff met with representatives of the local municipalities on six occasions and the BILD working group on seven occasions.

Topics discussed include:

- Growth forecast used for the background study
- Development charge calculation methodology and assumptions for water, wastewater, roads, and transit infrastructure
- Area-specific development charges
- Hotel development charges
- Apartment occupancy and size study
- Asset management plans

Since the February release of the Draft Development Charge Background Study and the release of the Revised Development Charge Background Study in March, staff met with local municipal staff on ten occasions and representatives of BILD on five occasions. Topics discussed include:

- Project lists
- Bylaw changes
- Methodologies and assumptions
- Revisions to the contingency schedule (e.g., the addition of the Transportation Master Plan projects requiring financial triggers)

The final 2017 Development Charge Background Study accompanying this report reflects the results of this consultative process

In March, after consulting with local municipalities and the development industry, staff brought forward a revised background study with two main revisions:

- Cost reductions for some road projects that allowed for the addition of 22 road projects to the rate calculation
- A revised contingency schedule with an additional $1.5 billion in road projects from the Transportation Master Plan[1].

These changes increased gross costs on the main project list from $6.4 billion to $6.5 billion, and the gross costs on the contingency schedule from $799 million to approximately $2.3 billion (Table 2).

[1] Additional details can be found in Council Report, Revised Draft 2017 Development Charge Background Study and Bylaw, March 23, 2017.

Table 2
Comparison of gross project costs in Background Studies

	Main Project List - Gross Project Costs ($ Millions)	Contingency Schedule A* – Gross Project Costs ($ Millions)	Contingency Schedule B** – Gross Project Costs ($ Millions)
February 16, 2017	6,436	799	N/A
March and May, 2017	6,523	844	1,488

*Note: Assets the Region currently does not own/is not responsible for
**Note: Road projects identified in the Transportation Master Plan, and requiring financial triggers

The proposed contingency schedule of the Region's Bylaw now has two types of projects:

- Assets the Region doesn't currently have responsibility for and that require agreements with other parties to assume responsibility (e.g., growth-related capital works on Steeles Avenue)
- Additional road projects that are in the Region's Transportation Master Plan that are subject to a five-part financial trigger. These triggers were chosen to ensure that the Region can fund additional growth-related projects in a fiscally prudent way.

The 2017 Development Charge Bylaw is expected to be updated prior to the statutory maximum five year period

Due to the timing of the proposed amendments to the Provincial Growth Plan, the Region's Municipal Comprehensive Review was put on hold. Consequently, the 2017 Background Study was prepared with a forecast horizon to 2031, rather than 2041.

It is expected that the Region will update its development charge bylaw after the new Growth Plan policies have been finalized and the Municipal Comprehensive Review has been completed.

The Region will provide stakeholders with notice of passage of the Bylaw as required under the *Act*

Once the bylaw is passed, the appeal period begins. The Region must provide notice to the public within 20 days of passing the bylaw.

The appeal period for the 2017 Development Charge Bylaw will begin on May 26, 2017, one day after the bylaw is expected to be passed, and end 40 days later, on July 4, 2017 at 4:30 pm. Anyone wishing to appeal the 2017 Development Charge Bylaw must inform the Regional Clerk prior to that deadline.

4. Analysis and Implications

The 2017 Development Charge Background Study contains over $6.5 billion in gross growth-related infrastructure costs

The final 2017 Development Charge Background Study includes $6.5 billion in growth-related infrastructure costs (Table 3). Approximately 43 per cent of that is dedicated to roads infrastructure projects, and approximately 37 per cent is dedicated to water and wastewater.

Table 3
Final 2017 Development Charge Bylaw gross infrastructure costs

Service	Gross project costs ($ Millions)	Share of total gross project costs (%)
Water	602.6	9.2
Wastewater	1,793	27.5
Roads	2,799	42.9
Transit	382.0	5.9
Subway	281.5	4.3
Other General Services	665.7	10.2
Total	**6,523**	**100**

Approximately 57 per cent of the gross project costs included in the Background Study can be recovered under this Bylaw

The *Development Charges Act, 1997*, contains significant limitations on the project costs that can be recovered through development charges. As a result, only 57 per cent of the gross project costs in the 2017 Background Study can be recovered under the bylaw. Approximately 19 per cent, or $1.26 billion, are deductions for post-period benefit and level of service caps, which are potentially recoverable in future bylaws. The remainder will either be recovered from other Regional sources (e.g., tax levy or user rates) or grants and subsidies (Figure 1 and Table 4 provide further details).

Figure 1
2017 Development Charge Background Study –
Gross Project Cost Recovery

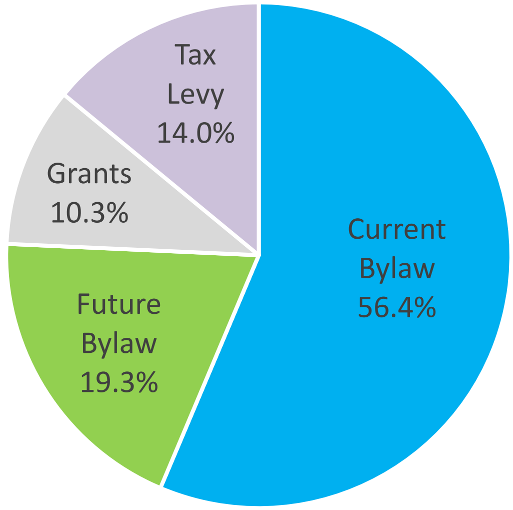


Table 4
Share of gross costs to be recovered

Service	Gross project costs ($ Millions)	Development charge eligible project costs (2017-2031) ($ Millions)	Recoverable during this Bylaw (%)	Potentially recoverable under future Bylaws (%)
Water	602.6	205.7	34	65
Wastewater	1,792.6	983.2	55	41
Roads	2,798.7	1,945.3	70	0
Transit	382.0	153.6	40	0
Subway	281.5	192.5	68	0
Other General Services	665.7	197.0	30	22
Total*	**6,523.0**	**3,677.1**	**56**	**19**

*Note: Totals may not add due to rounding

A 36-month development charge deferral for purpose-built high density rental buildings could complement recently announced incentives in Ontario's 'Fair Housing Plan'

Staff have developed a 36-month development charge deferral policy for purpose-built high density rental buildings that could complement recent provincial initiatives. Key tenets of this policy are the same as those used in the pilot project to defer development charges for a private purpose-built rental at 212 Davis Drive in the Town of Newmarket. Table 5 summarizes the main points of this policy. Details of the deferral policy are provided in Attachment 2.

Table 5
Key components of policy to defer development charges for purpose-built high density rental buildings

Policy consideration	Rationale
36 month deferral	Addresses stakeholder concern
Development charges calculated at building permit	Same as current policy for high-rise condominium developers
No interest	Same as current policy for high-rise condominium developers
Twenty-year change of use covenant registered on title	Ensures policy facilitates creation of rental stock
Security is a charge against land	More favorable to developers than a letter of credit
Local municipal participation required	Ensures alignment of Regional and local policy

On April 20, 2017, the province announced its 16-point 'Fair Housing Plan', aimed at helping more people find affordable homes, increase supply, protect buyers and renters, and bring stability to the real estate market.

Included among these initiatives is a targeted, $125 million, five-year program to increase the supply of purpose-built rental apartment buildings by rebating a portion of development charges. Further details have yet to be announced, but, based on staff consultation with the province, it is expected that the program will begin to roll-out during the 2017/2018 provincial fiscal year. The proposed policy to defer development charge for purpose-built rental buildings appears to align well with the objectives of the ’Fair Housing Plan’.

The 2017 Development Charge Bylaw includes some revisions to address stakeholder concerns

The 2017 Development Charge Bylaw includes some changes to address stakeholder concerns. These changes do not have any impact on the development charge rates. Table 6 summarizes the changes.

Table 6
Summary of revisions

Area	Description
Hotel definition	Clarify how lodging and non-lodging uses will be levied development charges
Parking structures definition	Clarify wording for development charge treatment of parking structures accessory to office developments
Redevelopment credits for derelict buildings (Schedule ‘H’ to the Bylaw)	Extend credit to non-residential development

The treatment of parking structures has been identified for review during the next update of the development charge bylaw

During the consultation process, stakeholders raised concerns with respect to the treatment of parking structures used to store motor vehicles for sale or rent. As a result, staff propose to review the treatment of all parking structure types during the next update of the bylaw, including:

- Parking structures whose sole purpose is to generate revenue from parking (e.g., Green Ps)
- Accessory use parking structures (e.g., servicing malls, office buildings etc.)
- Parking structures in car dealerships (stand-alone or underground) used for storing vehicles for sale

Preliminary areas of consideration for this policy review include:

- Alignment with planning objectives for compact development
- The draw on service of different types of parking structures and its relation to development charge rates
- Consistency of treatment of areas for merchandise storage in the administration of the bylaw

5. Financial Considerations

Staff have made minor changes to the 2017 Development Charge Background Study to reflect the most up-to-date information

Staff have updated the recommended development charge rates to reflect the most current information. These changes and their effect on residential and non-residential rates are summarized in Tables 7 and 8 respectively.

Table 7
Summary of changes to residential development charge calculation

Change	Single Family Dwelling ($ per unit)	Multiple Dwelling ($ per unit)	Apartments >= 700 sqft. ($ per unit)	Apartments <700 sqft. ($ per unit)
Updated with final 2016 development charge reserve balances	-555.35	-447.06	-324.91	-237.38
Updated interest rate calculations	+998.50	+803.79	+584.17	+426.79
Adjusted residential and non-residential splits for Water and Wastewater	-35.08	-28.24	-20.52	-14.99
Correction to the Police facilities level of service calculation	+5.03	+4.05	+2.94	+2.15
Correction to benefit to existing calculation for Roads projects	-259.48	-208.88	-151.81	-110.91
Total	**+153.63**	**+123.67**	**+89.88**	**+65.66**

Table 8
Summary of changes to non-residential development charge calculation

Change	Retail ($/Sqft)	Non-retail ($/Sqft)	Hotel ($/Sqft)
Updated with final 2016 development charge reserve balances	-0.33	-0.06	0.02
Updated interest rate calculations	+0.88	+0.30	+0.06
Adjusted residential and non-residential splits for Water and Wastewater	+0.06	+0.04	+0.01
Correction to the Police facilities level of service calculation	0.00	0.00	0.00
Correction in the non-residential growth assumptions in 2031 for Roads	-0.27	-0.08	-0.06
Adjusted Industrial/Office/Institutional rate calculation for Public Health	0.00	+0.01	0.00
Correction to benefit to existing calculation for Roads projects	-0.32	-0.09	-0.06
Total	**+0.04**	**+0.13**	**-0.03**

As a result of these changes, the proposed development charges rate for a single-family detached dwelling is now $48,579

Table 9 summarizes the previously proposed residential development charge rates and the revised rates. Further information on the methodology used for calculating the rates can be found in the 2017 Development Charge Background Study (Attachment 1).

Table 9
Residential development charge rates as per revised Background Study – May 25, 2017

	Classes and rates ($)			
	Single and semi-detached	**Multiples**	**Apartments >= 700 sqft.**	**Apartments <700 sqft.**
Current rate (indexed as of May 2017)	42,637	37,300	26,414	17,928
Revised March 23, 2017	48,166	38,767	28,177	20,567
Final May 25, 2017	48,320	38,891	28,267	20,632
Difference between March release and finalized rate	**+154**	**+124**	**+90**	**+66**

*Numbers may not sum due to rounding

As a result of these changes, non-residential development charge rates have increased slightly

Table 10 summarizes the previously proposed non-residential development charge rates and the revised rates. Further information on the methodology used for calculating the rates can be found in the 2017 Development Charge Background Study (Attachment 1).

Table 10
Non-residential development charge rates per revised Background Study – May 25, 2017

	Classes and rates ($ per square foot)		
	Retail	**Non-retail**	**Hotel**
Current rate (indexed as of May 2017)	39.75	20.32	40.31*
Revised March 23, 2017	39.85	17.77	7.96
Final May 25, 2017	39.89	17.90	7.93
Difference between March release and finalized rate	**+0.04**	**+0.13**	**-0.03**

*Note: Hotels were not identified as a separate rate under the 2012 Regional Bylaw (No. 2012-36), but rather used a blended rate. The blended rate was to charge hotels based on the sum of two factors. The first factor was to levy the small residential apartment charge on each overnight room or suite of rooms. The second factor was to levy the gross floor area for the entire hotel at 25 per cent of the retail charge. The per square foot rate for hotels has been calculated using the blended rate and applying it to an 'average hotel' in the Region (approximately 124 units and 73,200 square feet).

6. Local Municipal Impact

Development charges are a major source of funding for growth-related infrastructure, which is required by the Region's local municipalities to meet the provincially mandated growth targets and their own planning goals.

7. Conclusion

It is recommended that Council pass the 2017 Development Charge Bylaw

Section 10(1) of the *Development Charges Act, 1997* notes that prior to passing a development charge bylaw, a municipality's Council must complete a development charge background study; Attachment 1 to this report satisfies this obligation.

Furthermore, having met all statutory timelines, and in order to continue to levy development charges, it is recommended that Regional Council approve the adoption of the 2017 Development Charge Bylaw, to come into effect on June 17, 2017.

For more information on this report, please contact Edward Hankins, Director, Treasury Office, at 1-877-464-9675 ext. 71644.

The Senior Management Group has reviewed this report.

Recommended by:	Approved for Submission:
Bill Hughes Commissioner of Finance	Bruce Macgregor Chief Administrative Officer

May 4, 2017

Attachments (2)

7403509

Accessible formats or communication supports are available upon request

Status: **Final**
Approved By: **Council**

The Regional Municipality of York

Development Charge Deferral for Purpose-Built High Density Rental Buildings

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Policy No.: 7452878

Original Approval Date: Not applicable

Policy Last Updated: Not applicable

Last Review Date: Note applicable

Policy Statement:

A policy governing the deferral of Regional development charges and area-specific development charges for purpose-built high density rental buildings.

Application (who this policy applies to):

This policy is available for purpose-built high density rental buildings in the Regional Municipality of York subject to the terms and conditions as set out in this policy. For the purposes of this deferral, the development may be registered as a condominium, but it must be operated as a rental property for a period of not less than twenty (20) years.

In order to be eligible, the development must be a minimum of four (4) stories.

Purpose:

This policy establishes the pre-conditions, duration, covenants, form of security, and other requirements in order to defer Regional development charges for purpose-built high density rental buildings.

Definitions:

Act: The *Development Charges Act, 1997, S.O. 1997, c. 27*, as amended, revised, re-enacted or consolidated from time to time, and any successor statute

Development: The construction, erection or placing of one or more buildings or structures on land or the making of an addition or alteration to a building or structure that has the effect of increasing the size or changing the use thereof from non-residential to residential or from residential to non-residential and includes redevelopment

Development Charges: The Region's Development Charges, including the area-specific wastewater development charge for the Village of Nobleton

High density: For the purposes of applying this policy, high density development must consist of a minimum of four (4) stories

Restrictive Covenant: A covenant registered on the title of the proposed development requiring it operate as a rental property for a period of not less than twenty (20) years

Schedule 'I' Bank: As referenced in section 14(a) of the *Bank Act, 1991* (as at December 31, 2016 or as amended from time to time). These are domestic banks and are authorized under the *Bank Act, 1991* to accept deposits, which may be eligible for deposit insurance provided by the Canadian Deposit Insurance Corporation

Description:

Objectives of the deferral policy

This policy is intended to allow developers of purpose-built high density rental buildings to defer the Regional development charges owed for a period of thirty-six (36) months. Every deferral will require a deferral agreement which may include additional guarantees, obligations and warranties as is required. Additional agreements (as detailed in section G) of the terms of the deferral policy will be required in order to give effect to this policy. The terms of this deferral policy are Council approved and are non-negotiable.

Terms of the deferral policy

A. Duration of the deferral

The deferral of development charges for purpose-built rentals shall be for a period of thirty-six (36) months. The deferral period shall begin the day of building permit issuance by the local municipality.

Development charges are therefore deferred until fifteen (15) days immediately following the date that is thirty-six (36) months after the date that the building permit is issued by the local municipality.

Development charges shall be payable prior to the thirty-six (36) month period should any of the following trigger events occur:

- Change of use from a purpose-built high density rental building
- Material breach of the Restrictive Covenant
- Any material default under the terms of the security or guarantees as stipulated in the agreement(s)
- Any other material default as defined in the agreement(s)

B. Development charge rates

The amount of the Regional Development Charges payable to the Region, as required under the Act, shall be the amount determined under the applicable Region Development Charges Bylaw on the day that the Building Permits are issued for the proposed development by the local municipality.

C. Interest waiver

All deferred Development Charges shall bear interest at the prime commercial lending rate charged by an agreed upon ‘Schedule I’ commercial bank’s on demand loans in Canadian funds to its most creditworthy customers plus two (2) per cent per annum, commencing on the date of issuance of the Building Permit for the proposed development up to the date of payment of the deferred Development Charges, such interest to accrue and be paid at the time of payment of the deferred Development Charges.

The Region shall forgive all amounts due and owing on account of interest, provided that the Regional Development Charges are paid to the Region at the time required (before or within fifteen (15) days immediately following the thirty-six (36) month deferral period ending).

D. Restrictive covenant

A twenty (20) year change of use covenant shall be registered on the title stipulating that the property shall be operated as a purpose-built high density rental building for a period expiring twenty (20) years from the date that an occupancy permit is issued for the purpose-built high density rental building.

The burden of the restrictive covenant shall run with the title of the land.

E. Form of security

A form of security will be taken and registered against the title to the property, at the time the development charges would normally be payable. The Region's security interest will always be, at minimum, pari passu, or of equal footing, to that of the local municipality offering a similar, if not better, deferral of development charges.

A pari passu agreement setting out, but not limited to, the rights, obligations, priorities and covenants shall be required involving all parties involved.

F. Local participation

The Region will only enter into a deferral agreement if the local municipality has provided a similar, if not better deferral for the proposed development.

It shall be up to the Region to decide what constitutes "similar, if not better", but this may be determined by looking at:

- Duration of the agreement
- Total charges/fees deferred

G. Agreements required

In order to take advantage of this policy, the developer must enter into a development charge deferral agreement with the Region and the local municipality (a triparty agreement).

In addition, the developer shall enter into other agreements as required by the Regional Solicitor. Those include, but are not limited to:

- Restrictive Covenant
- Pari Passu Agreement
- General Security Agreement
- Other agreement(s) as deemed necessary

H. Legal fees

All legal fees of the developer(s) and local municipality shall be borne by those respective parties except that the developer shall be responsible to pay the cost of registering the required agreements on title.

Responsibilities:

Regional Solicitor, Legal Services

- Draft and prepare for execution deferral agreement between Region and all parties
- Draft and prepare for execution any additional agreements required including pari passu agreement
- Registration of restrictive covenant
- Registration of security on title

Director, Controllership Office, Finance Department

- Administration and enforcement of the deferral policy

- Collection of development charges when due
- Notification, through the Regional Treasurer, to the treasurer of the local municipality if development charges are not paid/received within the prescribed timeframe
- Any additional administrative obligations as determined through the agreements
- Maintain copies of all executed deferral agreements and other agreements as required

Director, Treasury Office, Finance Department

- Maintain copies of all executed deferral agreements and other agreements as required

Reference(s):

Legislative and other authorities

- Development Charges Act, 1997, S.O. 1997, c. 27
- Ontario Regulation 82/98
- Council Report, Private Market Rental Development Charges Deferral Site Specific Pilot Project in the Town of Newmarket, November 21, 2013
- Council Report, 2017 Development Charge Bylaw Directions, November 17, 2016
- Council Report, 2017 Development Charge Background Study and Bylaw, May 25, 2017
- The Regional Municipality of York 2017 Development Charge Background Study – FINAL – May 18, 2017

Keyword Search

- purpose-built rental deferral,

- development charges,
- deferral high density rental buildings

Contact(s):

- Regional Solicitor, Legal Services, ext. 71417
- Director, Controllership Office, Finance Department, ext. 71601
- Director, Treasury Office, Finance Department, ext. 71644

Approval Information:

Council Approval

Council Approval Date: **Council Minute No.:** **Extract eDOCS #:** 7452878	**Committee Name:** Committee of the Whole **Report No.:** **Clause No.:**

Accessible formats or communication supports are available upon request.

Today we will discuss…

1. Introduction
2. Overview of rates
3. Revised contingency schedule
4. Next steps

Introduction

Council determined a second public meeting was required

- On March 9, Council held a statutory public meeting to solicit feedback on the 2017 Background Study released on February 16, 2017

- On March 23, 2017 the Region released a Revised Draft 2017 Development Charge Background Study and Bylaw
  - Council determined a second public meeting was required

- The prescribed timelines are the same as for the first public meeting:
  - At least 20 days notice of the meeting must be given (notice given March 30, 2017)
  - The proposed Background Study and Bylaw must be available at least two weeks prior to the statutory public meeting

- The purpose of this meeting is to obtain input on the Revised Draft 2017 Development Charge Background Study from all interested parties

Overview of rates

Revised rates are slightly higher than the DC Background Study dated February 16

Rate Class	$/Unit Feb 16 DC Study	$/Unit Mar 23 DC Study	*Difference ($)*
Singles and Semis	48,139	48,166	*27*
Multiples	38,745	38,767	*22*
Large Apartments (≥ 700 sqft)	28,161	28,177	*16*
Small Apartments (< 700 sqft)	20,555	20,567	*12*

Rate class	$/Sq.ft. Feb 16 DC Study	$/Sq.ft. Mar 23 DC Study	*Difference ($)*
Retail	39.81	39.85	*0.04*
I/O/I	17.76	17.77	*0.01*
Hotels	7.95	7.96	*0.01*

Cost reductions enabled the addition of 22 roads projects to the rate calculation

Project Category	Gross Project Costs ($millions)	Development Charge Eligible Costs 2017-2031 ($millions)
Interchange (new)	40.25	0.00
Interchange Improvements	6.75	0.00
New Midblock Crossing	0.91	0.28
Widen to 4 lanes	1.95	1.76
Widen to 6 lanes	153.37	138.03
Total cost of projects added*	**203.23**	**140.06**

*Note: Totals may not add due to rounding

- The roads DC rate for a single and semi-detached unit has increased from $14,240 to $14,265, an increase of less than 1%

Minor updates have affected the rates slightly

Service	Description	Reason for change	Impacted rate?
Public works	Benefit to existing and project list	Updated to reflect new information	Yes, slightly downward
Toronto-York Subway Extension	Grant allocation	Updated to reflect new information	Yes, slightly upward

An asset management plan was prepared in accordance with the amended legislation – Rate supported projects

Capital Funding Sources for User Rate Supported Growth Projects	Total 2017-2031 ($millions)
User Rate Funding (Reserves)	15.46
Development Charges	2,304.51
Other Funding	75.26
Total	**2,395.22**

Source: 2017 DC Background Study, March 23, 2017 pg. 258

Operating Revenue and Expenses – Tax Levy Funded	Total 2017-2031 ($millions)
Expenditures	384.17
Revenues	(354.40)
Potential Billing Revenue Requirements	**29.77**

Source: 2017 DC Background Study, March 23, 2017 pg. 258

- The Water and Wastewater projects in the DC Background Study are consistent with those identified in the Financial Sustainability Plan
- Based on the anticipated revenues generated by the rates approved by Council, these projects are deemed to be financially sustainable

An asset management plan was prepared in accordance with the amended legislation – Tax supported projects

Capital Funding Sources for Tax Levy Supported Growth Projects	Total 2017-2031 ($millions)
Tax Levy Funding (Reserves)	862.73
Development Charges	2,671.15
Other Funding	593.94
Total	**4,127.82**

Source: 2017 DC Background Study, March 23, 2017 pg. 259

Operating Revenue and Expenses – Tax Levy Funded	Total 2017-2031 ($millions)
Expenditures	727.84
Revenues	(176.23)
Assessment Growth Revenue	(245.19)
Potential Tax Levy impact	**306.42**

Source: 2017 DC Background Study, March 23, 2017 pg. 260

- The above analysis <u>does not</u> include projects in the contingent schedule
- Funding requirement is considered to be financially sustainable as it is expected that it can be absorbed by the tax base, or alleviated through revised service levels, asset management and/or financing strategies over the forecast period

Revised contingency schedule

A total of 58 projects with a gross capital cost of $1.5 billion were added to the contingency schedule

- The Region's contingency schedule now has two types of projects:
  - Assets the Region doesn't currently own/have responsibility for – these projects require the Region enter into an agreement
  - Additional roads projects that are in the Region's Transportation Master Plan (TMP) and are required to address the increase in need arising from new development - these projects are subject to financial triggers (56 projects)

	Gross project costs (2017-2031) ($millions)	Development charge eligible project costs (2017 – 2031) ($millions)
DC Study (February 16) – Contingency Items	799.2	572.9
DC Study (March 23) – Items added to Contingency List	1,533.3	1,373.7
Total Contingency Schedule Included in DC Study (March 23)*	**2,332.4**	**1,946.6**

*Note: Totals may not add due to rounding

Residential development charge rates would increase if contingent projects were added to the rate calculation

	Classes and rates ($)			
	Single and semi-detached	**Multiples**	**Apartments >= 700 sqft.**	**Apartments <700 sqft.**
Current charge	**42,637**	**37,300**	**26,414**	**17,928**
March 23, 2017 DC Study	48,166	38,767	28,177	20,567
Projects contingent on Region assuming responsibility	3,959	3,188	2,318	1,694
Sub total	**52,125**	**41,955**	**30,495**	**22,261**
TMP projects subject to a financial trigger	9,082	7,311	5,313	3,882
TOTAL MAXIMUM CHARGE	**61,207**	**49,266**	**35,808**	**26,143**

Second Public Meeting - April 20, 2017

Non-residential development charge rates would also increase if contingent projects were added to the rate calculation

	Classes and rates ($ per square foot)		
	Retail	**I/O/I**	**Hotel**
Current charge	39.75	20.32	40.31
March 23, 2017 DC Study	39.85	17.77	7.96
Projects contingent on Region assuming responsibility	4.91	1.42	0.92
Sub total	**44.76**	**19.19**	**8.88**
TMP projects subject to a financial trigger	11.22	3.01	2.10
TOTAL MAXIMUM CHARGE	**55.98**	**22.20**	**10.98**

Next Steps

Next Steps

Date	Deliverable
May 25, 2017	Council considers 2017 Development Charge Bylaw for passage
June 17, 2017	2017 Development Charge Bylaw in effect

The 40-day appeal period will begin the day after the Bylaw is passed

Thank you

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Report No. 1 of Commissioner of Finance was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on March 23, 2017.

Revised Draft 2017 Development Charge Background Study and Bylaw

Regional Council recommends adoption of the following recommendations contained in the report dated March 16, 2017 from the Commissioner of Finance:

1. Council receive a revised draft 2017 Development Charge Background Study and proposed Bylaw (Attachment 1).

2. Council endorse a revised Schedule G contingency list under the 2017 Development Charge Bylaw, consisting of additional Roads infrastructure projects.

3. Council hold an additional public meeting, pursuant to section 12(3) of the *Development Charges Act, 1997*, on April 20, 2017, prior to the meeting of Regional Council.

4. Council endorse a threshold of 700 square feet to delineate small and large apartments.

5. A report be brought forward to Regional Council on May 25, 2017 recommending the 2017 Development Charge Bylaw.

6. The Regional Clerk circulate this report to the local municipalities.

7. The Regional Clerk circulate this report to the Building Industry and Land Development Association – York Chapter (BILD).

Report dated March 16, 2017 from the Commissioner of Finance now follows:

1. Recommendations

It is recommended that:

1. Council receive a revised draft 2017 Development Charge Background Study and proposed Bylaw (Attachment 1).

2. Council endorse a revised Schedule G contingency list under the 2017 Development Charge Bylaw, consisting of additional Roads infrastructure projects.

3. Council hold an additional public meeting, pursuant to section 12(3) of the *Development Charges Act, 1997*, on April 20, 2017, prior to the meeting of Regional Council.

4. Council endorse a threshold of 700 square feet to delineate small and large apartments.

5. A report be brought forward to Regional Council on May 25, 2017 recommending the 2017 Development Charge Bylaw.

6. The Regional Clerk circulate this report to the local municipalities.

7. The Regional Clerk circulate this report to the Building Industry and Land Development Association – York Chapter (BILD).

2. Purpose

The purpose of this report is to respond to Council direction to staff at its meeting of February 16th and to respond to questions raised at Committee of the Whole meeting on February 9th.

3. Background

Staff were directed by Council to undertake additional work related to the 2017 development charge background study and bylaw

On February 9, 2017, Regional staff brought a report forward to Committee of the Whole entitled Draft 2017 Development Charge Background Study and Bylaw. At that meeting, Committee members asked staff to review and provide additional comments on:

- The threshold that delineates small and large apartments and whether the apartment categories can be conflated into one category
- Comparison of development charge rates with Simcoe County
- Interjurisdictional scan of cost allocation between residential and non-residential development
- Treatment of mixed-use development under the Region's development charge bylaw

At its February 16, 2017 Council meeting, staff were directed to have additional consultations with the local municipalities on the roads infrastructure projects included in the proposed 2017 Development Charge Background Study.

The *Development Charges Act* speaks to an alignment between the Capital Plan and the Development Charge Background Study

The *Development Charges Act*, *1997* says that the Council of a municipality can only levy development charges to fund projects that the Council has the intent to build. Specifically, section 5(1)3 states:

> "The estimate under paragraph 2 may include an increase in need only if the council of the municipality has indicated that it intends to ensure that such an increase in need will be met."

Including growth-related capital projects in a capital plan shows the municipality has the intention to proceed with those projects.

Significant differences between the approved capital budget and the projects funded under a municipality's development charge background study may make the bylaw vulnerable to a challenge. While some of these differences are not contentious and can be easily explained (e.g., differences in costing based on available information at the time of budget approval), others may be more problematic (e.g., when major capital projects are identified in the DC Bylaw but not in the approved budget).

Changes to the *Act* require a municipality to show that projects funded under its development charge bylaw are financially sustainable

Section 10 of the *Act* requires that development charge background studies include an asset management plan that demonstrates that all assets funded by development charges are financially sustainable over their lifecycle. The intent of this requirement is to ensure that municipalities do not include growth projects in their background studies that are not financially sustainable (i.e., they do not “load up” the background study).

The draft 2017 Development Charge Background Study received by Council on February 16th included $6.4 billion in gross growth-related infrastructure costs

The draft 2017 Development Charge Background Study received by Council on February 16 included $6.4 billion in growth-related infrastructure costs (Table 1). Nearly 43 per cent of the program is dedicated to roads. All major construction projects shown on the 2017 10-Year Roads and Transit Capital Construction Program map and associated capital budget approved by Council are included in the Region’s draft 2017 Development Charge Background Study.

Table 1
Draft 2017 Development Charge Bylaw gross infrastructure costs by service (February 16th version)

Service	Gross project costs ($ Millions)	Share of total gross project costs (%)
Water	603	9
Wastewater	1,793	28
Roads	2,782	43
Transit	382	6
Subway	282	4
Other General Services	595	9
Total*	**6,436**	**100**

*Note: Totals may not add due to rounding

After adjustments (e.g., statutory deductions, debt repayments, cost allocation), roads, transit, subway and public works growth-related infrastructure accounts for 38 per cent of the proposed development charge rate for single and semi-detached dwellings, as shown in Table 2.

Table 2
Rates by service for single and semi-detached dwellings

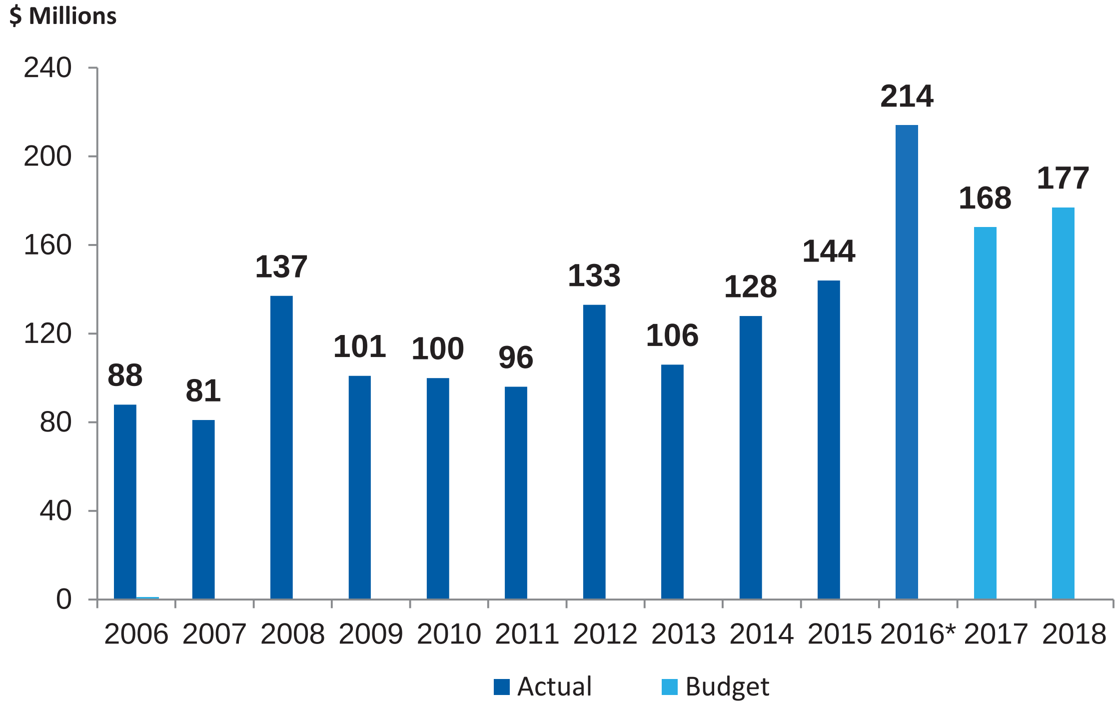
Service	Single and semi-detached	Share of total development charge rate (%)
Water	9,263	19
Wastewater	18,708	39
Transportation related infrastructure*	18,206	38
Other General Services	1,620	3
GO Transit	342	1
Total**	**48,139**	**100**

*Note: Includes roads, transit, subway and public works
**Note: Totals may not add due to rounding

The Region is making record investments in road infrastructure during this term of Council

As Figure 1 shows, the Region's investments in roads infrastructure during the current term of Council are the highest in its history. The ten-year capital plan includes $1.3 billion in growth-related capital spending on roads.

Figure 1
Historic and planned road infrastructure investments



* Note: Estimated actual

Road infrastructure projects are prioritized consistently across the Region

The priority-setting model used in the development of the Transportation Master Plan is based on criteria approved by Council in 2011. During the process of developing the plan, staff made a variety of technical improvements to make it more evidence-based and accurate. The quantitative scoring of projects is the product of the following global criteria:

- "Capacity" - the average of current and future volume/capacity
- "Development" - the average of active development, population growth and employment growth (current and future)
- "Multimodal" - the average of bus score, truck percentage score, centres & corridors score and highway connection score
- "Population and Employment" – current/existing population and employment

The score of each project represents the transportation benefits that can be derived from completing each project. The higher the score, the higher the priority or the more benefits that can be achieved by completing the project. The updated model is more mathematically accurate, robust and stable than the previous method and is an important component in the prioritization process.

Priorities derived from modeling were further adjusted using "deliverability" factors

Staff used the modelled score and combined it with other criteria (i.e., project readiness, environmental assessment requirements/approvals, coordination with land development and other major infrastructure projects such as water/wastewater, etc.) to inform the entire prioritization process and the phasing of projects within the 2016 Transportation Master Plan.

A municipality can include growth-related infrastructure projects in its development charge bylaw on a contingency basis

A contingent items list is a schedule of proposed capital projects with associated development charge rate increases should certain conditions be met (the trigger event). Municipalities' ability to have a contingent items list comes from section 5(3) of the *Development Charges Act,* which allows municipalities to include capital costs that are incurred or proposed to be incurred by a municipality.

The Region has included contingency items lists in its past bylaws. In the draft Background Study and Bylaw received by Council on February 16, 2017, a contingent items list was also included (Schedule 'G' of the draft bylaw). This list consisted of roads, water, wastewater, and senior services projects with additional gross capital cost of $799.2 million.

The projects included in the previously tabled contingent items list are capital works associated with assets that the Region currently does not own, but are needed should the Region assume responsibility for them. The trigger event for the contingent charge is execution of agreements between different levels of government in order for the Region to assume responsibility (thereby triggering the new rate).

As an example, road widening (to six lanes) on Steeles Avenue between Bathurst Street and Hilda Avenue has been included on the contingency schedule. The trigger event for the development charge rate is York Region and the City of Toronto executing a cost-sharing agreement for the project.

If all of the preconditions were met, the development charge rate for a single family dwelling would increase by $3,784. Table 3 is a summary of the projects on the contingency schedule in the previously tabled draft 2017 Development Charge Bylaw (Schedule 'G' as tabled on February 16, 2017)

Table 3
Contingency schedule projects (as tabled February 16, 2017)

Service	Gross project costs ($ Millions)	Development charge eligible project costs (2017-2031) ($ Millions)
Roads	717.0	564.3
Water	11.9	0
Wastewater	14.0	0
Senior Services	56.3	8.6
Total*	**799.2**	**572.9**

*Note: Totals may not add due to rounding

4. Analysis and Implications

Further consultations with the local municipalities on growth-related roads projects were held

Regional staff engaged local municipal staff to discuss the roads infrastructure program included in the 2017 Background Study. Table 4 shows the schedule of consultations. In addition, Regional staff met with finance staff from local municipalities to discuss the financial and policy aspects of the draft background study and bylaw.

The consultations focused on five topics:

- Local municipal infrastructure priorities
- The Region's roads infrastructure prioritization framework
- The need to align the background study project list with the Region's approved capital plan
- The region's fiscal strategy, and debt and tax levy constraints
- Development charge bylaw process

Table 4
Consultation dates with local municipalities

Date	Municipality/Stakeholder
February 27, 2017	Town of Richmond Hill
February 28, 2017	City of Vaughan
	Town of Aurora, Town of East Gwillimbury, Town of Whitchurch-Stouffville, Town of Georgina, Town of Newmarket and Township of King
March 3, 2017	Area Public Works Liaison Committee
	City of Vaughan
March 6, 2017	City of Markham
March 8, 2017	Town of Richmond Hill
March 10, 2017	City of Markham

The consultation resulted in the identification of cost savings attributable to projects in the background study

Consultations with the local municipalities identified significant cost reductions on projects in the draft development charge background study. Compared to the version that was tabled in February, staff were able to identify $186.7 million in gross cost reduction, of which $140.84 million is development charge eligible. These changes are cost reductions, not project deletions. Details of cost changes can be found in tables 1 and 2 of Attachment 2 to this report.

The cost reductions identified by staff allowed the inclusion of new projects from the overall priority list

As a result of the cost reductions in projects already in the background study, staff were able to add 22 projects to the rate calculation. These projects consist of additional road widenings and environmental assessments derived from the Region's prioritization framework.

Table 5 summarizes the growth-related roads project being added to the revised background study. These projects form part of the roads development charge rate calculation. Overall $203.23 million in gross project costs were added, of which $140.06 million was development charge eligible. The most significant additions are in the category of road widening. Project details are shown on table 3 of Attachment 2.

Table 5
Summary of project list additions (2017 – 2031)

Project Category	Gross project costs ($ millions)	Development charge eligible costs 2017-2031 ($ millions)
Interchange (New)	40.25	0.00
Interchange Improvements	6.75	0.00
New Midblock Crossing	0.91	0.28
Widen to 4 lanes	1.95	1.76
Widen to 6 lanes	153.37	138.03
Total cost of projects added	**203.23**	**140.06**

The changes to the program shifted timing of the projected cash flow to earlier in the forecast horizon. Shifting costs earlier increases the need to debt finance, thereby putting an upward pressure on rates. Overall, these changes will increase the roads development charge rate by a small amount.

Staff are also proposing a revised contingency schedule, which includes additional road projects subject to a financial trigger

In addition to the new projects that can be accommodated in the main list in the Background Study, staff recommend the inclusion of a revised contingency schedule, with the added roads projects being subject to a five-part financial trigger:

- The province extend the power to raise revenues from new sources to the Region
- Regional Council approval of the implementation of those new revenue sources
- Regional Council approval of the project(s) in the capital plan
- Regional Council approval to allocate new revenue sources to the project(s)
- No additional debt be required as a result of funding the project(s)

These preconditions were chosen to ensure that the Region can fund additional growth-related projects in a fiscally prudent way. For example, new revenue sources could be directed to fund the non-development-charge-eligible portion of the cost, thereby reducing tax levy pressures. The intent is not to reduce development charge rates using new revenue sources.

New revenue can be used to avoid external development charges debt required for additional projects

Funding growth-related infrastructure needs through development charges creates a debt pressure. This is because deductions prescribed by the Act delay the recovery of eligible costs through development charges. These include post-period benefit and level of service deductions. In addition, if actual growth is below the level expected in the Background Study, cost recovery will also be delayed, creating a debt pressure.

If the Province grants new revenue-raising powers to the Region, Council could decide to use the proceeds to temporarily offset any development charge collection shortfall (e.g., due to lower than expected growth).

This would enable the Region to fund additional growth-related projects, while also ensuring that its external debt does not exceed the peak debt level of $2.9 billion in 2017, and that the outstanding debt level maintains a downward trajectory after 2017, as set out in the Fiscal Strategy adopted by Council in December 2016.

Staff will report to Council on fiscal pressures and funding gaps in April or May

Staff are planning to bring forward a report on potential new revenue sources for Council's consideration in April or May. The report will discuss the fiscal pressures the Region is facing, the inadequacy of current revenue sources allowed under the *Municipal Act, 2001*, and a potential path for obtaining new revenue.

Projects added to the revised contingency schedule were chosen using the Region's prioritization model

Informed by consultation with the local municipalities, staff used the prioritization model to revise the contingency schedule accompanying the 2017 bylaw. A total of 58 projects with a gross capital cost of $1.5 billion were added to the contingent items list. Approximately $1.4 billion can be recovered through development charges. Table 6 below summarizes the projects in the revised contingency schedule.

Table 6
Contingency schedule projects
(gross costs and development charge eligible)

Project type	Gross project costs ($ Millions)	Development charge eligible project costs (2017 – 2031) ($ Millions)
Total - Contingency list as tabled on February 16, 2017	**799.2**	**572.9**
Items added to the contingency list		
Widen to 4 lanes	345.7	311.1
Widen to 6 lanes	623.9	544.8
Designate HOV	3.1	2.8
Interchange (New)	47.8	43.0
Interchange improvements	14.3	12.8
Rail grade separations	369.3	369.3
New arterial corridor	27.1	27.1
Intersection, bottleneck and miscellaneous capital	102.1	62.9
Total costs of items added	**1,533.3**	**1,373.7**
Total - Entire Contingency Schedule*	**2,332.4**	**1,946.6**

*Note: Totals may not add due to rounding

Table 4 of Attachment 2 contains a full list of the new projects included in the revised contingency schedule.

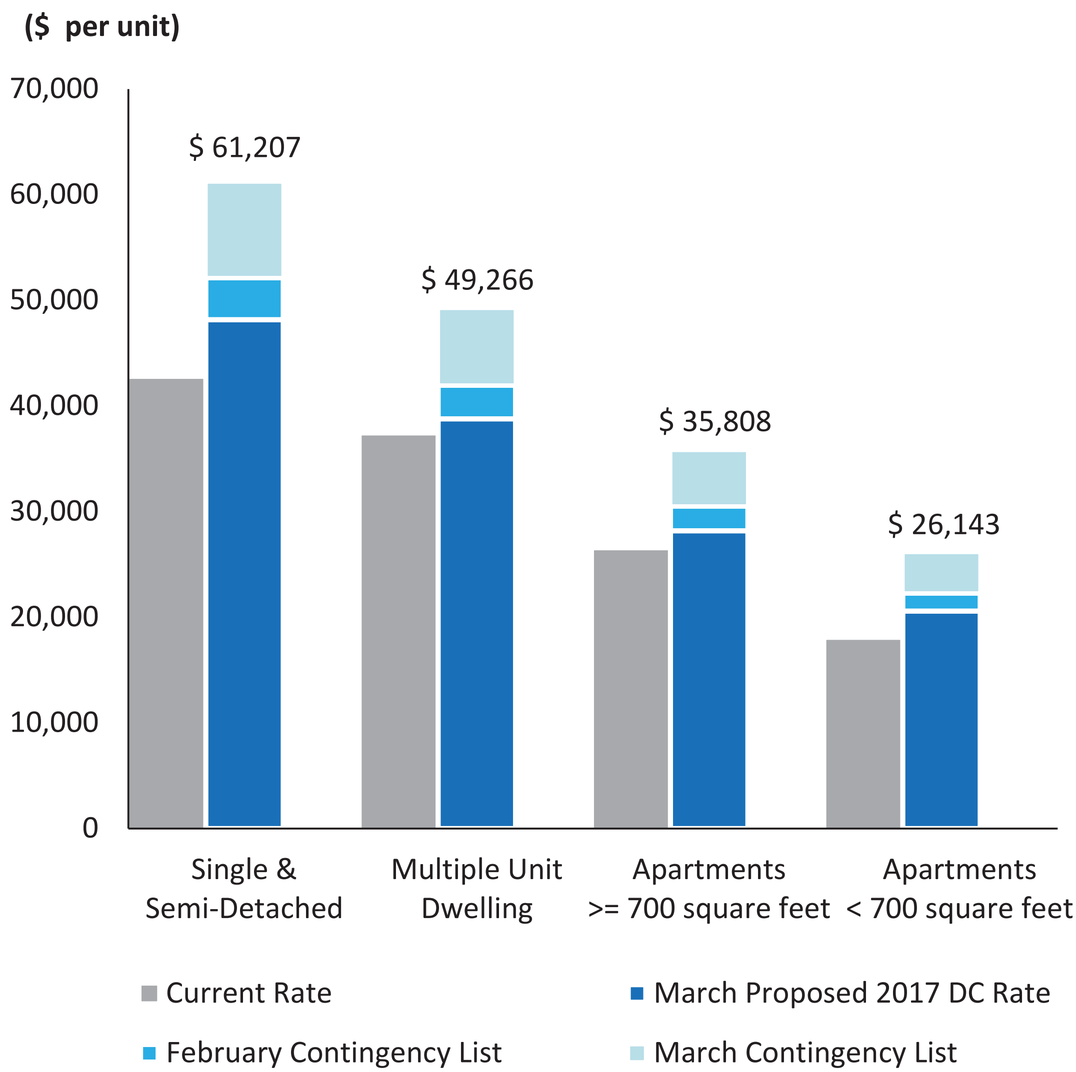
If the preconditions were met for all projects on the revised contingency schedule, the development charge rates for single-family detached could increase by $13,040 during the term of this bylaw

Figure 2 summarizes the proposed residential development charge rates and the impact if all projects under the revised contingency schedule were added to the rate calculation. Further information detailing the methodology used to calculate these rates is in the 2017 Development Charge Background Study (Attachment 1).

For single and semi-detached dwellings, should all the preconditions be met, the development charge could increase by $13,040, from $48,166 to a total of $61,207 per unit.

Figure 2

Proposed 2017 Development Charge Rates - Residential



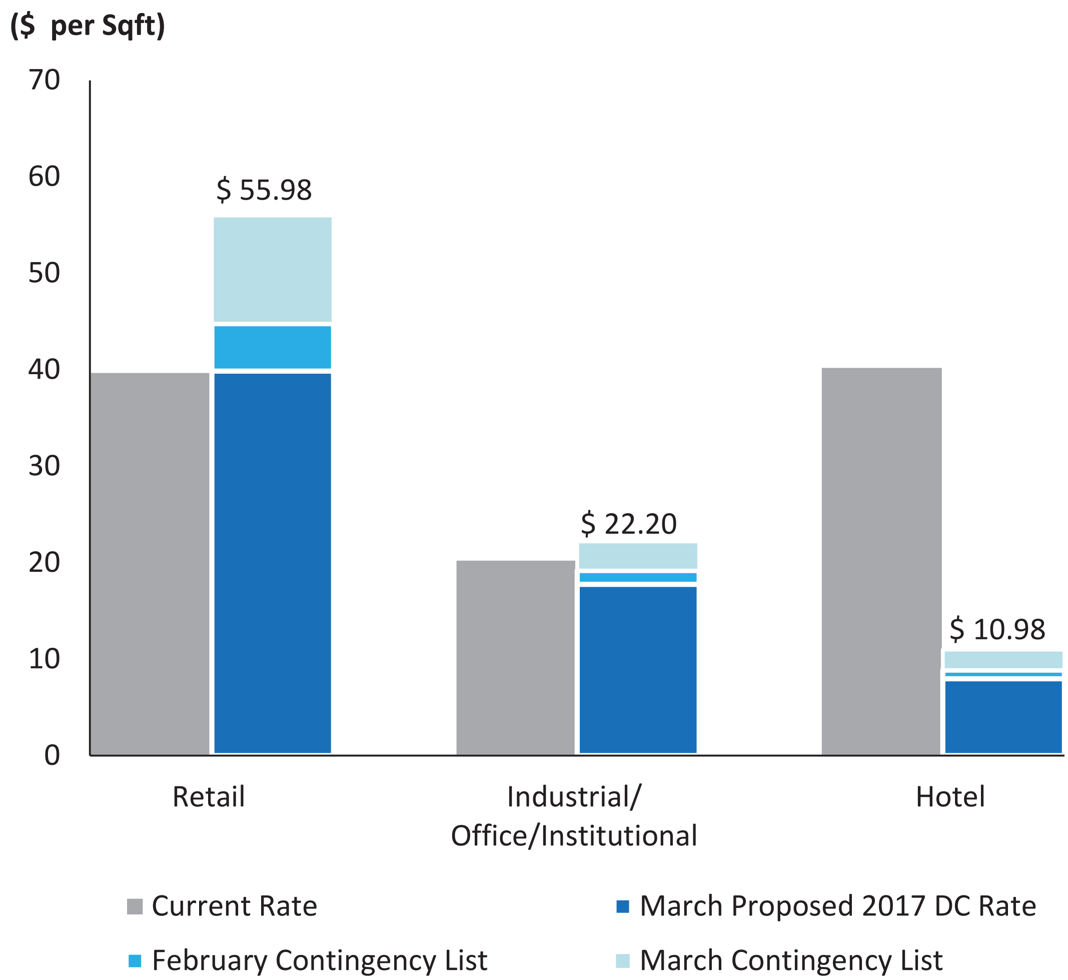
If the preconditions for all projects on the revised contingency schedule were met, the development charge rates for the non-residential sector could increase during the term of this bylaw

Figure 3 summarizes the proposed non-residential development charge rates and the impact if all projects under the revised contingency schedule were added to the rate calculation. Further information detailing the methodology used to calculate these rates is in the 2017 Development Charge Background Study (Attachment 1).

Should all the preconditions be met, the development charge for retail buildings could increase by $16.13 per square foot. The Industrial/Office/Institutional rate could increase by $4.43 per square foot, and the rate for hotels could increase by $3.02 per square foot.

Figure 3

Proposed 2017 Development Charge Rates – Non-residential



Staff have also made some minor changes to the revised 2017 Development Charge Background Study

Staff have made some minor revisions to the draft 2017 Background Study. These changes reflect new information, or correct errors in the draft Background Study tabled previously. Table 7 summarizes these changes.

Table 7
Summary of minor revisions

Service	Description	Reason for change	Change rates?
Public works	Benefit to existing and project list	Updated to reflect new information	Yes, slightly downward
Toronto-York subway extension	Grant allocation	Updated to reflect new information	Yes, slightly upward
Court services	Benefit to existing	Updated to reflect new information	No
Waste diversion	Level of service deduction write-up	Updated for accuracy	No
Paramedic services	Benefit to existing write-up	Updated for accuracy	No

The cumulative impact of these minor revisions on the development charge rate is approximately $2.63 for a single family and semi-detached dwellings.

With the revised roads project list and other minor revisions, the proposed development charges rate for a single-family detached dwelling is now $48,166

Changes to the roads project list and other minor revisions result in slightly higher development charge rates. For a single family dwelling, the proposed rate increased slightly from $48,138 to $48,166. The rates for other classes will also change.

Table 8 details changes to the gross project costs, development charge eligible costs, and the rates for single-family detached dwellings.

Table 8
Impact of changes

Background Study	Gross project costs ($ Millions)	Development charge eligible project costs (2017-2031) ($ Millions)	Development charge rate per single-family detached ($)
Tabled February 16, 2017	6,436	3,713	48,139
Revised March 23, 2017	6,539	3,713	48,166

Staff are recommending a 700 square foot threshold to delineate small and large apartments

In response to the discussion at the February 9th Committee of the Whole meeting about the threshold for delineating small and large apartments, staff reviewed five options:

- Implement a 700 square foot threshold
- Raise the delineation point for small and large apartments to 750 square feet
- Conflate apartments into one category
- Raise the threshold for delineating small and large apartments so that “2 bedrooms” are captured in the small apartment rate
- Charge a per square foot rate

Table 9 evaluates all of these options in more detail and Table 10 shows the impact on the development charge rates. Staff recommend that a 700 square foot threshold be implemented in the 2017 Bylaw to delineate small and large apartments, and that this threshold be revisited during the next development charge bylaw update.

Table 9
Options for apartment development charge treatment

Option	Considerations
Implement a 700 square foot threshold	Address stakeholder concern from 2012 Bylaw Captures “1 bedroom plus a den” as a small apartment, which is in line with Statistics Canada’s definition of a one bedroom, and consistent with practices of neighboring municipalities The Building Industry and Land Development Association - York Chapter is supportive of this threshold Threshold identified through a methodology developed jointly with the Building Industry and Land Development Association - York Chapter that included analysis of apartment size range data from RealNet, occupancy data from Statistics Canada, and a sample of apartment size data in recently constructed buildings provided by BILD
Raise the delineation point for small and large apartments to 750 square feet	Increase the likelihood of capturing two bedrooms apartments as a “small apartment”, resulting in potential revenue loss Would still have distortionary effects, just at a different delineation point
Conflate apartments into one category	Would eliminate distortionary effects due to apartment size thresholds Does not reflect the different draw on services resulting from the significantly different average occupancy in small versus large apartments Directly goes against the precedent in the Ontario Municipal Board and Divisional Court decisions against Halton Region, making the bylaw vulnerable to appeal

Option	Considerations
Raise the GFA threshold for delineating small and large apartments such that 2 bedrooms are captured in the small apartments category	Would result in a high threshold Data indicates this approach would capture 94 per cent of all apartments built in the Region as a “small apartment”, this would be a “de facto” conflation of apartment categories, and indirectly goes against precedent in Halton decision Would make Bylaw vulnerable to appeal Would not be consistent with other municipalities
Charge a per square foot rate	Would remove any potential distortionary impact Act requires a clear relationship between the “increased capital costs required because of increased needs for services arising from development” Difficult to establish the relationship between size of dwellings on a square foot basis and need for service

Table 10
Options for apartment development charge treatment: impact on rates

Option	Small apartment rate ($)	Large apartment rate ($)
Status quo (proposed 700 square foot delineation point)	20,567	28,177
Raise delineation point to 750 square feet*	20,567	28,177
Conflate apartments into one category	24,600	24,600
Capture “2 bedrooms” in small apartment category	23,761	36,482
Charge a per square foot rate	Not applicable	Not applicable

*Note: Data indicates persons per unit is the same for 750 square foot delineation point as for 700 square foot delineation point. These rates also reflect the updated roads project list in the revised background study.

Development charges in the Region are higher than in Simcoe County but the infrastructure responsibilities are also different

Table 11 compares the total proposed development charge rates in East Gwillimbury (Region and local municipality) with the total development rates in Bradford West Gwillimbury in Simcoe County (County and local municipality).

The development charge rate for a single or semi-detached home is approximately $21,000 less in Simcoe County than in York Region. Growth-related infrastructure costs in the Region are higher due to the Region's large geography, lack of direct access to Lake Ontario, and distribution of investment. In addition, development charges at the regional level pay for different services in York Region and Simcoe County. For example, water and wastewater services are a shared responsibility in York Region, whereas they are a local municipal responsibility in Simcoe County.

Table 11
York Region development charge rates versus Simcoe Country

Building Type	York Region (Revised)	East Gwillimbury	Total* York + EG	Simcoe County	Bradford West Gwillimbury	Total* Simcoe + BWG
Residential (per unit)						
Single and Semi	$48,166	$21,646	**$69,812**	$9,346	$39,399	**$48,745**
Large Apartment	$28,177	$13,646	**$41,823**	$5,275	$22,121	**$27,396**
Small Apartment	$20,567	$9,812	**$30,379**	$5,275	$15,911	**$21,186**
Non-residential (square foot)						
Retail	$39.85	$8.08	**$47.93**	$3.11	$16.63	**$19.74**
Industrial	$17.77	$2.48	**$20.25**	$3.11	$16.63	**$19.74**
Office	$17.77	$2.48	**$20.25**	$3.11	$16.63	**$19.74**

*Note: Total does not include education development charge rates

A more complete comparison of the Region's rates (including local municipal rates and education rates) with Simcoe County's rates (including local municipal rates and education rates) is available in Appendix A of Attachment 1.

Staff are not proposing any further changes to the treatment of mixed use buildings

The Region's 2012 bylaw made changes to address the issue of development charges on mixed use buildings. In the case of a non-residential building used for both retail and non-retail uses, the development charge rate is based on the principal use of the building, as long as the principal use is more than 55 per cent of the total gross floor area. If no single use is 55 per cent or more of the total gross floor area, then the development charge payable on the total gross floor area is the average of the two non-residential charges.

In the draft 2017 Development Charge Bylaw, staff amended this section to capture instances of multi-tenanted development and redevelopment, where the building contains multiple individually owned units. Whereas previously individually owned units in a multi-tenanted structure would be levied development charges based on the principal use of the entirety of the structure, they are now assessed individually based on the predominant use of each unit within that structure.

Staff are not proposing any further changes to the treatment of mixed-use developments under the 2017 Development Charge Bylaw.

The Region's cost allocation methodologies are similar to neighbouring municipalities

The Region's draft 2017 development charge background study uses population and employment growth shares and department-specific methodologies to allocate the recoverable infrastructure costs to the residential and non-residential sectors. As Table 12 illustrates, the Region's allocation methodologies are both reasonable and defensible insofar as they are in line with the practices of neighboring municipalities.

Table 12
Cost allocation methodology - York Region and GTA municipalities

Service	Residential vs non-residential cost allocation methodology	Methodology used by other GTA municipalities*
Water and wastewater	Water consumption: (projected population growth × residential unit consumption rate versus employment growth × non-residential unit consumption rate)	Durham Region Halton Region Peel Region (used historic rather than projected consumption levels)
Roads, transit, subway and public works	Population growth and employment growth	Durham Peel Toronto
Police, Paramedic Services, court services	Population growth and employment growth	All Greater Toronto Area upper tier and single tier municipalities
Social housing, senior services	100 per cent residential	All Greater Toronto Area upper tier and single tier municipalities
Waste diversion	Project specific, based on the source of waste	Not yet included in the bylaws of other GTA municipalities

*Note: Majority of services use the population growth vs employment growth split, with occasional modifications for public health, paramedic (emergency medical) services, police, library, parks and recreation, social housing and long term care. For the most part, these services have greater cost attribution to the residential sector

5. Financial Considerations

The revised 2017 Development Charge Background Study includes $6.5 billion in infrastructure to support planned growth to 2031, of which $3.7 billion is proposed to be recovered through development charges under the 2017 development charge bylaw.

The revised contingency schedule includes a total of $2.3 billion in potential gross growth-related roads infrastructure costs, of which $1.9 billion is potentially recoverable through development charges. Fifty-eight projects were added to the contingent items list based on the Region's prioritization framework. These projects total $1.5 billion in gross costs, $1.4 billion of which is potentially recoverable through development charges. The projects added to the contingent items list are subject to a financial trigger.

As a result of the revisions to the background study, residential development charges have increased slightly

Tables 13 and 14 summarize the previously proposed residential development charge rates and the revised rates. Further information detailing the methodology used to calculate these rates is in the 2017 Development Charge Background Study (Attachment 1).

Table 13

Residential development charge rates as per tabled Background Study – February 16, 2017

	Classes and rates ($)			
	Single and semi-detached	**Multiples**	**Apartments >= 700 sqft.**	**Apartments <700 sqft.**
Main project list	48,139	38,745	28,161	20,555
Contingent schedule	3,784	3,047	2,215	1,620
Potential upper limit of charge	51,923	41,792	30,376	22,175

Table 14
Residential development charge rates as per revised Background Study – March 23, 2017

	Classes and rates ($)			
	Single and semi-detached	**Multiples**	**Apartments >= 700 sqft.**	**Apartments <700 sqft.**
Revised main project list	48,166	38,767	28,177	20,567
Revised contingent schedule	13,040	10,498	7,631	5,576
Potential upper limit of charge	61,207	49,266	35,808	26,143

As a result of the revisions to the background study, non-residential development charge rates have increased slightly

Tables 15 and 16 summarize the previously proposed non-residential development charge rates and the revised rates. Further information detailing the methodology used to calculate these rates is in the 2017 Development Charge Background Study (Attachment 1).

Table 15
Non-residential development charge rates per tabled Background Study – February 16, 2017

	Classes and rates ($ per square foot)		
	Retail	**Non-retail**	**Hotel**
Main project list	39.81	17.76	7.95
Contingent schedule	4.70	1.36	0.88
Potential upper limit of charge	44.51	19.12	8.83

Table 16
Non-residential development charge rates per revised Background Study – March 23, 2017

	Classes and rates ($ per square foot)		
	Retail	**Non-retail**	**Hotel**
Revised main project list	39.85	17.77	7.96
Revised contingent schedule	16.13	4.43	3.02
Potential upper limit of charge	55.98	22.20	10.98

6. Local Municipal Impact

Development charges and the infrastructure they help pay for are of fundamental importance to the Region's local municipalities because of the link between infrastructure and development. The addition of roads projects to the Background Study and revised contingency schedule is a response to input received from the local municipalities.

7. Conclusion

As a result of the inclusion of revised contingency schedule, the timelines for tabling and passing the 2017 Development Charge Bylaw have changed

Due to changes to the background study, staff are proposing a revised timeline for the tabling and passing of the 2017 Development Charge Bylaw. All statutory timing obligations will begin on March 23, 2017.

Table 17 sets out the revised timeline required to meet all statutory obligations under the *Act*, such that a new bylaw can be place by June 17, 2017.

Table 17
Key Dates in revised Regional Bylaw Process

Deliverables	Proposed Dates	Time Elapsed	
Report to Council on the Revised 2017 Background Study and Bylaw	March 23, 2017		
Revised 2017 Background Study and Bylaw publicly released	March 23, 2017	7 days	63 days*
Notice of public meeting	March 30, 2017	21 days	
Public meeting before Regional Council	April 20, 2017	35 days	
New Bylaw to Council for anticipated approval	May 25, 2017		
2017 Development Charges Bylaw comes into force	June 17, 2017		

*Note: The amended *Development Charges Act, 1997* requires that a background study be available to the public at least 60 days prior to passing the Bylaw

After the second public meeting on April 20, 2017, staff will consider all feedback and will bring a final background study and bylaw for consideration by Council on May 25, 2017, with a proposed coming-into-force date of June 17, 2017.

For more information on this report, please contact Yi Luo, Manager, Treasury Office, at 1-877-464-9675 ext.71493. March 16, 2017

Attachments (2)

7411210

Accessible formats or communication supports are available upon request

Attachment 2

Table 1. Summary of revisions to roads gross project costs

Project ID	Project Description	February Gross Project Cost ($)	March Gross Project Cost ($)	Difference
2	Barrie GO Grade Separation - Teston Road east of Keele Street	26,094,703	400,000	-25,694,703
7	Stouffville GO Grade Separation - Kennedy Road north of Highway 7	45,901,909	400,000	-45,501,909
17	Midblock Crossing - Highway 400 north of Major Mackenzie Drive	200,000	10,000,000	9,800,000
23	Midblock Crossing - Highway 427 north of Langstaff Road	34,924,214	10,000,000	-24,924,214
31	19th Avenue - Linda Margaret Crescent / Jefferson Forest Drive to Bayview Avenue	7,597,157	2,270,000	-5,327,157
37	(Donald Cousens Parkway (via 19th Avenue) - Woodbine Avenue to Donald Cousens Parkway) – New Arterial Road Link	1,500,000	1,500,000	0
49	Ninth Line - Steeles Avenue to Box Grove Area	8,730,000	1,000,000	-7,730,000
58	Bathurst Street - Centre Street to Highway 7 -	27,100,000	0	-27,100,000
67	Carrville Road - Bathurst Street to Yonge Street (AT Improvements)	19,799,094	1,000,000	-18,799,094
104	Woodbine Avenue - 16th Avenue to Major Mackenzie Drive	16,511,995	0	-16,511,995
106	Steeles Avenue - Markham Road to Ninth Line	40,235,772	3,000,000	-37,235,772
225	Environmental Assessment, Design and Property Acquisition for Future Capital Projects	7,800,000	25,000,000	17,200,000
227	Various Road Improvements	20,502,508	20,502,508	0
228	Roads projects to support Transit	54,000,000	40,000,000	-14,000,000
234	Accessibility for Ontarians with Disabilities (AODA)	1,433,750	10,000,000	8,566,250
235	Streetscaping (Municipal Partnership Program)	22,893,750	21,200,000	-1,693,750
249	Highway 404 - Northbound Off-Ramp Extension at Highway 7	13,621,000	15,886,000	2,265,000
Total		**348,845,852**	**162,158,508**	**-186,687,344**
Total of projects with cost revisions				**17**

Table 2. Summary of Revised Development Charge Eligible Costs (2017-2031)

Project ID	Project Description	February Development Charge Eligible Costs (2017-2031) ($)	March Development Charge Eligible Costs (2017-2031) ($)	Difference
2	Barrie GO Grade Separation - Teston Road east of Keele Street	22,180,498	340,000	-21,840,498
7	Stouffville GO Grade Separation - Kennedy Road north of Highway 7	39,016,623	340,000	-38,676,623
17	Midblock Crossing - Highway 400 north of Major Mackenzie Drive	66,667	3,333,333	3,266,667
23	Midblock Crossing - Highway 427 north of Langstaff Road	11,641,405	3,333,333	-8,308,071
31	19th Avenue - Linda Margaret Crescent / Jefferson Forest Drive to Bayview Avenue	6,837,441	2,043,000	-4,794,441
37	(Donald Cousens Parkway (via 19th Avenue) - Woodbine Avenue to Donald Cousens Parkway) – New Arterial Road Link	1,350,000	1,500,000	150,000
49	Ninth Line - Steeles Avenue to Box Grove Area	7,857,000	900,000	-6,957,000
58	Bathurst Street - Centre Street to Highway 7 -	24,390,000	0	-24,390,000
67	Carrville Road - Bathurst Street to Yonge Street (AT Improvements)	17,819,185	900,000	-16,919,185
104	Woodbine Avenue - 16th Avenue to Major Mackenzie Drive	14,860,796	0	-14,860,796
106	Steeles Avenue - Markham Road to Ninth Line	18,106,097	1,350,000	-16,756,097
225	Environmental Assessment, Design and Property Acquisition for Future Capital Projects	7,020,000	22,500,000	15,480,000
227	Various Road Improvements	0	5,125,627	5,125,627
228	Roads projects to support Transit	48,600,000	36,000,000	-12,600,000
234	Accessibility for Ontarians with Disabilities (AODA)	1,290,375	9,000,000	7,709,625
235	Streetscaping (Municipal Partnership Program)	18,315,000	16,960,000	-1,355,000
249	Highway 404 - Northbound Off-Ramp Extension at Highway 7	12,258,900	7,148,700	-5,110,200
Total		**251,609,986**	**110,773,994**	**-140,835,992**
Total of projects with cost revisions				**17**

Table 3. Summary of additions to the roads project list

Project ID	Project Description	Gross Project Cost ($)	Development Charge Eligible Costs (2017 to 2031) ($)
Projects to be implemented by others			
8	Hwy 407 New Interchange at Martin Grove Road	40,250,000	0
10	Hwy 407 Interchange Improvements at Donald Cousens Parkway	6,750,000	0
Environmental assessment and/or detailed design			
21	Midblock Crossing - Highway 404 north of Elgin Mills	908,000	277,200
25	Bayview Avenue - Stouffville Road to Bloomington Road	700,000	630,000
38	Dufferin Street - Major Mackenzie Drive to Teston Road	360,000	324,000
43	Kennedy Road - Major Mackenzie Drive to Donald Cousens Parkway	890,000	801,000
57	16th Avenue - Woodbine Avenue to Ninth Line	1,555,000	1,399,500
68	Dufferin Street - Langstaff Road to Major Mackenzie Drive	720,000	648,000
72	Jane Street - Rutherford to Major Mackenzie Drive	370,000	333,000
77	Keele Street - Highway 7 to Rutherford Road	640,000	576,000
81	Kennedy Road - Highway 7 to Major Mackenzie Drive	735,000	661,500
82	Langstaff Road - Weston Road to Jane Street	460,000	414,000
83	Langstaff Road - Keele Street to Highway 7	460,000	414,000
92	Major Mackenzie Drive - Woodbine Avenue to Kennedy Road	700,000	630,000
97	McCowan Road - 16th Avenue to Major Mackenzie Drive	357,000	321,300
98	Rutherford Road - Highway 50 to Weston Road	2,563,000	2,306,700
102	Weston Road - Steeles Avenue to Highway 7	900,000	810,000
Capacity Projects			
63	Bayview Avenue - Steeles Avenue to John Street	49,820,170	44,838,153
73	Jane Street - Highway 7 to Langstaff Road	18,780,000	16,902,000
74	Jane Street - Langstaff Road to Rutherford Road	17,984,080	16,185,672
93	Markham Road - Steeles to 407	51,755,287	46,579,758

Project ID	Project Description	Gross Project Cost ($)	Development Charge Eligible Costs (2017 to 2031) ($)
103	Woodbine Avenue - Highway 7 to Hooper Road	5,568,722	5,011,850
Total		**203,226,259**	**140,063,633**
Total number of projects added		**22**	

Table 4. Additions to contingent items list

Project ID	Project Description	Gross Project Cost ($)	Development Charge Eligible Growth Costs ($)
Rail grade separation			
3	Barrie GO Grade Separation - St. John's Sideroad east of Yonge Street	54,126,873	54,126,873
4	Barrie GO Grade Separation - Davis Drive east of Main Street	42,026,658	42,026,658
5	Barrie GO Grade Separation - Langstaff Road east of Keele Street	16,385,991	16,385,991
6	Barrie GO Grade Separation - Teston Road east of Keele Street	22,180,498	22,180,498
7	Barrie GO Grade Separation - Mulock Drive west of Bayview Avenue	45,869,320	45,869,320
8	Barrie GO Grade Separation - Green Lane east of Second Concession	5,559,360	5,559,360
9	Richmond Hill GO Grade Separation - Leslie Street south of Stouffville Road (inc. Jog Elimination)	39,801,250	39,801,250
10	Richmond Hill GO Grade Separation - 19th Avenue west of Bayview Avenue	21,690,864	21,690,864
11	Stouffville GO Grade Separation - Highway 7 west of Kennedy Road	43,326,355	43,326,355
12	Stouffville GO Grade Separation - Kennedy Road north of Highway 7	39,016,623	39,016,623
13	Stouffville GO Grade Separation - McCowan Road north of Highway 7	39,275,873	39,275,873
Interchange (New)			
17	Hwy 404 New Interchange - at St. John's Sideroad	47,820,000	43,038,000
Interchange Improvements			
18	Hwy 400 Interchange Improvements - at Langstaff Road	14,250,000	12,825,000
Widen to 4 Lanes			
26	Ninth Line - Steeles Avenue to Box Grove Area	7,730,000	6,857,000
27	Dufferin Street - Major Mackenzie Drive to Teston Road	12,745,000	11,470,500
28	Wellington Street - Yonge Street to Rail Grade Separation	7,090,359	6,381,323
29	14th Avenue - Markham Road to Donald Cousens Parkway	35,598,421	32,038,579
30	Highway 27 - Nashville Road to King Road	44,655,000	40,189,500

Project ID	Project Description	Gross Project Cost ($)	Development Charge Eligible Growth Costs ($)
31	Warden Avenue - Major Mackenzie Drive to Donald Cousens Parkway	37,688,800	33,919,920
32	Weston Road - Teston Road to Kirby Road	10,920,746	9,828,671
33	Leslie Street - Doane Road to Queensville Sideroad	7,291,302	6,562,172
34	St John's Sideroad - Bathurst Street to Yonge Street	11,424,061	10,281,655
35	Jane Street - Teston Road to Kirby Road	11,739,200	10,565,280
36	Bayview Avenue - Stouffville Road to Bethesda Road	13,007,505	11,706,755
37	Islington Avenue - Willis Road to Langstaff Road	8,683,218	7,814,896
38	Kennedy Road - Major Mackenzie Drive to Elgin Mills Road	10,210,879	9,189,791
39	Woodbine Avenue - Woodbine Avenue Bypass to 19th Avenue	32,748,000	29,473,200
40	Leslie Street - Vandorf Sideroad to Wellington Street	9,905,450	8,914,905
41	St John's Sideroad - Leslie Street to Highway 404	14,201,961	12,781,765
42	Pine Valley Drive - Rutherford to Major Mackenzie	11,884,023	10,695,621
43	Leslie Street-19th Avenue to Stouffville Road	58,194,000	52,374,600
Widen to 6 Lanes			
44	Keele Street - Highway 7 to Rutherford Road	34,529,897	31,076,907
45	Weston Road - Highway 7 to Langstaff Road	17,756,421	15,980,779
46	16th Avenue - Woodbine Avenue to McCowan Road	64,732,000	58,258,800
47	Kennedy Road - Highway 7 to 16th Avenue	22,693,818	20,424,436
48	Langstaff Road - Keele Street to Dufferin Street	18,964,331	17,067,898
49	Weston Road - Steeles Avenue to Highway 7	37,387,907	33,649,116
50	Jane Street - Rutherford Road to Major Mackenzie Drive	19,156,874	17,241,187
51	Green Lane - Yonge Street to Highway 404	55,549,963	49,994,967

Project ID	Project Description	Gross Project Cost ($)	Development Charge Eligible Growth Costs ($)
52	Warden Avenue - Steeles Avenue to McNabb Street / MacPherson Street	29,028,000	26,125,200
53	Warden Avenue - Highway 7 to 16th Avenue	16,200,000	14,580,000
54	Langstaff Road - Weston Road to Jane Street	27,939,250	25,145,325
55	Rutherford Road - Pine Valley Drive to Weston Road	16,647,817	14,983,035
56	Woodbine Avenue - Hooper Road to Major Mackenzie Drive	33,218,161	29,896,345
57	Dufferin Street - Langstaff Road to Rutherford Road	31,265,000	28,138,500
58	Kennedy Road - 16th Avenue to Major Mackenzie Drive	18,149,178	16,334,260
59	Major Mackenzie Drive - Woodbine Avenue to Kennedy Road	40,828,329	36,745,497
60	Weston Road - Langstaff Road to Major Mackenzie Drive	37,017,429	33,315,686
61	Highway 7 - Kipling Avenue to Helen Street	65,608,779	59,047,901
Roads - Widen to 6 lanes (Steeles)			
64	Steeles Avenue - Markham Road to Ninth Line	37,235,772	16,756,097
Maintain 6 lanes. Designate HOV.			
69	Warden Avenue - 14th Avenue to Highway 7	230,644	207,580
70	Rutherford Road - Weston Road to Jane Street	246,940	222,246
71	Woodbine Avenue - Steeles Avenue to Highway 7	2,592,000	2,332,800
72	Dufferin Street - Highway 407 to Langstaff Road	45,126	40,613
New arterial corridor			
73	Donald Cousens Parkway - Major Mackenzie Drive to Markham Road / Highway 48	17,040,000	17,040,000
74	Donald Cousens Parkway - 19th Avenue to Warden Avenue	10,076,365	10,076,365
Miscellaneous and Intersection Capital			
81	Intersection, Bottleneck and Miscellaneous Capital	57,467,490	51,720,741

Project ID	Project Description	Gross Project Cost ($)	Development Charge Eligible Growth Costs ($)
82	Various Road Improvements	44,603,492	11,150,873
Total		**1,533,258,571**	**1,373,721,950**
Total number of projects added		**58**	

Revised Draft 2017 Development Charge Background Study and Bylaw

Presentation to
Regional Council

Paul Jankowski, Commissioner of Transportation Services
March 23, 2017

Touchpoints with Council in the Development Charge Bylaw update process

Feb 16, 2017
Draft Background Study received by Council

March 9, 2017
Public Meeting

March 23, 2017
Report to Council on Amended Background Study

April 20, 2017
Second Public Meeting

May 25, 2017
Council considers Bylaw for passage

June 17, 2017

Regional Development Charge Bylaw comes into effect

Late February 2017 – May 2017
Additional consultation with key stakeholders (i.e. local municipalities, BILD/development community)

Consultation has been a cornerstone to the Region's Development Charge Bylaw update process

- Pre-tabling, Regional staff met with local finance staff on six occasions to discuss Bylaw policies, methodologies and assumptions

- Since the February Council meeting, Regional staff have met with local representatives on eight occasions to discuss roads infrastructure priorities

We have continued our consultation with local municipalities

Date	Municipality/Stakeholder
February 27, 2017	Town of Richmond Hill
February 28, 2017	City of Vaughan
	Town of Aurora, Town of East Gwillimbury, Town of Whitchurch-Stouffville, Town of Georgina, Town of Newmarket and Township of King
March 3, 2017	Area Public Works Liaison Committee
	City of Vaughan
March 6, 2017	City of Markham
March 8, 2017	Town of Richmond Hill
March 10, 2017	City of Markham

Roads constitute 43 per cent of the gross project costs in the 2017 Background Study

Service	Gross Project Costs ($ Millions)	DC Recoverable Costs 2017 - 2031 ($ Millions)
Water	603	206
Wastewater	1,793	983
Roads	2,799	1,982
Transit	382	154
Subway	282	192
Other General Services	666	196
Total*	**6,523**	**3,713**

*Totals may not add due to rounding

The list of Transportation Projects in the 2017 Draft Background Study is different from the 2012 DC Bylaw List

2012 DC Bylaw → **Informed by 2009 Transportation Master Plan**

What's Changed Since?

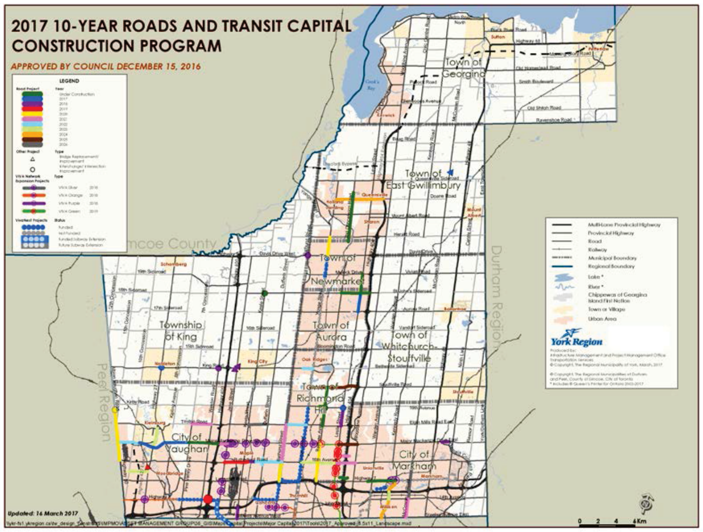
- Development Charges Act and Ontario Regulation 82/98
- Fiscal Strategy
- 2016 TMP Update
- Projects by Others (i.e. Regional Express Rail)
- 2017 10-Year Roads Construction Program

2017 DC Background Study to 2031

FUTURE

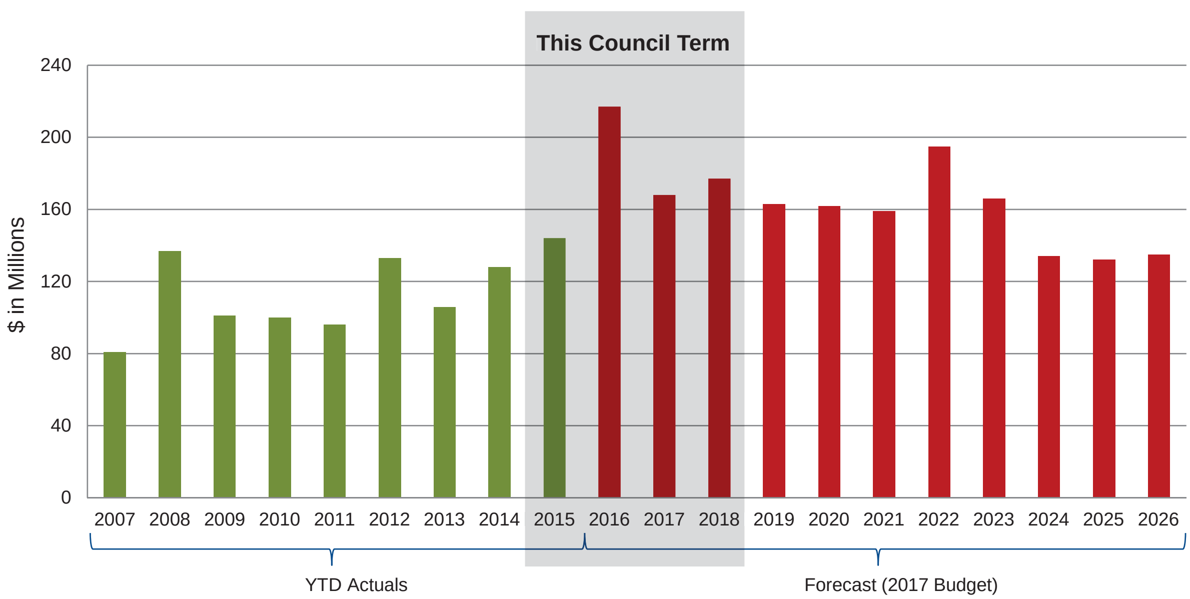
Annual 10-Year Roads Construction Program → **Provincial Growth Numbers 2041 and MCR** → **DC Background Study to 2041**

The 10-year Roads Capital Construction Program has not changed



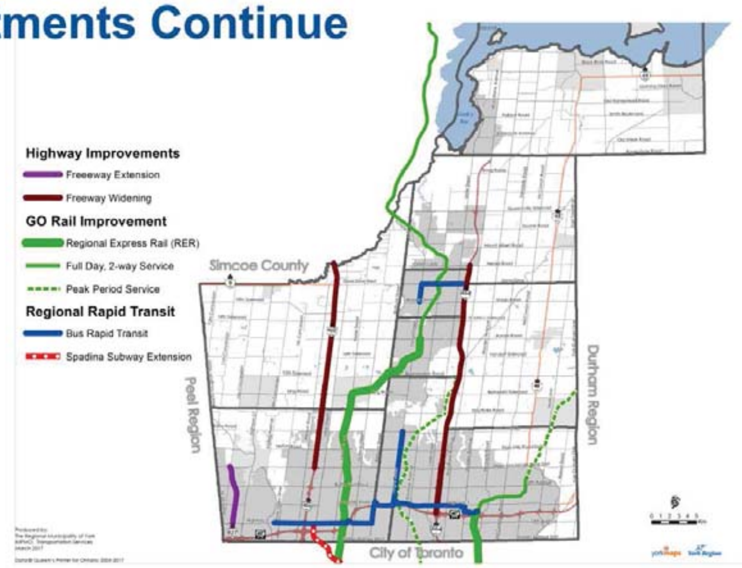
The 2017 10-year Roads Construction Program approved by Council in December represents the highest 10-year investment ever

The Region continues to invest in roads infrastructure



This term of Council has approved historic investments in roads infrastructure

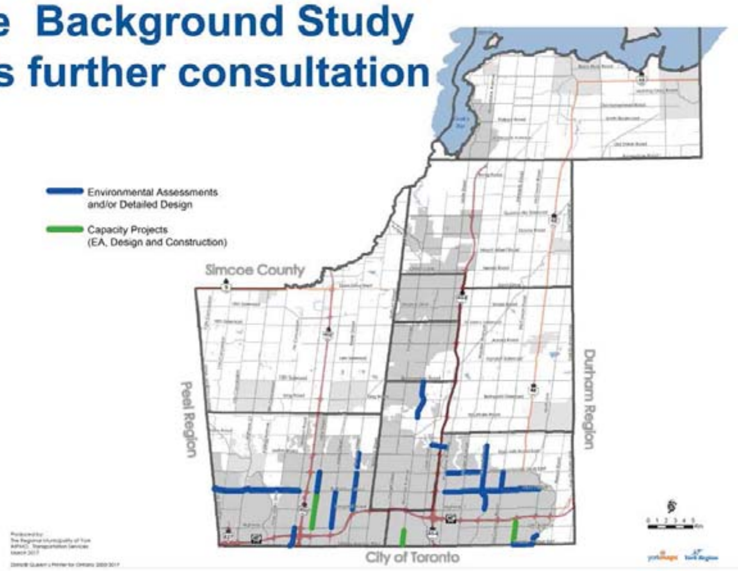
Integrated Transportation Investments Continue



The Province is investing in both highway and transit expansion

9

Revised 2017 Development Charge Background Study reflects further consultation



Additional projects identified through Council adopted Roads Prioritization Model

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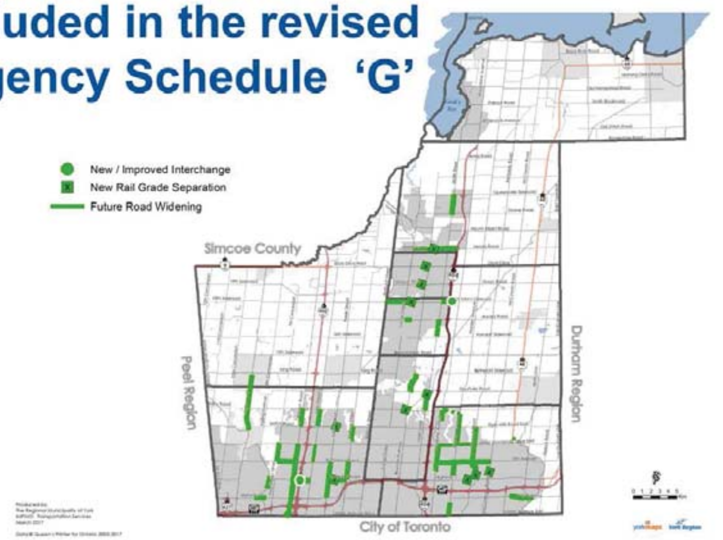
Additional roads projects are included in the revised contingency Schedule 'G'



Projects identified support the network recommendations in the Transportation Master Plan to 2031

All 2012 DC Roads Projects have been reconsidered

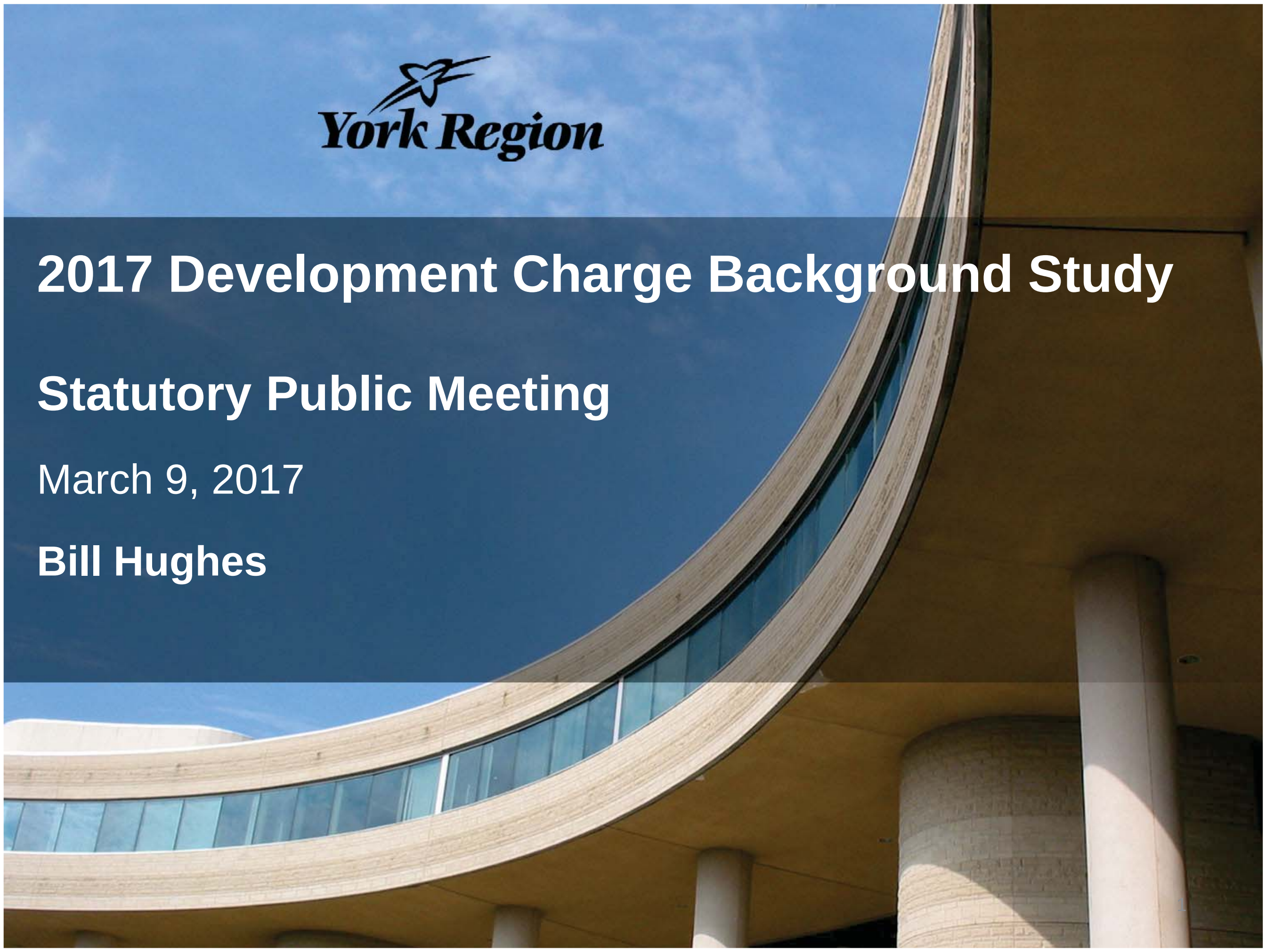
- 25% of the 2012 DC Bylaw projects will be required post 2031 (from 2016 TMP)
- 2017 DC Background Study addresses pre-2031 needs.
  - 18% projects have been constructed
  - 47% projects funded in Background Study
  - 22% projects in revised Contingency List

87% of the projects included in the 2012 DC Background Study have been constructed or included in the 2017 Draft Background Study.

Summary of Recommendations

It is recommended that:

1. Council receive a revised draft 2017 Development Charge Background Study and proposed Bylaw (Attachment 1).
2. Council endorse a revised Schedule G contingency list under the 2017 Development Charge Bylaw, consisting of additional Roads infrastructure projects.
3. Council hold an additional public meeting, pursuant to section 12(3) of the *Development Charges Act, 1997*, on April 20, 2017, prior to the meeting of Regional Council.
4. Council endorse a threshold of 700 square feet to delineate small and large apartments.
5. A report be brought forward to Regional Council on May 25, 2017 recommending the 2017 Development Charge Bylaw.
6. The Regional Clerk circulate this report to the local municipalities.
7. The Regional Clerk circulate this report to the Building Industry and Land Development Association – York Chapter (BILD).



Outline

1. Introduction
2. Growth forecasts
3. Growth-related infrastructure costs
4. Development charge rates
5. Process

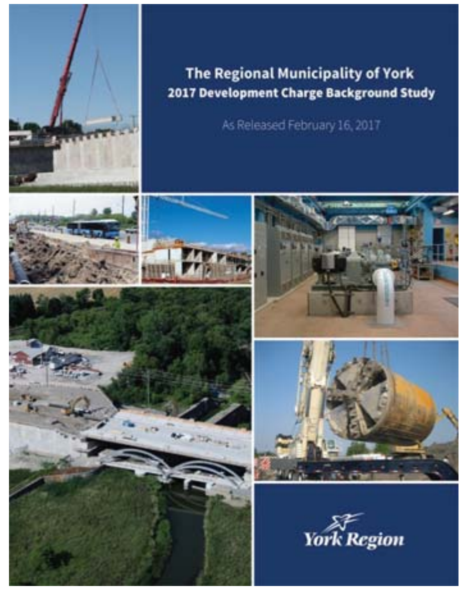
INTRODUCTION

A public meeting is required

- Today’s public meeting satisfies a legislative requirement
- There are prescribed timelines:
  - At least 20 days notice of the meeting must be given
  - The proposed Background Study and Bylaw must be available at least two weeks prior to the statutory public meeting
- The purpose of the meeting is to obtain input on the draft 2017 Development Charge Background Study from all interested parties

What is a development charge background study?

- The Region collects development charges to recover the cost of growth-related infrastructure
- Before passing a development charge bylaw, municipalities are required to complete a background study in accordance with the legislation
- The background study provides the justification for the development charge rates for each class of development



The Background Study identifies different rates for different classes of development

Residential Classes
Singles and Semis
Multiples (e.g., Townhomes)
Large Apartments (≥ 700 sqft)
Small Apartments (< 700 sqft)

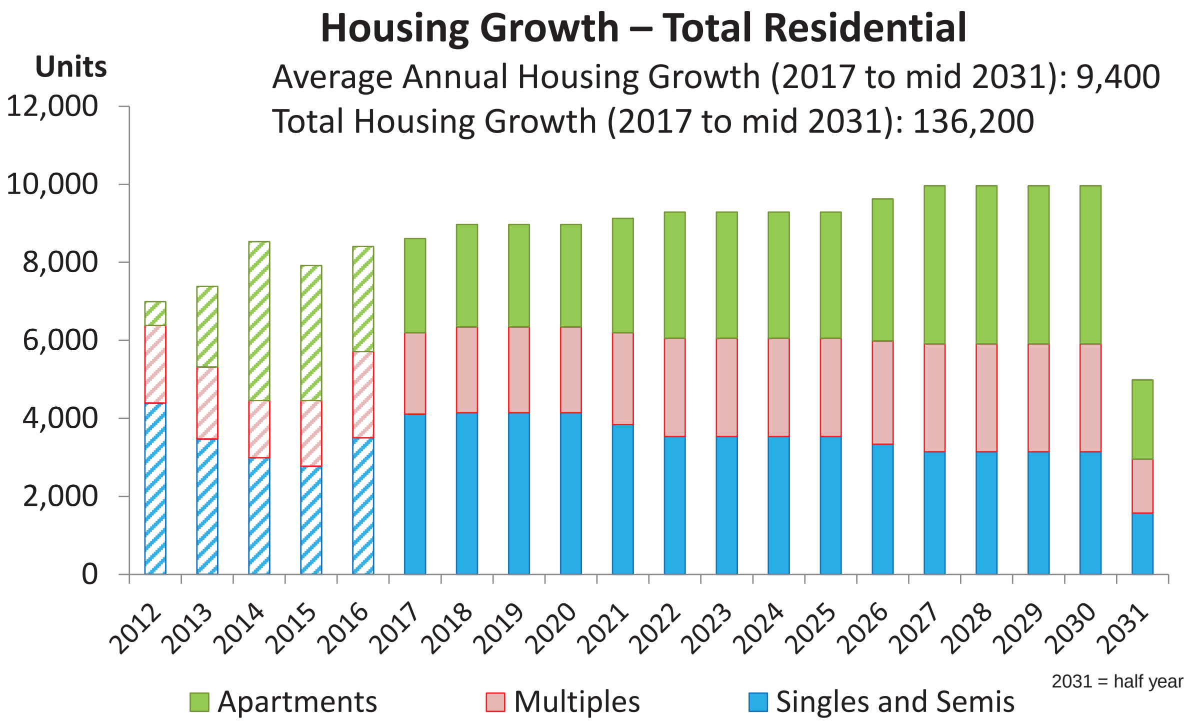
Non-Residential Classes
Retail
Industrial/Office/Institutional
Hotels

Three major factors determine development charge rates

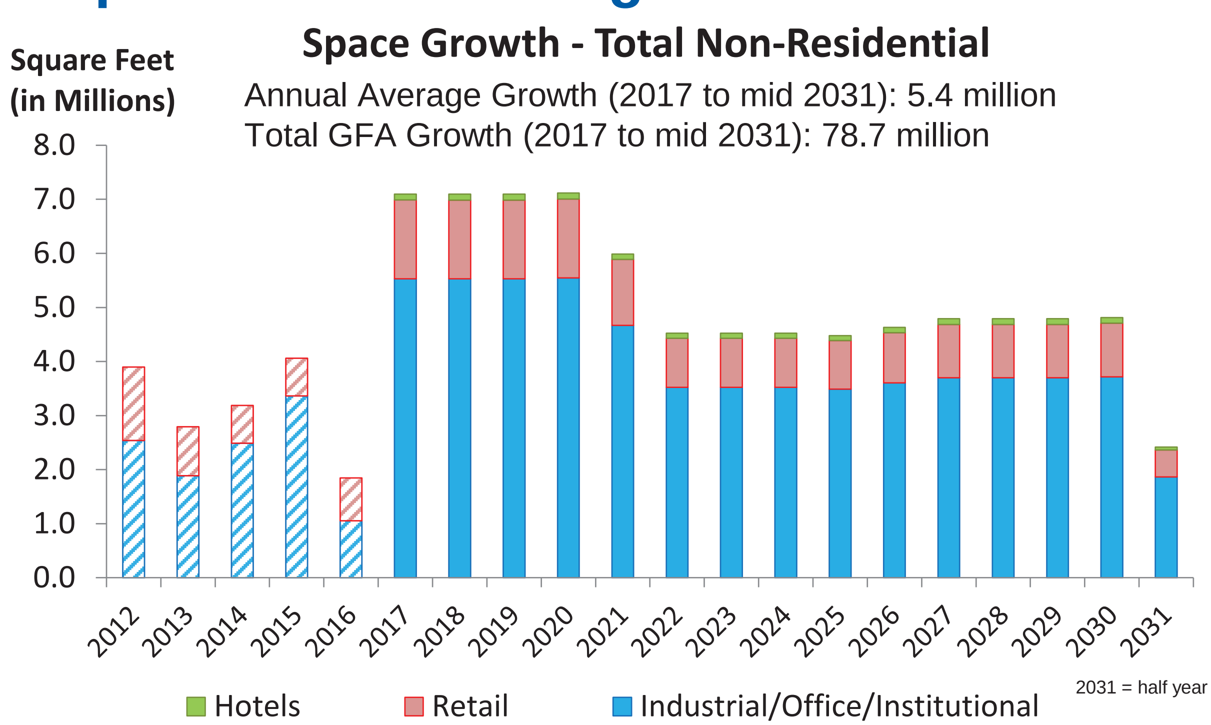
The legislative and regulatory regime: "The Rules"	Forecasts of future growth	The cost of growth-related infrastructure

GROWTH FORECASTS

Housing mix will vary over time



Near-term non-residential growth expected to be strong



GROWTH-RELATED INFRASTRUCTURE COSTS

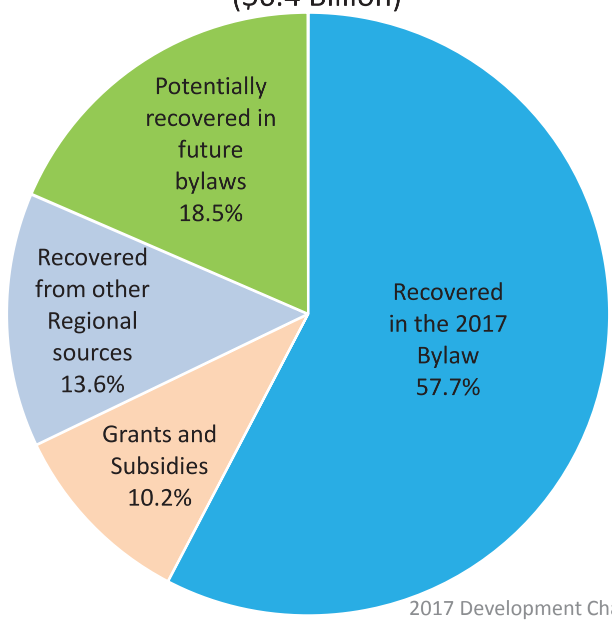
Most growth-related infrastructure services are eligible

Eligible Infrastructure	
Hard Services	**General Services**
Water Wastewater Roads	Transit Subway Police Other general services (e.g., social housing, waste diversion, courts etc.)

Ineligible Infrastructure*
Cultural and entertainment facilities Landfill sites and waste incineration Municipal administrative facilities

*Note: List not exhaustive

Background Study includes $6.4 billion of growth-related investment



Category	$ Millions
Recovered in 2017 Development Charge Bylaw	3,713
Potentially recovered in future bylaws	1,191
Recovered from other Regional sources	877
Grants and Subsidies	655
Total	**6,436**

Development charges also include the cost of debt

Service	Net Interest Cost for New Development Charge Debt ($ Millions)	Principal and Interest on Existing Development Charge Debt ($ Millions)
Hard Services	283.9	3,153.2
General Services	24.9	310.4
Total	**308.8**	**3,463.6**

The draft bylaw features a number of policy changes

Area	Change
Threshold to delineate small and large apartments	Threshold moved to 700 square feet from 650 square feet
Deferral for private purpose-built rentals	36 month deferral policy proposed (similar to 212 Davis Drive in Newmarket)
Hotel Development Charge	Separate class for hotels, with charge levied on a per square foot basis
Transition provisions	No transitional provisions

PROPOSED DEVELOPMENT CHARGE RATES

Proposed development charge rates

Rate Class	$ Rate / Unit
Singles and Semis	48,139
Multiples	38,745
Large Apartments (≥ 700 sqft)	28,161
Small Apartments (< 700 sqft)	20,555

Rate class	$ Rate / Sqft
Retail	39.81
Industrial/Office/Institutional	17.76
Hotels	7.95

Residential rates are going up

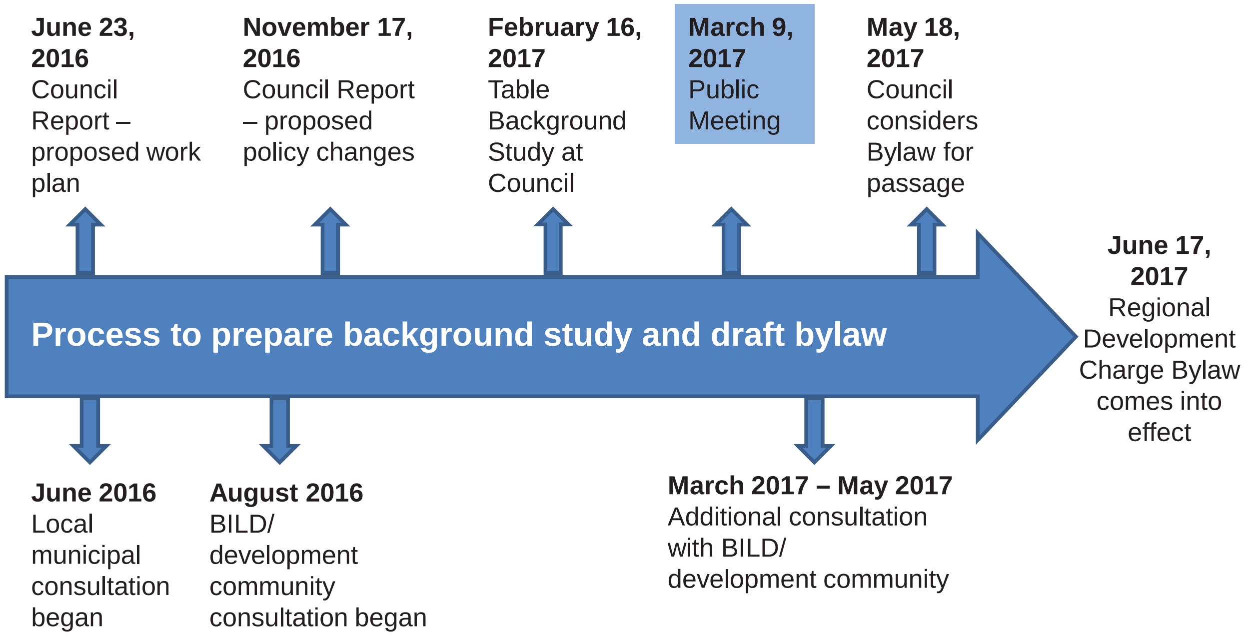
Rate Class	$ Change /Unit	% Change	
Singles and Semis	5,502	13%	
Multiples	1,445	4%	
Large Apartments (≥ 700 sqft)	2,627	7%	
Small Apartments (< 700 sqft)	1,747	15%	

Non-residential rates are declining or staying the same

Rate class	$ Change/ Sqft	% Change	
Retail	0.06	0.16%	⟷
Industrial/Office/Institutional	-2.56	-13%	↓
Hotels	-32.35	-80%	↓

PROCESS

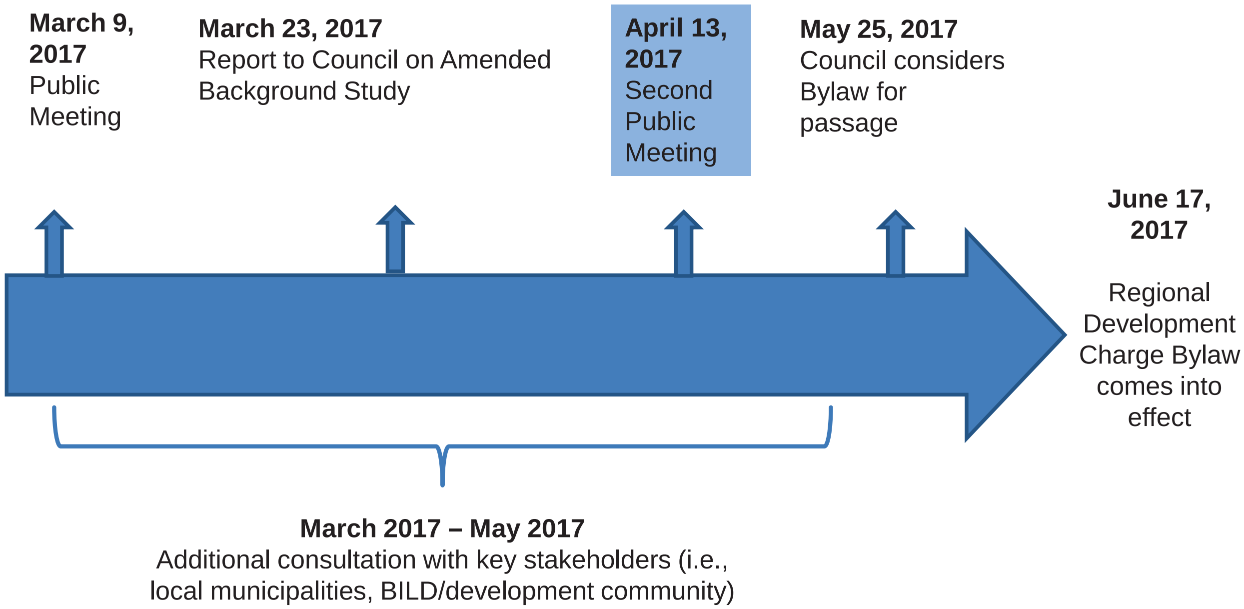
Milestones in the development charge bylaw update process



Potential amendment to the Background Study

- On February 16th, Council directed staff to consult with local municipalities on the roads capital program in the draft background study
- Staff plan to report back to Council on March 23rd with:
  - A proposal to add road projects to the contingent item list, based on Regional prioritization of projects, with a financial trigger
  - Responses to other questions raised by members of Council
- A contingent items list is a schedule of proposed capital projects with associated development charge rate increases should certain conditions be met
- Staff suggest tabling an amended Background Study and adding a second public meeting

Revised process



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Clause 5 in Report No. 3 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on February 16, 2017.

5
Draft 2017 Development Charge Background Study and Proposed Bylaw

Committee of the Whole recommends:

1. Receipt of the presentation by Bill Hughes, Commissioner of Finance.

2. Adoption of the following recommendations, as amended, in the report dated January 25, 2017 from the Commissioner of Finance:

    1. Council receive the draft 2017 Development Charge Background Study and proposed Bylaw (Attachment 1).

    2. A report be brought forward to the May 18, 2017 meeting of Regional Council recommending the 2017 Development Charge Bylaw, taking into consideration the input received at the public meeting, to be held on March 9, 2017.

    3. New revenue sources be sought for unfunded roads and transit projects in the Transportation Master Plan.

    4. The Region not offer transition policies for the 2017 bylaw.

    5. The Regional Clerk circulate this report to the local municipalities.

    6. The Regional Clerk circulate this report to the Building Industry and Land Development Association – York Chapter (BILD).

Report dated January 25, 2017 from the Commissioner of Finance now follows:

1. Recommendations

It is recommended that:

1. Council receive the draft 2017 Development Charge Background Study and proposed Bylaw (Attachment 1).

2. A report be brought forward to the May 18, 2017 meeting of Regional Council recommending the 2017 Development Charge Bylaw, taking into consideration the input received at the public meeting, to be held on March 9, 2017.

3. New revenue sources be sought for unfunded roads and transit projects in the Transportation Master Plan.

4. The Regional Clerk circulate this report to the local municipalities.

5. The Regional Clerk circulate this report to the Building Industry and Land Development Association – York Chapter (BILD).

2. Purpose

The *Development Charges Act, 1997* (the "Act") sets out the legislative framework governing the establishment of development charges, which are used to pay for growth-related infrastructure. This report tables the Regional Municipality of York's 2017 Development Charge Background Study and draft Bylaw. It highlights changes to the development charge rates, bylaw and accompanying policies, complementing a previous report to Council on November 17, 2016.

3. Background and Previous Council Direction

A new development charge bylaw must be passed in order to continue to levy development charges

The Act requires that a municipality pass a new bylaw at least every five years to impose development charges, and that the bylaw must be supported by a background study. The background study provides an estimate of the anticipated growth and infrastructure costs to support that growth. A new development charge bylaw must come into effect on or before June 17, 2017 for the Region to continue to levy development charges.

The 2017 Development Charge Bylaw and Background Study will be made publicly available on February 16, 2017

The Act requires that a background study must be made available a minimum of 60 days prior to passing the bylaw. In addition, it must be made available at least two weeks prior to the statutorily required public meeting. Both the draft bylaw and the background study will be publicly available on the Region’s website on February 16, 2017.

The public meeting to receive feedback on the 2017 Background Study and Bylaw will precede the meeting of the Committee of the Whole on March 9, 2017. Feedback from the public meeting will be considered for inclusion in the 2017 Bylaw.

The 2017 Bylaw, as amended, will then be brought to Council for anticipated approval on May 18, 2017, with a coming-into-force date of June 17, 2017. Table 1 describes the statutory requirements, Council engagements, and the applicable dates.

Table 1
Key Dates in Regional Bylaw Process

Deliverables	Proposed Dates		Time Elapsed
Notice of public meeting	February 2, 2017		
2017 Background Study and Bylaw publicly released	February 16, 2017	21 days	91 days*
Report to Council on the 2017 Background Study and Bylaw	February 16, 2017		
Public meeting at Committee of the Whole	March 9, 2017	70 days	
New Bylaw to Council for anticipated approval	May 18, 2017		
2017 Development Charges Bylaw comes into force	June 17, 2017		

*The amended *Development Charges Act, 1997* requires that a background study be available to the public at least 60 days prior to passing the Bylaw

Stakeholder consultation has been key to the 2017 Bylaw update

Since June 2016, staff have consulted representatives from local municipalities and the Building Industry and Land Development Association – York Chapter (BILD). Staff met with representatives of the local municipalities on six occasions and the BILD working group on seven occasions. Topics discussed include:

- Growth forecast used for the background study
- Development charges calculation methodology and assumptions for water, wastewater, roads, and transit infrastructure
- Area-specific development charges
- Hotel development charges
- Apartment occupancy and size study
- Asset management plans

The Region will update the bylaw following completion of the Municipal Comprehensive Review

Due to proposed amendments to the Provincial Growth Plans, the Region's Municipal Comprehensive Review, intended to address growth to 2041, was put on hold. Consequently, the 2017 Background Study was prepared with a forecast horizon to 2031.

It is anticipated that the Region will update its development charge bylaw after the new Growth Plan policies have been finalized and the Municipal Comprehensive Review is complete. The new background study will address growth beyond 2031. This will likely occur before the statutory maximum period of five years lapses in 2022.

Development charges fund vital growth-related infrastructure throughout the Region

Development charges fund growth-related infrastructure projects required to accommodate residential and non-residential development and are the primary source of funding for the growth-related portion of the Region's capital plan. The 2017 Development Charge Bylaw will help recover a significant portion of the Region's capital program from 2017 – 2031.

Infrastructure services that will be funded under the 2017 Bylaw are listed in Table 2.

Table 2
Infrastructure services funded under the 2017 Development Charge Bylaw

Classification of Infrastructure	Service
Hard Services	Water
	Wastewater
	Roads
General Services	Transit
	Toronto York Spadina Subway Extension
	Police
	Paramedic Services
	Public Health
	Public Works
	Waste Diversion
	Social Housing
	Growth Studies
	Court Services

Development charge rates are levied against new residential and non-residential development in the region

Development charges are levied against new development in the region. A development charge rate is the end result of a calculation that starts with forecasting the growth anticipated in the region and determining the infrastructure needed to service that growth. A number of deductions are made to the estimated cost of infrastructure to determine the costs that are eligible to be recovered through development charges (e.g., level of service cap, post-period benefit, grants and subsidies, benefit to existing and 10 per cent statutory deductions where applicable).

The cost eligible to be recovered through development charges is then apportioned to the growth in the Region by class of development. A municipality has limited discretion in apportioning the charge among classes of development. For the 2017 Background Study, the residential rates are calculated on a per unit basis, and are differentiated among four dwelling types: singles and semi-detached, multiple dwellings, large apartments and small apartments. The non-residential development charges are calculated on a per square foot basis, and are differentiated among three classes of development: (1) retail, (2) industrial, office and institutional, and (3) hotels.

4. Analysis and Implications

The 2017 background study anticipates that the Region will add 136,250 new homes

From 2017 to mid-2031, the draft background study anticipates that the Region will add 136,250 new homes. The housing growth forecast is based on a 2031 mid-year population forecast of 1,545,700 (excludes institutional population). Schedule 3 of the Growth Plan provides population and employment forecasts to 2041 for York Region. The mid-2031 population forecast for the 2017 Background Study is on a trajectory to meet the 2041 Growth Plan forecast.

In addition, this population forecast takes into consideration demographic trends, the timing of servicing infrastructure, market demand, and intensification policy targets. Over the forecast period, there is a shift in the Region's housing mix to higher density forms of housing (see Table 3).

Table 3
Forecast Residential Growth

Year-End	Population (excluding institutional population)	Housing Units			
		Single and Semi-Detached	Multiple Unit Dwellings	Apartments	Total Households
2011	1,074,700	239,145	52,325	37,739	329,209
2016	1,177,900	256,270	61,524	50,641	368,435
2026	1,418,000	294,138	85,270	80,433	459,841
2031 (mid-year)	1,545,700	308,273	97,729	98,683	504,685
2016-2026 Growth	240,100	37,868	23,746	29,792	91,406
2016-2031 Growth	367,800	52,003	36,205	48,042	136,250

Source: Long Range Planning

The 2017 background study anticipates 79 million square feet of new non-residential space between 2017 and mid 2031

The employment forecast for mid-2031 is 780,000, with growth of approximately 177,800 over the forecast period. The non-residential floor space forecast is derived by first estimating the share of the employment growth that would generate new space, and then applying a floor space per worker factor (i.e., density assumption) to each development type.

It is estimated that the Region will add 79 million square feet of non-residential floor space feet over the forecast period (see Table 4). This is substantially less than assumed in previous development charge bylaws, due to:

- lower assumptions for floor space per worker (higher density), and
- a higher portion of employment growth that is not expected to generate new floor space. This share of employment growth is attributable to working from home, contracting out, non-fixed place of work, and re-occupation of existing buildings

The population and employment forecasts are consistent with the forecasts underlying the Region's Water and Wastewater and Transportation Master Plans.

Table 4
Floor Space per Worker and Gross Floor Area Assumptions

Employment Type	Square Feet per Employee*	Gross Floor Area Growth 2017 to mid-2031 (Square Feet - Millions)
Industrial	800	32.0
Office	275	13.2
Institutional	900	16.3
Retail	430	16.0
Hotel	2,000	1.5
Total		**79.0**

Source: Long Range Planning
* The 2012 background study included the following assumptions for floor space per worker:
- Industrial: 950 sqft
- Office: 300 sqft
- Institutional: 1,000 sqft
- Retail: 500 sqft

The total cost eligible to be recovered through development charges is $3.7 billion over 15 years

Over the forecast period, it is estimated that $3.7 billion in growth-related costs is eligible to be recovered through development charges. Table 5 lists the deductions that the Region is required to make to determine the development charge eligible share.

Table 5
Development Charge Eligible Cost Calculation

	Components	Funding Source
Gross Growth-Related Project Costs		
Less	Grants and Subsidies	Other Levels of Governments
Less	Benefit to Existing	Tax Levy/User Rates
Less	10 per cent Statutory Deduction	Tax Levy/User Rates
=	**Total Development Charge Eligible Growth Costs**	
Less	Post-period Benefit and Level of Service Cap	Debt/Future Development Charges
=	**2017-2031 Development Charge Eligible Growth Costs**	Proposed Development Charges

Table 6 outlines the gross growth-related project costs and the various deductions made to derive the costs eligible to be recovered through development charges under the 2017 bylaw. It is estimated that $6.4 billion in capital investments are needed to support growth to 2031. Of this amount, 58 per cent, or $3.7 billion is recoverable through development charges under the 2017 bylaw.

The Background Study estimates that approximately $1.5 billion in costs would need to be funded by other revenue sources. Of this amount, $654 million is anticipated to be funded by grants and subsidies from other orders of government. The remainder, which relates to benefit to existing deduction and the 10 per cent statutory deduction will be funded from tax levy and/or user rates.

Post-period benefit and level of service deductions account for approximately $1.2 billion or 19 per cent of gross costs. Deductions resulting from service level caps are expected to be partially recovered in subsequent bylaws. This is because, as a municipality invests in its infrastructure, the historic service level grows, resulting in some or all of the ineligible portion from the previous bylaw becoming eligible for recovery in the next bylaw.

Finally, deductions due to post-period benefit reflect the extent to which a capital project benefits growth occurring beyond the forecast period of the bylaw (2031). These deductions likely can be recovered through future development charge bylaws, as long as growth takes place at the expected level, and as long as the legislative regime remains the same.

Table 6
2017 Development Charge Background Study Gross Nominal Capital Expenditure*

Category	Gross capital cost ($ Millions)	Less: Recovered through other sources** ($ Millions)	Nominal development charge eligible costs ($ Millions)	Less: Partially recovered through future bylaws*** ($ Millions)	Cost eligible to be recovered under the 2017 bylaw ($ Millions)
Water	603	8	595	389	206
Wastewater	1,793	83	1,710	726	983
Roads	2,782	797	1,985	2	1,983
Transit	382	228	154	0	154
Subway	282	90	191	0	191
Other General Services****	595	326	269	73	196
Total	**6,436**	**1,532**	**4,904**	**1,191**	**3,713**

*Related to period to 2031
**Includes grants, subsidies, benefit to existing and statutory deductions
***Includes post-period benefit and level of service cap deductions
**** Other General Services include: Police, Waste Diversion, Public Works, Paramedic Services, Public Health, Social Housing, Court Services, Court Studies and Senior Services. Excludes GO Transit
Note: Numbers may not sum due to rounding

Table 7 outlines the share of costs to be recovered under the 2017 Bylaw by service.

Table 7
2017 Development Charge Recovery*

Category	Percentage Recoverable in Current Period (%)	Recovered through other sources (%)	Expected to be Recoverable in Future Bylaws (%)
Water	34.13	1.28	64.59
Wastewater	54.85	4.63	40.52
Roads	71.28	28.64	0.08
Transit	40.21	59.78	0.01
Subway	67.98	32.02	0.00
Other General Services**	32.99	54.76	12.25
Total	57.70	23.80	18.50

*Related to period to 2031
**Other General Services include: Police, Waste Diversion, Public Works, Paramedic Services, Public Health, Social Housing, Court Services, Court Studies and Senior Services. Excludes GO Transit

A portion of the new development charge rates will be used to pay off $2.42 billion in outstanding development charges debt

Development charge debt is issued to pay for growth-related infrastructure, which is often required before growth occurs. As development occurs, that debt is serviced with development charges. The Region currently has $2.4 billion in development charge debt (principal only) that will need to be repaid through ongoing and future development charge collections (Table 8). A portion of the development charge rates under the 2017 Bylaw will be used to pay down outstanding development charge debt.

Table 8
Outstanding Development Charge Debt

Category	Outstanding Development Charge Debt ($ Millions)
Water	833
Wastewater	1,097
Roads	271
Transit	2
Subway	160
Other General Services*	57
Total	**2,421**

*Other General Services include: Police, Waste Diversion, Public Works, Paramedic Services, Public Health, Social Housing, Court Services, Court Studies and Senior Services. Excludes GO Transit
Note: Numbers may not sum due to rounding

Compared to the 2012 Development Charge Background Study, the 2017 Development Charge Background Study projects $3.0 billion less in capital expenditures to be recovered through development charges

Under the 2017 bylaw, $3.7 billion in growth-related expenditures over 15 years can be recovered through development charges. This is a significant reduction compared to the 2012 Background Study, which anticipated that $6.7 billion in growth-related costs could be recovered through development charges over 20 years (Table 9). Projected growth-related expenditures are lower in the 2017 Background Study due to:

- Reduced requirements for water and wastewater infrastructure due to a reduction in flow generation rates and due to considerable built capacity (as reflected in the current outstanding debt)
- A 15-year planning horizon, as opposed to a 20-year planning horizon, results in less growth-related expenditures being required for some services
- The full extent of the road infrastructure program envisaged under the Transportation Master Plan has not been included in the draft 2017 background study

Table 9
Development Charge Eligible Costs: 2017 versus 2012

Category	**2017 Net Development Charge Capital Expenditure (2017 to 2031) ($ Millions)**	**2012 Net Development Charge Capital Expenditure (2012 to 2031) ($ Millions)***	**Difference ($ Millions)**
Water	206	1,257	(1,052)
Wastewater	983	2,060	(1,077)
Roads	1,983	2,934	(951)
Transit	154	99	55
Subway	191	214	(23)
Other General Services**	196	160	36
Total	**3,713**	**6,725**	**(3,012)**

*Reflects the final 2012 Development Charge Bylaw. Changes were made after the 2012 Background Study was made public in February 2012. The costs listed above are different from the printed version of the 2012 Background Study.
**Other General Services include: Police, Waste Diversion, Public Works, Paramedic Services, Public Health, Social Housing, Court Services, Court Studies and Senior Services .Excludes GO Transit.
Note: Numbers may not sum due to rounding

Some projects from the 2016 Transportation Master Plan Update have not been included in 2017 Development Charge Background Study

In 2016, the Region updated its Transportation Master Plan. A key focus of the plan is to build a seamless, interconnected system of mobility to address the Region's growth targets to 2041. The recommended networks and related programs will require $8.9 billion for transit and $7.6 billion for road-related capital expenditures to 2041. This is in addition to $5.6 billion in estimated State of Good Repair needs over the same period.

However, funding the full Transportation Master Plan with Regional revenue sources would result in significant tax levy and debt pressures. Preliminary estimates indicate that annual tax levy increases of approximately 6 per cent per year, every year to 2031, would be required to fully fund the initial emplacement and ongoing capital and operating requirement of infrastructure envisaged by the 2016 Master Plan.

In addition, the Region would need to accumulate considerably higher debt to finance these investments. In short, the Region cannot afford to fund the full master plan with current revenue sources.

Due to these challenges, many of the projects in the Transportation Master Plan and in the 2012 Development Charge Bylaw were not included in the 2017 development charge rate calculation. Additional revenue sources will be necessary to fully fund 2016 Transportation Master Plan. The Region should continue to advocate for additional revenue sources to fund these projects.

Changes to the Act allow for greater growth-related cost recovery for transit

In 2015, the *Development Charge Act, 1997* was amended in several significant ways with respect to the recovery of transit-related costs through development charges:

- Removal of the 10 per cent statutory reduction; and
- Permission for municipalities to use a forward-looking planned level of service (rather than historic average).

Transit is still restricted to a 10-year planning horizon for calculating development charges.

For the 2017 background study, the planned level of service for transit is defined as the Region's approved capital plan. This includes approximately $382 million in gross capital costs for transit fleet and facilities over 10 years. This is in addition to the Toronto York Spadina Subway extension, which is defined as a separate and discrete service under the Act.

In addition, it is assumed that the new Bus Rapid Transit projects and the Yonge North Subway extension will be fully funded by the federal and provincial governments. The costs for these projects are not included in the development charge calculation.

Through its approval of the capital program, Council has indicated that it intends to ensure that the increase in need for transit service due to growth will be met. In addition, the transit investments in the capital plan are needed to meet York Regional Transit and Viva's service guidelines in the 2016-2020 Strategic Plan, as adopted by Regional Council.

Owing to the changes in legislation, no deduction for service level cap was made. In addition, the Region will no longer apply a 10 per cent statutory deduction to transit service costs. The benefit to existing share is estimated to be approximately 17 per cent of the gross project cost. Overall, the 2017 Bylaw will recover approximately 40 per cent of transit-related capital costs through development charges. Approximately 43 per cent will be recovered through third party grants and subsidies, with the remainder being funded through tax levy.

Waste diversion services has a growth-related capital program of $9.72 million

Waste diversion is now an eligible service for development charges recovery under the Act. As with most general services, waste diversion is subject to a 10 per cent statutory deduction and limited to a ten-year planning horizon. Landfill sites and incineration, including energy from waste, remain ineligible.

The growth-related capital program for waste diversion is $9.72 million. The portion that can be recovered under the 2017 Bylaw is $4.25 million. The remainder will be funded through the tax levy.

Court services will be included in the 2017 Development Charge Bylaw

Court services is a permitted service under the Act and accompanying regulations. It is being included for the first time due to significant capital expenditures associated with the courts service portion of the Annex building. Court services is subject to a 10 per cent statutory deduction and limited to a 10-year planning horizon. Other municipalities that recover the growth-related component of Court Services include: County of Grey, City of Brampton, City of Guelph, City of Mississauga and the City of Hamilton.

The court services growth-related capital program is $38.17 million. The portion that can be recovered under the 2017 Bylaw is $3.88 million.

Senior Services – Capital Component (previously Long Term Care) will be included on the contingency list under the 2017 Bylaw.

Currently, the Region operates two long term care facilities (Maple Health Centre and Newmarket Health Centre). Construction of new long term care facilities is subject to provincial approval. Recently, the Province shifted its focus away from constructing new long term care facilities, to providing more support and services to help seniors “age in place”.

For the draft 2017 Bylaw, growth-related costs for Senior Services – Capital Component will be placed on a contingent items list. A contingent items list is a schedule of proposed capital projects with associated development charge rate increases should certain conditions be met (the trigger event). The trigger event in this case would be the province indicating they would build/fund new senior services facilities in York Region.

However, even if the trigger event occurs, no development charge rate increase for senior services is expected. This is because the amount collected for the service to date would be sufficient to fund the Region's share of the estimated cost of growth-related senior services projects. Further details can be found in Attachment 1.

Proposed residential development charge rates for single-family detached have increased by approximately 13 per cent

Table 10 summarizes the current residential development charge rates and the proposed rates under the 2017 Bylaw. Further information detailing the methodology used to calculate these rates is in the 2017 Development Charge Background Study (Attachment 1).

Table 10
Residential Development Charge Rates: Current versus 2017

	Current Development Charge Rates ($ per Dwelling Unit)	**Proposed 2017 Development Charge Bylaw Rates ($ per Dwelling Unit)**			
	Single & Semi-Detached	Single & Semi-Detached	Multiple Unit Dwelling	Apartment >= 700 Sqft	Apartment < 700 Sqft
Water	9,817	9,263	7,457	5,419	3,959
Wastewater*	17,221	18,708	15,060	10,945	7,996
Roads	12,129	14,240	11,463	8,331	6,087
Subtotal	39,167	42,211	33,980	24,696	18,042
Transit	801	1,215	978	711	519
Subway	999	2,547	2,051	1,490	1,089
Other General Services**	1,328	1,824	1,468	1,067	779
GO Transit***	342	342	269	198	125
Total	**42,637**	**48,139**	**38,745**	**28,161**	**20,555**

*Nobleton wastewater rates are levied under a separate bylaw (No. 2016-40)
**Other General Services include: Police, Waste Diversion, Public Works, Paramedic Services, Public Health, Social Housing, Court Services, Court Studies and Senior Services
***GO Transit development charges are levied under the GO Transit development charge bylaw and only apply to residential development
Note: Current rates for multiple unit dwellings, apartments greater than 650 square feet (inclusive) and apartments less than 650 square feet are: $37,300, $26,414 and $17,928 respectively.
Note: Numbers may not sum due to rounding

Based on the Background Study, the development charge rate for new single and semi-detached homes will be $48,139, a 12.9 per cent increase over current rate of $42,637.

The increase in the rate can be broken down into two parts:

- A 9 per cent increase in the residential share of development charges eligible cost on a per capita basis
- An increase in the persons per unit assumptions for single and semi-detached home

The rate increase for multiple unit dwellings and large apartment is 3.9 per cent and 6.6 per cent respectively. The lower rate of increase is due to the reduction in average occupancy observed in these dwelling types. The development charges rate for new small apartments (less than 700 square feet) is 14.7 per cent. This is largely due to a higher assumed average occupancy in small apartments.

Proposed non-residential development charge rates have increased by 0.16 per cent for retail and decreased by 12.59 per cent for non-retail

Non-residential development charges will see a reduction compared to current levels. This is largely due to changes in the projected composition of residential versus non-residential development in the Region, as well as changes in the methodology for allocating transportation-related costs. These changes result in a smaller share of costs being allocated to non-residential development compared to the 2012 background study.

Table 11 summarizes the current non-residential development charge rates and the proposed rates under the 2017 Bylaw. Further information detailing the methodology used to calculate these rates is in the 2017 Development Charge Background Study (Attachment 1).

Table 11
Non-residential Development Charge Rates: Current versus 2017

	Current Development Charge Bylaw Rates ($)				**Proposed 2017 Development Charge Bylaw Rates ($)**					
	Per Square Foot of Gross Floor Area		Per Square Metre of Gross Floor Area		Per Square Foot of Gross Floor Area			Per Square Metre of Gross Floor Area		
	IOI*	Retail	IOI*	Retail	IOI*	Retail	Hotel	IOI*	Retail	Hotel
Water	4.94	6.15	53.17	66.20	3.43	5.57	0.97	36.93	59.93	10.49
Wastewater**	8.69	10.81	93.54	116.36	6.93	10.53	1.95	74.61	113.31	21.00
Roads	5.50	19.55	59.20	210.43	5.33	18.15	3.73	57.42	195.39	40.15
Transit	0.31	1.10	3.34	11.84	0.48	1.64	0.36	5.16	17.63	3.90
Subway	0.45	1.61	4.84	17.33	0.91	3.11	0.71	9.84	33.53	7.67
Other General Services***	0.43	0.53	4.63	5.70	0.67	0.82	0.22	7.21	8.77	2.39
Total	**20.32**	**39.75**	**218.72**	**427.87**	**17.76**	**39.81**	**7.95**	**191.18**	**428.56**	**85.61**

*IOI = Industrial, Office and Institutional development charges
**Wastewater development charges for the Village of Nobleton are levied under Bylaw No. 2016-40
*** Other General Services include: Police, Waste Diversion, Public Works, Paramedic Services, Public Health, Social Housing, Court Services, Court Studies and Senior Services. GO Transit development charges are levied under the GO Transit development charge bylaw and only apply to residential development
Note: Numbers may not sum due to rounding

Hotel development charge rates are down by 80.27 per cent for a typical hotel

Under the proposed 2017 Bylaw, hotels are in their own class and are levied a per square foot hotel charge of $7.95. Under the 2012 Bylaw, hotels were charged a blended rate, where the rooms were charged the small apartment rate, and 25 per cent of the total gross floor area was charged the retail rate. This blended rate structure resulted in a hotel charge of roughly $40.31[1] per square foot.

[1] Note: Hotels were not identified as a separate rate under the 2012 Regional Bylaw (No. 2012-36), but rather used a blended rate. The blended rate was to charge hotels based on the sum of two factors. The first factor was to levy the small residential apartment charge on each overnight room or suite of rooms. The second factor was to levy the gross floor area for the entire hotel at 25 per cent of the retail charge. The per square foot/metre rate for hotels has been calculated using the blended rate and applying it to an ‘average hotel’ in the Region (approximately 124 units and 73,200 square feet).

York Region now joins the City of Brampton and Niagara Region in putting hotels in their own class. Charging a separate hotel rate has no adverse effect on development charge collections. This is because hotels are not being given a discount or an exemption. Rather, hotel developments are simply being allocated their portion of the Region's growth-related capital program (put another way, the pie is being split into one more piece – hotels). Because hotels tend to have fewer employees per square foot of space, hotel rates are lower compared to other non-residential development. As Table 12 shows, hotel development charges in the Region are now significantly lower than any of the Region's neighbouring municipalities.

Table 12
Hotel development charges comparison

Municipality	Hotel development charge rate ($ per square foot)
Halton Region*	23.11
City of Toronto	19.28
Peel Region	18.81
Durham Region	13.55
City of Brampton**	8.66
York Region	7.95
Niagara Region**	3.65

*Note: Total urban (built boundary)
**Note: Put hotels in their own class

The Region has prepared an asset management plan for all projects funded by the 2017 Bylaw

The amended Act requires municipalities to prepare an asset management plan as part of their Background Study that will demonstrate that all assets funded by development charges are financially sustainable over their lifecycle. The intent of this requirement is to ensure that municipalities do not include growth projects in their background studies that are not financially sustainable. While the regulations to the Act provide detailed requirements for asset management plans for transit, the same guidance was not provided for other services.

The asset management plan, as prepared under section 10 of the Act, can be found in Attachment 1.

The draft 2017 Bylaw changes the threshold to delineate small and large apartments from 650 square feet to 700 square feet

Through the consultation process, Regional staff worked with representatives from the Building Industry and Land Development (BILD) York chapter to analyze the relationship between apartment size and average occupancy. The result of this analysis informed the proposed delineation between small and large apartments for the 2017 Bylaw.

Staff analyzed Census data to determine occupancy and RealNet data to determine apartment size. Study findings were supplemented by a sample of apartment size data from recently completed or sold projects provided by BILD representatives. This study concluded that a 700 square foot threshold is an appropriate threshold to delineate small and large apartments. In addition, the 700 square foot threshold recognizes one bedroom plus den as a small apartment. In the past, this unit type was considered a large apartment.

Staff will provide Council with a proposed 36-month deferral policy for private purpose-built rentals in May 2017

Currently, the Region offers development charge deferrals for high-rise condominiums, high-rise office and retail developments. Table 13 provides further detail of current development charge deferral policies.

Table 13
Existing deferral policies

Type of development	Duration of deferral	Security taken	Additional details
Retail	36 months	Letter of Credit	Payment will be deducted from the Letter of Credit through three equal yearly payments
High-Rise Condominium	18 months	Letter of Credit	Payment will be deducted from the Letter of Credit at whichever of the following comes first: • 18 months after the building permit is issued • When the condominium is registered
High-Rise Office	18 months	Letter of Credit	Payment will be deducted from the Letter of Credit 18 months after the building permit is issued.

In 2013, Council authorized a pilot project to defer development charges for a private, purpose-built, rental at 212 Davis Drive in the Town of Newmarket. Staff are now proposing to use the tenets of this Council-approved agreement to establish a Region-wide deferral policy for private purpose-built rentals. Key elements of the 212 Davis Drive agreement that will be part of the proposed policy are;

- 36 months deferral with development charges being calculated at building permit
- No interest will be charged
- Twenty-year change of use covenant registered on title
- Security taken is a charge against land
- Local municipal participation is required
- Region gets first choice of up to 10 per cent of units

Staff intend to bring the proposed policy for Council approval as part of the planned May Council Report on the final development charge bylaw.

A number of policies remain unchanged after review

Table 14 summarizes the policies that were reviewed but remain unchanged. Further details can be found in Attachment 1.

Table 14
Areas reviewed but unchanged

Area	Reason for review	Reason for no change
Region-wide versus area-specific development charges	Change to statute	Region's services are regional in nature Proposed provincial amendments to the Growth Plan affect spatial distribution of growth
2013 Development Charge Credit Policy	Change to statute	Policy was in compliance with prohibition against "additional levies" (section 59.1(1) of the Act)
Development charge treatment for LEED certified buildings	Previous appeals	Change to Building Code has contributed to narrowing of savings between LEED and non-LEED buildings

Administrative changes were made to the 2017 Development Charge Bylaw

Staff are also proposing two administrative changes to the Bylaw, shown in Table 15. Further details can be found in Attachment 1.

Table 15
Administrative changes made to the Bylaw

Area	Reason for review	Change
Definition of building permit	Change to statute	Building permit is defined Clarifying when development charges are to be paid if a development consists of one building but requires more than one building permit (section 26(1.1) of the Act)
Timing of payment for future development blocks	Stakeholder concern	Where there are future development blocks, development charges for those blocks are payable on the day on which a building permit is issued

5. Financial Considerations

It is estimated that $6.4 billion in infrastructure will be needed to support planned growth to 2031; of that amount, $3.7 billion could be recovered through development charges under the 2017 Bylaw.

The development charge bylaw is designed to ensure that growth-related capital costs are borne by the development creating the need for the infrastructure to the extent possible. Other funding sources such as the tax levy will be needed to cover the portion of growth-related infrastructure costs that cannot be recovered through development charges.

Growth rates in York Region have been lower than the Provincial Growth Plan forecast over the past decade

The development forecast underlying the 2017 Background Study reflects provincially mandated growth targets. If actual growth in the Region falls short of provincial targets, so too will development charge collections.

York Region was expected to make up 27 per cent of the Greater Toronto Area's population growth between 2006 and 2016, based on the Growth Plan. According to Statistics Canada, the actual population growth in the Region from 2006 to 2015 was 25 per cent of the GTA total. The Ministry of Finance's Spring 2016 forecast to 2031 projected that this trend could continue. Slower-than-forecast growth could lead to stranded infrastructure, stranded debt and tax levy pressures.

No transition provisions or discounts are proposed for the payment of new Regional development charges

Under the Act, a municipality has the option to collect development charges before or after they would otherwise be payable. Municipalities also have the ability to offer development charge discounts and/or exemptions.

In the past, the Region provided transitional provisions to bridge one bylaw to the next. Transitional provisions could include phasing-in of development charge rate increases, or allowing qualified developments to pay at old rates. These provisions resulted in significant lost revenues that must be made up through other sources (e.g., the tax levy).

Staff are not recommending any transitional policies with the 2017 Bylaw.

6. Local Municipal Impact

Development charges fund vital growth-related infrastructure. The infrastructure that the Region builds with development charges helps local municipalities manage growth and development. The roads, water and wastewater, transit and general services all benefit future residents and businesses in the entire Region.

The Region's development charge bylaw also influences the bylaws of our local municipalities. This is why the Region has engaged with its local municipalities on many occasions, soliciting feedback and incorporating ideas into the development of the draft 2017 Development Charge Bylaw.

7. Conclusion

This report, accompanying the tabling of the 2017 Development Charge Background Study and Bylaw, highlights proposed bylaw and policy changes. It also provides Council with information relating to the development charge rates proposed in the 2017 Bylaw.

Subsequent to a public meeting on March 9, 2017, staff will analyze all feedback and will bring a final background study and bylaw for consideration by Council on May 18, 2017, with a proposed coming-into-force date of June 17, 2017.

For more information on this report, please contact Edward Hankins, Director, Treasury Office, at 1-877-464-9675 ext.71644.

The Senior Management Group has reviewed this report.

January 25, 2017

Attachment 1 is available for viewing on York.ca

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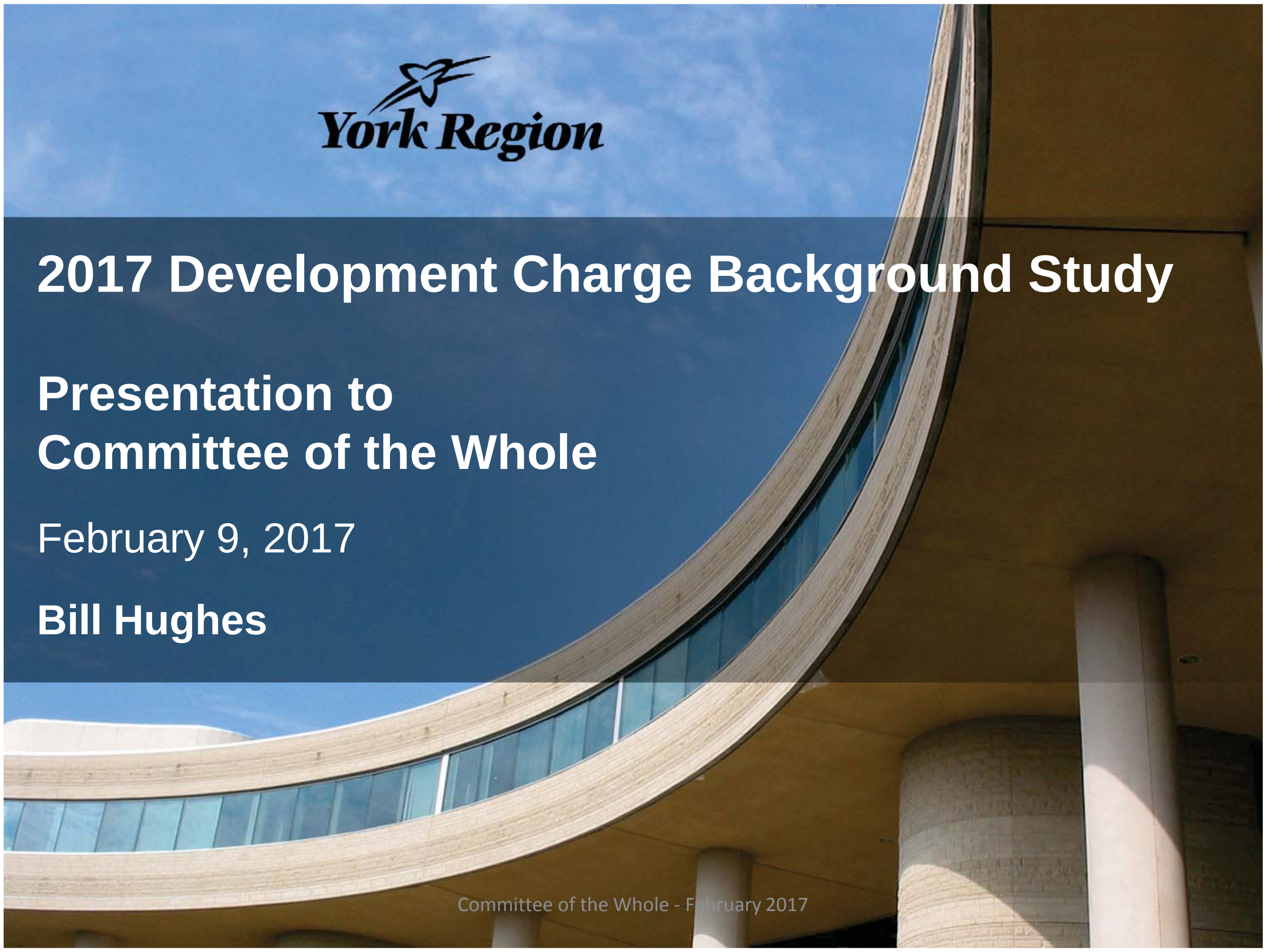
Accessible formats or communication supports are available upon request



2017 Development Charge Background Study

Presentation to
Committee of the Whole

February 9, 2017

Bill Hughes

Outline

1. Overview
2. Introduction to the Rate Calculation
3. Growth Forecast
4. Growth-related Costs
5. Highlights of Policy and Methodological Changes
6. Development Charge Rates in Context
7. Fiscal Considerations
8. Process
9. Summary of Recommendations

OVERVIEW

Proposed development charge rates

Rate Class	$ Rate / Unit
Singles and Semis	48,139
Multiples	38,745
Large Apartments (≥ 700 sqft)	28,161
Small Apartments (< 700 sqft)	20,555

Rate class	$ Rate / Sqft
Retail	39.81
Industrial/Office/Institutional	17.76
Hotels	7.95

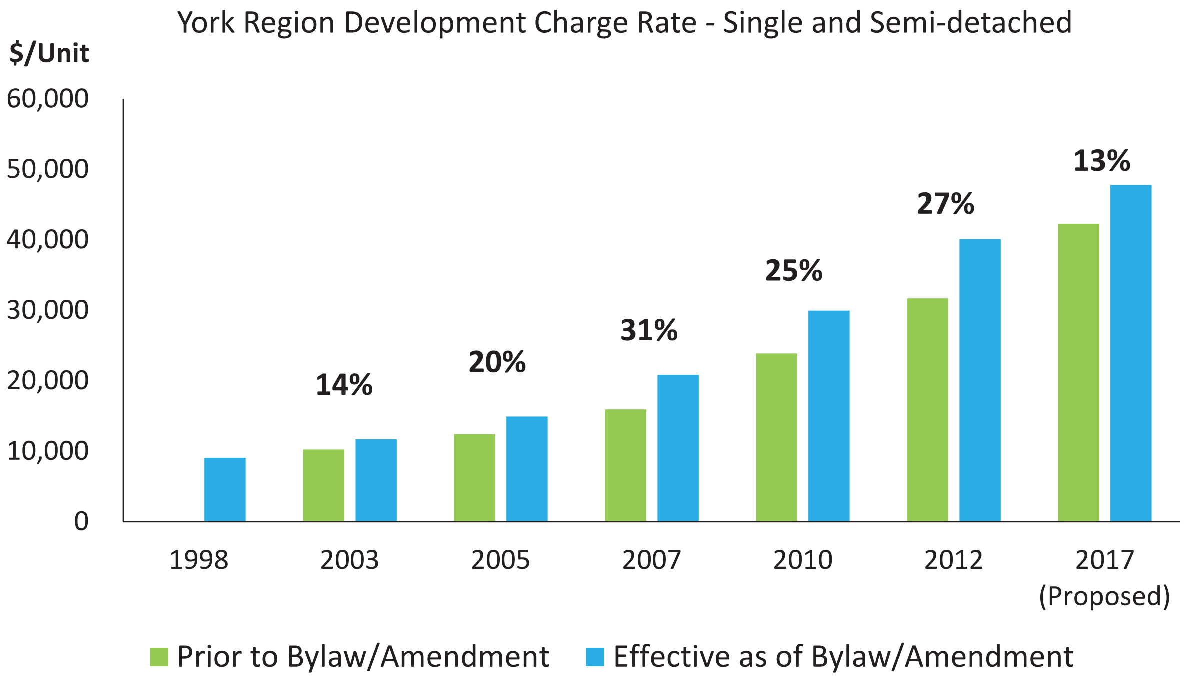
Residential rates are going up

Rate Class	$ Change /Unit	% Change	
Singles and Semis	5,502	13%	
Multiples	1,445	4%	
Large Apartments (≥ 700 sqft)	2,627	7%	
Small Apartments (< 700 sqft)	1,747	15%	

Non-residential rates are declining or staying the same

Rate class	$ Change/ Sqft	% Change	
Retail	0.06	0.16%	
Industrial/Office/Institutional	-2.56	-13%	
Hotels	-32.35	-80%	

These rate increases are the lowest in the Region's history



INTRODUCTION TO THE RATE CALCULATION

What is a development charge background study?

- Before passing a development charge bylaw, municipalities are required to complete a background study
- The background study provides the justification for the development charge rates for each class of development

Calculating development charge rates

$$\text{Development charge rate for a class} = \frac{\text{Eligible growth costs} \ \textbf{less} \ \text{Deductions}}{\text{Units of growth}}$$

Most growth-related infrastructure services are eligible

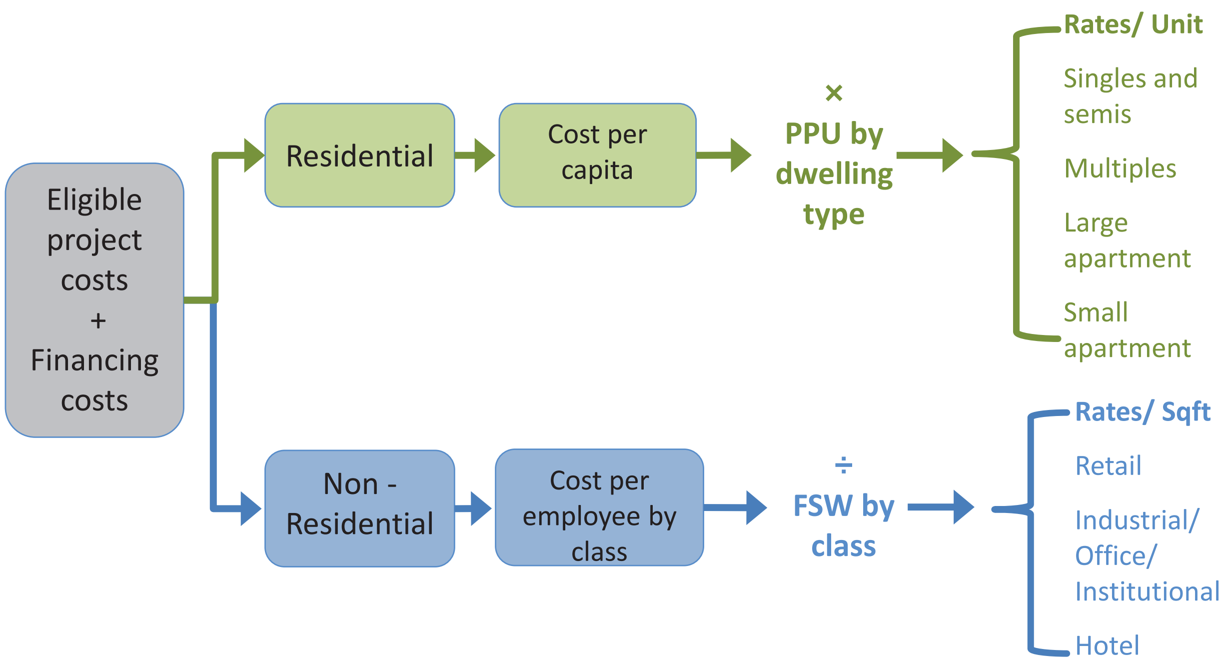
Eligible Infrastructure	
Hard Services	**General Services**
Water Wastewater Roads	Transit Subway Police Other general services (e.g., social housing, waste diversion, courts etc.)

Ineligible Infrastructure
Cultural and entertainment facilities Landfill sites and waste incineration Municipal administrative facilities

Deductions significantly reduce the amount that can be recovered

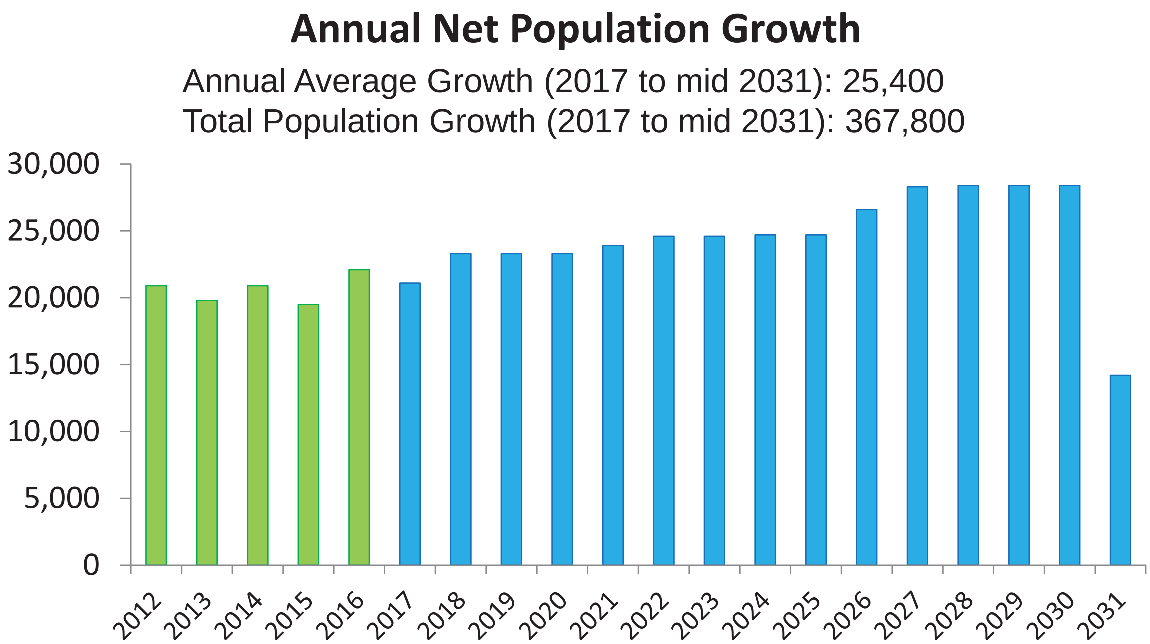
Permanently Lower DC-Recoverable Costs	Temporarily Lower DC-Recoverable Costs	Direct Offset
Benefit to existing	Post-period benefit	Grants and subsidies
10 per cent statutory deduction (applies to some services)	Historic level of service cap (applies to some services)	

The rate calculation is relatively straight forward

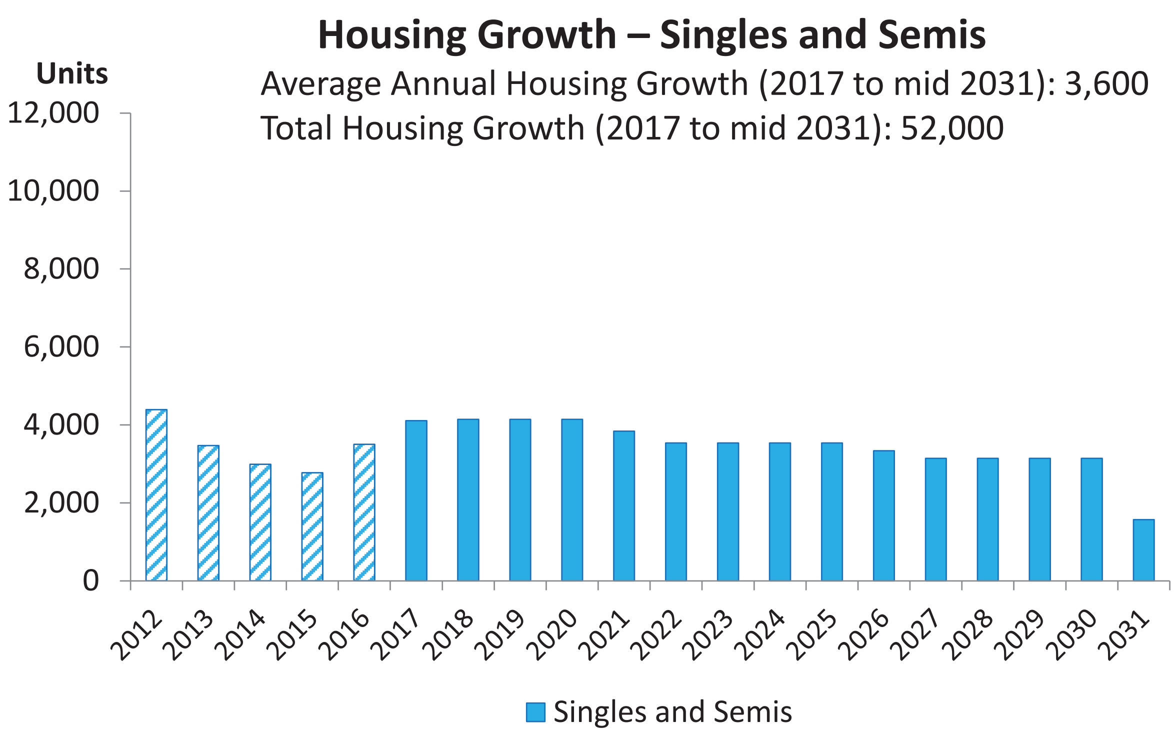


GROWTH FORECASTS

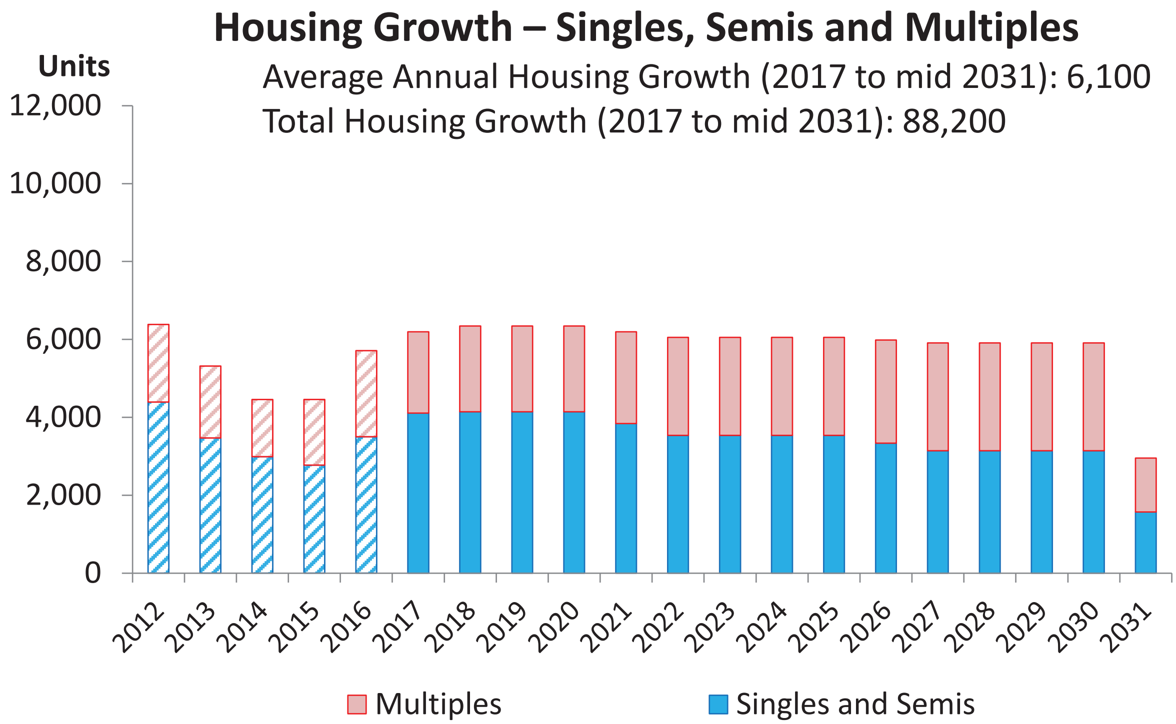
Population growth forecast is based on Growth Plan targets



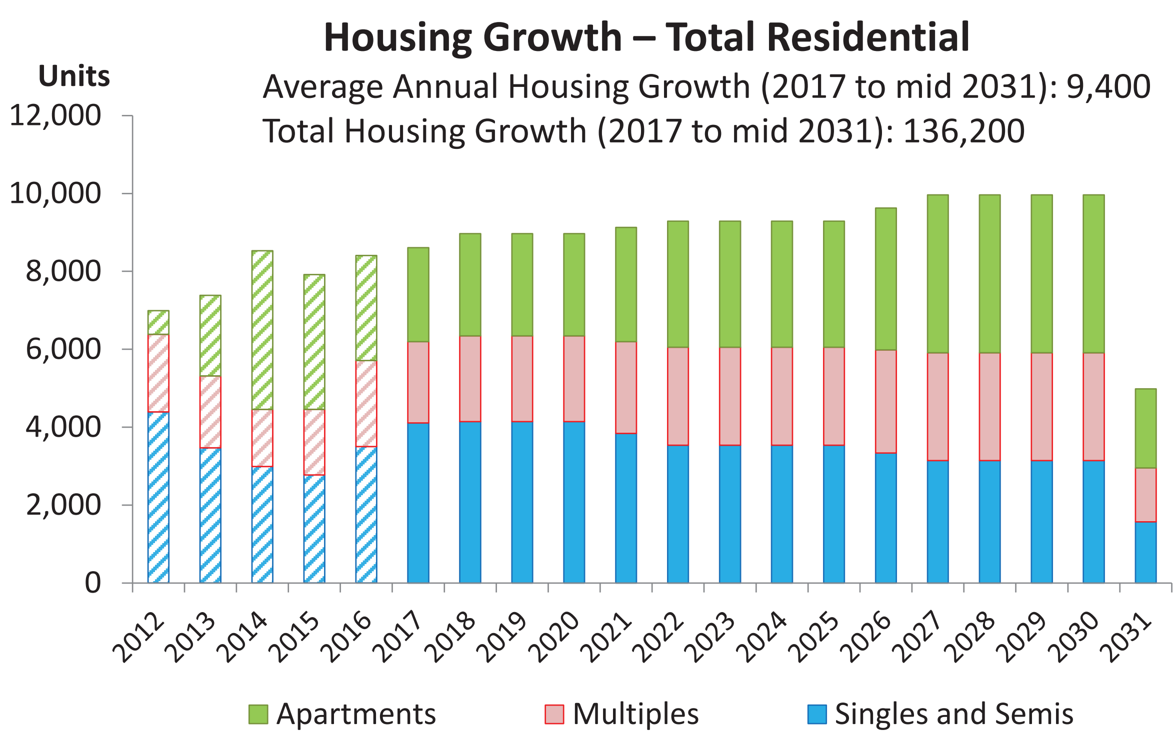
Housing mix will vary over time



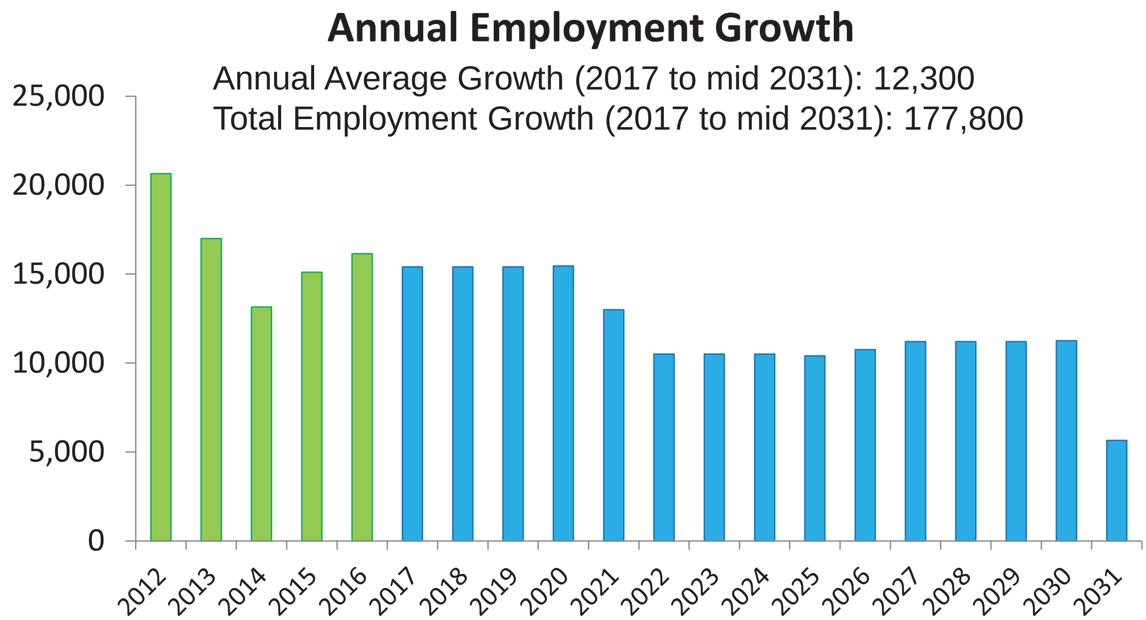
Housing mix will vary over time



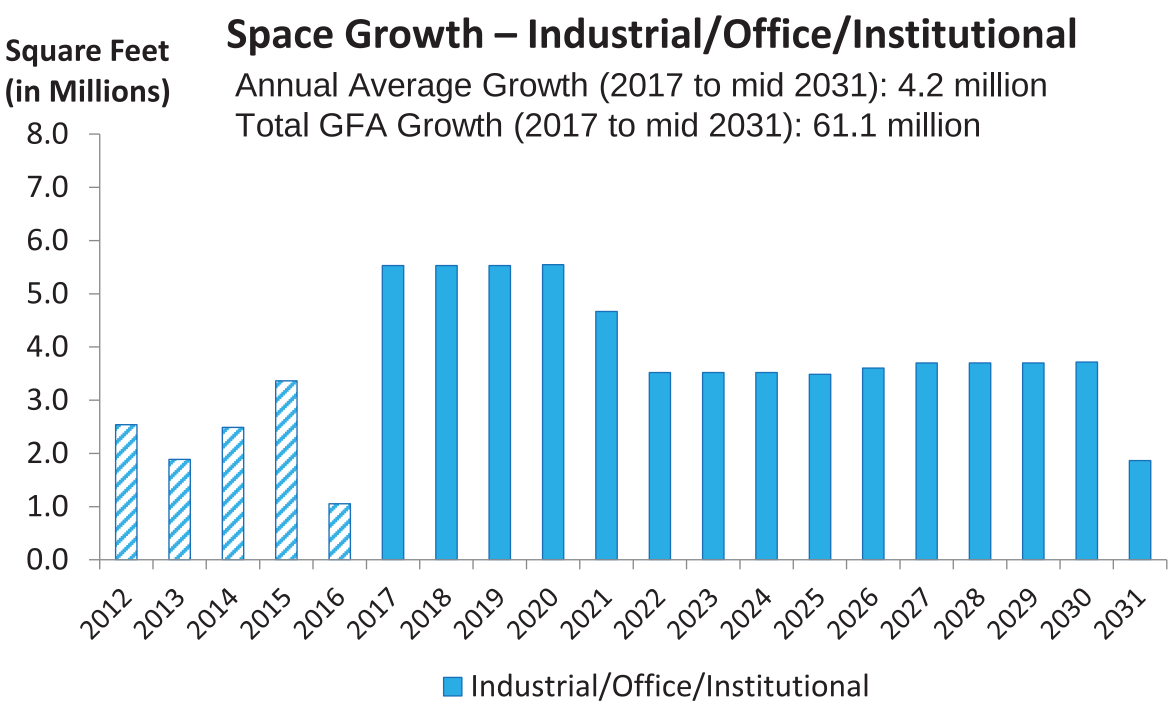
Housing mix will vary over time



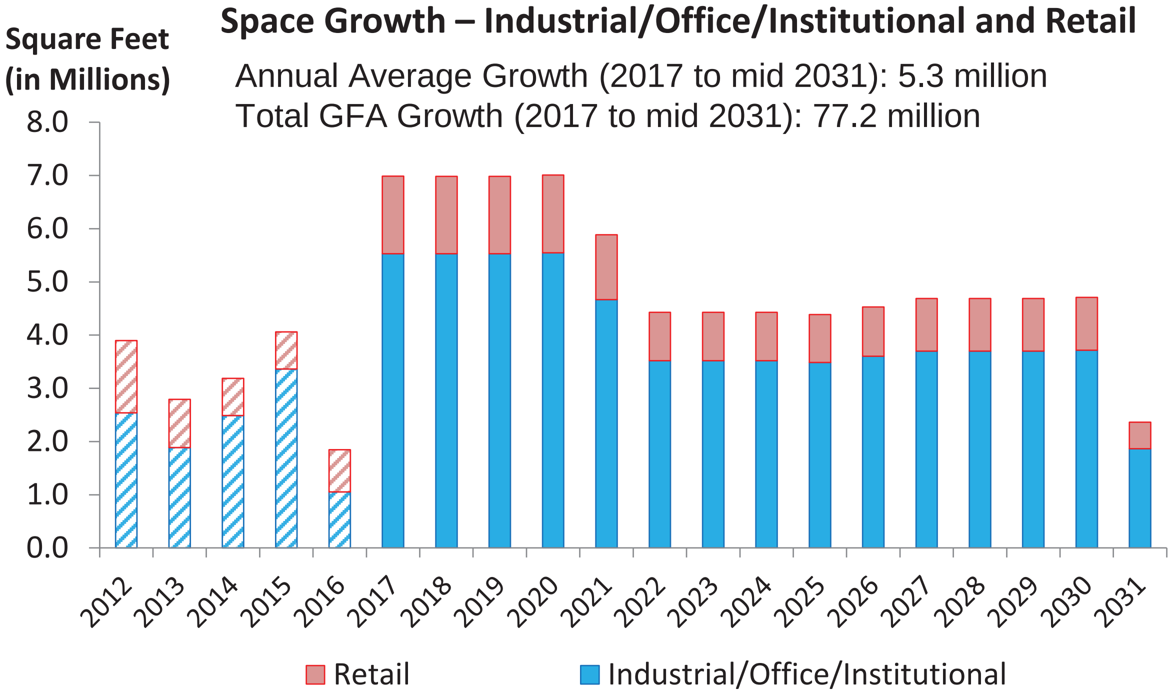
Employment forecast is also based on Growth Plan targets



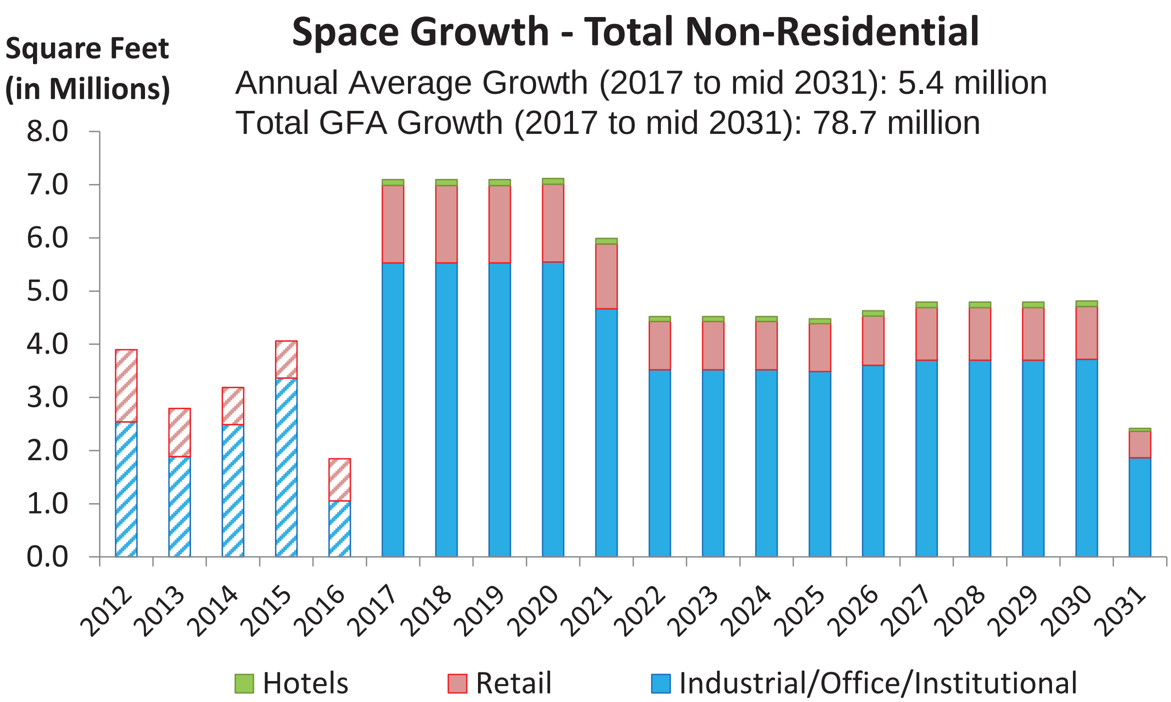
Near-term non-residential growth expected to be strong



Near-term non-residential growth expected to be strong



Near-term non-residential growth expected to be strong



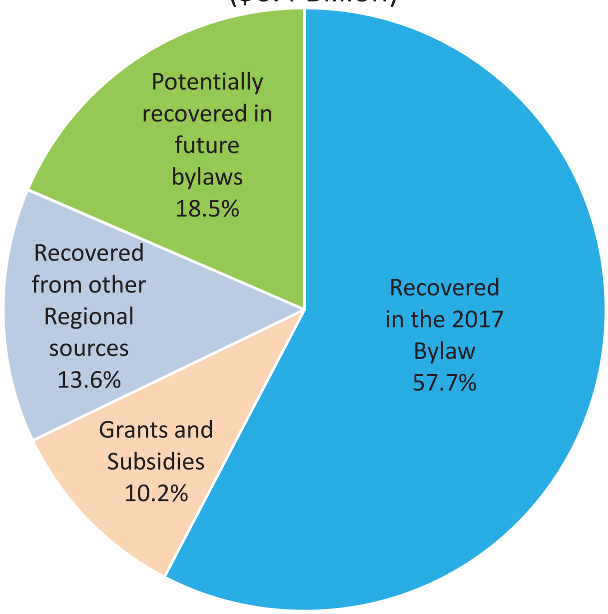
Key Points

- The growth forecast used in the development charge calculation has to be consistent with the Growth Plan and the Official Plan
- The forecasts used for the development charge calculation are somewhat higher than the growth rates experienced recently

GROWTH-RELATED COSTS

Background Study includes $6.4 billion of growth-related investment

Share of Gross Costs to be recovered 2017-2031 ($6.4 Billion)



Category	$ Millions
Recovered in 2017 Development Charge Bylaw	3,713
Potentially recovered in future bylaws	1,191
Recovered from other Regional sources	877
Grants and Subsidies	655
Total	**6,436**

Development charges also include the cost of debt

Service	Net Interest Cost for New Development Charge Debt ($ Millions)	Principal and Interest on Existing Development Charge Debt ($ Millions)
Hard Services	283.9	3,153.2
General Services	24.9	310.4
Total	**308.8**	**3,463.6**

Not all Master Plan costs are included

$ Millions	Transportation Master Plan growth-related costs (2017-2041)	Transportation Master Plan growth-related costs (2017-2031)	Included in Background Study
Roads	7,586	5,592	2,782
Transit	8,888	7,170	382

Key Points

- Approximately 58 per cent of the $6.4 billion in growth-related costs identified in the Background Study can be recovered through development charges under the 2017 Bylaw
- The cost of growth-related debt – both existing and new – can be included in the development charge rate

HIGHLIGHTS OF POLICY AND METHODOLOGICAL CHANGES

The draft bylaw features a number of policy changes

Area	Change
Threshold to delineate small and large apartments	Threshold moved to 700 square feet from 650 square feet
Deferral for private purpose-built rentals	36 month deferral policy proposed (similar to 212 Davis Drive in Newmarket)
Hotel Development Charge	Separate class for hotels, with charge levied on a per square foot basis
Transition provisions	No transitional provisions

Changes in methodology helped enhance cost recovery

Service	Changes
Roads	Recognizing projects that are triggered by growth as 100 per cent growth-related
Transit	Using a planned level of service instead of historic service level cap No longer subject to the 10 per cent statutory deduction
General Services	Inclusion of waste diversion and court services for the first time Deducting the historic level of service cap after all other deductions instead of before; this allows for more cost recovery in the current bylaw

Persons per unit assumptions have changed

Development Type	2012 Study (19.5-year assumption)	2017 Draft Study (14.5-year assumption)
Single and Semi-detached	3.59	3.74
Multiple Unit Dwelling	3.15	3.01
Large Apartments*	2.23	2.19
Small Apartments*	1.51	1.60

*In the 2012 Background Study the threshold is 650 Sqft. In the 2017 Draft Background Study the threshold is 700 Sqft

And so have floor space per worker assumptions

Development Type	2012 Background Study (Employee per Sqft)	2017 Draft Background Study (Employee per Sqft)
Industrial	950	800
Office	300	275
Institutional	1,000	900
Retail	500	430
Hotel	N/A	2,000

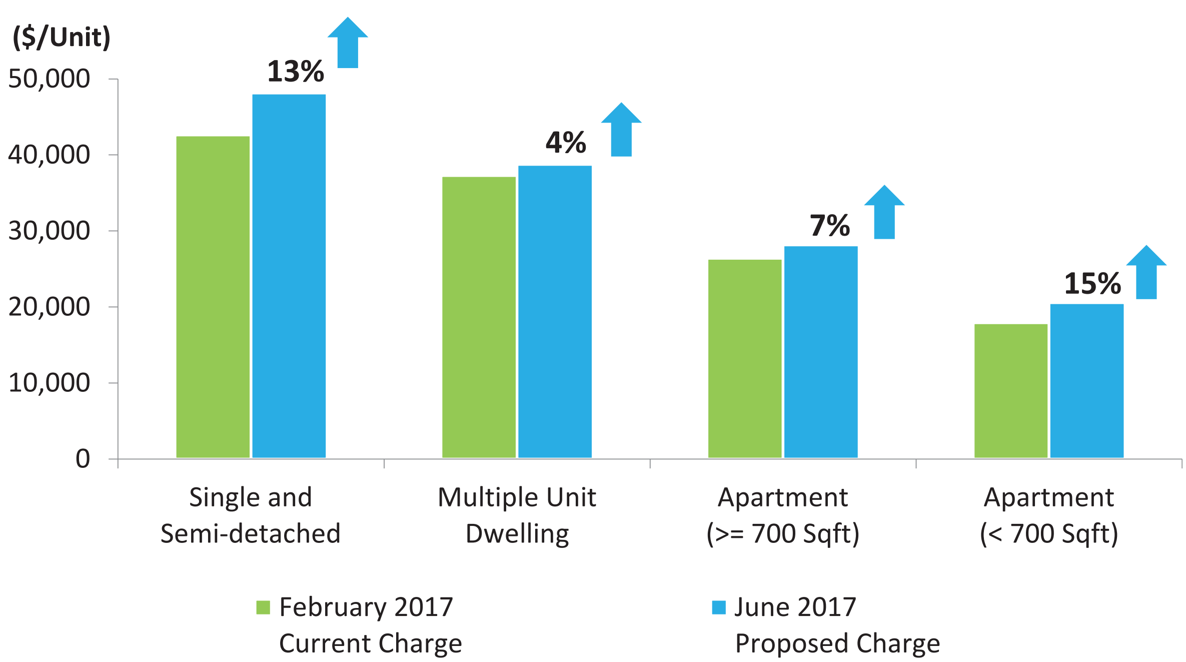
Key Points

- Policy changes respond to changing circumstances:
  - Apartment size threshold based on a study carried out with BILD
  - Hotel and private purpose-built rental policies respond to Council direction
  - No transition measures, given the moderate rate changes and revenue losses from previous transition polices
  - The methodological changes generally have the effect of distributing costs more fairly among classes and increasing cost recovery

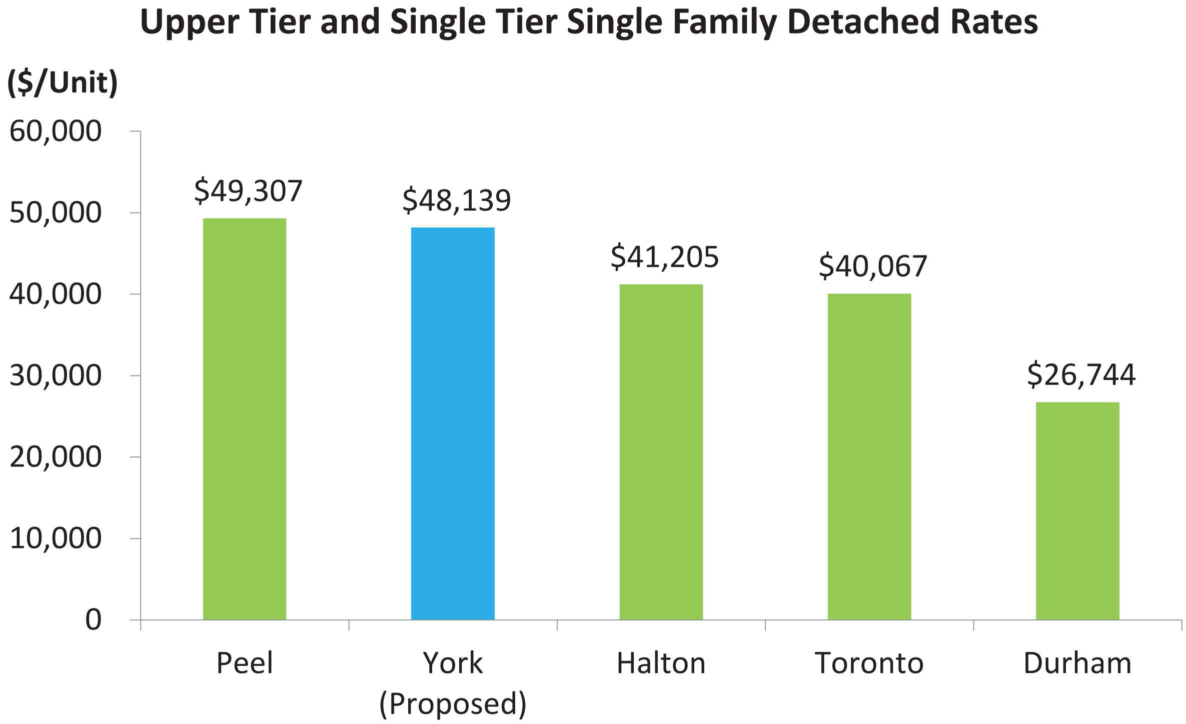
DEVELOPMENT CHARGE RATES IN CONTEXT

Moderate increases in proposed residential rates

Current versus 2017 Proposed Development Charges Residential



York Region's single family rates will be the second highest



Residential development charges are a declining share of new housing prices

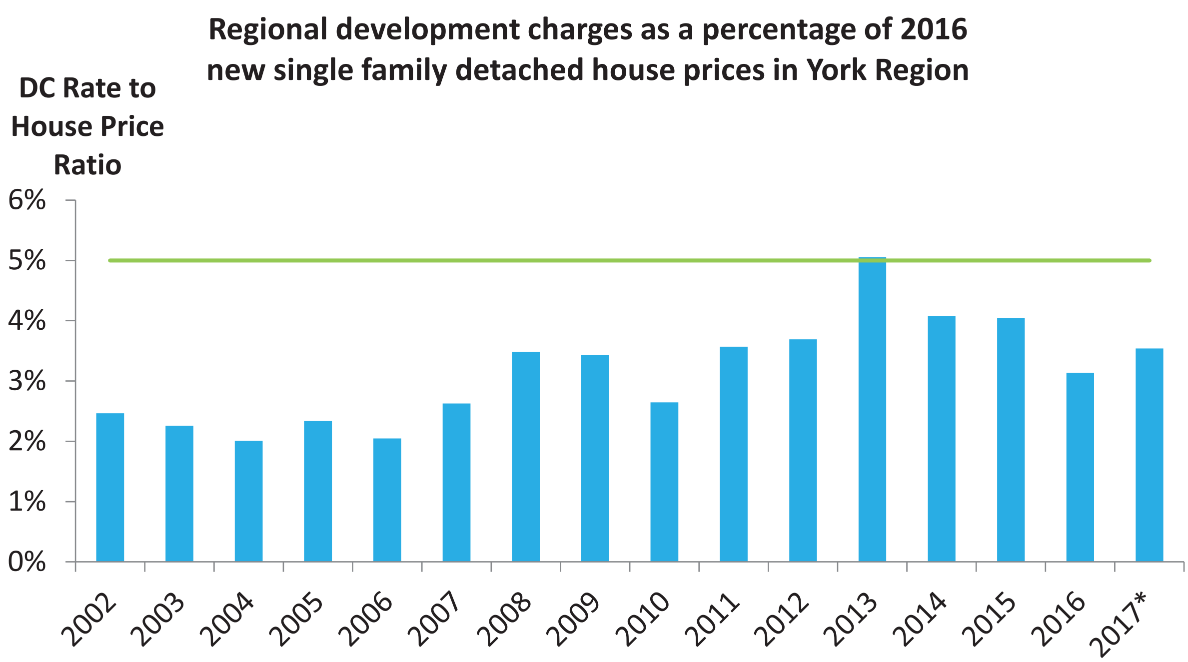
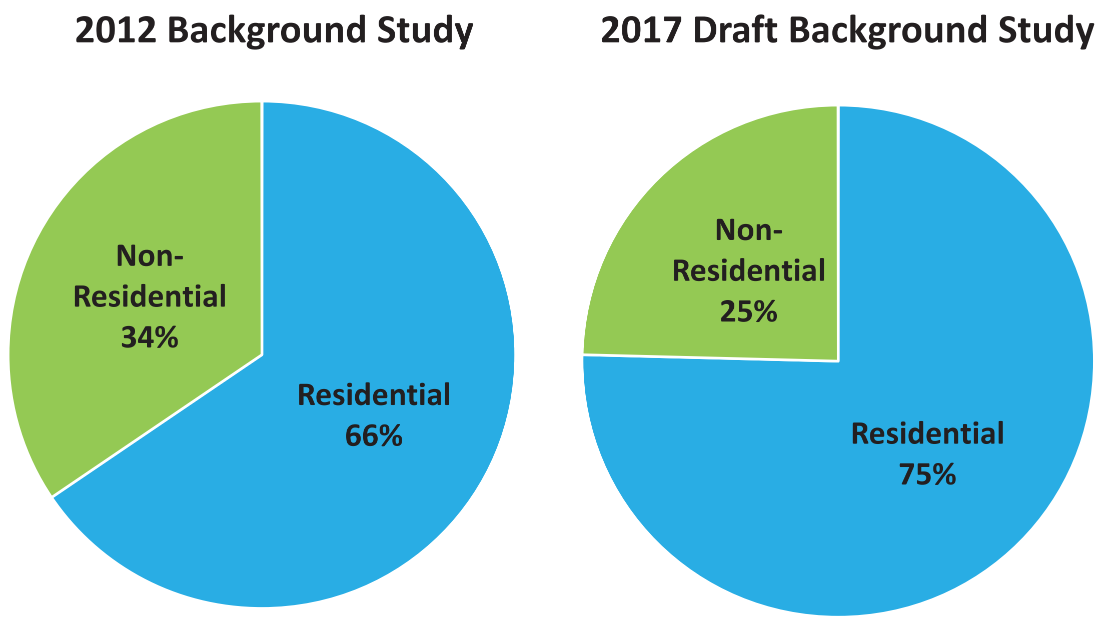
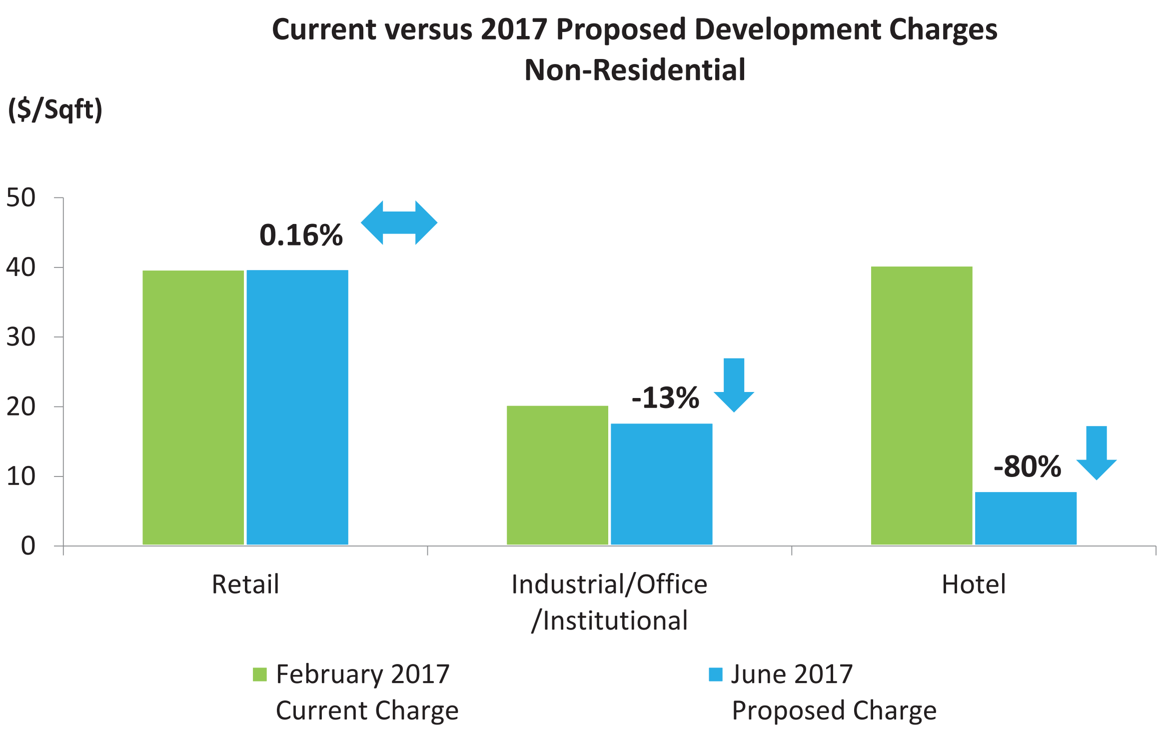


*Figure is based on rates in the 2017 draft Background Study and 2016 new single family detached house prices

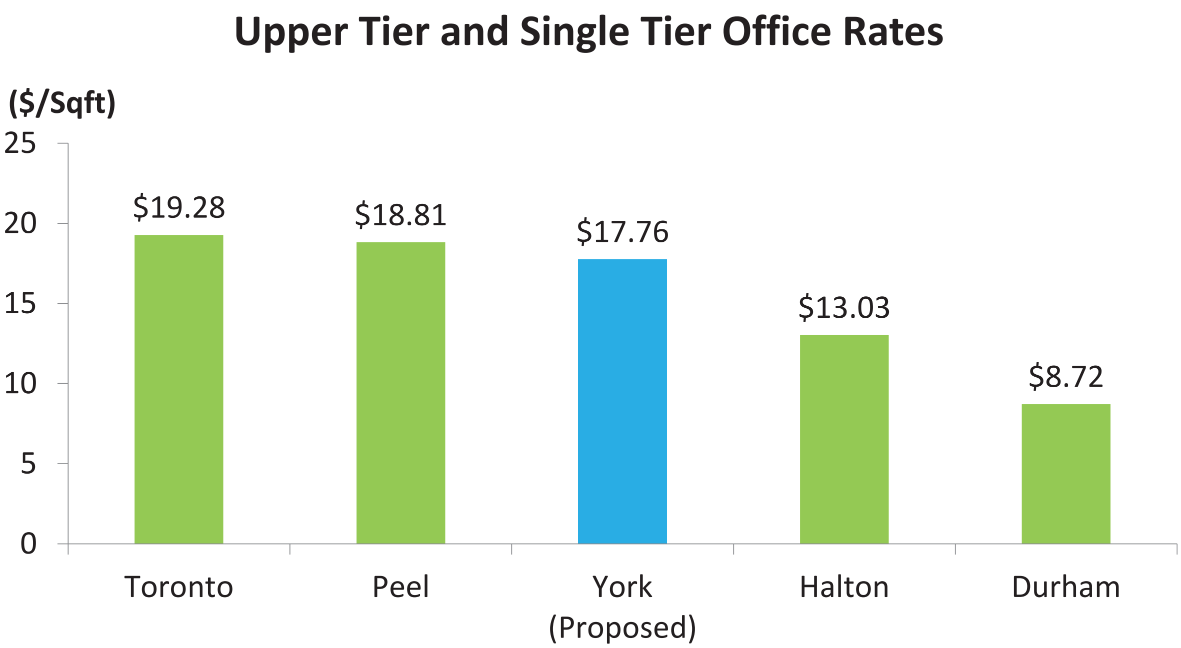
A greater share of the cost will be born by the residential sector



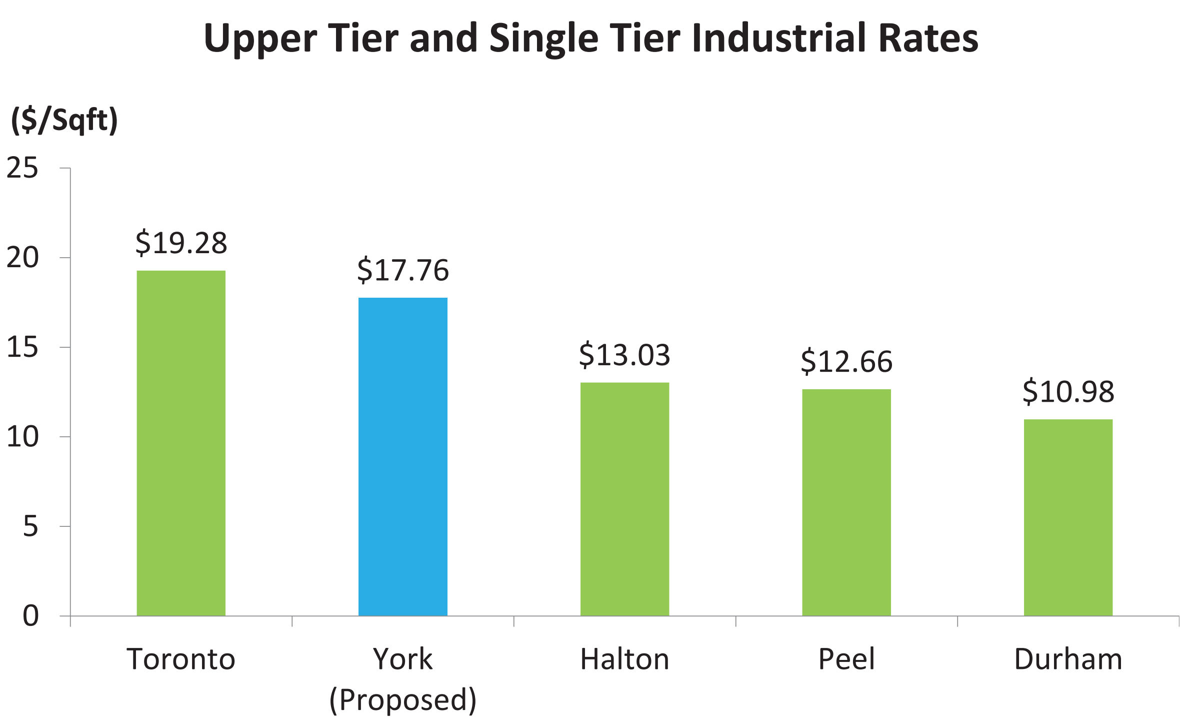
Non-residential rates have stayed the same or fallen



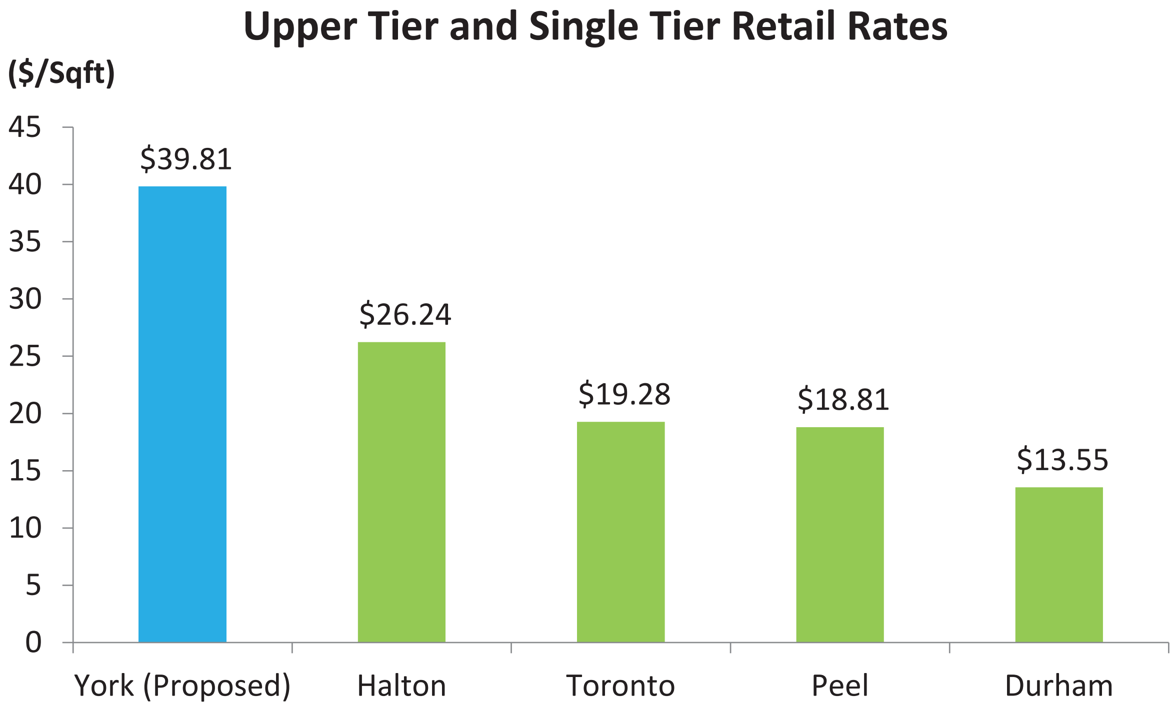
York Region's office rates are competitive



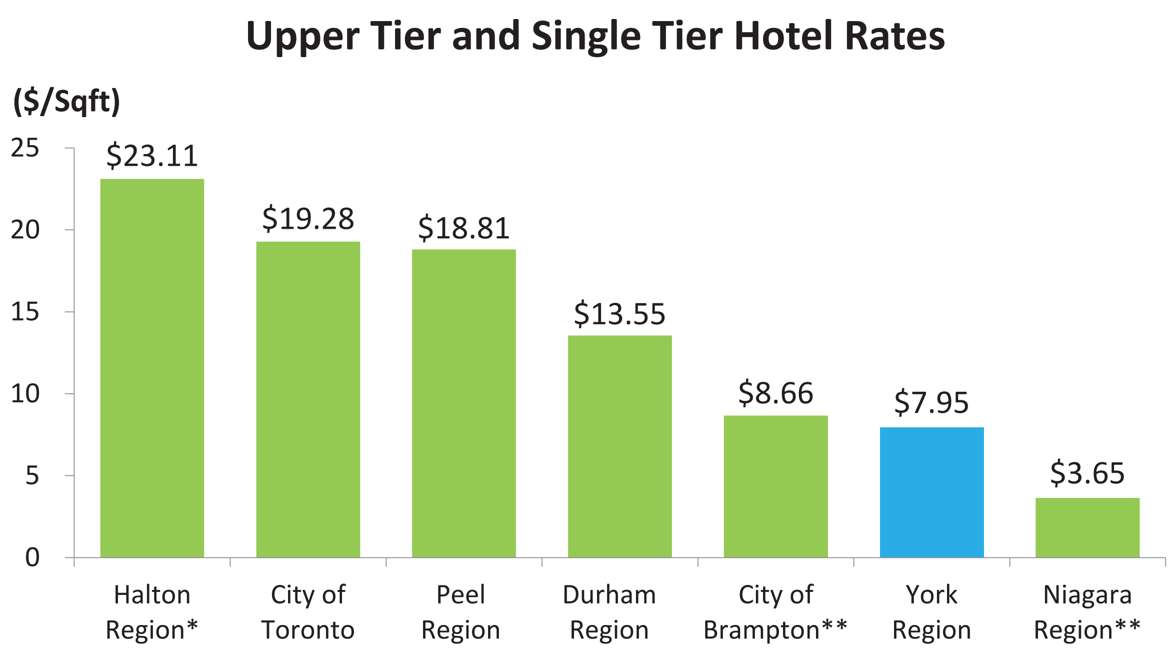
York Region's industrial rate is relatively high



York Region's retail rate remains relatively high



York Region's hotel development charges will be among the lowest



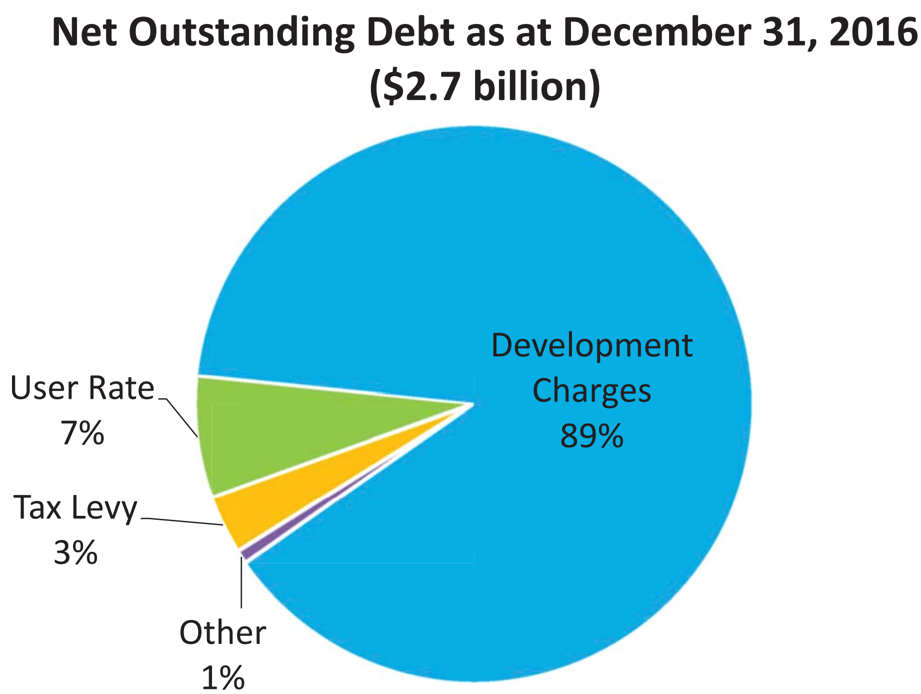
*Total urban (built boundary)
**Put hotels in their own class

Key Points

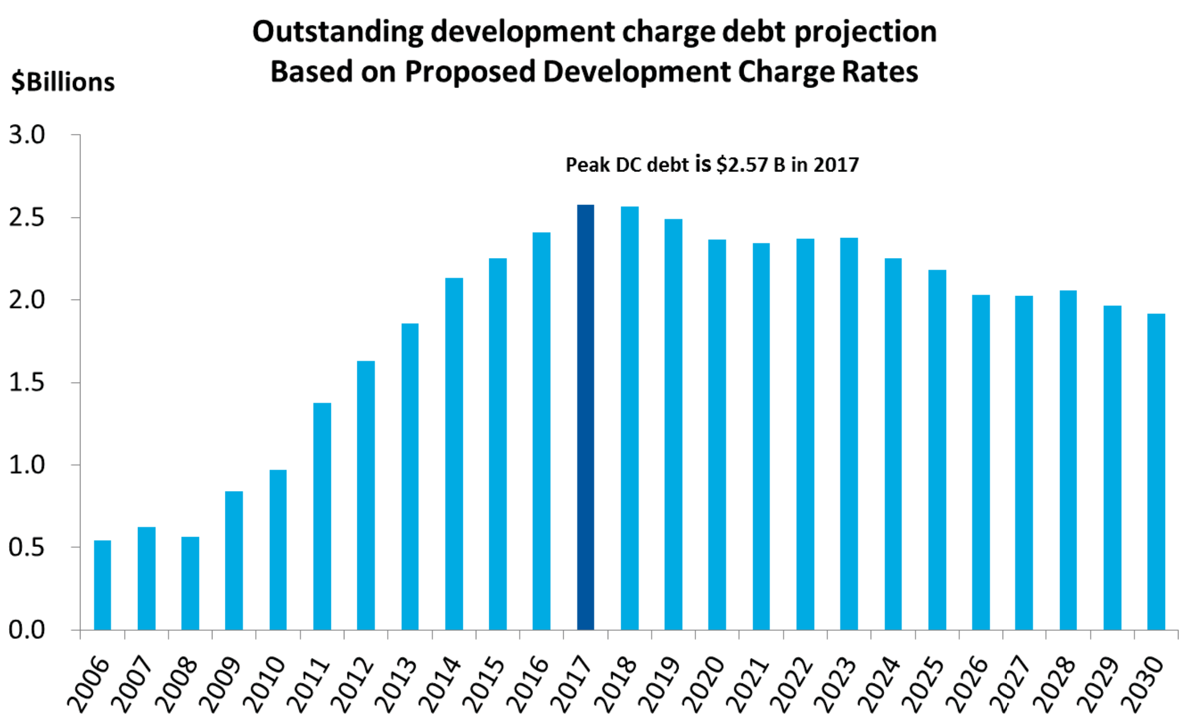
- The shift to residential will improve the likelihood of realizing the development charge collections forecast
- The proposed non-residential rates take into account the Region's policy to separate retail from industrial/office/institutional

FISCAL CONSIDERATIONS

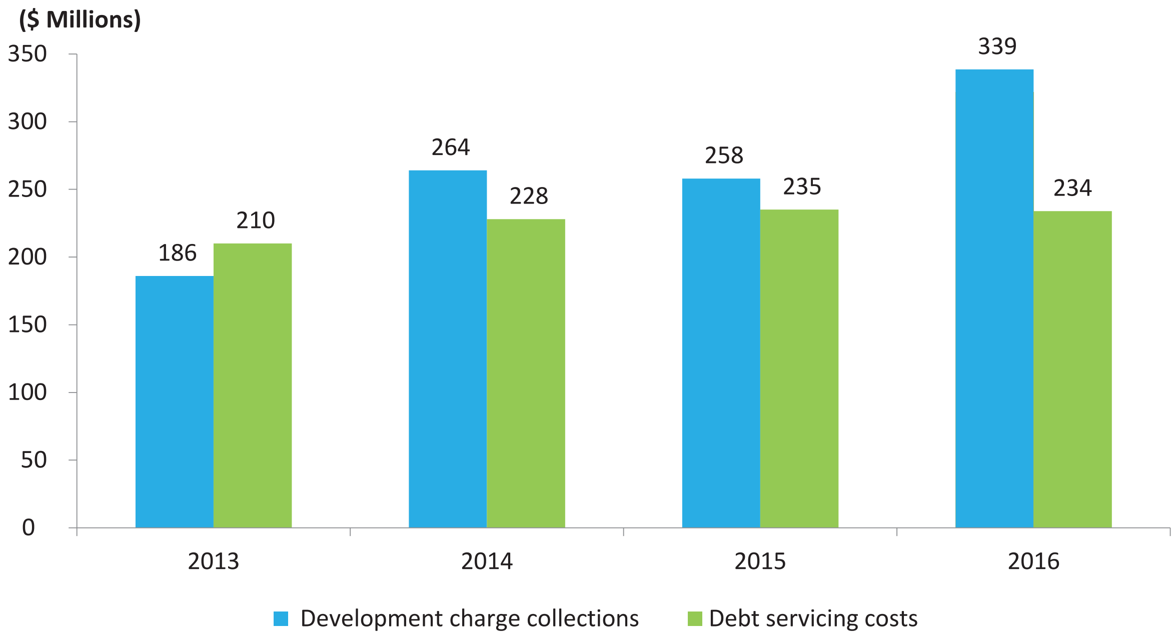
Almost 90% of the Region's debt is development charge debt



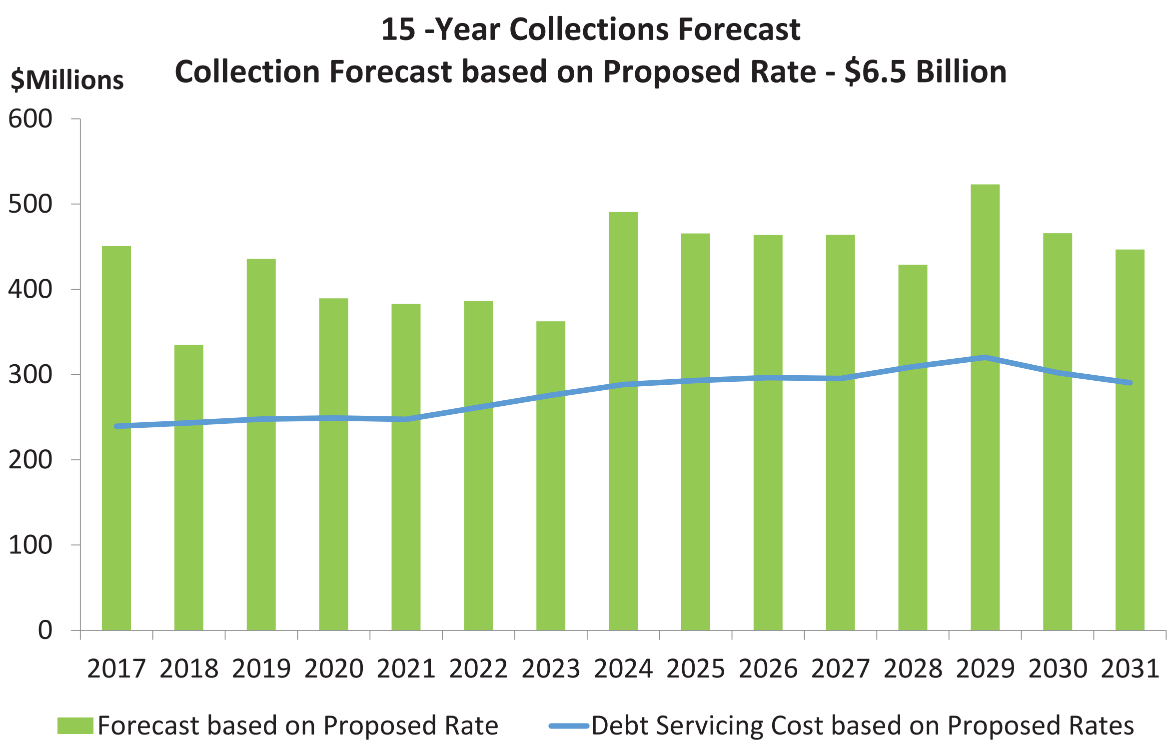
Development charge debt will peak in 2017 and then fall



Development charge collections need to be above debt servicing costs



Capital plan depends on realization of development charge revenue



Key Points

- The relationship between development charge collections, the capital plan and the debt management plan will need to be carefully managed

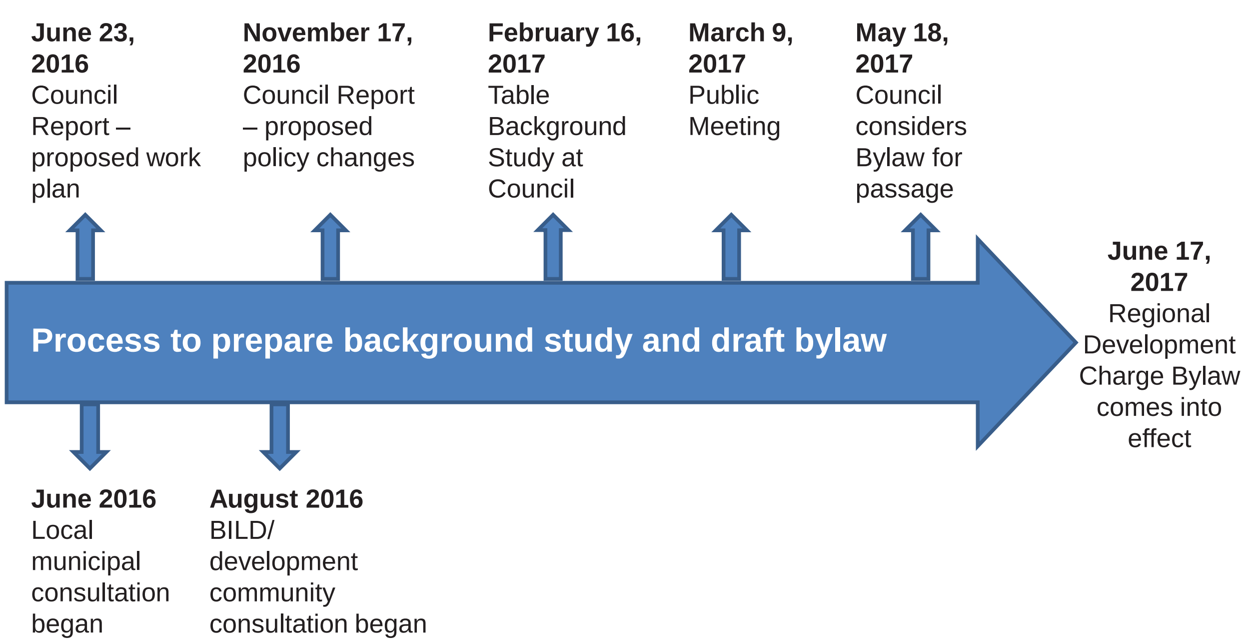
PROCESS

Stakeholder engagement process has been robust

- Number of meetings with local municipalities: 6
- Number of meetings with the BILD working group: 7

Topics discussed with BILD
Growth forecast
Development charges calculation methodology
Potential for area-specific development charge
Hotel development charge rate structure
Apartment occupancy and size study
Asset management plans

Milestones in the development charge bylaw update process



SUMMARY OF RECOMMENDATIONS

Summary of Recommendations

It is recommended that:

1. Council receive the draft 2017 Development Charge Background Study and proposed Bylaw
2. A report be brought forward to the May 18, 2017 meeting of Regional Council recommending the 2017 Development Charge Bylaw, taking into consideration the input received at the public meeting, to be held on March 9, 2017
3. New revenue sources be sought for unfunded projects in the Transportation Master Plan
4. The Region not offer transition policies for the 2017 bylaw
5. The Regional Clerk circulate this report to the local municipalities
6. The Regional Clerk circulate this report to the Building Industry and Land Development Association – York Chapter (BILD)

Clause 8 in Report No. 17 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on November 17, 2016.

8

2017 Development Charge Bylaw Directions

Committee of the Whole recommends adoption of the following recommendation contained in the report dated October 28, 2016, from the Commissioner of Finance:

1. Council endorse applying development charges on a region-wide basis for the 2017 Development Charge Bylaw (2017 Bylaw), with the exception of wastewater services for the Village of Nobleton.

2. Council endorse the use of the 2031 population and employment growth projections as the basis for the development charge rate calculation.

3. Council endorse the creation of a new hotel development charge rate class, levying a per square foot charge.

4. Council endorse not offering a development charge reduction for buildings enrolled in the Region’s Leadership in Energy and Environmental Design (LEED) incentive program.

5. The Region continue to seek full funding from Metrolinx and the federal government for higher order transit projects, including the Yonge North Subway Extension and the Viva Bus Rapid Transit Plan.

6. The Regional Clerk circulate this report to the local municipalities.

Report dated October 28, 2016 from the Commissioner of Finance now follows:

1. Recommendations

It is recommended that:

1. Council endorse applying development charges on a region-wide basis for the 2017 Development Charge Bylaw (2017 Bylaw), with the exception of wastewater services for the Village of Nobleton.

2. Council endorse the use of the 2031 population and employment growth projections as the basis for the development charge rate calculation.

3. Council endorse the creation of a new hotel development charge rate class, levying a per square foot charge.

4. Council endorse not offering a development charge reduction for buildings enrolled in the Region's Leadership in Energy and Environmental Design (LEED) incentive program.

5. The Region continue to seek full funding from Metrolinx and the federal government for higher order transit projects, including the Yonge North Subway Extension and the Viva Bus Rapid Transit Plan.

6. The Regional Clerk circulate this report to the local municipalities.

2. Purpose

Every five years, if not sooner, a municipality must update its development charge bylaw in order to continue to levy development charges. This report provides Council with a progress update and seeks direction on a number of key decision points in advance of the tabling of the Development Charge Background Study expected in February 2017.

3. Background and Previous Council Direction

Council has previously endorsed a work plan for the 2017 Development Charge Bylaw update

On June 23, 2016, Council endorsed a work plan for the 2017 Development Charge Bylaw and Background Study. Table 1 describes the statutory requirements, Council engagements, and the applicable dates. In June, Council also directed staff to consider, as part of the bylaw update, a non-residential, non-retail development charge rate structure for hotels.

Table 1
Key Dates in Regional Bylaw Process

Deliverables	Tentative Dates		
Report to Council	November 17, 2016	**Time Elapsed**	
Notice of public meeting	February 2, 2017		
2017 Background Study and Bylaw publicly released	February 3, 2017		
Report to Council on the 2017 Background Study and Bylaw	February 16, 2017	34 days	104 days*
Public meeting at Committee of the Whole	March 9, 2017		
New Bylaw to Council for consideration of passage	May 18, 2017	70 days	
2017 Development Charges Bylaw comes into force	June 17, 2017		

*The amended *Development Charges Act, 1997* requires that a background study be available to the public at least 60 days prior to passing the Bylaw

Staff are on track to table the 2017 Development Charge Bylaw and Background Study at Council in February 2017

In June 2016, staff established an interdepartmental working committee to ensure all deliverables necessary to inform the 2017 Bylaw update are delivered on time.

It is anticipated that a draft bylaw and the 2017 Background Study will be released at Council in February 2017.

The work has focused on:

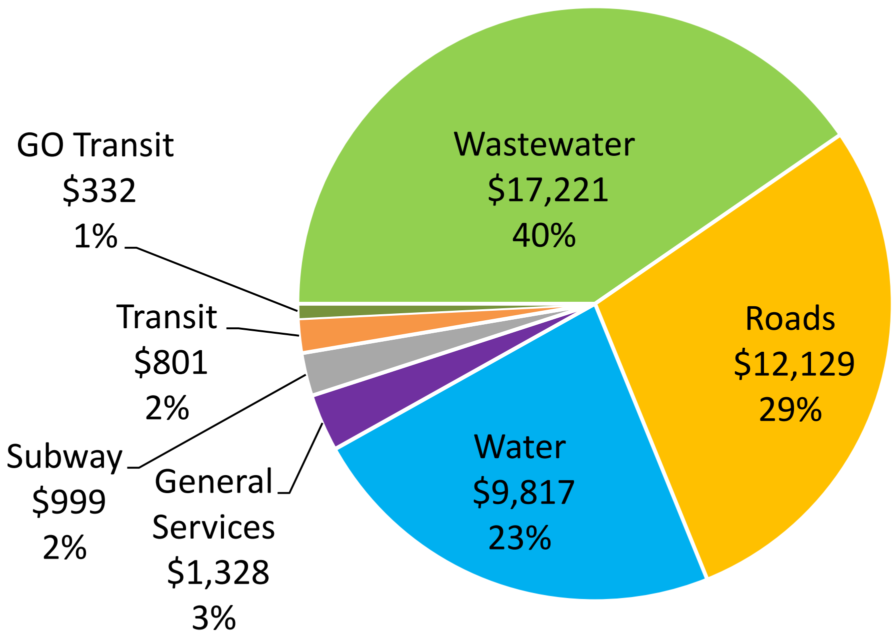
- Collecting data for the development charge rate calculation (e.g., level of service, growth forecast, capital cost, etc.)
- Reviewing and updating development charge calculation methodologies and assumptions
- Developing and reviewing development charge policies
- Consulting with local municipalities and the Building Industry and Land Development Association – York Chapter (BILD)

Development charges help pay for essential regional infrastructure needed to service growth

Development charges help to fund growth-related regional services, including water, wastewater, roads, transit, police, social housing, emergency medical services and other general services. Currently, the Region’s development charge rate for a single-family detached home is $42,627 (as of September 1, 2016). Over ninety per cent of the residential charge is to pay for water, wastewater and roads (Chart 1).

Chart 1

Current York Region Development Charge Rate for Single Family Detached Home - $42,627



The amended *Development Charges Act* introduces new requirements for municipalities

On January 1, 2016, the amendments to the *Development Charges Act, 1997* (the '*Act*') and accompanying regulations came into force. The amended *Act* allows for greater cost recovery but also places new reporting and analytical requirements on municipalities. The amendments represent a significant change in Ontario's approach to funding growth (see Table 2 for further detail).

Table 2

New requirements under the amended *Act*

Material changes	Administrative changes
Requirement to consider area-specific development charges	Increased reporting requirements for development charge reserves
Planned level of service for transit for a 10-year horizon and removal of 10 per cent statutory deduction	Background study available to the public at least 60 days prior to passing of the bylaw

Material changes	Administrative changes
Waste diversion eligible for development charge recovery	
Requirement for asset management plans	
No voluntary contributions	

Consultation with local municipalities and the development community has been a key part of the 2017 Bylaw update process

Since June, staff have met monthly with the local municipalities to provide updates and seek feedback on specific issues that inform the 2017 Bylaw. Three more meetings are planned before the tabling of the 2017 Background Study.

The Region is also committed to an open, consultative process with the development community. On August 29, 2016, staff met with representatives from BILD to begin the engagement process. Staff will meet with this working group at least seven more times leading up to the tabling of the Background Study.

Key issues that have been discussed with the local municipalities and development community include:

- Forecast period and growth forecast
- Area-specific development charges
- Methodology for studying the relationship between gross floor area and occupancy in apartments
- Development charge calculation methodologies

4. Analysis and Implications

New rates for the 2017 Bylaw will be based on population, employment and growth-related capital cost forecasts to 2031

On May 10, 2016, the Province announced draft amendments to provincial growth management plans that contemplate significantly greater levels of intensification and densities than are found in the current Growth Plan and the Region's Official Plan.

The Region's Municipal Comprehensive Review process was intended to address growth to 2041. However, until clearer direction is provided by the Province (such as key technical assumptions), the review process has been temporarily suspended. This means that the population forecast for 2041 will not be available in time for this bylaw update. As a result, the 2017 Bylaw will be based on population, employment and growth-related capital cost forecasts to 2031.

It is anticipated that the Region will update its development charge bylaw after the new Growth Plan policies have been finalized and the Municipal Comprehensive Review is complete. This will likely occur before the statutory maximum period of five years lapses in 2022.

Density assumptions will be revised for the 2017 Bylaw

Persons per unit (PPU) and floor space per worker (FSW) are major inputs into the development charge rate calculation. For residential development charges, rates are first calculated on a per capita basis. The rate for each dwelling type is determined by multiplying the per capita rate by the assumptions for the average number of occupants, or persons per unit, in each dwelling type.

For non-residential development charges, rates are calculated on a per square foot/metre basis. The total growth in non-residential floor space is calculated by multiplying the forecast growth in employment by the assumed average floor space per worker.

The 2017 development charge growth forecast projects a declining persons per unit over time. This is largely due to factors such as a relatively low fertility rate, the anticipated increase in non-family households and one person households and an aging population.

Building permit data for recently constructed buildings, combined with the Region's employment survey, indicate that employment densities have increased in all non-residential categories.

Region-wide development charges are the most feasible option for the 2017 Bylaw

Development charges may be region-wide, area-specific or a combination of the two. Under the amended *Act*, a municipality must consider area-specific development charges as part of its development charge background study. However, the province has not defined what the term ‘consider’ entails.

The Region currently applies a region-wide charge for its services, with the exception of the water resource recovery facility located in the Village of Nobleton. This is because growth-related services delivered by the Region tend to result in region-wide benefits, such as water and wastewater treatment plants, trunk sewers and arterial roads. Area-specific development charges are usually more suitable for new or currently unfunded standalone water/wastewater systems such as the Nobleton water resource recovery facility.

Staff considered the feasibility of applying area-specific development charges as part of the 2017 Bylaw update. For reasons identified in Table 3, staff recommend that the Region continue to apply region-wide charges for the 2017 Bylaw.

Table 3

Region-wide versus area-specific development charges

Principle	Region-wide	Area-specific
Fiscal responsibility	Maximizes cost recovery under the *Development Charges Act, 1997* Greater degree of fiscal flexibility	For services other than water, wastewater and police, could limit cost recovery in areas with an above average planned level of service (due to restrictions within the Regulations)
Fairness and equity	Cost of growth is shared by developments across the Region	Apportions costs based on servicing requirements
Suitability	Most regional services provide region-wide benefits and are not suitable for area-specific rates	Area-specific development charges are more suitable for new unfunded water and wastewater systems
Administrative implications	This is the current development charge rate structure	Requires separate bylaws and reserves Creating, managing and transitioning reserves would be difficult

In addition, the proposed changes to the Growth Plan, if implemented, could significantly affect the spatial distribution of the growth forecast, an essential input in determining the benefiting population that is needed when creating an area-specific development charge.

Staff will revisit the issue of area-specific development charges once revised growth and capital cost forecasts are available.

Waste diversion costs can now be incorporated into the 2017 Bylaw

Waste diversion is now eligible for development charge funding. However, it is limited to a ten-year planning horizon and is subject a ten per cent statutory deduction. Landfill sites and incineration (including energy from waste) remain ineligible.

A methodology for determining the planned level of service for transit is under development

The recovery of growth-related capital expenditures through development charges is limited by the use of historic ten-year average service levels for most services. However, under the amended *Act*, municipalities are now permitted to use a planned level of service (forward-looking instead of backward-looking) when establishing development charges for transit. In addition, the amended *Act* removed the ten per cent statutory deduction for transit. Both of these changes increase the ability of municipalities to recover growth-related costs through development charges.

The regulations to the *Act* provide some guidance for determining the planned level of service; however, municipalities must still develop their own specific methodology. The Region's methodology, which is consistent with the legislation, includes the following elements:

- Ridership forecast for all modes of transit to be funded by development charges
- Assessment of ridership capacity for all modes of transit funded by development charges
- An identification of the excess capacity at the end of the ten-year period immediately preceding the preparation of the background study
- An estimate of the post-period ridership capacity

The calculation of transit development charges also assumes that Metrolinx and the federal government will fully fund higher order transit projects, including the Yonge North Subway Extension and the Viva Bus Rapid Transit Plan. This is due to the Region's lack of fiscal capacity to fund these projects.

Municipalities must prepare an asset management plan for infrastructure funded by development charges

The amended *Act* now requires that municipalities include an asset management plan that demonstrates that all assets funded by development charges will be financially sustainable over their lifecycle. This is in addition to the current requirement of examining the long-term capital and operating costs required for each infrastructure service. So far the province has only provided detailed requirements for transit asset management plans as part of its regulations.

The intent of the asset management plan requirement is to ensure that municipalities do not include growth projects in their bylaw that they cannot afford to maintain.

In 2013, Council approved a Corporate Asset Management Policy and Asset Management Framework that outlines corporate asset management objectives and processes across all infrastructure assets. The preparation of an asset management plan in support of a financial sustainability analysis, as required under the amended *Act*, will follow the principles of the Corporate Asset Management Policy and Asset Management Framework. This asset management plan will form part of the background study that will be presented to Council.

In addition to an asset management plan, staff are preparing a fiscal impact analysis

Staff are also preparing a fiscal impact analysis that will quantify the full cost of growth, as well as the cost to maintain service levels and keep existing assets in a state of good repair. It will consider both operating and capital costs and evaluate the impact of growth on the tax levy.

A similar analysis was undertaken as part of the water and wastewater rate review. This review provided the basis for multi-year rate increases that will allow the Region to achieve full cost recovery for water and wastewater infrastructure by 2021.

Consistent with the Regional Fiscal Strategy, the fiscal impact analysis will examine long-term financial sustainability with respect to:

- Quantifying the cost of past and future infrastructure investment
- Identifying funding shortfalls and their impacts

Staff plan to report back to Council with the full results of the fiscal impact analysis later in 2017.

Staff and Hemson Consulting are collaborating with BILD to study the relationship between apartment size and occupancy

Prior to the 2012 Development Charges Bylaw (2012 Bylaw), the Region used the number of bedrooms to delineate apartment size. Starting with the 2012 Bylaw, the Region began using a gross floor area threshold to delineate large versus small apartments.

When development charges were first implemented, the use of a uniform apartment charge was common practice. Since then, as development charges and built form have evolved, municipalities have increasingly used a differentiated apartment rate based on occupancy. This is because for most services the drivers are population and employment growth. Therefore, it is reasonable that differences in occupancy/persons per unit by unit size be used as the basis for differentiating the residential development charge.

Recently, the Ontario Municipal Board and the Divisional Court have ruled against combining two or more apartment categories into one uniform category. The case, involving the Hamilton-Halton Homebuilders' Association and the Regional Municipality of Halton, held that combining the smaller and larger units together made the smaller units less affordable, contrary to the intent of the Provincial Policy Statement.

In June 2012, the Region agreed to work with BILD to study the relationship between apartment size and occupancy. The result of this study will inform the delineation between small and large apartments for the purposes of the 2017 Bylaw.

Staff will report back to Council in February 2017 with the results of this study. Options being examined include changing the gross floor area from the current threshold of 650 square feet, or using a per square foot charge for apartments.

A separate class can be created for hotels

Under the Region's 2012 Bylaw, hotels are charged using a blended rate, whereby all of the rooms are charged the small apartment rate and 25 per cent of the building's total gross floor area is charged the retail rate. This structure results in a development charge rate that is higher than that of neighbouring municipalities.

In June, Council directed staff to consider charging a rate for hotels that is consistent with the non-residential, non-retail rate. Staff have developed two options, shown in Table 4.

Table 4
Options for hotel development charge rate structure under the 2017 Bylaw

	Add hotels to the existing non-retail class	Put hotels in a separate hotels class, levy a per square foot charge
More favorable than current blended treatment	Yes	Yes
Defensibility	May appear to be an arbitrary assignment	Defensible – both fair and reasonable
Interjurisdictional experience	None	Region of Niagara

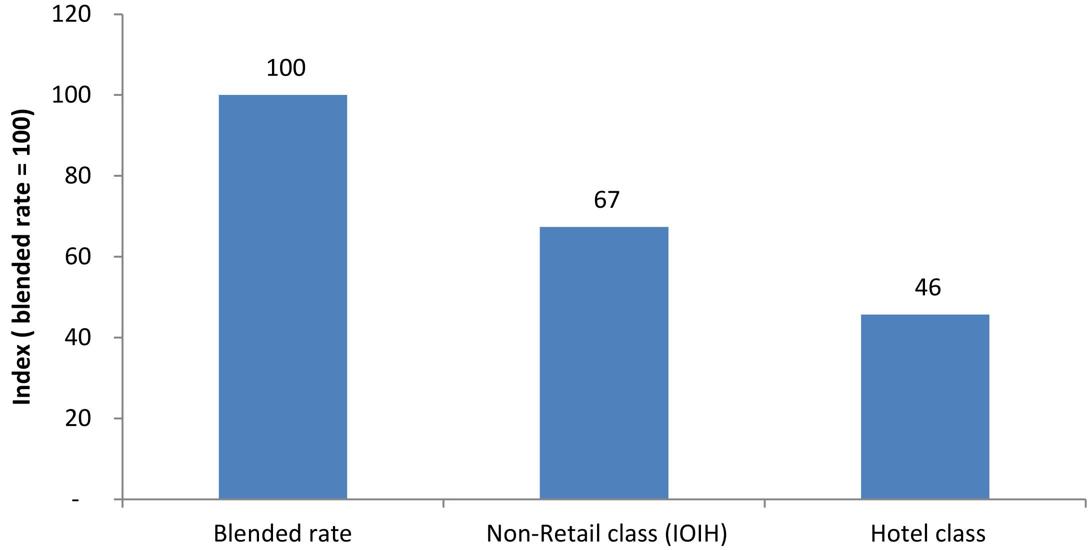
Any proposed change to the treatment for hotels would be prescribed in the 2017 Bylaw both through definition and rate structure. Hotels are often developed with ‘other’ uses (e.g., retail, office). The definition for hotels in the 2017 Bylaw will recognize that the principal use of a hotel should be for lodging.

After surveying all hotels that have opened in the Region since 2000, staff have determined that the non-lodging component of hotels is typically no more than 25 per cent of the gross floor area. The 2017 Bylaw should reflect that when the ‘non-lodging’ use of a hotel is more than 25 per cent of the total gross floor area, the amount above and beyond that threshold should be levied the applicable development charge rate.

While the final 2017 development charge rates are not known at this time, the relative magnitude of rates under different structures can be assessed. Preliminary analysis shows that both options shown in Table 4 would represent a measurable reduction in the development charges payable for hotels when compared to the blended rate structure. Graph 1 shows that the hotel class option provides the lowest rate.

Graph 1

New blended rate versus options for the 2017 Bylaw*



*Note: Analysis is based on a typical six storey hotel, consisting of 124 suites and 73,000 square feet

Analysis of options for the deferral of development charges for purpose-built rentals is under way

Currently, the Region does not have a formal policy to allow the deferral of development charges for purpose-built rentals. However, policies do exist for the deferral of development charges for high-rise condominiums, offices and retail developments.

Through a pilot project, the Region has provided a development charge deferral for a purpose-built rental building at 212 Davis Drive located in the Town of Newmarket. This 36-month deferral agreement helped facilitate the development of 225 rental units.

Staff are looking at a number of issues related to a deferral policy for purpose-built rentals, including:

- Duration of the agreement
- Whether or not interest should be charged
- Whether or not there should be restrictive covenants

- Date at which the development charge rate is set
- What form of security (if any) should be taken

Table 5 provides details of the Region's current development charge deferral policy for high rise condominiums and the pilot project at 212 Davis Drive. Staff intend to report back to Council on this issue in early 2017.

Table 5
Deferral policy currently offered for high-rise condominiums versus the 212 Davis Drive pilot project

Details	Current deferral offered to condominium developers	212 Davis Drive pilot project
Duration	18 months	36 months
Interest Charged	No	No, if conditions met
Restrictive covenants	No	Yes
When development charges are calculated	At building permit date	At building permit date
Form of security	Letter of credit	Charge against land

There is insufficient evidence to support providing development charge reductions for LEED developments

The performance of buildings participating in the Region's Sustainable Development through LEED incentive program is continuously monitored by staff. Based on a sample of 24 buildings built between 2009 and 2014, water consumption per capita in the LEED buildings is approximately 21 per cent less than non-LEED buildings. However, the trend of the water consumption difference is anticipated to narrow over time as water efficient fixtures become more prevalent in newer non-LEED buildings. The new building code that took effect in 2014 significantly closes the gap in water consumption between LEED and non-LEED buildings.

The small water consumption difference between LEED and non-LEED buildings recorded to date does not change regional infrastructure sizing. It is expected that the difference would become even smaller in the future as a result of the new building code and the growing use of water efficient fixtures.

Staff recommend that no development charge reduction be provided for LEED buildings at this time. Staff will continue to collect data on this issue and monitor water usage for these buildings. Other incentives will be explored to encourage participation in the Region's LEED program.

Staff are reviewing the treatment of redevelopment credits

The 2012 Bylaw provides for a development charge reduction for certain qualified residential and non-residential redevelopment projects. If redevelopment occurs within 48 months of a building's demolition or conversion, a credit towards the development charges payable may be offered. The credit is intended to encourage timely redevelopment after demolition.

For residential developments, the credit is calculated based on the number and type of dwelling units that were demolished or converted. For non-residential developments, the credit is based on the gross floor area that was demolished or converted.

Staff are reviewing the possibility of modifying the time frame of the redevelopment credit to address cases where redevelopment is occurring on a floodplain and within Special Policy Areas located in the Regional Centres and Corridors. Staff will report back in February 2017.

5. Financial Implications

Development charges fund 68 per cent of the costs of growth-related infrastructure in the ten-year capital plan

Development charges are a key funding source for the Region's 2016 Capital Plan as 68% of the growth-related infrastructure is funded through development charge reserves and debt proceeds.

Due to restrictions under the *Act*, development charges cannot fully fund the cost of growth-related capital infrastructure. Legislated deductions for a portion of the cost of infrastructure that may benefit the existing population, exemptions, and a statutory ten percent deduction make full cost recovery impossible.

In addition, deductions made for post-period benefit delay cost recovery. Any amount not paid for by development charges would have to be recovered through user rates, the tax levy or grants.

The 2017 Bylaw update is an opportunity to reconcile the Region's forecasts and assumptions

The 2012 Background Study implied development charge collections of approximately $555 million annually from mid-2012 to mid-2016. Since the 2012 Bylaw came into force, the Region has only collected about 51 per cent of forecast collections, or an average of $284 million annually. Collections were below forecast for the following reasons:

- Actual growth was below provincial growth targets
- Exemptions (both statutory and non-statutory)
- Development charge prepayment agreements

Table 6 shows the difference between actual housing completions and what was anticipated in the 2012 Background Study. Actual housing completions were approximately 25 per cent lower than expected.

Table 6
2012 Development Charge Background Study housing completion forecast versus actuals

Year	2012 Development Charge Background Study (forecast housing completions) - Annual Average	Actual Housing Completions - Annual Average*	Percentage difference (actuals – completions)
Mid-2012 to Mid -2016	10,230	7,660	-25%

*Source: Canada Mortgage and Housing Corporation

Completions for both apartments and ground-related units were below expectations:

- Apartments were 28 per cent below expectations, translating to an annual average of 1,070 fewer units than forecast
- Ground-related units, including single-family dwellings, semi-detached and rows, were 23 per cent below expectations, translating to an annual average of approximately 1,500 fewer units than forecast

For the 2017 Bylaw update, staff have systematically reviewed previous assumptions in an effort to reflect realities on the ground.

Development charge exemptions present a significant challenge for the Region

The 2012 Bylaw includes a number of statutory and non-statutory exemptions (see Attachment 1 for further explanation). Exemptions have the impact of reducing the amount of growth from which the Region can collect development charges, which results in a significant fiscal pressure.

6. Local Municipal Impact

Development charges fund vital growth-related infrastructure that benefits both the Region and its local municipalities.

Local municipalities have been engaged throughout the 2017 Bylaw update. Regional staff will continue to consult with the local municipalities prior to tabling the background study in February, 2017.

7. Conclusion

This report provides an update on the work under way to update the development charges bylaw and seeks Council direction on a number of matters.

The 2017 Bylaw and Background Study will be made available to the public on February 3, 2017 at the release of the Committee of the Whole agenda, and will be tabled at Council on February 16, 2017.

It is anticipated that the proposed 2017 Bylaw will come before Council on May 18, 2017 for consideration of passage and come into effect on June 17, 2017.

For more information on this report, please contact Edward Hankins, Director, Treasury Office, at ext. 71644.

The Senior Management Group has reviewed this report. October 28, 2016

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Attachments (1)

Accessible formats or communication supports are available upon request

Regional Municipality of York

Non- Residential Development Charge Exemptions: Statutory and Non-Statutory

Type of Use	Statutory	Non-Statutory
Institutional	Public Schools	Addition or expansion is less than 50 per cent of the existing gross floor area
		Public Hospitals receiving aid under the *Public Hospital Act, 1990*
		Non-residential farm buildings
		Accessory structures which are less than $100m^2$ of gross floor area
		Lands, buildings or structures used for cemeteries or burial grounds exempt from taxation under the *Assessment Act, 1990*
		Buildings owned by a non-profit corporation with purposes of a charitable nature and provide a facility for community use, where an area municipality agrees to a similar exemption
		Development of a place of worship for gross floor area up to a maximum of 5,000 square feet, or gross floor area that relates to the portion of the structure used principally for worship, whichever is greater
		Land owned by and used for the purposes of a private school that qualify as exempt from taxation under the *Assessment Act, 1990* and where an area municipality agrees to a similar exemption

Type of Use	Statutory	Non-Statutory
Office		Addition or expansion is less than 50 per cent of the existing gross floor area
		Accessory structures which are less than $100m^2$ of gross floor area
Industrial	Addition or expansion is less than 50 per cent of the existing gross floor area	Accessory structures which are less than $100m^2$ of gross floor area
Retail		Accessory structures which are less than $100m^2$ of gross floor area

Regional Municipality of York

Residential Development Charge Exemptions: Statutory and Non-Statutory

Statutory Exemption		
Type of Building	**Maximum Number of Additional Dwelling Units**	**Restrictions**
Single detached dwellings	Two	Total gross floor area of the additional dwelling unit or units must be less than or equal to the gross floor area of the dwelling unit already in the building
Semi-detached dwellings or row dwellings	One	Total gross floor area of the additional dwelling unit must be less than or equal to the gross floor area of the existing dwelling unit already in the building
Other residential buildings	One	Total gross floor area of additional dwelling unit must be less than or equal to the gross floor area of the smallest dwelling unit already in the building

Non-Statutory
Affordable rental housing projects owned by a non-profit organization (grant provided equivalent to the development charge payable)

Clause 12 in Report No. 11 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on June 23, 2016.

12
Status of 2017 Development Charges Bylaw Update

Committee of the Whole recommends adoption of the following recommendation contained in the report dated June 1, 2016 from the Commissioner of Finance:

1. Council delegate to the Committee of the Whole the authority to hold a public meeting for the 2017 Regional Municipality of York Development Charges Bylaw.

2. Council delegate to the Commissioner of Finance the authority to schedule and give notice for the public meeting, in accordance with the *Development Charges Act, 1997* (the "*Act*").

3. Council direct staff to consider hotel development charges consistent with the non-residential, non-retail rate for the gross square footage of the development as part of the Region's 2017 Development Charge Bylaw update.

4. The Regional Clerk circulate this report to the local municipalities.

Report dated June 1, 2016 from the Commissioner of Finance now follows:

1. Recommendations

It is recommended that:

1. Council delegate to the Committee of the Whole the authority to hold a public meeting for the 2017 Regional Municipality of York Development Charges Bylaw.

2. Council delegate to the Commissioner of Finance the authority to schedule and give notice for the public meeting, in accordance with the *Development Charges Act, 1997* (the "*Act*").

3. Council direct staff to consider hotel development charges consistent with the non-residential, non-retail rate for the gross square footage of the development as part of the Region's 2017 Development Charge Bylaw update.

4. The Regional Clerk circulate this report to the local municipalities.

2. Purpose

This report provides Council with an update on the proposed 2017 Development Charges Bylaw and the associated work plan.

3. Background

Development charges are the primary source of funding for growth-related capital programs

Under the *Act*, Council can impose development charges to recover growth-related capital costs from development within the municipality.

However, because of deductions made for ineligible projects, service-level caps, and the portion of the infrastructure that benefits the existing taxpayers, they do not cover the full cost.

Furthermore, deductions are made to reflect the extent to which a capital project benefits growth occurring outside of the forecast period of the bylaw. These deductions (post period benefits) can be recovered thorough future development charge bylaws.

The new development charges bylaw must come into effect no later than June 17, 2017

The *Act* mandates that the Development Charges Bylaw must be updated at least once every five years. The Region's current Bylaw will expire on June 16, 2017, so a new Bylaw must come into effect on or before June 17, 2017.

The Development Charge Background Study must be available at least 60 days prior to Council passing a new development charge bylaw.

A 2015 amendment to the *Development Charges Act* introduced new policies, including greater cost recovery for transit and waste diversion

Under the amended *Act,* the Province has provided for greater growth-related cost recovery for both transit services and waste diversion. At the same time, the Province prescribed greater reporting requirements for municipalities, including new requirements for development charge background studies and enhanced requirements for reporting on development charge reserves.

Municipalities are now able to use planned level of service, rather than historic level of service to determine the amount of development charge recoverable transit capital costs. In addition, the Province removed the ten per cent statutory reduction for transit services. The planning horizon for transit services is still limited to ten years.

Waste diversion is now a service eligible for development charge recovery. However, the amended *Act* included a ten per cent statutory deduction for waste diversion.

Municipalities must now consider area-specific rates

The Region currently has uniform development charge rates, with the exception of the Nobleton community, which has an area-specific rate for wastewater services.

Municipalities are now required to consider area-specific charges for all services as part of their background studies. However, the Province has not provided details describing how municipalities would go about meeting this requirement.

When developing the 2017 Background Study and Bylaw, staff will consider the policy rationale and implications of area-specific development charges including:

- Options for area delineation (e.g., built boundary versus greenfields);
- Types of services suitable for an area-specific development charge;
- Financial and administrative implications of adopting area-specific development charges; and
- Other options for restructuring development charge rates to achieve the Region’s policy objectives and priorities (e.g., alternative methods to allocate costs to higher density dwelling types).

Asset management plans must now be included as part of the Development Charges Background Study

The amended *Act* requires municipalities to prepare an asset management plan as part of their Background Study that will demonstrate that all assets funded by development charges will be financially sustainable over their lifecycle. This is in addition to the current requirement of “examining” the long-term capital and operating costs required for each infrastructure service.

The regulations to the *Act* only include detailed requirements for asset management plans for transit. It is expected that requirements for asset management plans for other services will be provided in regulations under the *Infrastructure for Jobs and Prosperity Act, 2015.* This legislation came into force on May 1, 2016, and regulations are expected within the next year.

Hotel development charges are being reviewed as part of the 2017 Development Charge Bylaw update process

As part of the 2017 Development Charge Bylaw update process, Regional staff reviewed various options for the treatment of hotels. Staff reported to the Committee of the Whole on March 10, 2016 with information regarding hotel development in York Region. The report was referred back to staff.

Hotel development charges in York Region are high compared to neighboring municipalities. This reflects the high cost of growth infrastructure in the Region, which covers a large geography and lacks direct access to Lake Ontario. The comparatively higher rate also reflects the blended rate (retail plus small apartment) in the current bylaw. As part of the 2017 bylaw update, staff intend to consider a non-residential, non-retail rate for hotels that would be more consistent with the rates charges in other Greater Toronto Area municipalities.

4. Analysis and Options

External stakeholders will be engaged throughout the 2017 Development Charge Bylaw process

Staff intend to engage with local municipalities, representatives of the Building Industry and Land Development Association – York Chapter (BILD), non-residential developers and the public. This consultation process will help ensure that stakeholders understand the Region’s infrastructure investments, and methodologies and assumptions for calculating and attributing growth-related capital costs.

A number of methodological and policy issues will be reviewed when updating the Bylaw

A number of methodological and policy issues will be reviewed as part of the Bylaw update. Some of the issues are noted in Table 1. This is not an exhaustive list, as the need to review other methodologies and/or policies may be identified during the consultation process. A list of proposed policy changes will be brought forward to Council in Fall 2016.

Table 1
Issues to Review for 2017 Development Charge Bylaw Update

	Area	Description
Methodologies and assumptions	Timing and distribution of employment and population growth	Revise 2012 Development Charge Background Study forecasting assumptions
	Forecast period	The *Act* sets out limitations for the forecast period for some services. However a municipality can choose the recovery period for services such as water and wastewater, roads and police (e.g., 10 years, 20 years, 25 years)
	Planned level of service for transit	Develop a methodology for calculating planned level of service for transit
	Employment Density Assumption (Floor Space per Worker - FSW)	Review 2012 Development Charge Background Study assumptions on floor space per worker for non-residential development charge calculation
	Residential density assumption (Persons Per Unit – PPU)	Review 2012 Development Charge Background Study assumptions regarding Persons per Unit in residential developments
	Cost attribution between residential and non-residential development	Review 2012 Development Charge Background Study attribution of capital costs between residential and non-residential development, and within the non-residential category, as well as underlying rate structures

	Area	Description
Policies	Region-wide charges versus area-specific development charges	Consider options for implementing area-specific development charges within York Region
	Deferral and exemptions policies	Evaluate whether deferral and exemption policies should be broadened and how to recover any lost revenue
	Rate structure for hotel development	Evaluate alternatives to the existing blended rate based on gross floor area and the small apartment rate
	Apartment Development charge rate structures	Evaluate the Region's small versus large apartment threshold and consider a per square foot charge
	Treatment for Leadership in Energy and Environmental Design (LEED) certified building	Evaluate the potential for a more favorable development charge treatment for LEED certified developments
	Pre-paid development charge credit and front-ending agreements	Potential for the use of these agreements to shift financial risk away from the Region

The proposed Development Charge Bylaw will be brought forward for Council's consideration at the May 2017 meeting

Table 2 describes the key statutory requirements, Council engagements, and the applicable dates. This proposed timeline provides staff with time to consider and resolve potential issues that arise from the public meeting.

Table 2
Key Dates in Regional Bylaw Process

Deliverables	Tentative Key Dates		
Committee of the Whole Report on potential policy changes	Fall 2016	**Time Elapsed**	
Notice of Public Meeting (at least 20 days prior to meeting)	February 2, 2017	21 days	
2017 Background Study and Bylaw tabled with Regional Council and publicly released (minimum of 60 days prior to Bylaw passage)	February 23, 2017*	14 days	84 days
Public meeting at Committee of the Whole	March 9, 2017*		
New bylaw to Council for consideration of passage	May 18, 2017*	70 days	
2017 Development Charges Bylaw comes into force	June 17, 2017*		

*Note: These dates are preliminary and subject to revision when the 2017 Council schedule is available.

Link to key Council-approved plans

The Development Charges Background Study and associated bylaw would enable the Region to recover a portion of its growth-related capital costs, potentially support several objectives in York Region's 2015-2019 Strategic Plan, including: "Optimizing critical infrastructure systems capacity", "Encouraging growth along Regional Centres and Corridors", "Ensuring optimal locations for business and employment growth are available", and "Ensuring a fiscally prudent and efficient Region".

The development of a Background Study and bylaw also support the "Liveable Cities and Complete Communities" and "Open and Responsive Government" areas in Vision 2051.

The Development Charges Background Study, bylaw and all associated products support a number of Regional Official Plan policy areas, including the "Economic Vitality", "Growth Management" and "Implementation".

5. Financial Implications

Development charges are the primary source of funding for growth-related capital infrastructure in the Region. In the Region's 2016 Ten-Year Capital Plan, development charges fund approximately 68 per cent of the cost of growth-related capital.

Development charge rates are based on proposed residential and non-residential development forecasts and the requisite capital infrastructure during the forecast period. Current Region-wide development charge rates are set out in Table 3:

Table 3
Current Development Charge Rates*

Class	Development Charge Rate (as of November 9, 2015)
Single-and Semi Detached	$41,920
Multiple Unit Dwelling	$36,673
Apartments greater or equal to 650 square feet	$25,970
Apartments less than 650 square feet	$17,626
Non-retail rate (Industrial/ Office/Institutional), per square foot	$19.97
Retail, per square foot	$39.08

*Please see Attachment 1 for a comparison of development charge rates with other municipalities

The updated rates will be determined as part of the detailed modelling exercise currently underway.

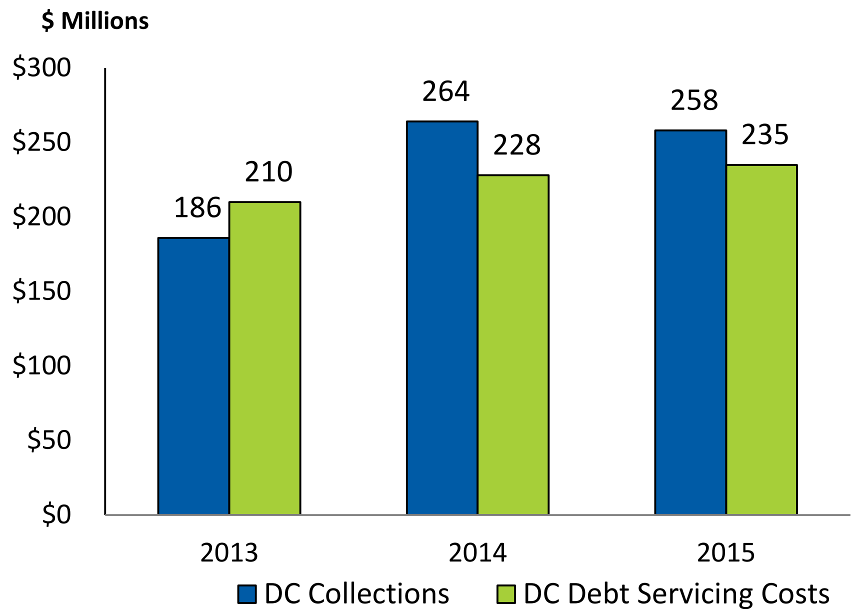
DC collections are critical to managing debt levels and debt servicing

Debt is often issued to finance growth-related infrastructure. In 2015, it is estimated that 87 per cent of the Region's outstanding debt is development charge debt. As development charges are collected, they are used to service and repay that debt.

In recent years, development charge collections have frequently been close to the amounts required to service development charge debt. From 2013 to 2015, the Region's development charge collections slightly exceeded debt servicing costs. Furthermore, as Graph 1 shows, in 2013, development charge debt servicing costs outstripped collections by $24 million.

If collections fall below forecast, the cost of debt to the Region could increase and deferral of growth-related capital projects may be required as part of the Region's capital planning process.

Graph 1
Development charge collections versus development charge debt servicing costs



6. Local Municipal Impact

Both the quantum and the timing of development charge collections are critical to building growth-related infrastructure. Development charges collections affect the timing of growth-related infrastructure investments.

In addition, local municipalities often choose to mirror regional development charge policies. Regional staff will consult the local municipalities throughout the process in order to ensure that any concerns are appropriately considered.

7. Conclusion

Every five years, the Region must update its development charges bylaw. This provides an opportunity to revisit assumptions and methodologies to achieve maximum cost recovery. Staff have initiated the process for the 2017 development charges bylaw update.

The *Act* requires the Region to prepare a background study and make it publicly available 60 days prior to the bylaw being passed by Council. It is anticipated that the Background Study will be tabled with Council in February 2017, and the proposed bylaw will be considered by Council for passage in May 2017.

For more information on this report, please contact Edward Hankins, Director, Treasury Office, at ext. 71644.

The Senior Management Group has reviewed this report.

June 1, 2016

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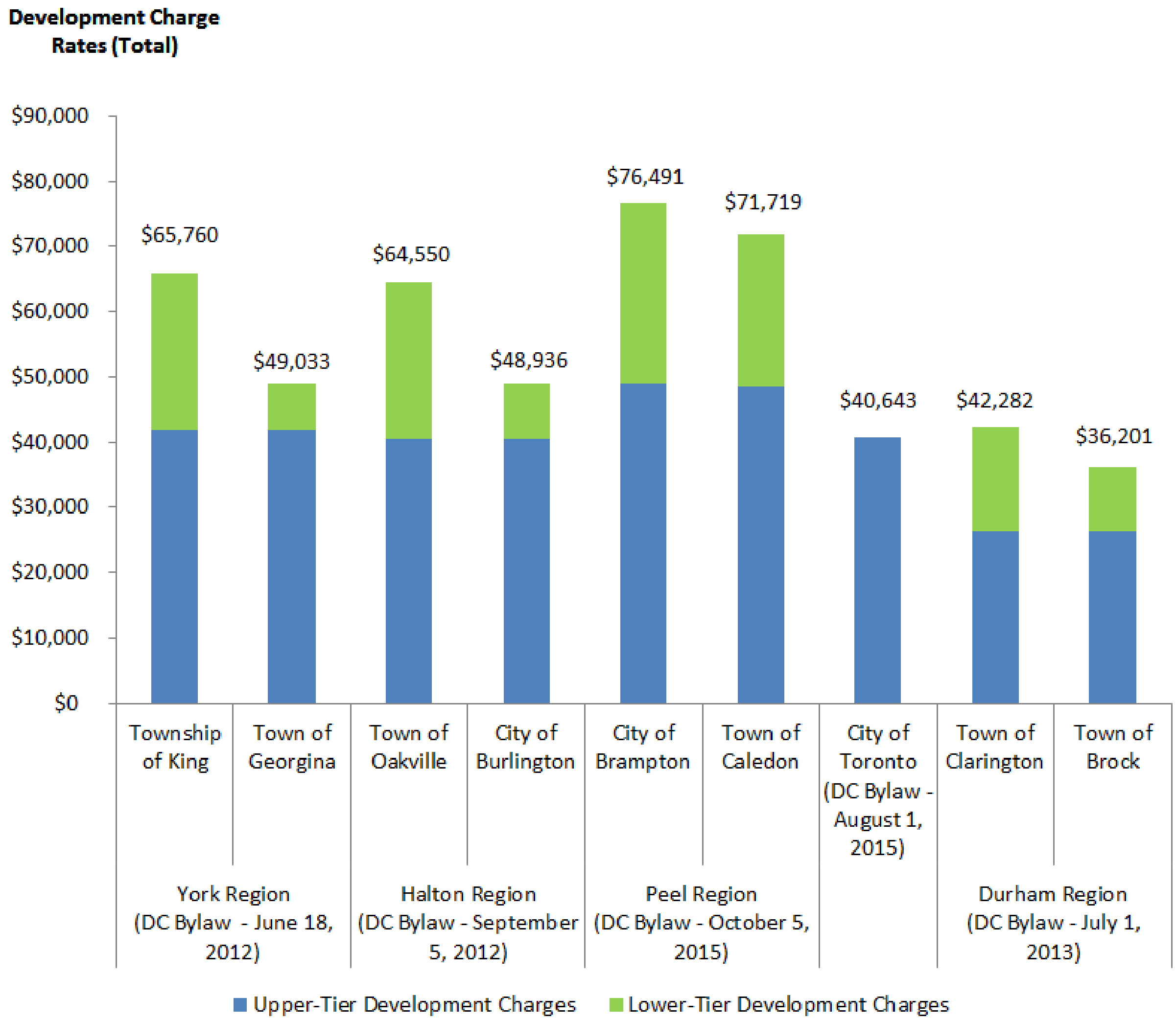
Attachments (1)

Accessible formats or communication supports are available upon request

A Comparison of Development Charge Rates*

Lower Tier Municipalities are Highest and Lowest



*Rates as of March, 2016 (includes GO Transit development charge, where applicable)
Region of Peel has a separate development charge for the Town of Caledon

DEVELOPMENT CHARGES RELATED REPORTS

Clause 6 in Report No. 5 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on March 24, 2016.

6
Hotel Development Charges in York Region

Committee of the Whole recommends referral to staff of the report dated February 26, 2016 from the Commissioner of Finance for a report back to Committee as soon as possible with an assessment of alternative policy approaches to hotel Development Charge rates.

Report dated February 26, 2016 from the Commissioner of Finance now follows:

1. Recommendation

It is recommended that:

1. The Regional Clerk circulate this report to the local municipalities.

2. Purpose

This report explains the current treatment of Regional hotel development charges and identifies possible options that could be explored as part of the 2017 Development Charge (“DC”) Bylaw update.

3. Background

Hotel development charges in York Region are based on a combined rate under the 2012 Development Charge Bylaw

Hotel developments currently fall under the retail definition in the 2012 DC Bylaw. The Region implements a blended charge for hotels: 25 per cent of the gross floor area at the retail rate and the rooms at 100 per cent of the small apartment rate.

Developers can defer payment for retail development by providing a Letter of Credit for the full amount due, to be drawn down over a three year period.

Aurora has authorized a long term deferral of a portion of their Development Charges for hotels and has requested that the Region of York adopt a similar policy

In August 2015, the Town of Aurora considered a report entitled, “Hotel Development Charges”, which considered whether the level of hotel DCs was affecting the amount of hotel development. Their analysis showed that there have been very few hotels built within the Region under the current development charge policy.

On September 15, 2015, the Town of Aurora authorized staff to enter into development charge deferral agreements for hotel or motel developments that would defer the amount that the hotel would be required to pay over and above the amount that an office building of similar size would pay, until the use of the building changes.

If applied to the hotel proposal discussed in Aurora’s report (87 units with a gross floor area of 46,000 square feet), the policy would mean that the Town of Aurora would be deferring approximately $565,000 until such time, if ever, that the property was zoned for other uses.

The Town of Aurora has requested that York Region consider adopting a similar deferral policy.

The Town has also directed their staff to return to a rate calculation based upon the non-residential rate for the gross square footage in calculating the Development Charges for hotels and motels in the next update of their Development Charge Bylaw (and has asked the Region to consider doing the same in its next Bylaw update).

Since 2000, 23 new hotels have opened in York Region

From 2000 to 2015, 23 new hotels opened in York Region (see Table 1 below). The average gross floor area of these hotels was approximately 93,500 square feet. The average unit count is 124 suites. Vaughan had the most development, with ten new hotels, followed by Markham with nine new hotels, Richmond Hill with two, and Newmarket and King with one each.

Table 1
New Hotels in York Region between 2000 - 2015

Municipality	Hotel	Year Opened
Vaughan	Courtyard by Marriott Concord	2002
	Hilton Garden Inn	2006
	Monte Carlo Inn Vaughan Suites	2006
	Residence Inn by Marriott	2007
	Holiday Inn Express and Suites Vaughan - Southwest	2008
	Homewood Suites by Hilton Vaughan	2011
	Novotel Hotels	2011
	Springhill Suites by Marriott	2011
	Aloft Vaughan Mills	2012
	Element Vaughan Southwest	2013
Markham	Staybridge Suites Toronto-Markham	2000
	Monte Carlo Inn Markham	2001
	Hilton Garden Inn	2002
	Courtyard by Marriott Markham	2002
	Residence Inn by Marriott	2002
	Homewood Suites by Hilton Markham	2008
	Monte Carlo Inn & Suites Downtown Markham	2011
	Liberty Suites	2014
	Towneplace Suites by Marriott Toronto Northeast Markham	2015
Richmond Hill	Travelodge	2005
	Holiday Inn Express & Suites	2008
Newmarket	Holiday Inn Express & Suites	2009
King	The Kingbridge Centre	2001

Source: Long Range Planning, York Region 2015 Employment Survey.

4. Analysis and Options

Hotel development helps support local tourism and businesses

York Region continues to grow as a hub for both tourism and major office development with centers in Markham, Richmond Hill/Highway 7 and Vaughan.

With over 60 museums and galleries and 125 performing arts festivals, the Region is also growing in cultural significance. Examples of tourist attractions include Canada’s Wonderland, Vaughan Mills, and the McMichael Art Gallery. Currently there are over 2,200 people employed in the hotel industry in York Region.

Market demand for hotel accommodation in York Region is segmented according to the following drivers:

Table 2
Market Demand for Accommodation

Market Segment	Portion of demand for hotel accommodation (%)
Corporate/Commercial	35
Meeting/Conference	14
Tourism/Leisure	10
Government/Other Discounted Business	41

Source: PKF Consulting, Inc, Transient Hotel Development Opportunities in York Region, p. 5.

In 2015, growth in demand for accommodation in corporate/commercial, meeting/conference and tourism/leisure in York Region was expected to be approximately twice as high as in the rest of Ontario.

York Region could see up to 21 new hotels by 2031

Based on a 2009 study by PKF Consulting Inc., there is the potential for up to 21 new hotels in the Region by 2031, representing 2,750 new rooms. Eight of these hotels were expected to be needed in the northern six municipalities, with 800 rooms, and 13 were expected to be needed in the southern three municipalities, with 1,950 rooms.

Development Charges are not the main driver when determining a location to build a hotel

The decision to build a hotel is based on several factors. Typically, the pro-formas for a proposed hotel will place the greatest emphasis on anticipated revenues (based on occupancy rates and other revenues) and ongoing operating expenses. High occupancy rates are usually tied to a hotel’s proximity to transportation hubs, airports, highways, tourist attractions, and concentrations of commerce and hospitals.

A 2013 study by the Municipal Finance Officers of Ontario Association showed DCs in York Region represented approximately six per cent of the total cost per square foot for apartments and two per cent of the total cost per square foot for office space. Similar information for hotels is not available.

The decision to build a hotel in York Region is more likely driven by market demand and locational advantages than by DC rates.

Development Charge treatment for hotels varies among municipalities

Table 3 identifies how hotel DCs are charged at the local municipal level in York Region.

Table 3
Hotel Treatment in Local Municipalities within York Region

Municipality	Retail Rate Charged	Small Apartment Rate Charged
Aurora	Yes – 50 %	Yes
East Gwillimbury	Yes – 100 %	No
Georgina	Yes – 100 %	No
Markham	Yes – 100 %	No
Newmarket	Yes – 100 %	No
Richmond Hill	Yes – 25 %	Yes
Vaughan	Yes – 100 %	No
Whitchurch – Stouffville	Yes – 100 %	No

Table 4 illustrates practices in selected other municipalities. York Region is the only one that uses a blended rate.

Table 4
Hotel Treatment in neighboring municipalities

Municipality/ Region	Percentage of retail rates to be paid	Small apartment rate charged	Separate retail rate (Municipality/ Region)		Development Charge Cost per sq ft ***
Ajax* - Durham	100% of municipal and regional rates	No	Yes	Yes	$18.04
Richmond Hill - York	25% municipal, 25% regional	Yes	Yes	Yes	$42.53
Mississauga - Peel	100% of municipal and regional rates	No	No	Yes	$27.79
Newmarket - York	100% of municipal, 25% of regional	No	Yes	Yes	$38.16
Toronto	100% of City rates	No	No		$18.87
Milton – Halton	100% of municipal and regional rates	No	Yes	Yes	$25.00
Aurora - York	50% of municipal 25% of regional	Yes	Yes	Yes	$45.03
Brampton - Peel**	100% of municipal and regional rates	No	Yes	Yes	$27.19

*Note: The Town of Ajax offers an incentive to hotel developers wishing to build within defined Community Improvement Project areas. Under this policy, a full development charge exemption applies to hotels of at least six storeys.

**Note: Brampton levies a special “full service hotel” rate.

*** Calculated based on a typical hotel with 124 rooms and 93,500 square feet in size. This reflects the average of hotels built in York Region since 2000.

Development Charges fund the infrastructure investments needed to support growth

The 2012 Development Charge Background Study estimated that the cost of regional infrastructure to accommodate growth to 2031 will be $14.4 billion. Due to restrictions in the *Development Charges Act*, only about 50 per cent of that can be recovered through development charge rates, although additional amounts may be recovered in future bylaws as the planning period becomes longer.

When calculating the retail rate for the 2012 DC bylaw review, hotel developments are considered to be part of the retail class, and they are included in the retail rate calculation. The *Act* prevents the Region from recovering any collection shortfall from discounts or deferrals through higher development charges for other types of development. However, any revenue shortfall resulting from a deferral for hotels may be collected from other retail developments as part of a future DC bylaw.

Development Charge discounts were not found to spur a material level of hotel development in the City of Brampton

In 2012, the City of Brampton began a policy of development charge discounts for full-service hotels. Initially, the discount was approximately 34.5 per cent and was pegged to match the City of Mississauga's non-industrial rate. Since that time, the discount has been reduced markedly; now hotels pay a 'full service' hotel rate of $91.63 per square meter (City of Brampton rate), close to the non-industrial, non-office rate of $98.71 per square meter.

Staff enquired whether the discount was curtailed because the City of Mississauga raised their non-industrial rate, or whether it was because there had not been much uptake on the discount. Ultimately, the discount policy simply did not attract the hotel development that Brampton had hoped for.

The Development Charge rate for hotels will be reviewed as part of the 2017 Development Charge Bylaw update

Staff will assess alternative policy approaches to hotel DC rates as part of the preparation for the 2017 Background Study.

Some of the options that could be considered are:

1. Continue applying a blended retail/non-retail rate as is currently in place

   The Region could continue to levy DCs on hotels based on its current treatment − a blend of the retail charge and the small apartment charge. This approach reflects the fact that infrastructure requirements of a hotel establishment have both retail and residential characteristics.

2. Maintain a blended DC rate but reduce both the retail and residential components

   The Region's current approach is to apply the retail charge to 25 percent of the gross floor area, which represents an estimate of the portion of the floor space normally used for retail purposes. Since 2005, the average new hotel in York Region has been 6 storeys, with the retail component on the first floor (based upon a study conducted by Regional staff). This would suggest that 15 per cent of the retail rate might better align with the actual retail share of gross floor area.

   Furthermore, the DC rate for the hotel rooms could be levied at 60 per cent of the overall apartment rate, commensurate with historical occupancy rates of 60 per cent. This reduction would recognize that not all units are occupied 100 per cent of the time.

3. Levy DCs on hotels at the retail rate

   The Region could levy the retail DC based on the gross floor area of the hotel (with no reduction in rate). This is how many municipalities in Ontario currently treat hotels, including several of the Region's local municipalities. It is also how the Region treated hotels prior to 2010. This approach would provide some savings for most hotels, while at the same time recognizing the retail nature of the hotel.

4. Developer's choice of blended rate or full retail

   The Region could allow the developer to choose either the blended rate, as it is currently levied, or the full retail rate. The most advantageous option for the developer would depend on the composition of the development.

5. Adopt a deferral policy similar to the Town of Aurora

   Currently retail developers, including hotels, can defer payment for the full amount due, to be drawn down over a three year period.

   If the Region were to adopt the Town's position, it would levy development charges based on its current office rate of $19.97 per square foot of office space. In the case of the hotel example cited by the Town, the Region would defer $1.06 million in development charges.

The duration of the deferral would be indefinite, until the use of the building changed. This could be a permanent deferral as hotels in the Region typically do not change use (i.e., become condominiums). The Region may want to charge interest on the deferral, reflecting the long-term cost of funding (permitted by way of agreement, under subsection 27(3) of the *Development Charges Act*).

The core principle underlying the *Development Charges Act* is that development charges are a primary tool in ensuring “growth pays for growth”, to the extent permitted by the legislation. The Region uses development charges to fund as much as much of its growth-related infrastructure as possible.

The Region needs to carefully balance the concerns of new developments with the position of existing taxpayers. Any permanent development charges deferral would need to be recovered through higher development charges for other retail development or higher property taxes.

Link to key Council-approved plans

Insofar as it might affect hotel development in the Region, considering a change to the treatment of development charges for hotels is consistent with the 2015 to 2019 Strategic Plan’s priority areas of “Strengthening the Region’s Economy and “Providing Responsive and Efficient Public Service”.

It would also supports a number of Regional Official Plan policy areas, including, “Economic Vitality” and “Growth Management”.

5. Financial Implications

Hotel developments have generated approximately $17 million in Development Charges since 2000

Between 2000 and 2015, 23 hotels opened in York Region and 18 hotel developments paid development charges, totaling approximately $17.0 million. Five hotels did not pay DCs due to the fact that they were redevelopments of retail spaces and, prior to 2010, hotels were treated as retail for the purpose of levying DCs.

6. Local Municipal Impact

This report does not directly affect local municipalities. The local municipalities will be consulted in the preparation of the 2017 DC Background Study, including hotel DC policy.

7. Conclusion

Staff are proposing to review the approach to the hotel DC rate as part of the 2017 Background Study. The bylaw and the rates proposed will be informed by consultation with the local municipalities and the development community.

For more information on this report, please contact Edward Hankins, Director, Treasury Office, at ext. 71644.

The Senior Management Group has reviewed this report.

February 26, 2016

6602265

Accessible formats or communication supports are available upon request

Clause 7 in Report No. 5 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on March 24, 2016.

7

Implications of the Development Charges Act Amendments

Committee of the Whole recommends adoption of the following recommendations contained in the report dated February 26, 2016 from the Commissioner of Finance:

1. Council receive this report for information.

Report dated February 26, 2016 from the Commissioner of Finance now follows:

1. Recommendation

It is recommended that Council receive this report for information.

2. Purpose

The Province amended the *Development Charges Act, 1997* and enacted accompanying regulations in December 2015. This report provides Council with an overview of these changes.

3. Background

In 2015 the Region provided a response to the proposed changes to the *Development Charges Act, 1997*

Between October 2013 and January 2014, the Ministry of Municipal Affairs and Housing (MMAH) sought input on the Land Use Planning and Appeal and Development Charges systems, focusing on what changes were needed to improve the system. York Region provided a written submission to MMAH on January 9, 2014.

In March of 2015 the Province released Bill 73, *Smart Growth for Our Communities Act*, *2015*, which amended the *Development Charges Act, 1997*.

York Region undertook a coordinated staff review of Bill 73. The Region provided a Council-endorsed response to the changes in June 2015.

The Association of Municipalities Ontario ("AMO") and the Municipal Finance Officers' Association of Ontario ("MFOA") took positions similar to the Region's with the Province's Steering Committee on Bill 73. In addition, Regional staff participated in a number of stakeholder conference calls and webinars that provided further opportunities to articulate the Region's concerns.

Some of the Region's requested changes were accommodated

Table 1 compares the Region's positions, as submitted to the Province in its response in June 2015 to the *Development Charges Act, 1997*, as amended by Bill 73 (December 2015).

Table 1

Region's Positions (2015) versus *Development Charges Act, 1997* – as Amended

Region's Position (June 2015)	*Development Charges Act, 1997* (as amended)
The removal of all ineligible services from both the legislation and regulations	The list of ineligible services moved to the regulations
All waste management services should be eligible for DCs	Only waste diversion made eligible
The removal of the historic level of service for all services	Only removed for transit services
The removal of the 10 per cent statutory reduction should apply to all services	Only removed from transit services
Clarification around the definition of what a first permit could be, which is when the Bill proposed DCs are paid (for condominiums)	No further clarification provided
Did not support the Province providing itself with the power to prescribe area-rated development charges	Municipalities must consider area rated rates, but the Province did not issue regulations to prescribe municipalities, areas or services, for which area rated bylaws must be passed
Clarification as to the requirements of the Asset Management Plan that is to inform the Background Study	Clarification provided for transit services Further clarification for other services is anticipated to be provided in regulations for *Bill 6, Infrastructure for Jobs and Prosperity Act*

The new legislative regime includes administrative as well as policy changes

Under the changes to the *Development Charges Act, 1997*, the Province provided for greater growth-related cost recovery for both transit services and waste diversion. At the same time the Province prescribed greater reporting requirements for municipalities (see Table 2).

Table 2
Areas of Change under *Development Charges Act, 1997* – as Amended

Increased DC recovery for two service areas	**Transit Services**	**Waste Diversion**	
Administrative Changes	DCs payable at first building permit for buildings that require multiple permits	Background Study must be published 60 days in advance	Enhanced reporting requirements for DC reserve
Other material changes	Asset management plan requirements	Requirement to consider area-specific charges	End to voluntary payments

4. Analysis and Options

Development charges can now recover a larger share of growth-related transit costs

Transit services are now able to use planned levels of service, rather than historical service levels, although the planning horizon is still limited to ten years. The ten per cent statutory reduction has been removed.

The method for determining the planned levels of service involves:

- Ridership **forecasts** for all modes of transit services proposed to be funded by the development charge over the 10-year period immediately following the preparation of the background study (by development types) and whether the forecasted ridership will be from existing or planned development;
- Ridership **capacity** for all modes of transit services proposed to be funded by the development charge over the 10-year period immediately following the preparation of the background study; and
- Identification of **excess capacity** that will exist at the end of ten years.

There are additional reporting requirements for municipalities recovering increased growth-related costs for transit services

The regulations establish new reporting requirements for growth-related transit costs. They require an asset management plan that includes:

- A section that sets out the state of local infrastructure, the type of assets, replacement cost valuation for all assets, asset age distribution and asset condition based on standard engineering practices for all assets;
- A section that sets out the proposed level of service, including defining the level of service through timeframes and performance measures, discussing any external trends or issues and showing current performance relative to the targets set out;
- An asset management strategy that sets out planned actions that will enable the assets to provide the proposed level of service in a sustainable way at the lowest life cycle cost; and
- A financial strategy that shows the yearly expenditure forecasts that are expected to achieve the proposed level of service, provides actual expenditures in respect of the categories set out, discusses key assumptions and alternative scenarios where appropriate, and identifies any funding shortfall relative to financial requirements.

Waste diversion no longer included as part of the list of ineligible services

While the Region advocated that all growth-related infrastructure should be eligible for development charge recovery, the Province only added waste diversion. This was accomplished by saying that ‘landfill sites and services’ and ‘facilities and services for the incineration of waste’ are ineligible.

The regulations did not narrowly define waste diversion, which may allow greater cost recovery in the future as new technologies to divert waste are developed.

The Act does not define what constitutes a “building permit” for the purpose of paying development charges

The new Act notes that if a development consists of one building but requires more than one building permit, the development charge is payable when the first building permit is issued. “Building permit” is left undefined, leaving open the possibility that a pre-construction building permit could trigger payment of development charges.

This could mean that development charges are paid at lower rates than they would if they were paid under a ‘normal’ construction permit.

The Region's Legal Services department intends to define first "building permit" in the 2017 DC Bylaw Update.

Each phase of a multi-phase development is considered a separate development

If a development consists of two or more phases that are anticipated to be completed in different years, each phase of the development is deemed to be a separate development for the purposes of development charge collections. This is already the standard practice in York Region.

The Development Charge Background Study must now be available to the public 60 days prior to passing the DC Bylaw

While not included in the original version of Bill 73, the province put in place a requirement that the Development Charge Background Study be made publicly available a minimum of 60 days prior to passing. In addition, the study must remain publicly accessible via website until the Bylaw expires or is repealed. This is already the Region's current practice.

Further clarity on the requirement for asset management plans is anticipated to come under Bill 6

The *Development Charges Act, 1997*, as amended, would require municipalities to prepare an asset management plan that demonstrates that all assets funded by DCs are 'financially sustainable' over their lifecycle. Currently the regulations only provide requirements for the asset management plans related to transit services. Further guidance is anticipated to be provided under the Regulations for *Bill 6, Infrastructure for Jobs and Prosperity Act*. This Bill, which is not yet in force, codifies the principles of asset management used by the Province and municipal governments and is intended to establish principled, evidence-based and strategic long-term infrastructure planning.

The Act prohibits voluntary payments

The amendments to the *Development Charges Act, 1997* prohibit the imposition of additional levies, commonly understood to mean voluntary payments or extralegal agreements, related to a development. Staff are investigating the definition of voluntary payment agreements to ensure the Region remains compliant in the future. Existing voluntary payment agreements are grandfathered.

Link to key Council-approved plans

Improvements to the *Development Charges Act*, *1997* support several objectives in York Region's 2015-2019 Strategic Plan including: "Optimizing critical infrastructure systems capacity"; Encouraging growth along Regional Centres and Corridors"; "Preserving green spaces"; "Ensuring optimal locations for business and employment growth are available", and "Ensuring a fiscally prudent and efficient Region".

The *Development Charges Act, 1997* also supports the "Liveable Cities and Complete Communities" and "Open and Responsive Government" theme areas in Vision 2051.

Lastly, the amendments support a number of Regional Official Plan policy areas, including but not limited to the "Economic Vitality", "Growth Management" and "Implementation" sections.

5. Financial Implications

The 2012 DC Background Study identified approximately $14.4 billion of growth-related infrastructure to be built over the following 20 year period. Of this, approximately 50 per cent was expected to be recovered through development charges during this period. The remainder was expected to be funded through future development charges (post period benefits), as well as grants, property taxes and water rates.

If the provisions in Bill 73 had been adopted in 2012, staff estimate that an additional five per cent of these costs could have been recovered through development charges (a total of 55 percent). This would be primarily due to the removal of the 10 per cent statutory reduction for transit, replacing historical with planned service level for all transit (not just for subways), as well as the inclusion of waste diversion as an eligible service. This analysis assumes that the planned level of service cap for transit would not affect cost recovery.

A significant portion of the growth-related infrastructure identified in the 2012 DC Background study will also still benefit existing development. Therefore, the property tax/user rate base will continue to be a significant funding source for growth-related projects.

6. Local Municipal Impact

In addition to any benefit they may realize related to their own infrastructure, local municipalities will benefit to the extent that the Region is better able to fund growth-related infrastructure from development charges.

7. Conclusion

The changes to the *Development Charges Act, 1997* are a positive step forward. However, even with the changes described in this report, the Region will still not be able to recover all of the costs of growth-related infrastructure from development charges.

For more information on this report, please contact Edward Hankins, Director, Treasury Office, at ext. 71644.

The Senior Management Group has reviewed this report.

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