

The Regional Municipality of York 2017 Development Charge Background Study

As Released February 16, 2017



Table of Contents

EXECUTIVE SUMMARY	1
1.0 Purpose of this Background Study	1
2.0 2017 Development Charge calculation	2
3.0 Proposed Bylaw modifications	3
4.0 Council approvals sought.....	4
1. INTRODUCTION	9
1.1 Background Study requirements	9
1.2 Overview of development charges in York Region	11
2. CURRENT YORK REGION POLICY	23
2.1 Schedule of charges	23
2.2 Services covered.....	26
2.3 Timing of development charge calculation and payment	27
2.4 Indexing	27
2.5 Redevelopment credits	28
2.6 Exemptions	29
2.7 Deferral options.....	32
2.8 Transitional collection policies.....	33
3. ANTICIPATED DEVELOPMENT IN YORK REGION	35
3.1 Requirements of the Development Charges Act.....	35
3.2 Development charges growth forecast.....	35
3.3 Population and housing unit growth forecast	36
3.4 Employment and non-residential space forecast	42
4. DEVELOPMENT CHARGE CALCULATION ASSUMPTIONS	47
4.1 Introduction	47
4.2 Services potentially involved	47
4.3 Applicable credits	49
4.4 Region-wide charges	49
4.5 Council's approval of the capital program	49
4.6 Rules for development charges	50
5. WATER – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS	51
5.1 2017 to 2031 Capital program description	51
5.2 Level of service	51
5.3 Benefit to existing development deduction.....	52
5.4 Post period benefit deduction.....	53
5.5 Grants, subsidies and other contributions	55
5.6 10% statutory deduction.....	56
5.7 Residential vs. non-residential allocation	56

6.	WASTEWATER – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS	63
6.1	2017 to 2031 Capital program description	63
6.2	Level of service	63
6.3	Benefit to existing development deduction.....	63
6.4	Post period benefit deduction.....	65
6.5	Grants, subsidies and other contributions	66
6.6	10% statutory deduction.....	66
6.7	Residential vs. non-residential allocation	67
7.	ROADS – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS	73
7.1	2017 to 2031 Capital program description	73
7.2	Level of service	74
7.3	Benefit to existing development deduction.....	75
7.4	Post period benefit deduction.....	79
7.5	Grants, subsidies and other contributions	80
7.6	10% statutory deduction.....	80
7.7	Residential vs. non-residential allocation	81
8.	TRANSIT – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS	95
8.1	Program description	95
8.2	Level of service calculation	95
8.3	Benefit to existing development deduction.....	96
8.4	Post period benefit deduction.....	97
8.5	Grants, subsidies and other contributions	98
8.6	10% statutory deduction.....	98
8.7	Residential vs. non-residential allocation	98
9.	TORONTO-YORK SUBWAY EXTENSION – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS	101
9.1	2017 – 2031 Capital program description	101
9.2	Level of service calculation	101
9.3	Benefit to existing development deduction.....	101
9.4	Post period benefit deduction.....	101
9.5	Grants, subsidies and other contributions	101
9.6	10% statutory deduction.....	101
9.7	Residential vs. non-residential allocation	102
10.	GENERAL SERVICES – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS	105
10.1	Introduction	105
10.2	Police	109
10.3	Waste Diversion.....	112

10.4	Public Works	120
10.5	Paramedic Services (formerly Emergency Medical Services)	129
10.6	Public Health	134
10.7	Social Housing	138
10.8	Court Services	143
10.9	Growth Studies.....	147
10.10	Senior Services – Capital Component (formerly Long Term Care).....	151
11.	DEVELOPMENT CHARGE CASH FLOW CALCULATIONS	161
12.	DEVELOPMENT CHARGE BYLAW AND POLICY REVIEW	213
12.1	Existing development charge policies – Not Reviewed.....	213
12.2	Policies reviewed but unchanged.....	215
12.3	Areas of the Bylaw that have been reviewed and changed	216
12.4	Development charge policies that have been expanded	219
13.	OTHER POLICY DETAIL.....	221
13.1	Collection responsibility policy	221
13.2	Alternative collection policies (old s.13, s.14 -DC Act, 1990 credits) ...	223
13.3	Development charge credit policy	225
13.4	Development charge roadworks credits.....	230
14.	ASSET MANAGEMENT PLAN.....	233
APPENDIX A.....	INTERJURISDICTIONAL SCAN OF DEVELOPMENT CHARGE RATES	261
APPENDIX B.....		269
STAFF REPORTS.....		269
	2017 DEVELOPMENT CHARGE BYLAW UPDATE REPORTS	270
	DEVELOPMENT CHARGES RELATED REPORTS.....	313
APPENDIX C.....	PROPOSED YORK REGION DEVELOPMENT CHARGE BYLAW (2017)	321

LISTING OF TABLES AND KEY FIGURES

EXECUTIVE SUMMARY

Table ES-1	Proposed Changes to the Development Charges Bylaw	3
Table ES-2	Comparison of Existing and Calculated Development Charges	5
Table ES-3	Total Development Related Capital Program	6
Table ES-4	Comparison of Existing and Calculated Development Charges by Type of Development	7
Table ES-5	GO Transit Development Charges	8

INTRODUCTION

Table 1-1	Schedule of Key Development Charge Process Dates for York Region	10
Table 1-2	Summary of Statutory Development Charges Calculation Requirements	14
Figure 1-1	Statutory Requirements for Calculating a Development Charge	21

CURRENT YORK REGION POLICY

Table 2-1	2012 Development Charges Bylaw - Residential Rates	24
Table 2-2	2012 Development Charges Bylaw - Non-residential Rates	25
Table 2-3	Infrastructure projects under the 2012 Bylaw	26
Table 2-4	Development Charges as of February 3, 2017	28
Table 2-5	Calculation of Credits for Derelict Residential Buildings	29
Table 2-6	Residential Development Charge Exemptions: Statutory and Non-Statutory	30
Table 2-7	Non-Residential Development Charge Exemptions: Statutory and Non-Statutory	31

ANTICIPATED DEVELOPMENT IN YORK REGION

Figure 3-1	Historic and Forecast Housing Growth (2007 – 2031)	37
Table 3-1	Residential Growth Forecast Summary	37
Table 3-2	Residential Unit and Population Forecast by Single Year (Year-End)	38
Table 3-3	Persons Per Unit Assumptions for Development Charge Calculations	39
Table 3-4	Ten Year Growth Forecast End 2016 to End 2026	40
Table 3-5	14.5 Year Growth Forecast End 2016 to Mid-2031	41
Figure 3-2	York Region Employment Growth Forecast	42
Table 3-6	Employment Growth Forecast	44
Table 3-7	Non-Residential Gross Floor Area Per Employee Assumptions	45
Table 3-8	New Gross Floor Area – Square Feet	46

DEVELOPMENT CHARGE CALCULATION ASSUMPTIONS

Table 4-1	Eligibility of Municipal Services for Development Charge Recovery	47
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WATER – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS

Table 5-1	2031 Unit Water Consumption Unit Rates	52
Table 5-2	Non-Residential Allocation	56
Table 5-3	Water / Wastewater Demand Forecast Calculations, Flow Split Residential vs. Non- Residential	57
Table 5-4	Water – Growth related Capital Costs	58
Table 5-5	Water – Contingent Items, Growth related Capital Costs	61

WASTEWATER – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS

Table 6-1	Non-residential Cost Share	67
Table 6-2	Water/Wastewater Demand Forecast Calculations	68
Table 6-3	Wastewater – Growth related Capital Costs	69
Table 6-4	Wastewater – Contingent Items, Growth related Capital Costs	71

ROADS – CAPITAL FORECASTS AND DEVELOPMENT CHARGE RECOVERABLE COSTS

Figure 7-1	Historical Level of Service, Paved Lanes per Capita, Region of York (1989 to 2041)	74
Table 7-1	Project Categorization for Benefit to Existing (Transportation)	77
Table 7-2	Incremental Growth for Population and Employment	81
Table 7-3	Non-Residential Land Use (Based on Trip Generation)	82
Table 7-4	Number of Lane Km, Historic Level of Service	83
Table 7-5	Roads – Growth-Related Capital Costs	84
Table 7-6	Roads – Contingent Items, Growth related Capital Costs	92

**TRANSIT – CAPITAL FORECASTS AND DEVELOPMENT CHARGE
RECOVERABLE COSTS**

Table 8-1	Transit – Model Extractions	96
Table 8-2	Transit – Vehicles, Growth related Capital Costs	99

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

Table 9-1	Toronto-York Subway Extension – Growth related Capital Costs	103
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**GENERAL SERVICES – CAPITAL FORECASTS AND DEVELOPMENT
CHARGE RECOVERABLE COSTS**

Table 10-1	Police - Net Population and Employment Increment	111
Table 10-2	Police – Facilities (Excluding Land), Square Footage, Historic Level of Service	112
Table 10-3	Police – Facilities (Land), Acres, Historic Level of Service	113
Table 10-4	Police – Vehicles, Number of Vehicles, Historic Level of Service	114
Table 10-5	Police – Equipment, Dollar Value of Equipment, Historic Level of Service	115
Table 10-6	Police – Facilities, Vehicles and Equipment, Growth related Capital Costs	116
Table 10-7	Waste Diversion – Residential and Non-Residential Splits	120
Table 10-8	Waste Diversion – Facilities, Square Footage, Historic Level of Service	121
Table 10-9	Waste Diversion – Facilities (Land), Acres, Historic Level of Service	122
Table 10-10	Waste Diversion – Equipment, Number of Items, Historic Level of Service	123
Table 10-11	Waste Diversion – Facilities and Vehicles, Growth related Capital Costs	124
Table 10-12	Public Works – Net Population and Employment Increment	127
Table 10-13	Public Works – Facilities (Excluding Land), Square Footage, Historic Level of Service	128
Table 10-14	Public Works – Facilities (Land) Acres, Historic Level of Service	129
Table 10-15	Public Works – Vehicles, Number of Vehicles, Historic Level of Service	130
Table 10-16	Public Works – Equipment, Number of Items, Historic Level of Service	131
Table 10-17	Public Works – Facilities, Vehicles and Equipment, Growth related Capital Costs	133
Table 10-18	Paramedic Services – Net Increment of Population and Employment	135
Table 10-19	Paramedic Services – Facilities, Square Footage, Historic Level of Service	136
Table 10-20	Paramedic Services – Vehicles, Number of Vehicles, Historic Level of Service	137
Table 10-21	Paramedic Services – Facilities and Vehicles Growth related Capital Costs	138
Table 10-22	Public Health – Facilities, Square Footage, Historic Level of Service	142
Table 10-23	Public Health – Facilities, Growth related Capital Costs	143
Table 10-24	Social Housing – Facilities, Number of Units, Historic Level of Service	146
Table 10-25	Social Housing – Facilities, Growth related Capital Costs	149
Table 10-26	Court Services – Net Population and Employment Increment	151
Table 10-27	Court Services – Facilities, Square Footage, Historic Level of Service	152
Table 10-28	Court Service – Facilities, Growth related Capital Costs	153
Table 10-29	Growth Studies – Net Population and Employment Increment	155
Table 10-30	Growth Studies – Growth related Capital Costs	156
Table 10-31	Senior Services – Facilities, Square Footage, Historic Level of Service	159
Table 10-32	Senior Services – Contingent Items, Growth related Capital Costs	160

DEVELOPMENT CHARGE CASH FLOW CALCULATIONS

Table 11-1	15-Year Services, 2017-2031	163
Table 11-2	10-Year Services, 2017-2026	163
Table 11-3	Water – Residential Development Charge Calculations	164
Table 11-4	Water – Retail Development Charge Calculations	165
Table 11-5	Water – Industrial/Office/Institutional Development Charge Calculations	166
Table 11-6	Water – Hotel Development Charge Calculations	167
Table 11-7	Wastewater – Residential Development Charge Calculations	168
Table 11-8	Wastewater – Retail Development Charge Calculations	169
Table 11-9	Wastewater – Industrial/Office/Institutional Development Charge Calculations	170
Table 11-10	Wastewater – Hotel Development Charge Calculations	171
Table 11-11	Roads – Residential Development Charge Calculations	172
Table 11-12	Roads – Retail Development Charge Calculations	173
Table 11-13	Roads – Industrial/Office/Institutional Development Charge Calculations	174
Table 11-14	Roads – Hotel Development Charge Calculations	175
Table 11-15	Transit – Residential Development Charge Calculations	176
Table 11-16	Transit – Retail Development Charge Calculations	177
Table 11-17	Transit – Industrial/Office/Institutional Development Charge Calculations	178
Table 11-18	Transit – Hotel Development Charge Calculations	179
Table 11-19	Toronto-York Subway Extension – Residential Development Charge Calculations	180
Table 11-20	Toronto-York Subway Extension – Retail Development Charge Calculations	181
Table 11-21	Toronto-York Subway Extension – Industrial/Office/Institutional Development Charge Calculations	182
Table 11-22	Toronto-York Subway Extension – Hotel Development Charge Calculations	183
Table 11-23	Police – Residential Development Charge Calculations	184
Table 11-24	Police – Retail Development Charge Calculations	185
Table 11-25	Police – Industrial/Office/Institutional Development Charge Calculations	186
Table 11-26	Police – Hotel Development Charge Calculations	187
Table 11-27	Waste Diversion – Residential Development Charge Calculations	188
Table 11-28	Waste Diversion – Retail Development Charge Calculations	189
Table 11-29	Waste Diversion – Industrial/Office/Institutional Development Charge Calculations	190
Table 11-30	Waste Diversion – Hotel Development Charge Calculations	191
Table 11-31	Public Works – Residential Development Charge Calculations	192
Table 11-32	Public Works – Retail Development Charge Calculations	193
Table 11-33	Public Works – Industrial/Office/Institutional Development Charge Calculations	194
Table 11-34	Public Works – Hotel Development Charge Calculations	195
Table 11-35	Paramedic Services – Residential Development Charge Calculations	196
Table 11-36	Paramedic Services – Retail Development Charge Calculations	197
Table 11-37	Paramedic Services – Industrial/Office/Institutional Development Charge Calculations	198
Table 11-38	Paramedic Services – Hotel Development Charge Calculations	199
Table 11-39	Public Health – Residential Development Charge Calculations	200
Table 11-40	Public Health – Retail Development Charge Calculations	201
Table 11-41	Public Health – Industrial/Office/Institutional Development Charge Calculations	202
Table 11-42	Public Health – Hotel Development Charge Calculations	203
Table 11-43	Social Housing – Residential Development Charge Calculations	204

Table 11-44	Social Housing – Retail Development Charge Calculations	205
Table 11-45	Social Housing – Industrial/Office/Institutional Development Charge Calculations	206
Table 11-46	Social Housing – Hotel Development Charge Calculations	207
Table 11-47	Court Services – Residential Development Charge Calculations	208
Table 11-48	Court Services – Retail Development Charge Calculations	209
Table 11-49	Court Services – Industrial/Office/Institutional Development Charge Calculations	210
Table 11-50	Court Services – Hotel Development Charge Calculations	211

APPENDICES

Figure A-1	Residential Development Charges per Single Detached Dwelling for Greater Toronto Area Municipalities with Proposed York Region Rates	263
Figure A-2	Residential Development Charges per Large Apartment for Greater Toronto Area Municipalities with Proposed York Region Rates	264
Figure A-3	Residential Development Charges per Small Apartment for Greater Toronto Area Municipalities with Proposed York Region Rates	265
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	266
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	267
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	268

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 at Committee of the Whole, which is to be held March 9, 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 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 the background study, staff held seven 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 and asset management plans.

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 six consultation meetings with finance directors from the local municipalities. 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 and asset management plans.
- 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 12.90 per cent. 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.

Hotels will pay development charge rates that are 80.27 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 2000 (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 \$6.4 billion. Of this amount, \$3.7 billion has been determined to be development charge-recoverable over the 2017 to mid-2031 period (\$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*:

	\$6.44 billion	Gross development-related capital cost
-	\$1.19 billion	Ineligible re: Level of Service/Post Period Benefit
-	\$0.87 billion	Benefit to Existing Development
-	\$0.65 billion	Subsidies and Other Contributions
-	<u>\$0.01 billion</u>	10% Statutory Deduction
	\$3.71 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 was 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 <i>Building Code Act</i> , which permits the construction of a building or structure, or which permits the construction of the foundation of a building or structure*

Timing of payment for development charges will be in accordance with the Region's bylaw

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	\$9,263	(\$554)	-5.65%	\$6.15	\$5.57	(\$0.58)	-9.46%	\$4.94	\$3.43	(\$1.51)	-30.55%	N/A	\$0.97	N/A	N/A
Wastewater ¹	\$17,221	\$18,708	\$1,487	8.64%	\$10.81	\$10.53	(\$0.28)	-2.62%	\$8.69	\$6.93	(\$1.76)	-20.23%	N/A	\$1.95	N/A	N/A
Roads	\$12,129	\$14,240	\$2,111	17.41%	\$19.55	\$18.15	(\$1.40)	-7.15%	\$5.50	\$5.33	(\$0.17)	-3.00%	N/A	\$3.73	N/A	N/A
Subtotal Hard Services	\$39,167	\$42,211	\$3,044	20.40%	\$36.51	\$34.25	(\$2.26)	-19.24%	\$19.13	\$15.70	(\$3.43)	-53.79%	N/A	\$6.66	N/A	N/A
															N/A	N/A
General Services															N/A	N/A
Transit	\$801	\$1,215	\$414	51.64%	\$1.10	\$1.64	\$0.54	48.89%	\$0.31	\$0.48	\$0.17	54.54%	N/A	\$0.36	N/A	N/A
Toronto-York Spadina Subway Extension	\$999	\$2,547	\$1,548	155.00%	\$1.61	\$3.11	\$1.50	93.45%	\$0.45	\$0.91	\$0.46	103.24%	N/A	\$0.71	N/A	N/A
															N/A	N/A
Police	\$517	\$820	\$303	58.54%	\$0.34	\$0.57	\$0.23	67.30%	\$0.28	\$0.44	\$0.16	58.82%	N/A	\$0.13	N/A	N/A
Waste Diversion	N/A	\$37	\$37	N/A	N/A	\$0.02	\$0.02	N/A	N/A	\$0.02	\$0.02	N/A	N/A	\$0.02	N/A	N/A
Public Works	\$234	\$204	(\$30)	-13.02%	\$0.14	\$0.12	(\$0.02)	-16.30%	\$0.11	\$0.13	\$0.02	15.12%	N/A	\$0.05	N/A	N/A
Paramedic Services	\$98	\$361	\$263	268.73%	\$0.02	\$0.07	\$0.05	266.39%	\$0.02	\$0.06	\$0.04	198.99%	N/A	\$0.02	N/A	N/A
Public Health	\$78	\$86	\$8	10.36%	\$0.01	\$0.01	(\$0.00)	-28.35%	\$0.01	(\$0.00)	(\$0.01)	-121.99%	N/A	\$0.00	N/A	N/A
Social Housing	\$360	\$281	(\$79)	-21.94%	\$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	\$35	\$35	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	\$5,586	\$2,458	78.57%	\$3.24	\$5.57	\$2.33	71.84%	\$1.19	\$2.06	\$0.87	73.39%	N/A	\$1.30	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	\$48,139	\$5,502	12.90%	\$39.75	\$39.81	\$0.06	0.16%	\$20.32	\$17.76	(\$2.56)	-12.59%	N/A	\$7.95	N/A	N/A

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

²Development charges for GO Transit are levied under a separate bylaw (No.DC-004-2001-097). 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			
		Grants and Subsidies		Benefit to Existing	10% Statutory Deduction	Total Development Charge Eligible Cost	Growth Costs	Post Period Benefit / Level of Service Deduction	Residential	Non-Residential Share		
										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	\$157,536,436	\$13,155,251	\$34,725,431	\$244,026
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	\$753,118,420	\$62,889,971	\$166,008,335	\$1,166,590
Roads	1 \$2,782,129,672	\$346,278,373	\$2,435,851,299	\$450,517,418	\$0	\$1,985,333,881	\$1,983,157,071	\$2,176,810	\$1,418,515,152	\$264,785,906	\$295,296,133	\$4,559,879
Subtotal Hard Services	\$5,177,354,131	\$421,540,373	\$4,755,813,758	\$465,972,418	\$0	\$4,289,841,340	\$3,172,001,530	\$1,117,839,810	\$2,329,170,008	\$340,831,128	\$496,029,900	\$5,970,495
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	\$22,896,000	\$258,604,000	\$67,237,040	\$0	\$191,366,960	\$191,366,960	\$0	\$136,881,206	\$25,550,812	\$28,494,931	\$440,011
Police	1 \$226,845,000	\$0	\$226,845,000	\$121,309,361	\$0	\$105,535,639	\$78,038,106	\$27,497,533	\$55,819,198	\$6,073,706	\$16,032,538	\$112,665
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 \$65,220,000	\$0	\$65,220,000	\$2,931,000	\$0	\$62,289,000	\$43,216,470	\$19,072,530	\$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	\$38,166,146	\$0	\$38,166,146	\$9,958,118	\$2,820,803	\$25,387,225	\$3,877,619	\$21,509,607	\$2,694,186	\$323,204	\$854,537	\$5,692
Subtotal General Services	\$1,258,232,146	\$232,956,530	\$1,025,275,616	\$399,975,268	\$11,249,567	\$614,050,782	\$541,181,887	\$72,868,895	\$398,095,680	\$58,827,864	\$83,212,388	\$1,045,955
Total	\$6,435,586,277	\$654,496,903	\$5,781,089,374	\$865,947,685	\$11,249,567	\$4,903,892,122	\$3,713,183,418	\$1,190,708,705	\$2,727,265,688	\$399,658,992	\$579,242,287	\$7,016,451
2017-2031	\$5,469,419,131	\$421,540,373	\$5,047,878,758	\$590,212,778	\$0	\$4,457,665,980	\$3,293,256,107	\$1,164,409,872	\$2,415,901,138	\$350,268,372	\$520,941,044	\$6,145,553
2017-2026	\$966,167,146	\$232,956,530	\$733,210,616	\$275,734,907	\$11,249,567	\$446,226,143	\$419,927,310	\$26,298,832	\$311,364,550	\$49,390,620	\$58,301,243	\$870,897

¹2017-2031 planning period. For all other services, a 2017-2026 planning period was used

TABLE ES-4

COMPARISON OF EXISTING AND CALCULATED DEVELOPMENT CHARGES BY TYPE OF DEVELOPMENT

Type of Development	February 2017 Current Charge (\$)			June 2017 Proposed Charge (\$)		
	Hard and General Services	GO Transit	Total	Hard and General Services	GO Transit	Total
<u>Residential (Per Dwelling Unit)</u>						
Single and Semi-detached	\$42,295	\$342	\$42,637	\$47,797	\$342	\$48,139
Multiple Unit Dwelling	\$37,031	\$269	\$37,300	\$38,476	\$269	\$38,745
Apartments (>= 700 Sqft) ¹	\$26,216	\$198	\$26,414	\$27,963	\$198	\$28,161
Apartments (< 700 Sqft) ¹	\$17,803	\$125	\$17,928	\$20,430	\$125	\$20,555
<u>Non-residential (Per Sqft of Gross Floor Area)</u>						
Retail	\$39.75	\$0.00	\$39.75	\$39.81	\$0.00	\$39.81
Industrial/Office/Institutional	\$20.32	\$0.00	\$20.32	\$17.76	\$0.00	\$17.76
Hotel	N/A	\$0.00	N/A	\$7.95	\$0.00	\$7.95
<u>Non-residential (Per Sqm of Gross Floor Area)</u>						
Retail	\$427.87	\$0.00	\$427.87	\$428.56	\$0.00	\$428.56
Industrial/Office/Institutional	\$218.72	\$0.00	\$218.72	\$191.18	\$0.00	\$191.18
Hotel ²	N/A	\$0.00	N/A	\$85.61	\$0.00	\$85.61

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.

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

² Hotels were not identified as a separate class under the 2012 Regional Bylaw (No. 2012-36).

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 Development Charge Rate (\$)
Single and Semi-detached	\$342
Multiple Unit Dwelling	\$269
Apartments (\geq 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 areas¹;
6. An asset management plan that deals with all assets whose capital costs are proposed to be funded under the Development Charge Bylaw¹ (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 bylaw¹; and
8. The proposed sequence of timing involved with putting a new development charge bylaw in place, as set out in Table1-1

TABLE 1-1

SCHEDULE OF KEY DEVELOPMENT CHARGE PROCESS DATES FOR YORK REGION

Deliverables	Date
1. Hotel Development Charges in York Region: Report to Committee of the Whole	March 10, 2016
2. Consultations with stakeholders	June 2016 - May 2017
3. Status of 2017 Bylaw Update: Report to Council	June 16, 2016
4. 2017 Development Charge Bylaw Directions: Report to Council	November 17, 2016
5. Notice of public meeting published	February 2, 2017
6. 2017 Background Study and Bylaw publicly released	February 16, 2017
7. Report to Council on the 2017 Background Study and Bylaw	February 16, 2017
8. Public meeting at Committee of the Whole	March 9, 2017
9. New Bylaw to Council for consideration of passage	May 18, 2017
10. Newspaper notice of bylaw passage	By 20 days after passage
11. 2017 Development Charge Bylaw comes into force	June 17, 2017
12. Last day for bylaw appeal	40 days after passage
13. Region makes pamphlet available	By 60 days after in force date

*Notice was published in all local Metroland newspapers on February 2, 2017 with the exception of the Thornhill newspapers which was published on February 9, 2017.

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 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 <i>Development Charges Act</i> (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 those are exempt from development charges. 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.
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 <i>Development Charges Act</i> (and associated Regulations)	Commentary
<p>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. 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).”</p>	<p>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.</p> <p>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 have a planned level of service for the 10-year period immediately following the preparation of the Background Study</p> <p>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.</p> <p>s.s.5(5) notes that water, wastewater, storm water, road, police, Toronto-York Subway extension and fire services are not subject to a 10-year planning period cap.</p> <p>Public Works is considered to be a component of roads and therefore not subject to the 10-year planning period.</p> <p>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).</p>
<p>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.”</p> <p>s.s.4(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.</p> <p>s.s.4(2) addresses the service level in an excluded geographic area where a service is not provided.</p> <p>s.s.4(4) limits the service level in part of a municipality to the level otherwise applicable to the full municipality.</p>	<p>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).</p> <p>The Regulation clarifies that the quality level of service measure is to be based on the un-depreciated replacement cost of municipal capital works.</p>

s.s.5(1) of the <i>Development Charges Act</i> (and associated Regulations)	Commentary
<p>s.s.4(3) modifies the service level cap where a higher level is required by another Act.</p>	
<p>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</p> <p>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.”</p>	<p>“excess capacity” is available capacity over and above current needs. The Act requires that it be determined if any excess capacity is “committed” or “uncommitted”.</p> <p>“Uncommitted excess capacity” is available capacity that reduces or eliminates the need for new projects.</p> <p>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.</p>
<p>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</p> <p>Note: no regulatory clarification has been provided.</p>	<p>Existing development benefits from:</p> <ul style="list-style-type: none"> - 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; and - 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.

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

9. "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.

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).

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.

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.

**s.s.5(1) of the *Development Charges Act*
(and associated Regulations)**

Commentary

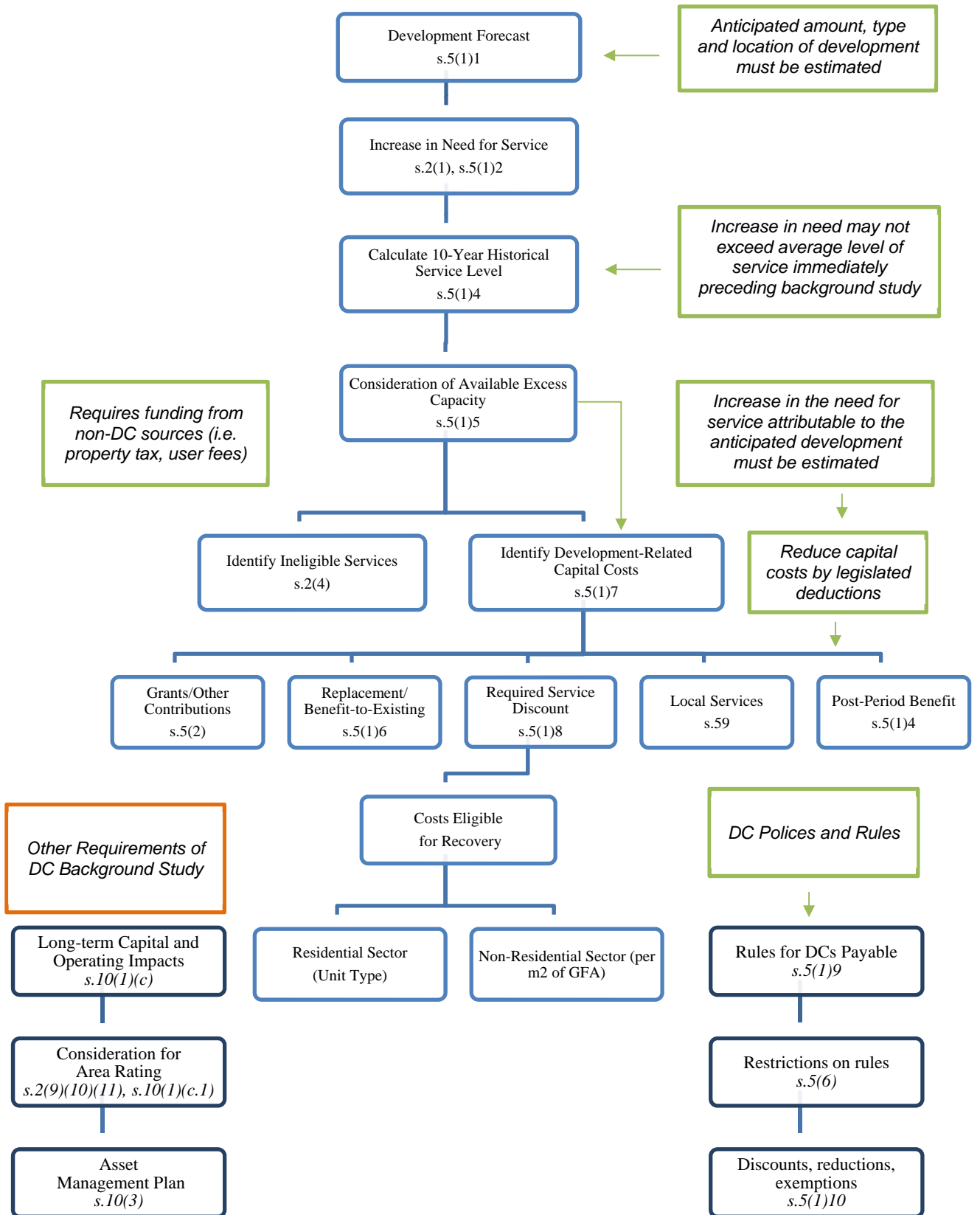
c) If the Development Charge Bylaw will exempt a type of development, phase in a development charge, or otherwise provide for a type of development to have a lower development charge than is allowed, the rules for determining development charges may not provide for any resulting shortfall to be made up through higher development charges for other development.”

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.

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 feet¹	Apartments < 700 square feet¹
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	98	80	57	42	0.02	0.02
Medical Services						
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

¹The Nobleton wastewater charge applies instead of York Region's wastewater charge in the Village of Nobleton

²The 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 96 months 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	<ul style="list-style-type: none"> Public Schools 	<ul style="list-style-type: none"> Addition or expansion that is less than 50 per cent of the existing gross floor area Public Hospitals receiving aid under the <i>Public Hospital Act</i> Non-residential farm buildings Accessory structures that are less than 100m² of gross floor area Lands, buildings or structures used for cemeteries or burial grounds exempt from taxation under the <i>Assessment Act</i> 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 <i>Assessment Act</i>, and where an area municipality agrees to a similar exemption
Office		<ul style="list-style-type: none"> Addition or expansion that is less than 50 per cent of the existing gross floor area Accessory structures that are less than 100m² of gross floor area
Industrial	<ul style="list-style-type: none"> Addition or expansion if it is less than 50 per cent of the existing gross floor area 	<ul style="list-style-type: none"> Accessory structures that are less than 100m² of gross floor area
Retail		<ul style="list-style-type: none"> Accessory structures that are less than 100m² 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, 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);
- Parking structures except those that are not accessory to a main building; 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

2.7.3 Office developments

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

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 issuance³.

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.

All unregistered plans of subdivision will be required to enter into a development

³ Council Report – June 24th 2010

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 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

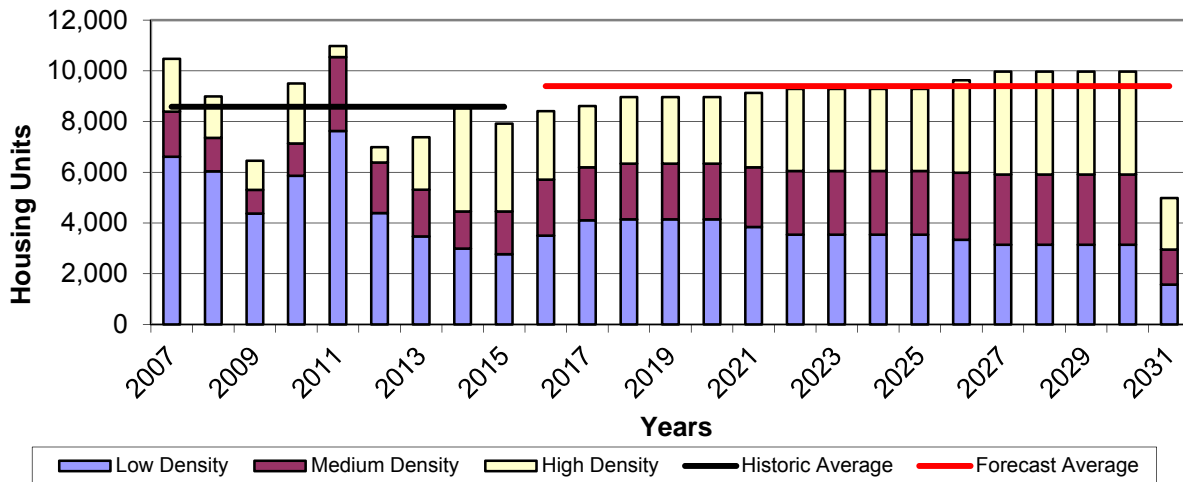
The population forecast is based on the recent MCR work and was used in the infrastructure master plan work. The methodology used to generate the forecast is outlined in Attachment 2 of the November 2015 York Region staff report on the Preferred Growth Scenario.

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 Growth	367,800	52,003	36,205	48,042	136,250

¹Multiple dwellings consist of row and duplex units.

²Apartment 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

¹Multiple dwellings consist of row and duplex units.

²Figures 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

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

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

³10 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

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

⁴PPU'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
END - 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:

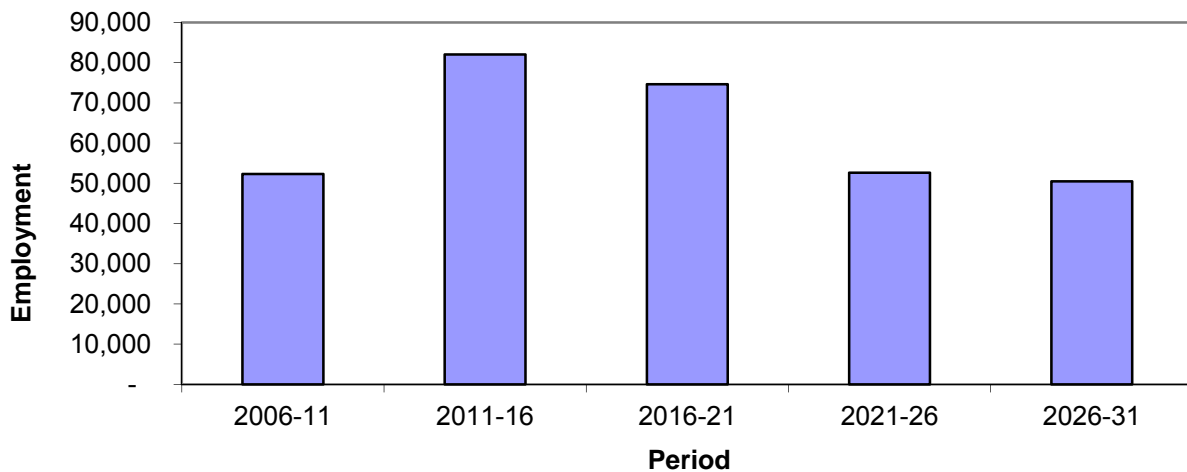
2031 mid year forecast minus 2016 year end estimate

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



¹Figure 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	✓	✗
	Works yards	✓	✗

Service	Service Components	Development Charge Eligibility	10 % Statutory Reduction
	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 Boards	Office space (all services)	✗	Not Applicable
	Office furniture	✗	Not Applicable
	Computer equipment	✗	Not Applicable

Service	Service Components	Development Charge Eligibility	10 % Statutory Reduction
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:

$$BTE = \frac{C_o}{C_u} x P$$

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.

1. 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:.

$$PPB = \frac{C_{agt} - D_{2031}}{C_{agt} - C_{2017}} \times P_{cs}$$

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).

D_{2031} 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
6.40%	16.88%	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 unserved population stays constant between 2016 and 2031 and can therefore be excluded from the calculations)	
2031 Mid-year Residential Population	
2031 Total Population	= 1,548,500
Population Growth (2016 - 2031)	
2031 - 2016 Population	= 1,548,500 - 1,177,900
	= 370,600
Non-Residential Component	
2016 End of Year Non-Residential Population (Employees)	
2016 Total Non-Res	= 602,200
(Assume unserved 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 (2016 - 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 370,600	(see notes 1 and 2)
	= 74,490,600
Non-Res = 155 x 146,403	
	(see notes 1 and 2)
	= 22,692,465
Total	97,183,065
Residential Portion	76.6%
Non-Res Portion	23.4%

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

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	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		
											76.60%	Retail	Industrial/Office/Institutional
Supply													
1	Georgina Water Treatment Plan Phase 2	2017-2018	391,000	0	391,000	0	391,000	391,000	0	299,506	25,011	66,019	464
2	Nobleton - Additional Water Supply and Watermain	2017	10,000	0	10,000	0	10,000	10,000	0	7,660	640	1,688	12
3	Ballantrae Well Expansion	2017-2021	711,000	0	711,000	0	711,000	711,000	0	544,626	45,480	120,051	844
4	Nobleton Water System Expansion	2017-2030	5,025,000	0	5,025,000	0	5,025,000	5,025,000	0	3,849,150	321,427	848,460	5,962
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	4,700,942	392,557	1,036,219	7,282
Water Pumping													
5	Orchard Heights Pumping Station Upgrade	2017-2018	20,000	0	20,000	0	20,000	20,000	0	15,320	1,279	3,377	24
6	East Vaughan Pumping Station	2017-2018	68,000	0	68,000	0	68,000	68,000	0	52,088	4,350	11,482	81
7	Richmond Hill Pumping Station Capacity Upgrade	2017	6,000	0	6,000	0	6,000	6,000	0	4,596	384	1,013	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	1,919,596	160,298	423,133	2,973
9	South Maple Pumping Station Upgrades	2017-2019	760,000	0	760,000	0	760,000	760,000	0	582,160	48,614	128,324	902
10	Decommission North Richmond Hill Pumping Station	2018-2019	1,140,000	0	1,140,000	0	1,140,000	1,140,000	0	873,240	72,921	192,486	1,353
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	9,468,526	790,680	2,087,128	14,667
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	5,995,482	500,659	1,321,572	9,287
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	18,911,008	1,579,184	4,168,514	29,293
Water Storage													
14	Queensville Elevated Tank No. 1	2017	7,000	0	7,000	0	7,000	7,000	0	5,362	448	1,182	8
15	Decommission Sharon Elevated Tank	2017	10,000	0	10,000	0	10,000	10,000	0	7,660	640	1,688	12
16	Aurora East Elevated Tank	2017-2018	25,000	0	25,000	0	25,000	25,000	0	19,150	1,599	4,221	30
17	Glenway Reservoir Expansion	2017	15,000	0	15,000	0	15,000	15,000	0	11,490	959	2,533	18
18	Orchard Height Reservoir Inlet Upgrade	2017-2018	1,330,000	0	1,330,000	0	1,330,000	1,330,000	0	1,018,780	85,074	224,568	1,578
19	South Maple Reservoir Upgrades	2017-2022	6,420,000	0	6,420,000	0	6,420,000	3,643,000	2,777,000	2,790,538	233,027	615,113	4,323

Table 5-4

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			
											76.60%	Retail	Industrial/Office/ Institutional	Hotel
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	1,417,100	118,336	312,368	2,195	
21	West Vaughan Water Servicing *	2017-2031	3,021,000	0	3,021,000	0	3,021,000	3,021,000	0	2,314,086	193,240	510,089	3,585	
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	2,172,376	181,407	478,852	3,365	
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	9,756,542	814,731	2,150,614	15,113	
Water Linear														
24	Leslie Street Watermain	2017-2018	14,000	0	14,000	0	14,000	14,000	0	10,724	896	2,364	17	
25	PD6 Nashville Road Watermain	2017-2018	20,000	0	20,000	0	20,000	20,000	0	15,320	1,279	3,377	24	
26	Kennedy Road Watermain	2018	50,000	0	50,000	0	50,000	50,000	0	38,300	3,198	8,442	59	
27	Second Concession Watermain	2017-2018	122,000	0	122,000	0	122,000	122,000	0	93,452	7,804	20,599	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	7,660	640	1,688	12	
29	East Gwillimbury Water Meter Chambers	2017	10,000	0	10,000	0	10,000	10,000	0	7,660	640	1,688	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	1,105,338	92,302	243,647	1,712	
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	2,336,300	195,095	514,986	3,619	
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	873,240	72,921	192,486	1,353	
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	18,682,740	1,560,122	4,118,198	28,940	
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	21,716,100	1,813,426	4,786,835	33,639	
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	35,493,376	2,963,913	7,823,731	54,980	
36	East Gwillimbury Water Servicing	2027-2030	34,430,000	0	34,430,000	0	34,430,000	26,736,000	7,694,000	20,479,776	1,710,186	4,514,315	31,723	
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	100,859,986	8,422,423	22,232,358	156,233	
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	1,442,378	120,447	317,940	2,234	
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	1,405,664	117,381	309,848	2,177	
	Subtotal		231,128,070	0	231,128,070	0	231,128,070	3,718,070	227,410,000	2,848,042	237,829	627,788	4,412	
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	3,807,020	317,909	839,174	5,897	
41	Water for Tomorrow Program*	2017-2031	18,676,650	0	18,676,650	0	18,676,650	18,676,650	0	14,306,314	1,194,664	3,153,511	22,161	
42	Water System Capacity Assessment*	2017-2031	2,460,000	0	2,460,000	0	2,460,000	2,460,000	0	1,884,360	157,356	415,366	2,919	
	Subtotal		26,106,650	0	26,106,650	0	26,106,650	26,106,650	0	19,997,694	1,669,929	4,408,050	30,977	

Table 5-4

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less		New Municipal Cost	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%
Outstanding Credits													
43	Wellington Street Watermain	2017-2026	603,423	0		603,423	603,423	603,423	0	462,222	38,598	101,887	716
	Subtotal		603,423	0		603,423	603,423	603,423	0	462,222	38,598	101,887	716
Total			602,643,143	7,722,000		594,921,143	594,921,143	205,661,143	389,260,000	157,536,436	13,155,251	34,725,431	244,026

*These projects have costs beyond 2031

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	
1	Gormley Servicing	2031	11,864,682	0	11,864,682	0	11,864,682	0	11,864,682	0	76.60%	6.40%	16.88%	0.12%
Total			11,864,682	0	11,864,682	0	11,864,682	0	11,864,682	0	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

$$BTE = \frac{C_o}{C_u} x P$$

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)

F₂₀₃₁ 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:

$$\text{Base Cost} = P / \text{Number of pumps}$$

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
6.40%	16.88%	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 unserved population stays constant between 2016 and 2031 and can therefore be excluded from the calculations)	
2031 Mid-year Residential Population	
2031 Total Population	= 1,548,500
Population Growth (2016 - 2031)	
2031 - 2016 Population	= 1,548,500 - 1,177,900
	= 370,600
Non-Residential Component	
2016 End of Year Non-Residential Population (Employees)	
2016 Total Non-Res	= 602,200
(Assume unserved 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 (2016 - 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 370,600 (see notes 1 and 2)
	= 74,490,600
Non-Res	= 155 x 146,403 (see notes 1 and 2)
	= 22,692,465
Total	97,183,065
Residential Portion	76.6%
Non-Res Portion	23.4%

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

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

Growth related Capital Cost

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
							76.60%	6.40%	16.88%	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	16,852	1,407	3,715	26
2	Duffin Creek Water Pollution Control Plant - Phase 3 Expansion	2017	20,000	2,000	18,000	0	18,000	18,000	0	13,788	1,151	3,039	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	11,173,642	933,067	2,462,983	17,308
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	1,053,250	87,953	232,166	1,631
5	Holland Landing Lagoons Decommissioning	2024-2025	1,100,000	0	1,100,000	0	1,100,000	1,100,000	0	842,600	70,362	185,733	1,305
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	282,273,298	23,571,538	62,220,919	437,245
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	77,668,570	6,485,798	17,120,322	120,310
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	487,176	40,682	107,387	755
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	2,936,844	245,244	647,362	4,549
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	376,466,020	31,437,203	82,983,626	583,151
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	118,730	9,915	26,171	184
12	Humber Pumping Station Electrical Upgrades	2017-2018	40,000	0	40,000	0	40,000	40,000	0	30,640	2,559	6,754	47
13	Leslie Street Sewage Pumping Station Upgrades	2017-2018	5,600,000	0	5,600,000	0	5,600,000	5,600,000	0	4,289,600	358,208	945,548	6,645
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	11,041,890	922,065	2,433,941	17,104
15	High Street Pump Station Expansion	2027-2030	2,284,000	0	2,284,000	0	2,284,000	163,000	2,121,000	124,858	10,426	27,522	193
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	15,605,718	1,303,172	3,439,936	24,173
Wastewater Linear													
18	YDSS 16th Avenue Trunk Sewer	2017-2018	4,000	0	4,000	0	4,000	4,000	0	3,064	256	675	5
19	Green Lane Sewer Diversion	2017-2018	122,000	0	122,000	0	122,000	122,000	0	93,452	7,804	20,599	145
20	Sharon Trunk Sewer	2017-2018	122,000	0	122,000	0	122,000	122,000	0	93,452	7,804	20,599	145
21	YDSS Southeast Collector	2017-2019	6,308,000	0	6,308,000	0	6,308,000	6,308,000	0	4,831,928	403,495	1,065,092	7,485
22	Weldrick Sewer Overflow Gate Installation	2017	797,000	0	797,000	0	797,000	797,000	0	610,502	50,981	134,572	946

Table 6-3

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
							76.60%	6.40%	16.88%	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	101,633,956	8,487,054	22,402,963	157,432
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	16,760,080	1,399,569	3,694,390	25,962
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	68,381,586	5,710,279	15,073,212	105,924
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	50,139,296	4,186,936	11,052,101	77,666
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	242,547,316	20,254,177	53,464,203	375,709
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	6,082,225	507,903	1,340,692	9,421
	Subtotal		7,940,241	0	7,940,241	0	7,940,241	7,940,241	0	6,082,225	507,903	1,340,692	9,421
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	1,846,060	154,157	406,923	2,860
32	Inflow and Infiltration Reduction*	2017-2031	34,912,000	0	34,912,000	0	34,912,000	34,912,000	0	26,742,592	2,233,169	5,894,814	41,425
33	Wastewater System Capacity Studies*	2017-2031	3,950,000	0	3,950,000	0	3,950,000	3,950,000	0	3,025,700	252,664	666,949	4,687
	Subtotal		41,272,000	0	41,272,000	0	41,272,000	41,272,000	0	31,614,352	2,639,991	6,968,686	48,971
Outstanding Credits													
35	Aurora 2B (Tableland)	2017-2026	506,470		506,470		506,470	506,470	0	387,956	32,397	85,516	601
36	Mount Albert WPCP	2017-2026	70,482		70,482		70,482	70,482	0	53,989	4,508	11,901	84
37	Nobleton WPCP	2017-2026	4,520,308		4,520,308		4,520,308	4,520,308	0	3,462,556	289,144	763,244	5,364
38	Sharon Trunk Sewer	2017-2026	15,268,677		15,268,677		15,268,677	15,268,677	0	11,695,806	976,671	2,578,082	18,117
39	Sutton Sewage Treatment	2017-2026	2,047,760		2,047,760		2,047,760	2,047,760	0	1,568,584	130,986	345,760	2,430
40	YDDS Sewer Extension	2017-2026	83,072,973		83,072,973		83,072,973	83,072,973	0	63,633,898	5,313,818	14,026,688	98,570
	Subtotal		105,486,670	0	105,486,670	0	105,486,670	105,486,670	0	80,802,789	6,747,525	17,811,192	125,165
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	753,118,420	62,889,971	166,008,335	1,166,590

*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	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	
1	Gormley Servicing	2031	14,021,896	0	14,021,896	0	14,021,896	0	14,021,896	0	76.60%	6.40%	16.88%	0.12%
Total			14,021,896	0	14,021,896	0	14,021,896	0	14,021,896	0	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

Twenty-one (21) Roads projects did not form part of the 2017 Development Charge Bylaw. These projects will be placed on the Roads contingent items list (Table 7.6 to this section) and form part of Schedule “G” to the 2017 Development Charge Bylaw.

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).

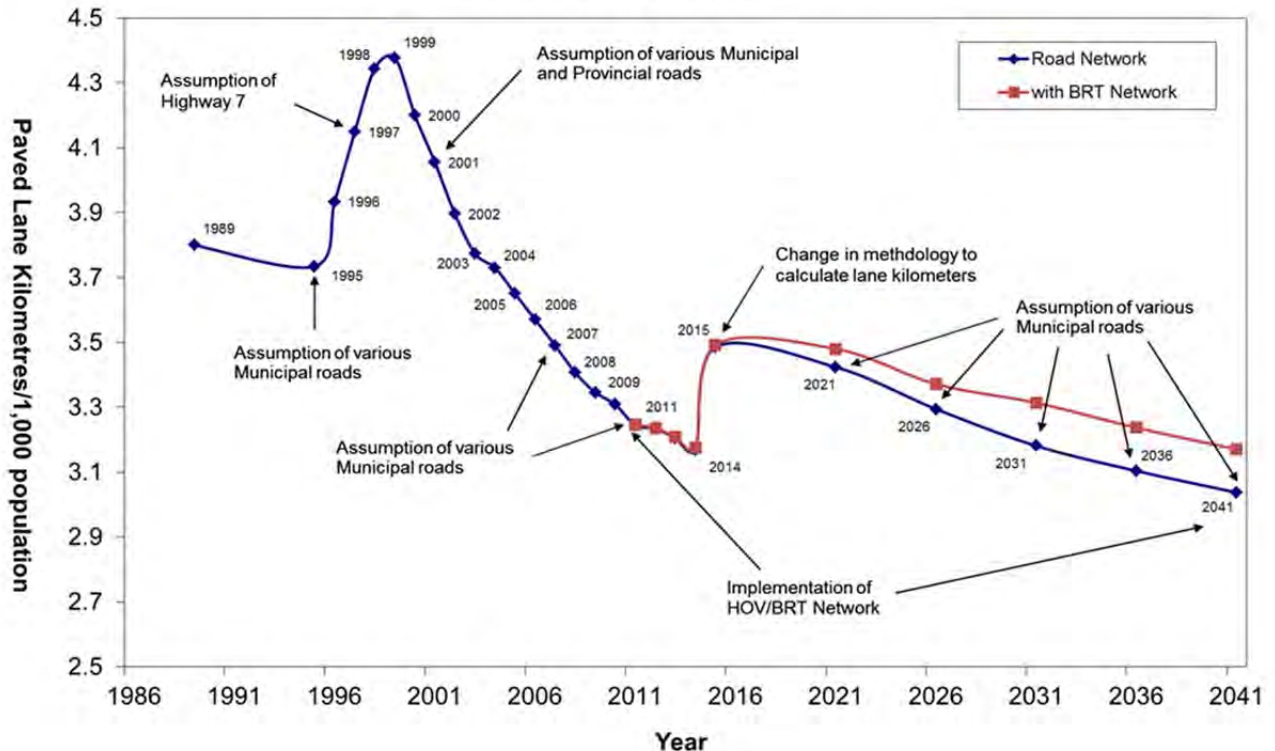
Further, the development of the transportation program is consistent with the definition of high occupancy vehicle lanes in the York Region Official Plan (2010). The York Region Official Plan (2010) defines high-occupancy vehicle lanes as “reserved rights-of-way for public transit vehicles and other 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
Paved Lane Kilometres per Capita
Region of York, 1989 - 2041



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 Attributed 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 the time of introduction of the project into the Development Charge Background Study 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:

Volumes_{Future} / Capacity_{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:

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

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:

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

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 \$346.3 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	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%
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	26,094,703	3,914,205	22,180,498	0	22,180,498	22,180,498	0	15,865,295	2,961,482	3,302,721	51,000
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	45,901,909	6,885,286	39,016,623	0	39,016,623	39,016,623	0	27,907,860	5,209,397	5,809,655	89,711
	Subtotal		285,350,996	107,585,428	177,765,568	0	177,765,568	177,765,568	0	127,152,385	23,734,790	26,469,656	408,737
Interchange (New)													
8	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		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
Interchange Improvements													
9	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
10	Hwy 404 Interchange Improvements - At 16th Avenue	2017-2021	13,750,000	13,750,000	0	0	0	0	0	0	0	0	0
11	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		38,350,000	19,150,000	19,200,000	1,920,000	17,280,000	17,280,000	0	12,360,061	2,307,180	2,573,027	39,732
Missing Link													
12	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
13	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													
14	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	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			
											71.53%	Retail	Industrial/Office/ Institutional	Hotels
15	Midblock Crossing - Highway 400 north of Major Mackenzie Drive	2022- 2031	200,000	133,333	66,667	0	66,667	66,667	0	47,685	8,901	9,927	153	
16	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	
17	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	
18	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	
19	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	
20	Midblock Crossing - Highway 427 north of Langstaff Road	2022- 2031	34,924,214	23,282,809	11,641,405	0	11,641,405	11,641,405	0	8,326,879	1,554,330	1,733,429	26,767	
	Subtotal		242,453,191	161,635,460	80,817,730	0	80,817,730	80,817,730	0	57,807,410	10,790,570	12,033,925	185,824	
Widen to 4 lanes														
21	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	
22	Leslie Street - 19th Avenue to Stouffville Road (inc. jog elimination)	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	
23	Ravenshoe Road - Woodbine Avenue to Warden Avenue	2024- 2031	9,532,098	0	9,532,098	735,529	8,796,569	6,619,759	2,176,810	4,734,990	883,853	985,696	15,221	
24	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	
25	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	
26	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	
27	19th Avenue - Linda Margaret Crescent / Jefferson Forest Drive to Bayview Avenue	2017-2021	7,597,157	0	7,597,157	759,716	6,837,441	6,837,441	0	4,890,694	912,917	1,018,109	15,721	
28	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	
29	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	
30	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	
31	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	
32	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	
33	Donald Cousens Parkway (via 19th Avenue) - Woodbine Avenue to Donald Cousens Parkway	2024- 2031	1,500,000	0	1,500,000	150,000	1,350,000	1,350,000	0	965,630	180,248	201,018	3,104	
34	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	
35	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	
36	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	
37	Highway 27 - 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	
38	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	
39	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	
40	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	
41	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	
42	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	
43	Ninth Line - Steeles Avenue to Box Grove Area	2019-2026	8,730,000	0	8,730,000	873,000	7,857,000	7,857,000	0	5,619,965	1,049,046	1,169,923	18,066	
44	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	
45	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	
46	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	
47	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	

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
	Subtotal		310,046,513	0	310,046,513	30,786,970	279,259,543	277,082,733	2,176,810	198,192,095	36,995,356	41,258,184	637,097
Widen to 6 lanes													
48	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
49	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
50	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
51	Bathurst Street - Centre Street to Highway 7	2017-2026	27,100,000	0	27,100,000	2,710,000	24,390,000	24,390,000	0	17,445,711	3,256,489	3,631,721	56,080
52	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
53	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
54	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
55	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
56	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
57	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
58	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
59	Carville Road - Bathurst Street to Yonge Street	2022- 2031	19,799,094	0	19,799,094	1,979,909	17,819,185	17,819,185	0	12,745,729	2,379,171	2,653,313	40,972
60	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
61	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
62	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
63	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
64	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
65	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
66	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
67	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
68	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
69	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
70	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
71	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
72	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
73	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
74	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
75	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
76	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
77	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
78	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
79	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
80	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
81	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

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%
82	Woodbine Avenue - 16th Avenue to Major Mackenzie Drive	2022- 2031	16,511,995	0	16,511,995	1,651,200	14,860,796	14,860,796	0	10,629,649	1,984,174	2,212,803	34,169
83	Yonge Street - Davis Drive to Green Lane	2012-2021	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
84	Steeles Avenue - Markham Road to Ninth Line	2012-2021	40,235,772	20,117,886	20,117,886	2,011,789	18,106,097	18,106,097	0	12,950,953	2,417,478	2,696,035	41,631
	Subtotal		800,488,081	35,175,995	765,312,085	76,531,209	688,780,877	688,780,877	0	492,672,075	91,964,208	102,560,878	1,583,716
Reconstruction													
85	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
86	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
87	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
88	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
89	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
90	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
91	Aurora Road - Mccowan Road to Highway 48	2022-2026	5,826,181	0	5,826,181	2,330,472	3,495,709	3,495,709	0	2,500,415	466,738	520,518	8,038
92	Aurora Road - Highway 48 to Ninth Line	2022-2026	6,055,571	0	6,055,571	2,422,228	3,633,343	3,633,343	0	2,598,862	485,114	541,012	8,354
93	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
94	Baseline Road - Woodbine Avenue to Warden Avenue	2017-2021	5,256,160	0	5,256,160	2,102,464	3,153,696	3,153,696	0	2,255,780	421,073	469,592	7,251
95	Bathurst Street - Highway 11 to Holland Landing Road	2022-2026	475,942	0	475,942	190,377	285,565	285,565	0	204,259	38,128	42,521	657
96	Bathurst Street - Holland Landing Road to Queensville Sideroad West	2022-2026	4,042,636	0	4,042,636	1,617,054	2,425,582	2,425,582	0	1,734,973	323,857	361,174	5,577
97	Dufferin Street - King Road to 15Th Sideroad	2022-2026	6,506,561	0	6,506,561	2,602,624	3,903,937	3,903,937	0	2,792,413	521,243	581,304	8,976
98	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
99	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
100	High Street - Highway 48 to Dalton Road / Mcdonough Avenue	2022-2026	5,887,026	0	5,887,026	2,354,810	3,532,216	3,532,216	0	2,526,528	471,612	525,954	8,122
101	Holland Landing Road - Old Yonge Street / Yonge Street to Bradford Street	2017-2021	2,943,753	0	2,943,753	1,177,501	1,766,252	1,766,252	0	1,263,367	235,825	262,998	4,061
102	Holland Landing Road - Bradford Street to Bathurst Street	2017-2021	4,304,790	0	4,304,790	1,721,916	2,582,874	2,582,874	0	1,847,481	344,859	384,595	5,939
103	King Road - 8Th Concession to 7Th Concession	2017-2021	4,788,312	0	4,788,312	1,915,325	2,872,987	2,872,987	0	2,054,994	383,594	427,794	6,606
104	King Road - 7Th Concession to Weston Road	2017-2021	4,889,493	0	4,889,493	1,955,797	2,933,696	2,933,696	0	2,098,418	391,699	436,833	6,745
105	King Road - Weston Road to Highway 400	2017-2021	1,784,158	0	1,784,158	713,663	1,070,495	1,070,495	0	765,705	142,930	159,399	2,461
106	King Road - Bond Crescent to Yonge Street	2022-2026	4,543,673	0	4,543,673	1,817,469	2,726,204	2,726,204	0	1,950,003	363,996	405,937	6,288
107	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
108	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
109	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
110	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
111	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
112	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
113	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
114	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

Table 7-5

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less		New Municipal Cost	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%			
115	Mount Albert Road - Highway 48 to Centre Street	2022-2026	4,229,854	0	4,229,854	1,691,942	2,537,913	2,537,913	0	1,815,321	338,855	377,900	5,835
116	Mount Albert Road - Centre Street to Ninth Line	2022-2026	3,349,367	0	3,349,367	1,339,747	2,009,620	2,009,620	0	1,437,444	268,319	299,237	4,621
117	Mount Albert Road - Ninth Line to East Townline	2022-2026	982,707	0	982,707	393,083	589,624	589,624	0	421,747	78,725	87,796	1,356
118	Nashville Road - Cold Creek Road to Huntington Road	2022-2026	4,871,388	0	4,871,388	1,948,555	2,922,833	2,922,833	0	2,090,647	390,249	435,216	6,720
119	Ninth Line - Donald Cousens Parkway to Major Mackenzie Drive East	2017-2021	3,034,762	0	3,034,762	1,213,905	1,820,857	1,820,857	0	1,302,425	243,116	271,129	4,187
120	Ninth Line - Main Street to Bethesda Sideroad	2017-2021	4,919,878	0	4,919,878	1,967,951	2,951,927	2,951,927	0	2,111,458	394,134	439,548	6,787
121	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
122	Park Road - Highway 48 to Black River Road	2022-2026	5,000,702	0	5,000,702	2,000,281	3,000,421	3,000,421	0	2,146,145	400,608	446,769	6,899
123	Park Road - Black River Road to Hedge Road	2022-2026	4,349,300	0	4,349,300	1,739,720	2,609,580	2,609,580	0	1,866,584	348,424	388,572	6,000
124	Pefferlaw Road - Lake Ridge Road to Morning Glory Road	2022-2026	8,943,690	0	8,943,690	3,577,476	5,366,214	5,366,214	0	3,838,353	716,483	799,040	12,339
125	Pefferlaw Road - Morning Glory Road to Highway 404 Extension	2022-2026	4,281,564	0	4,281,564	1,712,626	2,568,938	2,568,938	0	1,837,514	342,998	382,520	5,907
126	Pefferlaw Road - Highway 404 Extension to Highway 48 / Moorings Road	2022-2026	904,992	0	904,992	361,997	542,995	542,995	0	388,394	72,499	80,853	1,249
127	Prospect Street - Gorham Street / Water Street to Davis Drive / Lundy'S Lane	2017-2021	2,787,847	0	2,787,847	1,115,139	1,672,708	1,672,708	0	1,196,457	223,336	249,070	3,846
128	Queensville Sideroad - Highway 404 Extension to Woodbine Avenue	2017-2021	1,642,488	0	1,642,488	656,995	985,493	985,493	0	704,904	131,580	146,742	2,266
129	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
130	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
131	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
132	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
133	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
134	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
135	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
136	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
137	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
138	Woodbine Avenue - Old Homestead Road to Boyer'S Sideroad	2022-2026	5,066,200	0	5,066,200	2,026,480	3,039,720	3,039,720	0	2,174,255	405,855	452,621	6,989
139	Woodbine Avenue - Boyer'S Sideroad to Deer Park Road	2022-2026	2,544,882	0	2,544,882	1,017,953	1,526,929	1,526,929	0	1,092,184	203,872	227,363	3,511
140	Woodbine Avenue - Deer Park Road to Metro Road North	2022-2026	2,544,882	0	2,544,882	1,017,953	1,526,929	1,526,929	0	1,092,184	203,872	227,363	3,511
141	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
142	Yonge Street - Highway 11 / Morning Sideroad to Holland Landing Road / Old Yonge Street	2017-2021	3,215,549	0	3,215,549	1,286,219	1,929,329	1,929,329	0	1,380,013	257,599	287,281	4,436
143	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
144	14th Avenue - Kennedy Road to McCowan Road	2017-2021	1,979,858	0	1,979,858	791,943	1,187,915	1,187,915	0	849,693	158,607	176,883	2,731
145	16th Avenue - Kennedy Road to McCowan Road	2017-2021	2,230,014	0	2,230,014	892,006	1,338,008	1,338,008	0	957,052	178,647	199,232	3,076
146	16th Avenue - McCowan Road to Highway 48 / Main Street Markham	2017-2021	2,278,813	0	2,278,813	911,525	1,367,288	1,367,288	0	977,995	182,557	203,592	3,144
147	16th Avenue - 16th Avenue to 16th Avenue	2017-2021	366,403	0	366,403	146,561	219,842	219,842	0	157,249	29,353	32,735	505
148	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
149	Baseline Road - Warden Avenue to Kennedy Road	2017-2021	1,028,314	0	1,028,314	411,326	616,989	616,989	0	441,320	82,379	91,871	1,419
150	Baseline Road - Kennedy Road to McCowan Road	2017-2021	959,764	0	959,764	383,906	575,859	575,859	0	411,901	76,887	85,747	1,324

Table 7-5

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less		New Municipal Cost	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%			
151	Bathurst Street - King Vaughan Road / Milos Road to King Road	2022-2026	2,586,049	0	2,586,049	1,034,420	1,551,629	1,551,629	0	1,109,851	207,169	231,041	3,568
152	Bathurst Street - Davis Drive West to Green Lane West / Miller'S Sideroad	2022-2026	2,594,769	0	2,594,769	1,037,908	1,556,861	1,556,861	0	1,113,594	207,868	231,820	3,580
153	Black River Road - Dalton Road to Park Road	2022-2026	1,915,772	0	1,915,772	766,309	1,149,463	1,149,463	0	822,190	153,473	171,157	2,643
154	Bradford Street - Holland Landing Road to Thompson Drive / Yonge Street	2022-2026	376,541	0	376,541	150,617	225,925	225,925	0	161,600	30,165	33,641	519
155	Centre Street - Dufferin Street to Bathurst Street	2022-2026	3,402,106	0	3,402,106	1,360,842	2,041,264	2,041,264	0	1,460,078	272,544	303,948	4,693
156	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
157	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
158	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
159	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
160	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
161	Green Lane West - Bathurst Street / Miller'S Sideroad to Green Lane East / Yonge Street	2022-2026	2,898,760	0	2,898,760	1,159,504	1,739,256	1,739,256	0	1,244,057	232,221	258,979	3,999
162	Highway 7 - Kipling Avenue to Islington Avenue	2017-2021	765,026	0	765,026	306,010	459,016	459,016	0	328,325	61,287	68,348	1,055
163	Highway 7 - Islington Avenue to Pine Valley Drive	2017-2021	1,883,534	0	1,883,534	753,414	1,130,121	1,130,121	0	808,354	150,891	168,277	2,598
164	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
165	Highway 7 - Bathurst Street to Yonge Street	2022-2026	2,377,778	2,377,778	0	0	0	0	0	0	0	0	0
166	Highway 7 - Yonge Street to Bayview Avenue	2022-2026	3,424,654	0	3,424,654	1,369,862	2,054,793	2,054,793	0	1,469,755	274,350	305,963	4,725
167	Highway 7 - Bathurst Street Interchange - Highway 7 to Bathurst Street	2022-2026	539,627	0	539,627	215,851	323,776	323,776	0	231,591	43,230	48,211	744
168	Highway 7 - Bayview Avenue Interchange - Highway 7 to Bayview Avenue	2022-2026	502,355	0	502,355	200,942	301,413	301,413	0	215,595	40,244	44,881	693
169	Highway 7 - Yonge Street Interchange - Highway 7 to Yonge Street	2022-2026	658,042	0	658,042	263,217	394,825	394,825	0	282,411	52,716	58,790	908
170	Holland Landing Road - Bathurst Street to Bathurst Street	2017-2021	118,766	0	118,766	47,507	71,260	71,260	0	50,971	9,514	10,611	164
171	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
172	Langstaff Road - Islington Avenue to Pine Valley Drive	2017-2021	377,276	0	377,276	150,910	226,366	226,366	0	161,915	30,224	33,706	520
173	Leslie Street - Don Mills Road / John Street to Highway 407	2017-2021	2,020,659	0	2,020,659	808,264	1,212,395	1,212,395	0	867,204	161,876	180,528	2,788
174	Leslie Street - Highway 407 to Highway 7	2017-2021	927,479	0	927,479	370,992	556,487	556,487	0	398,045	74,301	82,862	1,280
175	Leslie Street - Highway 7 to 16th Avenue	2017-2021	2,325,268	0	2,325,268	930,107	1,395,161	1,395,161	0	997,932	186,278	207,742	3,208
176	Leslie Street - Mulock Drive to Gorham Street	2022-2026	1,494,662	0	1,494,662	597,865	896,797	896,797	0	641,462	119,738	133,535	2,062
177	Leslie Street - Gorham Street to Davis Drive	2022-2026	1,570,659	0	1,570,659	628,263	942,395	942,395	0	674,078	125,826	140,325	2,167
178	Major Mackenzie Drive - Major Mackenzie Drive West / Yonge Street to Bayview Avenue	2022-2026	2,387,855	0	2,387,855	955,142	1,432,713	1,432,713	0	1,024,793	191,292	213,334	3,294
179	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
180	Major Mackenzie Drive - Jane Street to Keele Street	2017-2021	2,134,047	0	2,134,047	853,619	1,280,428	1,280,428	0	915,866	170,959	190,658	2,944
181	Major Mackenzie Drive - Bathurst Street to Major Mackenzie Drive East / Yonge Street	2022-2026	2,949,919	0	2,949,919	1,179,967	1,769,951	1,769,951	0	1,266,013	236,319	263,549	4,070
182	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
183	Mulock Drive - Yonge Street to Bayview Avenue	2022-2026	2,947,403	0	2,947,403	1,178,961	1,768,442	1,768,442	0	1,264,933	236,118	263,325	4,066
184	Mulock Drive - Bayview Avenue to Leslie Street	2022-2026	3,013,387	0	3,013,387	1,205,355	1,808,032	1,808,032	0	1,293,252	241,404	269,220	4,157
185	Mulock Drive - Leslie Street to Vivian Road	2022-2026	783,779	0	783,779	313,512	470,267	470,267	0	336,373	62,789	70,024	1,081
186	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

Table 7-5

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less		New Municipal Cost	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%			
187	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
188	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
189	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
190	Ravenshoe Road - 2Nd Concession Road to Leslie Street / The Queensway South	2017-2021	1,040,266	0	1,040,266	416,106	624,159	624,159	0	446,450	83,336	92,939	1,435
191	Rutherford Road - Clarence Street to Islington Avenue	2017-2021	567,042	0	567,042	226,817	340,225	340,225	0	243,357	45,426	50,660	782
192	Rutherford Road - Pine Valley Drive to Weston Road	2017-2021	2,413,900	0	2,413,900	965,560	1,448,340	1,448,340	0	1,035,971	193,379	215,661	3,330
193	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
194	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
195	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
196	Wellington Street West - Bathurst Street to Wellington Street East / Yonge Street	2022-2026	2,849,995	0	2,849,995	1,139,998	1,709,997	1,709,997	0	1,223,129	228,314	254,622	3,932
197	Yonge Street - Centre Street / Thornhill Summit Drive to Highway 407	2022-2026	2,692,331	0	2,692,331	1,076,933	1,615,399	1,615,399	0	1,155,465	215,684	240,536	3,714
198	Yonge Street - Holland Landing Road / Old Yonge Street to Mount Albert Road / Queen Street	2017-2021	301,168	0	301,168	120,467	180,701	180,701	0	129,252	24,127	26,907	415
199	Yonge Street - Mount Albert Road / Queen Street to Bradford Street / Thompson Drive	2022-2026	427,506	0	427,506	171,002	256,503	256,503	0	183,472	34,248	38,194	590
200	Yonge Street - Bradford Street / Thompson Drive to Doane Road / Doane Road West	2022-2026	653,886	0	653,886	261,554	392,331	392,331	0	280,627	52,383	58,419	902
201	Yonge Street - Doane Road / Doane Road West to Queensville Sideroad	2022-2026	98,227	0	98,227	39,291	58,936	58,936	0	42,156	7,869	8,776	136
	Subtotal		340,143,785	6,137,955	334,005,830	185,943,306	148,062,524	148,062,524	0	105,906,354	19,768,918	22,046,812	340,441
Miscellaneous and Intersection Capital													
202	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
203	Property Acquisition for Future Capital Projects	2017- 2031	7,800,000	0	7,800,000	780,000	7,020,000	7,020,000	0	5,021,275	937,292	1,045,292	16,141
204	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
205	Various Road Improvements	2017- 2031	20,502,508	0	20,502,508	20,502,508	0	0	0	0	0	0	0
206	Roads projects to support Transit	2017- 2031	54,000,000	0	54,000,000	5,400,000	48,600,000	48,600,000	0	34,762,671	6,488,944	7,236,639	111,746
	Subtotal		467,814,692	0	467,814,692	130,711,389	337,103,302	337,103,302	0	241,123,686	45,009,145	50,195,369	775,103
Programs and Studies													
207	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
208	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
209	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
210	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
211	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
212	Accessibility for Ontarians with Disabilities (AODA)	2017- 2031	1,433,750	0	1,433,750	143,375	1,290,375	1,290,375	0	922,981	172,288	192,140	2,967
213	Streetscaping (Municipal Partnership Program)	2017- 2031	22,893,750	0	22,893,750	4,578,750	18,315,000	18,315,000	0	13,100,377	2,445,371	2,727,141	42,112
214	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
215	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
216	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

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%
217	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		186,165,075	16,593,534	169,571,540	18,742,674	150,828,867	150,828,867	0	107,885,067	20,138,273	22,458,726	346,801
Ongoing Projects													
218	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
219	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
220	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
221	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
222	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
223	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
224	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
225	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
226	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
227	Highway 404 - Northbound Off-Ramp Extension at Highway 7	2017-2021	13,621,000	0	13,621,000	1,362,100	12,258,900	12,258,900	0	8,768,562	1,636,776	1,825,375	28,187
228	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
229	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
230	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
231	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
232	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
233	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		55,162,000	0	55,162,000	5,516,200	49,645,800	49,645,800	0	35,510,712	6,628,576	7,392,361	114,151
Outstanding Credits													
234	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
235	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
236	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
237	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			2,782,129,672	346,278,373	2,435,851,299	450,517,418	1,985,333,881	1,983,157,071	2,176,810	1,418,515,152	264,785,906	295,296,133	4,559,879

Table 7-6

Roads Contingent Items

Growth related Capital Costs

Recoverable Cost Calculations:

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost	Less		New Municipal Cost	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 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
	Subtotal		150,670,234	0		150,670,234	15,067,023	135,603,211	135,603,211	0	96,994,440	18,105,383	20,191,595	311,793
Widen to 6 lanes (Steeles)														
14	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
15	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
16	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
17	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
18	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
19	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

Table 7-6

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 71.53%	Non-Residential Share		
											Retail 13.35%	Industrial/Office/ Institutional 14.89%	Hotels 0.23%
	Subtotal		97,046,102	48,523,051	48,523,051	4,852,305	43,670,746	43,670,746	0	31,236,868	5,830,803	6,502,663	100,412
Regional Standard													
20	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
21	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
22	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
23	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													
24	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			716,956,518	94,982,572	621,973,946	57,667,327	564,306,619	564,306,619	0	403,637,968	75,344,733	84,026,407	1,297,512

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, garages, 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

Horizon	Local Transit	GO Rail	Auto Trips	Exc. GO Rail	
				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.

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

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.

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

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 - Vehicles

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	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 (2017-2026)	Post Period Benefit/ Level of Service Deduction (Beyond 2026)	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
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
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 8 per cent of the total costs (in the 2012 Development Charge Background Study, the grants amounted to 65 per cent of the net costs, less the benefit to existing share).

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
1	Toronto York Spadina Subway Extension	2017-2019	281,500,000	22,896,000	258,604,000	67,237,040	191,366,960	191,366,960	0	136,881,206	25,550,812	28,494,931	440,011
Total			281,500,000	22,896,000	258,604,000	67,237,040	191,366,960	191,366,960	0	136,881,206	25,550,812	28,494,931	440,011

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

10.1 Introduction

This Chapter of the Background Study is organized into the following eight 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	<p>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.</p> <p>A deduction of 10% has been made to recognize any potential benefit to existing development as a result of improved service.</p> <p>#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.</p>
Land	<p>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.</p>
Vehicles	<p>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.: $541,203 \div 2,294,303 = 22\%$).</p> <p>Therefore, the benefit to existing deduction is calculated as the non-growth component of 78%.</p>
Equipment	<p>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.</p>

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 Hillcock 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 Hillcock 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			\$223
Community Resource Centre (10720 Yonge Street, #112, Richmond Hill)									7,603	7,603	\$223
Drugs & Vice Offsite - Downsview Airport (North York)	2,700	2,700	2,700	2,700	2,700						\$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	\$294

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)	\$294.48
Service Standard (\$ per Capita)	\$91.69

Development Charge Amount (before deductions)	15 Year
Net Population Increase + Employment Increase	514,203
\$ per Capita	\$91.69
Eligible Amount	\$47,146,772

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)										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	-	-	-	-	-	-	-	\$692,000
Support Services (200 Industrial Parkway, Aurora)	0.43	0.43	0.43	-	-	-	-	-	-	-	\$692,000
Hope Tower Site (North Maple Reservoir, Vaughan)	0.25	0.25	0.25	0	0.25	0.25	0.25	0.25	0.25	0.25	\$484,000
Safety Village (Stouffville)	5.70	5.7	5.7	6	5.70	5.70	5.70	5.70	5.70	5.70	\$69,000
King Tower (King)	0.25	0.25	0.25	0	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

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
Charge-Vans Operational Support	-	-	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	-	-	-	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)	294.48	\$ per Capita	91.69
Service Standard (\$ per Capita)	91.69	Eligible Amount	\$47,146,772
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)			\$78,038,106

Recoverable Cost Calculations:

Project Number	Project Description (2017-2031)	Timing	Gross Project Cost (2017-2031)	Less		New Municipal Cost	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%	
Facilities														
1	#3 District Marine Headquarters	2017-2018	7,800,000	0	780,000	7,800,000	780,000	7,020,000	5,190,924	1,829,076	3,712,971	404,010	1,066,449	7,494
2	Training Facility	2017	5,715,000	0	571,500	5,715,000	571,500	5,143,500	3,803,350	1,340,150	2,720,465	296,015	781,379	5,491
3	Sub-Station Outlook	2017-2029	21,100,000	0	2,110,000	21,100,000	2,110,000	18,990,000	14,042,116	4,947,884	10,044,063	1,092,898	2,884,882	20,273
4	Community Safety Village Expansion	2017-2018	850,000	0	85,000	850,000	85,000	765,000	565,678	199,322	404,619	44,027	116,216	817
5	#1 District Multi-Function	2017-2020	25,750,000	0	8,088,075	25,750,000	8,088,075	17,661,925	13,060,073	4,601,852	9,341,626	1,016,466	2,683,127	18,855
6	#4 District Expansion	2017-2018	1,415,000	0	141,500	1,415,000	141,500	1,273,500	941,687	331,813	673,571	73,291	193,465	1,360
Subtotal Facilities			62,630,000	0	11,776,075	62,630,000	11,776,075	50,853,925	37,603,828	13,250,097	26,897,315	2,926,706	7,725,518	54,290
										0				
Vehicles														
										0				
7	Vehicles	2017-2031	70,040,000	0	54,342,512	70,040,000	54,342,512	15,697,488	11,607,475	4,090,014	8,302,609	903,410	2,384,697	16,758
8	Marine Boats	2018-2030	1,620,000	0	1,256,923	1,620,000	1,256,923	363,077	268,477	94,601	192,036	20,896	55,157	388

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		7,779,000	6,035,557	1,743,443	1,289,185	454,258	922,130	100,337	264,857	1,861
	Subtotal Vehicles		79,439,000	0	79,439,000	61,634,991	17,804,009	13,165,137	4,638,872	9,416,776	1,024,643	2,704,711	19,007
								0					
	Equipment							0					
10	Business Intelligence	2017-2026	1,100,000	0	1,100,000	853,466	246,534	182,299	64,235	130,395	14,188	37,452	263
11	Specialized Equipment - Growth Staff	2017-2031	9,975,000	0	9,975,000	0	9,975,000	7,375,993	2,599,007	5,275,910	574,074	1,515,361	10,649
12	Data Governance Retention Management	2026	1,000,000	0	1,000,000	775,878	224,122	165,726	58,395	118,541	12,898	34,048	239
13	Police Talent Management	2024	150,000	0	150,000	116,382	33,618	24,859	8,759	17,781	1,935	5,107	36
14	Portable and Mobile User Gear	2021-2022	4,704,000	0	4,704,000	3,649,731	1,054,269	779,577	274,692	557,617	60,674	160,160	1,125
15	Specialized Equipment - In-Car Video	2017-2031	5,379,000	0	5,379,000	4,173,449	1,205,551	891,442	314,109	637,632	69,381	183,142	1,287
16	Specialized Equipment - Robotics / Support Services	2022-2030	800,000	0	800,000	620,703	179,297	132,581	46,716	94,833	10,319	27,238	191
17	Specialized Equipment - Forensic Equipment	2018-2030	7,468,000	0	7,468,000	5,794,259	1,673,741	1,237,645	436,097	885,264	96,326	254,268	1,787
18	Specialized Equipment - Closed-Circuit / Witness Rooms	2019-2029	1,432,000	0	1,432,000	1,111,058	320,942	237,320	83,622	169,751	18,471	48,756	343
19	Specialized Equipment - Technical Investigations	2017-2027	3,963,000	0	3,963,000	3,074,805	888,195	656,774	231,421	469,778	51,117	134,931	948
20	Radio System	2029-2030	27,500,000		27,500,000	21,336,652	6,163,348	4,557,475	1,605,873	3,259,877	354,708	936,310	6,580
21	YRP Net Rewrite	2017-2031	565,000		565,000	438,371	126,629	93,635	32,993	66,976	7,288	19,237	135
22	Specialized Equipment - Telephone	2021-2031	1,400,000		1,400,000	1,086,230	313,770	232,017	81,754	165,957	18,058	47,667	335
23	Computer Aided Dispatch - Records Management System	2026	3,700,000		3,700,000	2,870,749	829,251	613,188	216,063	438,602	47,724	125,976	885
24	Employee Scheduling	2017-2024	640,000		640,000	496,562	143,438	106,065	37,373	75,866	8,255	21,790	153
	Subtotal Equipment		69,776,000	0	69,776,000	46,398,294	23,377,706	17,286,595	6,091,110	12,364,778	1,345,416	3,551,444	24,957
								0					
	Land							0					
20	Land Bank Acquisition	2017-2028	15,000,000	0	15,000,000	1,500,000	13,500,000	9,982,547	3,517,453	7,140,329	776,942	2,050,864	14,412
	Subtotal Land		15,000,000	0	15,000,000	1,500,000	13,500,000	9,982,547	3,517,453	7,140,329	776,942	2,050,864	14,412
								0					
Total			226,845,000	0	226,845,000	121,309,361	105,535,639	78,038,106	27,497,533	55,819,198	6,073,706	16,032,538	112,665

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.
- A \$0.072 million deduction “Ineligible re level of service” has been made. A portion of this amount is fundable under future development charges.

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			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					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%			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			1	1	1	1	1	1	1	1	\$26,524
CEC McCleary Ct. POS Terminals			1	1	1	1	1	1	1	1	\$18,475
CEC Elgin Mills, Richmond Hill furniture & fixtures					1	1	1	1	1	1	\$5,047
CEC Elgin Mills, Richmond Hill Roll off bins					1	1	1	1	1	1	\$36,635
CEC Elgin Mills, Richmond Hill scale hardware					1	1	1	1	1	1	\$2,865
Scale software - various locations					1	1	1	1	1	1	\$92,505
Scale hardware - various locations					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					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					1	1	1	1	1	1	\$8,601,403
Hydro Power distribution system for MRF					1	1	1	1	1	1	\$659,863
Scada System					1	1	1	1	1	1	\$1,207,066
Bindicator								1	1	1	\$60,553
Mixed Glass Clean Up system at MRF									1	1	\$1,624,146
Mobile Signs									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

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:

Project Number	Project Description (2017-2026)	Timing	Gross Project Cost (2017-2026)	Less		Potential Development Charge Recoverable Costs					Residential and Non-residential Split					
				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		
										0						
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
										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	5% deduction made
Fleet New Additions	No 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%
Facilities														
1	Southeast Patrol Area Works Yard (Main and Satellite Facilities)	2017 - 2028	57,570,000	0	57,570,000	2,878,500	54,691,500	37,945,281	16,746,219	27,141,549	2,953,281	7,795,668	54,782	
2	York Region Roads Operations Facility Strategy	2017 - 2021	600,000	0	600,000	30,000	570,000	395,469	174,531	282,872	30,779	81,247	571	
3	Portable Snow Melting Facilities	2018	450,000	0	450,000	22,500	427,500	296,602	130,898	212,154	23,085	60,935	428	
4	Fleet New Additions	2017 - 2031	6,600,000	0	6,600,000	0	6,600,000	4,579,118	2,020,882	3,275,358	356,393	940,757	6,611	
Total			65,220,000	0	65,220,000	2,931,000	62,289,000	43,216,470	19,072,530	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 acquisition 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.
Vehicles	11% deduction made for land acquisition. 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	-	-	\$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)	-	-	-	-	-	-	-	-	-	-	
Stevens Court (Newmarket)	-	-	-	-	-	-	-	-	-	-	
Gorham	-	-	-	-	-	-	-	-	-	-	
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)	-	-	-	-	-	-	-	-	-	-	
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)	-	-	-	-	-	-	-	-	-	-	
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)	-	-	-	-	-	-	-	-	-	-	
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	-	-	-	-	2,200	2,200	2,200	2,200	2,200	2,200	\$1,206
Sharon-Bales HQ ¹	-	-	-	-	63,564	63,564	63,564	63,564	63,564	63,564	\$1,206
Holland Landing (replaced Queensville)									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							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)							4	4	4	4	\$145,220
EPIC (Expanding Paramedicine in the Community) (incl. Defib)							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 Grants and Subsidies	New Municipal Cost	Less Ineligible costs		Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
						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 87.23%	Non-Residential Share		
												Retail 3.49%	Industrial/Office/Institutional 9.22%	Hotel 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	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%
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		Less Ineligible costs		Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				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	Hotel
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, $240,100 \text{ person growth increment (2017 to 2026)} \div 1,418,000 \text{ (total 2026 population)} = 17\%$.

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		Less Ineligible costs		Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				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	Hotel
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 \$21.5 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. Currently, the Tannery has four court rooms. The Annex will increase that to six court rooms. Based upon this, the benefit to existing has been deemed to be approximately 26%.

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

Courts - 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:

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
1	Annex - Courts Only	2017-2020	38,166,146	0	38,166,146	9,958,118	2,820,803	25,387,225	3,877,619	21,509,607	69.48%	8.34%	22.04%	0.15%
Total			38,166,146	0	38,166,146	9,958,118	2,820,803	25,387,225	3,877,619	21,509,607	69.48%	8.34%	22.04%	0.15%

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		Less Ineligible costs		Potential Development Charge Recoverable Costs			Residential and Non-residential Split			
				Grants and Subsidies	New Municipal Cost	Benefit to Existing	2% 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
											69.48%	8.34%	22.04%	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
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 (\$/Sqfm)		
	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	\$3,804	\$14,240	\$11,463	\$8,331	\$6,087	\$5.33	\$18.15	\$3.73	\$57.42	\$195.39	\$40.15
Water	\$2,475	\$9,263	\$7,457	\$5,419	\$3,959	\$3.43	\$5.57	\$0.97	\$36.93	\$59.93	\$10.49
Wastewater	\$4,998	\$18,708	\$15,060	\$10,945	\$7,996	\$6.93	\$10.53	\$1.95	\$74.61	\$113.31	\$21.00
Public Works	\$54	\$204	\$164	\$119	\$87	\$0.13	\$0.12	\$0.05	\$1.36	\$1.26	\$0.49
Subway	\$681	\$2,547	\$2,051	\$1,490	\$1,089	\$0.91	\$3.11	\$0.71	\$9.84	\$33.53	\$7.67
Police	\$219	\$820	\$660	\$480	\$350	\$0.44	\$0.57	\$0.13	\$4.79	\$6.12	\$1.36
Total	\$12,230	\$45,782	\$36,854	\$26,785	\$19,569	\$17.18	\$38.05	\$7.54	\$184.96	\$409.54	\$81.16

Table 11-2
10-Year Services
2017-2026

	Residential Development Charges (\$ per Unit)					Non-Residential Development Charges (\$ per Sqft)			Non-Residential Development Charges (\$/Sqfm)		
	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	\$324	\$1,215	\$978	\$711	\$519	\$0.48	\$1.64	\$0.36	\$5.16	\$17.63	\$3.90
Waste Diversion	\$10	\$37	\$30	\$22	\$16	\$0.02	\$0.02	\$0.02	\$0.25	\$0.24	\$0.24
Paramedic Services	\$97	\$361	\$291	\$211	\$154	\$0.06	\$0.07	\$0.02	\$0.64	\$0.79	\$0.21
Public Health	\$23	\$86	\$69	\$50	\$37	(\$0.00)	\$0.01	\$0.00	(\$0.02)	\$0.08	\$0.03
Social Housing	\$75	\$281	\$226	\$164	\$120	\$0.00	\$0.00	\$0.00	\$0.00	(\$0.00)	(\$0.00)
Court Services	\$9	\$35	\$28	\$20	\$15	\$0.02	\$0.03	\$0.01	\$0.19	\$0.28	\$0.06
Total	\$538	\$2,015	\$1,622	\$1,178	\$862	\$0.58	\$1.77	\$0.41	\$6.21	\$19.02	\$4.44

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	\$255,001,134	
Discount Rate Applied to Post 2031 Debt Payments	4.10%	

Calculated Development Charge per Capita	\$2,475
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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	(33,650,548)	(7,833,282)	(7,833,282)	(58,019,860)	7,833,282	(71,479)	22,682	2,475	56,127,209	(1,964,130)	(1,228,245)	(35,845)	(36,878,769)
2018	(36,878,769)	(5,045,209)	(5,164,227)	(57,507,331)	5,164,227	(644,208)	25,047	2,533	63,441,445	5,289,907	(1,475,151)	68,769	(32,995,244)
2019	(32,995,244)	(4,559,043)	(4,776,678)	(57,077,094)	4,776,678	(1,046,221)	25,047	2,593	64,938,048	6,814,732	(1,435,293)	100,517	(27,515,288)
2020	(27,515,288)	(1,767,417)	(1,895,473)	(56,804,705)	1,895,473	(1,397,565)	25,047	2,654	66,469,955	8,267,686	(1,238,188)	128,149	(20,357,641)
2021	(20,357,641)	(2,751,016)	(3,019,936)	(54,363,639)	3,019,936	(1,565,464)	25,692	2,716	69,790,053	13,860,950	(966,988)	232,171	(7,231,508)
2022	(7,231,508)	(2,537,461)	(2,851,216)	(56,312,227)	2,851,216	(1,814,385)	26,445	2,780	73,528,701	15,402,089	(361,575)	277,238	8,086,243
2023	8,086,243	(2,135,567)	(2,456,237)	(56,300,575)	2,456,237	(2,050,792)	26,445	2,846	75,263,264	16,911,897	311,320	325,554	25,635,014
2024	25,635,014	(8,744,760)	(10,295,111)	(56,289,004)	10,295,111	(2,364,262)	26,552	2,913	77,351,912	18,698,646	986,948	359,949	45,680,558
2025	45,680,558	(17,593,130)	(21,200,806)	(56,277,273)	21,200,806	(3,390,049)	26,552	2,982	79,176,667	19,509,345	1,758,701	375,555	67,324,159
2026	67,324,159	(18,382,816)	(22,675,009)	(56,465,045)	22,675,009	(5,227,044)	28,595	3,052	87,278,657	25,586,568	2,591,980	492,541	95,995,249
2027	95,995,249	(8,963,761)	(11,317,536)	(57,268,023)	11,317,536	(7,029,088)	30,422	3,124	95,047,132	30,750,020	3,935,805	630,375	131,311,450
2028	131,311,450	(27,875,018)	(36,024,910)	(57,268,023)	36,024,910	(8,357,743)	30,530	3,198	97,633,100	32,007,334	5,383,769	656,150	169,358,704
2029	169,358,704	(23,341,399)	(30,877,405)	(56,618,292)	30,877,405	(11,434,828)	30,530	3,273	99,936,293	31,883,174	6,943,707	653,605	208,839,190
2030	208,839,190	(24,113,382)	(32,651,129)	(52,688,264)	32,651,129	(14,157,290)	30,530	3,351	102,293,820	35,448,266	8,562,407	726,689	253,576,553
2031	253,576,553	(1,893,175)	(2,623,958)	(111,497,157)	2,623,958	(197,764,539)	15,265	3,430	52,353,481	(256,908,215)	10,396,639	(7,064,976)	(0)
Total		(157,536,436)	(195,662,912)	(900,756,511)	195,662,912	(258,314,957)	395,379		1,160,629,738		34,165,837	(2,073,558)	

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	\$29,077,951	
Discount Rate Applied to Post 2031 Debt Payments	4.56%	

Calculated Development Charge per Sqft	\$5.57
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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	(4,898,430)	(654,127)	(654,127)	(4,845,011)	654,127	(5,969)	1,458,420	5.57	8,120,475	3,269,494	(178,793)	36,782	(1,770,947)
2018	(1,770,947)	(421,306)	(431,244)	(4,802,212)	431,244	(70,148)	1,453,659	5.70	8,284,903	3,412,543	(70,838)	44,363	1,615,121
2019	1,615,121	(380,708)	(398,882)	(4,766,285)	398,882	(116,009)	1,453,659	5.83	8,480,347	3,598,052	47,646	53,071	5,313,891
2020	5,313,891	(147,590)	(158,284)	(4,743,538)	158,284	(158,113)	1,458,537	5.97	8,709,527	3,807,875	164,731	59,022	9,345,519
2021	9,345,519	(229,727)	(252,183)	(4,539,695)	252,183	(177,436)	1,218,291	6.11	7,446,540	2,729,410	313,075	45,718	12,433,721
2022	12,433,721	(211,893)	(238,094)	(4,702,414)	238,094	(207,301)	907,415	6.26	5,677,219	767,505	447,614	13,815	13,662,654
2023	13,662,654	(178,333)	(205,111)	(4,701,441)	205,111	(236,209)	907,415	6.40	5,811,146	873,497	526,012	16,815	15,078,978
2024	15,078,978	(730,241)	(859,704)	(4,700,474)	859,704	(270,795)	907,415	6.56	5,948,233	976,963	580,541	18,807	16,655,288
2025	16,655,288	(1,469,133)	(1,770,396)	(4,699,495)	1,770,396	(391,703)	898,077	6.71	6,025,898	934,701	641,229	17,993	18,249,211
2026	18,249,211	(1,535,077)	(1,893,501)	(4,715,175)	1,893,501	(617,689)	926,103	6.87	6,360,530	1,027,666	702,595	19,783	19,999,254
2027	19,999,254	(748,529)	(945,083)	(4,782,228)	945,083	(845,804)	987,763	7.03	6,944,053	1,316,020	819,969	26,978	22,162,222
2028	22,162,222	(2,327,734)	(3,008,299)	(4,782,228)	3,008,299	(997,866)	987,763	7.20	7,107,865	1,327,771	908,651	27,219	24,425,863
2029	24,425,863	(1,949,149)	(2,578,451)	(4,727,972)	2,578,451	(1,385,683)	987,763	7.37	7,275,542	1,161,887	1,001,460	23,819	26,613,029
2030	26,613,029	(2,013,614)	(2,726,568)	(4,399,791)	2,726,568	(1,725,187)	992,437	7.54	7,482,413	1,357,435	1,091,134	27,827	29,089,426
2031	29,089,426	(158,092)	(219,116)	(9,258,778)	219,116	(24,060,342)	498,555	7.72	3,847,498	(29,471,623)	1,192,666	(810,470)	0
Total		(13,155,251)	(16,339,044)	(75,166,737)	16,339,044	(31,266,256)	16,043,274		103,522,189		8,187,692	(378,458)	

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	\$56,166,124	
Discount Rate Applied to Post 2031 Debt Payments	4.33%	

Calculated Development Charge per Sqft	\$3.43
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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	(5,187,730)	(1,726,674)	(1,726,674)	(12,789,198)	1,726,674	(15,756)	5,530,404	3.43	18,974,098	6,169,144	(189,352)	69,403	861,465
2018	861,465	(1,112,105)	(1,138,340)	(12,676,222)	1,138,340	(142,001)	5,530,404	3.51	19,421,702	6,603,479	22,398	85,845	7,573,187
2019	7,573,187	(1,004,940)	(1,052,913)	(12,581,386)	1,052,913	(230,616)	5,530,404	3.59	19,879,866	7,067,864	223,409	104,251	14,968,710
2020	14,968,710	(389,588)	(417,815)	(12,521,344)	417,815	(308,062)	5,548,360	3.68	20,414,905	7,585,499	464,030	117,575	23,135,815
2021	23,135,815	(606,401)	(665,678)	(11,983,264)	665,678	(345,072)	4,668,523	3.77	17,582,815	5,254,478	775,050	88,013	29,253,355
2022	29,253,355	(559,327)	(628,488)	(12,412,788)	628,488	(399,941)	3,521,469	3.86	13,575,599	762,870	1,053,121	13,732	31,083,078
2023	31,083,078	(470,739)	(541,423)	(12,410,219)	541,423	(452,052)	3,521,469	3.95	13,895,851	1,033,580	1,196,698	19,896	33,333,253
2024	33,333,253	(1,927,589)	(2,269,330)	(12,407,669)	2,269,330	(521,149)	3,521,469	4.04	14,223,658	1,294,840	1,283,330	24,926	35,936,349
2025	35,936,349	(3,878,017)	(4,673,250)	(12,405,083)	4,673,250	(747,261)	3,487,932	4.13	14,420,540	1,268,195	1,383,549	24,413	38,612,506
2026	38,612,506	(4,052,086)	(4,998,205)	(12,446,473)	4,998,205	(1,152,187)	3,605,314	4.23	15,257,480	1,658,820	1,486,581	31,932	41,789,840
2027	41,789,840	(1,975,863)	(2,494,701)	(12,623,472)	2,494,701	(1,549,407)	3,699,037	4.33	16,023,395	1,850,515	1,713,383	37,936	45,391,675
2028	45,391,675	(6,144,432)	(7,940,896)	(12,623,472)	7,940,896	(1,842,280)	3,699,037	4.43	16,401,391	1,935,639	1,861,059	39,681	49,228,053
2029	49,228,053	(5,145,096)	(6,806,242)	(12,480,253)	6,806,242	(2,520,555)	3,699,037	4.54	16,788,305	1,787,497	2,018,350	36,644	53,070,544
2030	53,070,544	(5,315,263)	(7,197,221)	(11,613,965)	7,197,221	(3,120,662)	3,715,550	4.65	17,261,062	2,526,435	2,175,892	51,792	57,824,663
2031	57,824,663	(417,309)	(578,394)	(24,508,410)	578,394	(42,949,383)	1,866,032	4.76	8,873,390	(58,584,403)	2,370,811	(1,611,071)	0
Total		(34,725,431)	(43,129,571)	(198,483,217)	43,129,571	(56,296,386)	61,144,441		242,994,056		17,838,311	(865,034)	

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	\$394,867	
Discount Rate Applied to Post 2031 Debt Payments	4.20%	

Calculated Development Charge per Sqft	\$0.97
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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	(12,134)	(12,134)	(89,873)	12,134	(111)	106,037	0.97	103,337	13,352	0	150	13,503
2018	13,503	(7,815)	(7,999)	(89,080)	7,999	(998)	110,798	1.00	110,524	20,446	351	266	34,566
2019	34,566	(7,062)	(7,399)	(88,413)	7,399	(1,621)	110,798	1.02	113,131	23,097	1,020	341	59,023
2020	59,023	(2,738)	(2,936)	(87,991)	2,936	(2,165)	111,000	1.05	116,011	25,855	1,830	401	87,108
2021	87,108	(4,261)	(4,678)	(84,210)	4,678	(2,425)	102,354	1.07	109,498	22,863	2,918	383	113,273
2022	113,273	(3,931)	(4,417)	(87,228)	4,417	(2,811)	93,714	1.10	102,620	12,581	4,078	226	130,158
2023	130,158	(3,308)	(3,805)	(87,210)	3,805	(3,177)	93,714	1.12	105,041	14,654	5,011	282	150,105
2024	150,105	(13,546)	(15,947)	(87,192)	15,947	(3,662)	93,714	1.15	107,519	16,664	5,779	321	172,868
2025	172,868	(27,252)	(32,840)	(87,174)	32,840	(5,251)	93,517	1.17	109,824	17,399	6,655	335	197,257
2026	197,257	(28,475)	(35,124)	(87,465)	35,124	(8,097)	98,863	1.20	118,841	23,279	7,594	448	228,579
2027	228,579	(13,885)	(17,531)	(88,709)	17,531	(10,888)	104,405	1.23	128,464	28,867	9,372	592	267,409
2028	267,409	(43,179)	(55,803)	(88,709)	55,803	(12,946)	104,405	1.26	131,494	29,839	10,964	612	308,824
2029	308,824	(36,156)	(47,829)	(87,702)	47,829	(17,713)	104,405	1.29	134,596	29,181	12,662	598	351,265
2030	351,265	(37,352)	(50,577)	(81,615)	50,577	(21,930)	104,607	1.32	138,038	34,493	14,402	707	400,867
2031	400,867	(2,933)	(4,065)	(172,506)	4,065	(304,411)	52,404	1.35	70,783	(406,134)	16,436	(11,169)	0
Total		(244,026)	(303,084)	(1,395,078)	303,084	(398,205)	1,484,734		1,699,719		99,071	(5,507)	

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	\$807,570,862	
Discount Rate Applied to Post 2031 Debt Payments	4.10%	

Calculated Development Charge per Capita	\$4,998
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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	(86,960,288)	(40,380,031)	(40,380,031)	(81,570,920)	40,264,024	(367,409)	22,682	4,998	113,360,823	31,306,487	(3,174,050)	352,198	(58,475,653)
2018	(58,475,653)	(46,583,284)	(47,682,197)	(72,431,056)	47,682,197	(3,522,680)	25,047	5,116	128,133,478	52,179,742	(2,339,026)	678,337	(7,956,600)
2019	(7,956,600)	(36,661,778)	(38,411,905)	(70,682,667)	38,411,905	(7,172,643)	25,047	5,236	131,156,184	53,300,875	(346,112)	786,188	45,784,350
2020	45,784,350	(56,593,844)	(60,694,267)	(72,269,424)	60,694,267	(10,509,321)	25,047	5,360	134,250,197	51,471,453	1,419,315	797,808	99,472,925
2021	99,472,925	(58,493,116)	(64,210,994)	(71,890,133)	64,210,994	(15,499,758)	25,692	5,486	140,955,839	53,565,948	3,332,343	897,230	157,268,446
2022	157,268,446	(68,026,195)	(76,437,588)	(72,871,713)	76,437,588	(20,990,080)	26,445	5,616	148,506,833	54,645,039	5,661,664	983,611	218,558,760
2023	218,558,760	(65,090,220)	(74,863,943)	(72,871,713)	74,863,943	(27,446,192)	26,445	5,748	152,010,153	51,692,247	8,414,512	995,076	279,660,595
2024	279,660,595	(70,398,587)	(82,879,488)	(72,871,713)	82,879,488	(33,969,840)	26,552	5,884	156,228,621	49,387,068	10,766,933	950,701	340,765,297
2025	340,765,297	(67,026,780)	(80,771,403)	(72,871,713)	80,771,403	(41,047,826)	26,552	6,023	159,914,100	45,994,561	13,119,464	885,395	400,764,717
2026	400,764,717	(61,556,238)	(75,928,969)	(73,300,309)	75,928,969	(47,909,188)	28,595	6,165	176,277,792	55,068,295	15,429,442	1,060,065	472,322,518
2027	472,322,518	(61,601,612)	(77,777,444)	(74,407,571)	77,777,444	(54,491,814)	30,422	6,310	191,967,876	63,068,491	19,365,223	1,292,904	556,049,136
2028	556,049,136	(42,764,131)	(55,267,192)	(74,407,571)	55,267,192	(60,978,505)	30,530	6,459	197,190,788	61,804,712	22,798,015	1,266,997	641,918,859
2029	641,918,859	(40,816,721)	(53,994,811)	(71,591,692)	23,554,500	(65,371,713)	30,530	6,611	201,842,577	34,438,861	26,318,673	705,997	703,382,390
2030	703,382,390	(35,304,335)	(47,804,425)	(58,354,871)	25,391,368	(67,455,167)	30,530	6,767	206,604,103	58,381,007	28,838,678	1,196,811	791,798,886
2031	791,798,886	(1,821,548)	(2,524,683)	(206,631,373)	2,524,683	(701,309,688)	15,265	6,927	105,738,977	(802,202,083)	32,463,754	(22,060,557)	0
Total		(753,118,420)	(879,629,339)	(1,219,024,438)	826,659,964	(1,158,041,826)	395,379		2,344,138,341		182,068,827	(9,211,242)	

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	\$67,437,081	
Discount Rate Applied to Post 2031 Debt Payments	4.10%	

Calculated Development Charge per Sqft	\$10.53
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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	(12,658,602)	(3,371,978)	(3,371,978)	(6,811,668)	3,362,291	(30,681)	1,458,420	10.53	15,351,902	8,499,866	(462,039)	95,623	(4,525,152)
2018	(4,525,152)	(3,889,988)	(3,981,754)	(6,048,434)	3,981,754	(294,165)	1,453,659	10.77	15,662,757	9,320,158	(181,006)	121,162	4,735,162
2019	4,735,162	(3,061,482)	(3,207,628)	(5,902,433)	3,207,628	(598,959)	1,453,659	11.03	16,032,246	9,530,854	139,687	140,580	14,546,284
2020	14,546,284	(4,725,930)	(5,068,341)	(6,034,937)	5,068,341	(877,592)	1,458,537	11.29	16,465,516	9,552,987	450,935	148,071	24,698,277
2021	24,698,277	(4,884,531)	(5,362,009)	(6,003,264)	5,362,009	(1,294,324)	1,218,291	11.56	14,077,817	6,780,230	827,392	113,569	32,419,467
2022	32,419,467	(5,680,601)	(6,383,004)	(6,085,231)	6,383,004	(1,752,799)	907,415	11.83	10,732,884	2,894,853	1,167,101	52,107	36,533,529
2023	36,533,529	(5,435,429)	(6,251,595)	(6,085,231)	6,251,595	(2,291,924)	907,415	12.11	10,986,076	2,608,921	1,406,541	50,222	40,599,212
2024	40,599,212	(5,878,710)	(6,920,942)	(6,085,231)	6,920,942	(2,836,688)	907,415	12.39	11,245,241	2,323,321	1,563,070	44,724	44,530,327
2025	44,530,327	(5,597,144)	(6,744,904)	(6,085,231)	6,744,904	(3,427,743)	898,077	12.68	11,392,067	1,879,093	1,714,418	36,173	48,160,009
2026	48,160,009	(5,140,320)	(6,340,531)	(6,121,022)	6,340,531	(4,000,709)	926,103	12.98	12,024,695	1,902,965	1,854,160	36,632	51,953,767
2027	51,953,767	(5,144,109)	(6,494,890)	(6,213,485)	6,494,890	(4,550,398)	987,763	13.29	13,127,856	2,363,973	2,130,104	48,461	56,496,306
2028	56,496,306	(3,571,065)	(4,615,147)	(6,213,485)	4,615,147	(5,092,076)	987,763	13.60	13,437,546	2,131,985	2,316,349	43,706	60,988,345
2029	60,988,345	(3,408,445)	(4,508,895)	(5,978,342)	1,966,944	(5,458,936)	987,763	13.92	13,754,542	(224,687)	2,500,522	(6,179)	63,258,001
2030	63,258,001	(2,948,127)	(3,991,960)	(4,872,987)	2,120,334	(5,632,917)	992,437	14.25	14,145,635	1,768,105	2,593,578	36,246	67,655,930
2031	67,655,930	(152,110)	(210,826)	(17,254,977)	210,826	(58,563,626)	498,555	14.59	7,273,763	(68,544,840)	2,773,893	(1,884,983)	0
Total		(62,889,971)	(73,454,402)	(101,795,958)	69,031,137	(96,703,539)	16,043,274		195,710,545		20,794,705	(923,885)	

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	\$178,011,175	
Discount Rate Applied to Post 2031 Debt Payments	4.10%	

Calculated Development Charge per Sqft	\$6.93
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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	(13,406,215)	(8,900,887)	(8,900,887)	(17,980,509)	8,875,316	(80,987)	5,530,404	6.93	38,334,962	20,247,895	(489,327)	227,789	6,580,142
2018	6,580,142	(10,268,257)	(10,510,488)	(15,965,828)	10,510,488	(776,497)	5,530,404	7.10	39,239,295	22,496,971	171,084	292,461	29,540,657
2019	29,540,657	(8,081,280)	(8,467,057)	(15,580,434)	8,467,057	(1,581,051)	5,530,404	7.26	40,164,962	23,003,477	871,449	339,301	53,754,885
2020	53,754,885	(12,474,864)	(13,378,712)	(15,930,200)	13,378,712	(2,316,548)	5,548,360	7.43	41,245,947	22,999,200	1,666,401	356,488	78,776,974
2021	78,776,974	(12,893,517)	(14,153,897)	(15,846,593)	14,153,897	(3,416,580)	4,668,523	7.61	35,524,037	16,260,864	2,639,029	272,369	97,949,236
2022	97,949,236	(14,994,873)	(16,848,979)	(16,062,961)	16,848,979	(4,626,800)	3,521,469	7.79	27,427,922	6,738,161	3,526,172	121,287	108,334,857
2023	108,334,857	(14,347,703)	(16,502,104)	(16,062,961)	16,502,104	(6,049,907)	3,521,469	7.97	28,074,955	5,962,087	4,170,892	114,770	118,582,605
2024	118,582,605	(15,517,815)	(18,268,954)	(16,062,961)	18,268,954	(7,487,902)	3,521,469	8.16	28,737,251	5,186,389	4,565,430	99,838	128,434,262
2025	128,434,262	(14,774,574)	(17,804,273)	(16,062,961)	17,804,273	(9,048,087)	3,487,932	8.35	29,135,027	4,023,979	4,944,719	77,462	137,480,422
2026	137,480,422	(13,568,714)	(16,736,866)	(16,157,435)	16,736,866	(10,560,523)	3,605,314	8.55	30,825,967	4,108,008	5,292,996	79,079	146,960,505
2027	146,960,505	(13,578,716)	(17,144,321)	(16,401,507)	17,144,321	(12,011,518)	3,699,037	8.75	32,373,410	3,960,385	6,025,381	81,188	157,027,459
2028	157,027,459	(9,426,409)	(12,182,433)	(16,401,507)	12,182,433	(13,441,366)	3,699,037	8.96	33,137,108	3,294,235	6,438,126	67,532	166,827,352
2029	166,827,352	(8,997,145)	(11,901,965)	(15,780,808)	5,192,070	(14,409,752)	3,699,037	9.17	33,918,822	(2,981,633)	6,839,921	(81,995)	170,603,646
2030	170,603,646	(7,782,062)	(10,537,431)	(12,863,044)	5,596,967	(14,869,003)	3,715,550	9.39	34,873,972	2,201,462	6,994,749	45,130	179,844,987
2031	179,844,987	(401,520)	(556,511)	(45,547,326)	556,511	(154,588,244)	1,866,032	9.61	17,927,656	(182,207,914)	7,373,644	(5,010,718)	(0)
Total		(166,008,335)	(193,894,876)	(268,707,035)	182,218,946	(255,264,764)	61,144,441		490,941,295		61,030,668	(2,918,019)	

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	\$1,250,937	
Discount Rate Applied to Post 2031 Debt Payments	4.10%	

Calculated Development Charge per Sqft	\$1.95
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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	(62,549)	(62,549)	(126,354)	62,369	(569)	106,037	1.95	206,902	79,799	0	898	80,697
2018	80,697	(72,158)	(73,860)	(112,197)	73,860	(5,457)	110,798	2.00	221,292	103,639	2,098	1,347	187,781
2019	187,781	(56,790)	(59,501)	(109,488)	59,501	(11,111)	110,798	2.04	226,513	105,914	5,540	1,562	300,797
2020	300,797	(87,665)	(94,016)	(111,946)	94,016	(16,279)	111,000	2.09	232,278	104,053	9,325	1,613	415,787
2021	415,787	(90,607)	(99,464)	(111,359)	99,464	(24,009)	102,354	2.14	219,239	83,871	13,929	1,405	514,992
2022	514,992	(105,373)	(118,403)	(112,879)	118,403	(32,514)	93,714	2.19	205,467	60,074	18,540	1,081	594,687
2023	594,687	(100,826)	(115,965)	(112,879)	115,965	(42,514)	93,714	2.24	210,314	54,920	22,895	1,057	673,560
2024	673,560	(109,048)	(128,381)	(112,879)	128,381	(52,620)	93,714	2.30	215,275	49,777	25,932	958	750,227
2025	750,227	(103,825)	(125,116)	(112,879)	125,116	(63,584)	93,517	2.35	219,892	43,429	28,884	836	823,376
2026	823,376	(95,351)	(117,615)	(113,543)	117,615	(74,212)	98,863	2.41	237,945	50,190	31,700	966	906,232
2027	906,232	(95,422)	(120,478)	(115,258)	120,478	(84,409)	104,405	2.46	257,212	57,545	37,156	1,180	1,002,112
2028	1,002,112	(66,242)	(85,610)	(115,258)	85,610	(94,456)	104,405	2.52	263,280	53,565	41,087	1,098	1,097,862
2029	1,097,862	(63,226)	(83,639)	(110,896)	36,486	(101,262)	104,405	2.58	269,491	10,180	45,012	209	1,153,264
2030	1,153,264	(54,687)	(74,050)	(90,392)	39,332	(104,489)	104,607	2.64	276,381	46,782	47,284	959	1,248,288
2031	1,248,288	(2,822)	(3,911)	(320,075)	3,911	(1,086,338)	52,404	2.70	141,723	(1,264,689)	51,180	(34,779)	0
Total		(1,166,590)	(1,362,557)	(1,888,284)	1,280,507	(1,793,821)	1,484,734		3,403,206		380,560	(19,610)	

Table 11-11

Roads - Residential Charge Calculations

Assumptions		
Gross Population Growth	395,379	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	1.45% - 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	\$534,498,952	
Discount Rate Applied to Post 2031 Debt Payments	3.60%	

Calculated Development Charge per Capita	\$3,804
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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	187,692,068	(98,640,671)	(98,640,671)	(23,840,009)	53,724,063	(382,784)	22,682	3,804	86,287,218	17,147,816	2,721,535	124,322	207,685,740
2018	207,685,740	(94,378,760)	(96,605,182)	(21,800,408)	67,938,848	(7,074,236)	25,047	3,894	97,531,767	39,990,788	4,049,872	389,910	252,116,310
2019	252,116,310	(91,806,331)	(96,188,898)	(21,731,464)	65,180,008	(14,929,302)	25,047	3,986	99,832,570	32,162,913	6,176,850	393,996	290,850,069
2020	290,850,069	(113,639,733)	(121,873,331)	(19,282,826)	66,708,564	(23,870,517)	25,047	4,080	102,187,650	3,869,540	7,562,102	50,304	302,332,015
2021	302,332,015	(96,949,836)	(106,426,975)	(19,282,826)	62,821,725	(32,398,592)	25,692	4,176	107,291,804	12,005,138	8,616,462	171,073	323,124,688
2022	323,124,688	(129,935,867)	(146,002,350)	(19,282,826)	87,106,956	(40,835,771)	26,445	4,275	113,039,418	(5,974,572)	10,016,865	(134,428)	327,032,554
2023	327,032,554	(115,270,039)	(132,578,590)	(19,282,826)	63,989,780	(52,012,250)	26,445	4,375	115,706,051	(24,177,834)	10,955,591	(574,224)	313,236,087
2024	313,236,087	(86,106,244)	(101,371,941)	(19,282,826)	53,831,355	(60,360,550)	26,552	4,479	118,917,037	(8,266,925)	10,493,409	(196,339)	315,266,231
2025	315,266,231	(92,982,565)	(112,049,725)	(19,282,826)	53,546,673	(67,481,653)	26,552	4,584	121,722,325	(23,545,207)	10,561,419	(559,199)	301,723,245
2026	301,723,245	(74,244,926)	(91,580,332)	(14,085,325)	43,442,609	(74,065,689)	28,595	4,692	134,177,928	(2,110,808)	10,107,729	(50,132)	309,670,033
2027	309,670,033	(85,429,551)	(107,862,310)	(6,501,320)	79,894,059	(78,410,848)	30,422	4,803	146,120,799	33,240,381	11,148,121	598,327	354,656,862
2028	354,656,862	(95,630,491)	(123,590,228)	(6,501,320)	102,159,335	(81,920,257)	30,530	4,916	150,096,340	40,243,870	12,767,647	724,390	408,392,770
2029	408,392,770	(104,320,722)	(138,001,718)	(6,501,320)	119,327,517	(87,056,202)	30,530	5,032	153,637,156	41,405,434	14,702,140	745,298	465,245,641
2030	465,245,641	(70,183,493)	(95,033,133)	(6,501,320)	95,033,133	(94,237,525)	30,530	5,151	157,261,502	56,522,658	16,748,843	1,017,408	539,534,550
2031	539,534,550	(68,995,921)	(95,629,006)	(21,906,975)	95,629,006	(603,903,376)	15,265	5,273	80,485,674	(545,324,677)	19,423,244	(13,633,117)	0
Total		(1,418,515,152)	(1,663,434,388)	(245,066,413)	1,110,333,630	(1,318,939,551)	395,379		1,784,295,238		156,051,828	(10,932,411)	

Table 11-12

Roads - Retail Development Charge Calculations

Assumptions		
Retail - GFA Growth	15,793,997	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	1.45% - 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	\$99,771,786	
Discount Rate Applied to Post 2031 Debt Payments	3.60%	

Calculated Development Charge per Sqft	\$18.15
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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	27,321,888	(18,412,676)	(18,412,676)	(4,450,075)	10,028,356	(71,452)	1,458,420	18.15	26,473,840	13,567,993	396,167	98,368	41,384,416
2018	41,384,416	(17,617,130)	(18,032,723)	(4,069,354)	12,681,746	(1,320,506)	1,453,659	18.58	27,009,900	16,269,062	806,996	158,623	58,619,098
2019	58,619,098	(17,136,950)	(17,955,018)	(4,056,485)	12,166,770	(2,903,871)	1,453,659	19.02	27,647,071	14,898,468	1,436,168	182,506	75,136,240
2020	75,136,240	(21,212,463)	(22,749,380)	(3,599,412)	12,452,096	(4,455,769)	1,458,537	19.47	28,394,229	10,041,764	1,953,542	130,543	87,262,089
2021	87,262,089	(18,097,058)	(19,866,099)	(3,599,412)	11,726,563	(6,047,655)	1,218,291	19.93	24,276,723	6,490,120	2,486,970	92,484	96,331,663
2022	96,331,663	(24,254,367)	(27,253,403)	(3,599,412)	16,259,745	(7,622,574)	907,415	20.40	18,508,499	(3,707,145)	2,986,282	(83,411)	95,527,389
2023	95,527,389	(21,516,782)	(24,747,668)	(3,599,412)	11,944,597	(9,708,822)	907,415	20.88	18,945,120	(7,166,185)	3,200,168	(170,197)	91,391,175
2024	91,391,175	(16,083,629)	(18,935,081)	(3,599,412)	10,048,383	(11,267,150)	907,415	21.37	19,392,041	(4,361,219)	3,061,604	(103,579)	89,987,981
2025	89,987,981	(17,356,510)	(20,915,665)	(3,599,412)	9,995,243	(12,596,404)	898,077	21.87	19,645,238	(7,471,000)	3,014,597	(177,436)	85,354,142
2026	85,354,142	(13,858,865)	(17,094,764)	(2,629,225)	8,109,177	(13,825,408)	926,103	22.39	20,736,184	(4,704,035)	2,859,364	(111,721)	83,397,749
2027	83,397,749	(15,946,633)	(20,134,025)	(1,213,563)	14,913,356	(14,636,493)	987,763	22.92	22,638,547	1,567,821	3,002,319	28,221	87,996,110
2028	87,996,110	(17,850,783)	(23,069,863)	(1,213,563)	19,069,484	(15,291,574)	987,763	23.46	23,172,597	2,667,081	3,167,860	48,007	93,879,059
2029	93,879,059	(19,472,938)	(25,759,972)	(1,213,563)	22,274,168	(16,250,271)	987,763	24.01	23,719,246	2,769,608	3,379,646	49,853	100,078,166
2030	100,078,166	(13,100,741)	(17,739,278)	(1,213,563)	17,739,278	(17,590,766)	992,437	24.58	24,393,673	5,589,344	3,602,814	100,608	109,370,932
2031	109,370,932	(12,879,064)	(17,850,506)	(4,089,246)	17,850,506	(112,727,102)	249,278	25.16	6,271,680	(110,544,669)	3,937,354	(2,763,617)	0
Total		(264,796,588)	(310,516,119)	(45,745,110)	207,259,469	(246,315,818)	15,793,997		331,224,587		39,291,850	(2,520,746)	

Table 11-13

Roads - Industrial/Office/Institutional Development Charge Calculations

Assumptions		
Industrial/Office/Institutional - GFA Growth	60,211,425	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	1.45% - 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	\$111,268,092	
Discount Rate Applied to Post 2031 Debt Payments	3.60%	

Calculated Development Charge per Sqft	\$5.33
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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	28,935,508	(20,534,295)	(20,534,295)	(4,962,839)	11,183,883	(79,685)	5,530,404	5.33	29,504,102	15,111,166	419,565	109,556	44,575,795
2018	44,575,795	(19,647,081)	(20,110,562)	(4,538,250)	14,143,014	(1,472,663)	5,530,404	5.46	30,200,112	18,221,651	869,228	177,661	63,844,335
2019	63,844,335	(19,111,572)	(20,023,903)	(4,523,898)	13,568,698	(3,238,472)	5,530,404	5.59	30,912,542	16,694,968	1,564,186	204,513	82,308,002
2020	82,308,002	(23,656,690)	(25,370,701)	(4,014,158)	13,886,902	(4,969,190)	5,548,360	5.72	31,744,511	11,277,364	2,140,008	146,606	95,871,980
2021	95,871,980	(20,182,309)	(22,155,191)	(4,014,158)	13,077,768	(6,744,502)	4,668,523	5.86	27,340,702	7,504,619	2,732,351	106,941	106,215,892
2022	106,215,892	(27,049,101)	(30,393,704)	(4,014,158)	18,133,290	(8,500,893)	3,521,469	5.99	21,109,613	(3,665,851)	3,292,693	(82,482)	105,760,251
2023	105,760,251	(23,996,076)	(27,599,243)	(4,014,158)	13,320,925	(10,827,531)	3,521,469	6.14	21,607,595	(7,512,412)	3,542,968	(178,420)	101,612,388
2024	101,612,388	(17,924,970)	(21,102,871)	(4,014,158)	11,206,219	(12,565,419)	3,521,469	6.28	22,117,324	(4,358,905)	3,404,015	(103,524)	100,553,974
2025	100,553,974	(19,356,432)	(23,325,694)	(4,014,158)	11,146,956	(14,047,838)	3,487,932	6.43	22,423,468	(7,817,267)	3,368,558	(185,660)	95,919,606
2026	95,919,606	(15,455,767)	(19,064,525)	(2,932,180)	9,043,565	(15,418,455)	3,605,314	6.58	23,724,882	(4,646,712)	3,213,307	(110,359)	94,375,841
2027	94,375,841	(17,784,101)	(22,453,989)	(1,353,397)	16,631,762	(16,322,998)	3,699,037	6.74	24,915,855	1,417,234	3,397,530	25,510	99,216,115
2028	99,216,115	(19,907,658)	(25,728,112)	(1,353,397)	21,266,785	(17,053,561)	3,699,037	6.89	25,503,628	2,635,342	3,571,780	47,436	105,470,673
2029	105,470,673	(21,716,727)	(28,728,191)	(1,353,397)	24,840,732	(18,122,725)	3,699,037	7.06	26,105,266	2,741,685	3,796,944	49,350	112,058,652
2030	112,058,652	(14,610,288)	(19,783,304)	(1,353,397)	19,783,304	(19,617,680)	3,715,550	7.22	26,840,387	5,869,310	4,034,111	105,648	122,067,721
2031	122,067,721	(14,363,067)	(19,907,349)	(4,560,434)	19,907,349	(125,716,198)	933,016	7.39	6,898,916	(123,377,716)	4,394,438	(3,084,443)	0
Total		(295,296,133)	(346,281,633)	(51,016,138)	231,141,153	(274,697,810)	60,211,425		370,948,902		43,741,684	(2,771,667)	

Table 11-14

Roads - Hotel Development Charge Calculations

Assumptions		
Hotel - GFA Growth	1,458,532	
Inflation	2%	
Interest	Earned	Charged
Opening Balance	1.45% - 3.60%	1.45% - 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	\$1,718,170	
Discount Rate Applied to Post 2031 Debt Payments	3.60%	

Calculated Development Charge per Sqft	\$3.73
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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	(317,085)	(317,085)	(76,635)	172,698	(1,230)	106,037	3.73	395,528	173,276	0	1,256	174,532
2018	174,532	(303,385)	(310,542)	(70,078)	218,392	(22,740)	110,798	3.82	423,037	238,069	3,403	2,321	418,326
2019	418,326	(295,115)	(309,203)	(69,857)	209,524	(50,008)	110,798	3.91	433,016	213,473	10,249	2,615	644,662
2020	644,662	(365,300)	(391,767)	(61,985)	214,438	(76,733)	111,000	4.00	444,039	127,991	16,761	1,664	791,078
2021	791,078	(311,650)	(342,114)	(61,985)	201,943	(104,147)	102,354	4.09	419,112	112,809	22,546	1,608	928,041
2022	928,041	(417,685)	(469,331)	(61,985)	280,009	(131,268)	93,714	4.19	392,784	10,209	28,769	158	967,177
2023	967,177	(370,541)	(426,180)	(61,985)	205,698	(167,196)	93,714	4.29	402,050	(47,613)	32,400	(1,131)	950,834
2024	950,834	(276,792)	(325,865)	(61,985)	173,043	(194,032)	93,714	4.39	411,535	2,696	31,853	45	985,428
2025	985,428	(298,897)	(360,189)	(61,985)	172,128	(216,923)	93,517	4.49	420,359	(46,609)	33,012	(1,107)	970,724
2026	970,724	(238,664)	(294,389)	(45,278)	139,648	(238,087)	98,863	4.60	454,872	16,765	32,519	281	1,020,289
2027	1,020,289	(274,617)	(346,728)	(20,899)	256,823	(252,055)	104,405	4.71	491,704	128,845	36,730	2,319	1,188,184
2028	1,188,184	(307,408)	(397,286)	(20,899)	328,396	(263,336)	104,405	4.82	503,303	150,178	42,775	2,703	1,383,839
2029	1,383,839	(335,344)	(443,613)	(20,899)	383,584	(279,846)	104,405	4.93	515,176	154,402	49,818	2,779	1,590,839
2030	1,590,839	(225,608)	(305,488)	(20,899)	305,488	(302,931)	104,607	5.05	528,349	204,519	57,270	3,681	1,856,310
2031	1,856,310	(221,790)	(307,404)	(70,421)	307,404	(1,941,274)	26,202	5.17	135,464	(1,876,231)	66,827	(46,906)	0
Total		(4,559,879)	(5,347,183)	(787,777)	3,569,216	(4,241,806)	1,458,532		6,370,328		464,934	(27,712)	

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%	1.45% - 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	\$47,788,637	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Capita	\$324
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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	15,967,001	(22,628,917)	(22,628,917)	(1,378,818)	22,628,917	(161,231)	23,738	324	7,702,814	6,162,764	231,522	44,680	22,405,967
2018	22,405,967	(7,993,113)	(8,181,673)	(1,281,697)	8,181,673	(2,486,111)	26,213	332	8,706,608	4,938,800	436,916	48,153	27,829,837
2019	27,829,837	(15,783,613)	(16,537,077)	(1,048,069)	16,537,077	(3,454,200)	26,213	340	8,912,000	4,409,731	681,831	54,019	32,975,418
2020	32,975,418	(3,429,097)	(3,677,547)	(565,564)	3,677,547	(5,112,729)	26,213	348	9,122,237	3,443,943	857,361	44,771	37,321,493
2021	37,321,493	(26,607,629)	(29,208,604)	(372,362)	29,208,604	(5,782,863)	26,888	356	9,577,882	3,422,657	1,063,663	48,773	41,856,585
2022	41,856,585	(16,452,154)	(18,486,452)	(185,928)	18,486,452	(8,837,347)	27,676	365	10,090,968	1,067,693	1,297,554	16,549	44,238,381
2023	44,238,381	(5,893,917)	(6,778,927)	(183,297)	6,778,927	(10,712,586)	27,676	373	10,329,017	(566,866)	1,481,986	(13,463)	45,140,038
2024	45,140,038	(422,503)	(497,408)	(81,266)	497,408	(11,374,172)	27,788	382	10,615,660	(839,778)	1,512,191	(19,945)	45,792,507
2025	45,792,507	(6,130,461)	(7,387,584)	(81,266)	7,387,584	(11,510,011)	27,788	391	10,866,087	(725,190)	1,534,049	(17,223)	46,584,142
2026	46,584,142	(1,363,913)	(1,682,372)	(627,129)	1,682,372	(58,378,664)	29,926	400	11,977,992	(47,027,801)	1,560,569	(1,116,910)	0
Total		(106,705,316)	(115,066,560)	(5,805,395)	115,066,560	(117,809,915)	270,120		97,901,264		10,657,641	(910,595)	

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%	1.45% - 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	\$9,843,791	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Sqft	\$1.64
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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	2,324,278	(4,661,240)	(4,661,240)	(284,017)	4,661,240	(33,211)	1,458,420	1.64	2,388,642	2,071,413	33,702	15,018	4,444,411
2018	4,444,411	(1,646,469)	(1,685,310)	(264,012)	1,685,310	(512,104)	1,453,659	1.68	2,437,008	1,660,893	86,666	16,194	6,208,164
2019	6,208,164	(3,251,203)	(3,406,406)	(215,888)	3,406,406	(711,517)	1,453,659	1.72	2,494,498	1,567,094	152,100	19,197	7,946,554
2020	7,946,554	(706,346)	(757,523)	(116,498)	757,523	(1,053,151)	1,458,537	1.76	2,561,912	1,392,263	206,610	18,099	9,563,527
2021	9,563,527	(5,480,799)	(6,016,564)	(76,701)	6,016,564	(1,191,189)	1,218,291	1.80	2,190,404	922,513	272,561	13,146	10,771,746
2022	10,771,746	(3,388,914)	(3,807,951)	(38,299)	3,807,951	(1,820,370)	907,415	1.84	1,669,957	(188,712)	333,924	(4,246)	10,912,713
2023	10,912,713	(1,214,064)	(1,396,364)	(37,757)	1,396,364	(2,206,643)	907,415	1.88	1,709,352	(535,048)	365,576	(12,707)	10,730,534
2024	10,730,534	(87,030)	(102,459)	(16,740)	102,459	(2,342,920)	907,415	1.93	1,749,676	(609,984)	359,473	(14,487)	10,465,535
2025	10,465,535	(1,262,789)	(1,521,739)	(16,740)	1,521,739	(2,370,901)	898,077	1.97	1,772,521	(615,120)	350,595	(14,609)	10,186,401
2026	10,186,401	(280,947)	(346,545)	(129,180)	346,545	(12,025,188)	926,103	2.02	1,870,953	(10,283,415)	341,244	(244,231)	0
Total		(21,979,802)	(23,702,102)	(1,195,830)	23,702,102	(24,267,194)	11,588,993		20,844,922		2,502,452	(208,627)	

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%	1.45% - 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	\$10,978,051	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Sqft	\$0.48
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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	2,461,549	(5,198,336)	(5,198,336)	(316,743)	5,198,336	(37,038)	5,530,404	0.48	2,649,397	2,295,615	35,692	16,643	4,809,500
2018	4,809,500	(1,836,186)	(1,879,502)	(294,433)	1,879,502	(571,112)	5,530,404	0.49	2,711,897	1,846,352	93,785	18,002	6,767,639
2019	6,767,639	(3,625,827)	(3,798,913)	(240,763)	3,798,913	(793,502)	5,530,404	0.50	2,775,871	1,741,605	165,807	21,335	8,696,387
2020	8,696,387	(787,735)	(844,810)	(129,922)	844,810	(1,174,501)	5,548,360	0.51	2,850,580	1,546,157	226,106	20,100	10,488,749
2021	10,488,749	(6,112,330)	(6,709,829)	(85,539)	6,709,829	(1,328,445)	4,668,523	0.53	2,455,129	1,041,144	298,929	14,836	11,843,659
2022	11,843,659	(3,779,405)	(4,246,726)	(42,712)	4,246,726	(2,030,124)	3,521,469	0.54	1,895,592	(177,244)	367,153	(3,988)	12,029,581
2023	12,029,581	(1,353,956)	(1,557,262)	(42,107)	1,557,262	(2,460,906)	3,521,469	0.55	1,940,309	(562,703)	402,991	(13,364)	11,856,505
2024	11,856,505	(97,058)	(114,265)	(18,668)	114,265	(2,612,886)	3,521,469	0.56	1,986,082	(645,472)	397,193	(15,330)	11,592,895
2025	11,592,895	(1,408,295)	(1,697,083)	(18,668)	1,697,083	(2,644,091)	3,487,932	0.58	2,013,573	(649,186)	388,362	(15,418)	11,316,653
2026	11,316,653	(313,319)	(386,476)	(144,065)	386,476	(13,410,803)	3,605,314	0.59	2,130,437	(11,424,431)	379,108	(271,330)	0
Total		(24,512,448)	(26,433,201)	(1,333,621)	26,433,201	(27,063,407)	44,465,748		23,408,865		2,755,127	(228,514)	

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%	1.45% - 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	\$169,520	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Sqft	\$0.36
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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	0.36	38,451	32,988	0	239	33,228
2018	33,228	(28,354)	(29,023)	(4,547)	29,023	(8,819)	110,798	0.37	41,126	27,760	648	271	61,906
2019	61,906	(55,989)	(58,662)	(3,718)	58,662	(12,253)	110,798	0.38	42,096	26,125	1,517	320	89,868
2020	89,868	(12,164)	(13,045)	(2,006)	13,045	(18,136)	111,000	0.39	43,167	23,025	2,337	299	115,529
2021	115,529	(94,385)	(103,611)	(1,321)	103,611	(20,513)	102,354	0.40	40,744	18,910	3,293	269	138,001
2022	138,001	(58,360)	(65,577)	(660)	65,577	(31,349)	93,714	0.41	38,185	6,177	4,278	96	148,551
2023	148,551	(20,907)	(24,047)	(650)	24,047	(38,001)	93,714	0.42	39,086	435	4,976	7	153,970
2024	153,970	(1,499)	(1,764)	(288)	1,764	(40,347)	93,714	0.43	40,008	(628)	5,158	(15)	158,485
2025	158,485	(21,746)	(26,206)	(288)	26,206	(40,829)	93,517	0.44	40,865	(252)	5,309	(6)	163,536
2026	163,536	(4,838)	(5,968)	(2,225)	5,968	(207,089)	98,863	0.45	44,221	(165,093)	5,478	(3,921)	(0)
Total		(378,514)	(408,174)	(20,593)	408,174	(417,909)	1,014,508		407,949		32,994	(2,440)	

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%	1.45% - 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	\$63,265,413	
Discount Rate Applied to Post 2031 Debt Payments	11.20%	

Calculated Development Charge per Capita	\$681
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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	12,572,008	(109,212,836)	(109,212,836)	(8,585,041)	83,837,405	(765,016)	22,682	681	15,436,389	(19,289,099)	182,294	(274,870)	(6,809,667)
2018	(6,809,667)	(27,646,442)	(28,298,629)	(8,585,041)	15,709,008	(6,499,149)	25,047	697	17,447,988	(10,225,824)	(228,124)	(171,283)	(17,434,897)
2019	(17,434,897)	(21,929)	(22,976)	(8,585,041)	22,976	(7,564,266)	25,047	713	17,859,591	1,710,285	(671,244)	20,951	(16,374,905)
2020	(16,374,905)	0	0	(8,477,677)	0	(7,565,853)	25,047	730	18,280,904	2,237,374	(654,996)	29,086	(14,763,441)
2021	(14,763,441)	0	0	(8,605,148)	0	(7,565,853)	25,692	747	19,194,014	3,023,013	(627,446)	43,078	(12,324,797)
2022	(12,324,797)	0	0	(8,605,148)	0	(7,565,853)	26,445	765	20,222,236	4,051,235	(554,616)	62,794	(8,765,383)
2023	(8,765,383)	0	0	(8,605,148)	0	(7,565,853)	26,445	783	20,699,284	4,528,283	(416,356)	75,849	(4,577,607)
2024	(4,577,607)	0	0	(8,605,148)	0	(7,565,853)	26,552	801	21,273,715	5,102,714	(217,436)	85,470	393,141
2025	393,141	0	0	(8,605,148)	0	(7,565,853)	26,552	820	21,775,568	5,604,567	13,170	93,877	6,104,755
2026	6,104,755	0	0	(8,820,052)	0	(7,565,853)	28,595	839	24,003,818	7,617,914	204,509	127,600	14,054,778
2027	14,054,778	0	0	(9,009,704)	0	(7,565,853)	30,422	859	26,140,344	9,564,786	505,972	172,166	24,297,703
2028	24,297,703	0	0	(9,009,704)	0	(7,565,853)	30,530	880	26,851,550	10,275,992	874,717	184,968	35,633,380
2029	35,633,380	0	0	(9,009,704)	0	(7,565,853)	30,530	900	27,484,986	10,909,428	1,282,802	196,370	48,021,980
2030	48,021,980	0	0	(8,841,504)	0	(7,565,853)	30,530	922	28,133,365	11,726,008	1,728,791	211,068	61,687,847
2031	61,687,847	0	0	(39,224,014)	0	(37,524,368)	15,265	943	14,398,519	(62,349,863)	2,220,762	(1,558,747)	(0)
Total		(136,881,206)	(137,534,441)	(161,173,222)	99,569,388	(135,577,181)	395,379		319,202,270		3,642,801	(701,622)	

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%	1.45% - 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	\$11,809,384	
Discount Rate Applied to Post 2031 Debt Payments	11.75%	

Calculated Development Charge per Sqft	\$3.11
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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	1,830,077	(20,386,120)	(20,386,120)	(1,602,519)	15,649,437	(142,801)	1,458,420	3.11	4,542,361	(1,939,643)	26,536	(27,640)	(110,669)
2018	(110,669)	(5,160,599)	(5,282,339)	(1,602,519)	2,932,308	(1,213,158)	1,453,659	3.19	4,634,337	(531,371)	(3,707)	(8,900)	(654,648)
2019	(654,648)	(4,093)	(4,289)	(1,602,519)	4,289	(1,411,977)	1,453,659	3.26	4,743,663	1,729,166	(25,204)	21,182	1,070,497
2020	1,070,497	0	0	(1,582,478)	0	(1,412,273)	1,458,537	3.34	4,871,859	1,877,108	27,833	24,402	2,999,840
2021	2,999,840	0	0	(1,606,272)	0	(1,412,273)	1,218,291	3.42	4,165,381	1,146,835	85,495	16,342	4,248,513
2022	4,248,513	0	0	(1,606,272)	0	(1,412,273)	907,415	3.50	3,175,674	157,128	131,704	2,435	4,539,780
2023	4,539,780	0	0	(1,606,272)	0	(1,412,273)	907,415	3.58	3,250,589	232,043	152,083	3,887	4,927,792
2024	4,927,792	0	0	(1,606,272)	0	(1,412,273)	907,415	3.67	3,327,271	308,725	165,081	5,171	5,406,769
2025	5,406,769	0	0	(1,606,272)	0	(1,412,273)	898,077	3.75	3,370,714	352,169	181,127	5,899	5,945,963
2026	5,945,963	0	0	(1,646,387)	0	(1,412,273)	926,103	3.84	3,557,898	499,237	199,190	8,362	6,652,752
2027	6,652,752	0	0	(1,681,789)	0	(1,412,273)	987,763	3.93	3,884,304	790,242	239,499	14,224	7,696,718
2028	7,696,718	0	0	(1,681,789)	0	(1,412,273)	987,763	4.03	3,975,936	881,874	277,082	15,874	8,871,547
2029	8,871,547	0	0	(1,681,789)	0	(1,412,273)	987,763	4.12	4,069,729	975,667	319,376	17,562	10,184,152
2030	10,184,152	0	0	(1,650,392)	0	(1,412,273)	992,437	4.22	4,185,447	1,122,782	366,629	20,210	11,693,774
2031	11,693,774	0	0	(7,051,084)	0	(6,920,365)	498,555	4.32	2,152,180	(11,819,268)	420,976	(295,482)	(0)
Total		(25,550,812)	(25,672,748)	(29,814,627)	18,586,034	(25,223,308)	16,043,274		57,907,343		2,563,699	(176,470)	

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%	1.45% - 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	\$13,330,426	
Discount Rate Applied to Post 2031 Debt Payments	11.69%	

Calculated Development Charge per Sqft	\$0.91
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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	1,938,161	(22,735,131)	(22,735,131)	(1,787,171)	17,452,659	(159,256)	5,530,404	0.91	5,058,100	(2,170,799)	28,103	(30,934)	(235,468)
2018	(235,468)	(5,755,234)	(5,891,002)	(1,787,171)	3,270,187	(1,352,945)	5,530,404	0.94	5,177,422	(583,510)	(7,888)	(9,774)	(836,641)
2019	(836,641)	(4,565)	(4,783)	(1,787,171)	4,783	(1,574,674)	5,530,404	0.96	5,299,559	1,937,714	(32,211)	23,737	1,092,600
2020	1,092,600	0	0	(1,764,821)	0	(1,575,004)	5,548,360	0.98	5,442,189	2,102,364	28,408	27,331	3,250,702
2021	3,250,702	0	0	(1,791,357)	0	(1,575,004)	4,668,523	1.00	4,687,213	1,320,852	92,645	18,822	4,683,021
2022	4,683,021	0	0	(1,791,357)	0	(1,575,004)	3,521,469	1.03	3,618,972	252,611	145,174	3,915	5,084,722
2023	5,084,722	0	0	(1,791,357)	0	(1,575,004)	3,521,469	1.05	3,704,345	337,984	170,338	5,661	5,598,705
2024	5,598,705	0	0	(1,791,357)	0	(1,575,004)	3,521,469	1.08	3,791,732	425,371	187,557	7,125	6,218,757
2025	6,218,757	0	0	(1,791,357)	0	(1,575,004)	3,487,932	1.10	3,844,216	477,855	208,328	8,004	6,912,945
2026	6,912,945	0	0	(1,836,094)	0	(1,575,004)	3,605,314	1.13	4,067,327	656,229	231,584	10,992	7,811,749
2027	7,811,749	0	0	(1,875,575)	0	(1,575,004)	3,699,037	1.15	4,271,504	820,925	281,223	14,777	8,928,674
2028	8,928,674	0	0	(1,875,575)	0	(1,575,004)	3,699,037	1.18	4,372,270	921,691	321,432	16,590	10,188,388
2029	10,188,388	0	0	(1,875,575)	0	(1,575,004)	3,699,037	1.21	4,475,413	1,024,834	366,782	18,447	11,598,451
2030	11,598,451	0	0	(1,840,560)	0	(1,575,004)	3,715,550	1.24	4,601,440	1,185,876	417,544	21,346	13,223,218
2031	13,223,218	0	0	(7,894,362)	0	(7,836,225)	1,866,032	1.27	2,365,461	(13,365,126)	476,036	(334,128)	0
Total		(28,494,931)	(28,630,916)	(33,280,859)	20,727,629	(28,248,144)	61,144,441		64,777,162		2,915,055	(198,088)	

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%	1.45% - 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	\$203,369	
Discount Rate Applied to Post 2031 Debt Payments	3.18%	

Calculated Development Charge per Sqft	\$0.71
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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	(351,069)	(351,069)	(27,597)	269,499	(2,459)	106,037	0.71	75,528	(36,098)	0	(514)	(36,613)
2018	(36,613)	(88,871)	(90,967)	(27,597)	50,497	(20,892)	110,798	0.73	80,781	(8,177)	(1,227)	(137)	(46,153)
2019	(46,153)	(70)	(74)	(27,597)	74	(24,316)	110,798	0.75	82,687	30,774	(1,777)	377	(16,779)
2020	(16,779)	0	0	(27,252)	0	(24,321)	111,000	0.76	84,792	33,219	(671)	432	16,201
2021	16,201	0	0	(27,662)	0	(24,321)	102,354	0.78	80,032	28,050	462	400	45,112
2022	45,112	0	0	(27,662)	0	(24,321)	93,714	0.80	75,005	23,022	1,398	357	69,890
2023	69,890	0	0	(27,662)	0	(24,321)	93,714	0.82	76,774	24,792	2,341	415	97,438
2024	97,438	0	0	(27,662)	0	(24,321)	93,714	0.84	78,585	26,603	3,264	446	127,751
2025	127,751	0	0	(27,662)	0	(24,321)	93,517	0.86	80,270	28,288	4,280	474	160,792
2026	160,792	0	0	(28,352)	0	(24,321)	98,863	0.88	86,861	34,187	5,387	573	200,938
2027	200,938	0	0	(28,962)	0	(24,321)	104,405	0.90	93,894	40,611	7,234	731	249,514
2028	249,514	0	0	(28,962)	0	(24,321)	104,405	0.92	96,109	42,826	8,983	771	302,093
2029	302,093	0	0	(28,962)	0	(24,321)	104,405	0.94	98,376	45,093	10,875	812	358,874
2030	358,874	0	0	(28,421)	0	(24,321)	104,607	0.96	100,891	48,149	12,919	867	420,809
2031	420,809	0	0	(330,908)	0	(146,152)	52,404	0.99	51,735	(425,325)	15,149	(10,633)	0
Total		(440,011)	(442,111)	(722,920)	320,070	(461,347)	1,484,734		1,242,321		68,618	(4,632)	

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%	1.45% - 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	\$5,087,143	
Discount Rate Applied to Post 2031 Debt Payments	3.53%	

Calculated Development Charge per Capita	\$219
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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	6,225,374	(7,433,596)	(7,433,596)	(2,977,648)	6,396,761	(45,577)	22,682	219	4,966,657	906,596	90,268	6,573	7,228,811
2018	7,228,811	(6,283,972)	(6,432,213)	(2,943,512)	6,313,788	(736,284)	25,047	224	5,613,889	1,815,668	140,962	17,703	9,203,143
2019	9,203,143	(8,752,192)	(9,169,996)	(2,829,532)	9,169,996	(1,448,788)	25,047	229	5,746,322	1,468,003	225,477	17,983	10,914,606
2020	10,914,606	(4,821,404)	(5,170,732)	(2,961,326)	4,960,476	(2,397,673)	25,047	235	5,881,879	312,624	283,780	4,064	11,515,074
2021	11,515,074	(1,277,888)	(1,402,805)	(2,954,304)	1,402,805	(2,897,885)	25,692	240	6,175,672	323,483	328,180	4,610	12,171,347
2022	12,171,347	(1,824,480)	(2,050,076)	(3,004,711)	1,682,342	(3,053,521)	26,445	246	6,506,503	80,536	377,312	1,248	12,630,443
2023	12,630,443	(2,335,869)	(2,686,615)	(3,004,711)	2,145,844	(3,242,332)	26,445	252	6,659,993	(127,821)	423,120	(3,036)	12,922,707
2024	12,922,707	(3,369,706)	(3,967,118)	(3,004,711)	3,218,766	(3,488,108)	26,552	258	6,844,816	(396,355)	432,911	(9,413)	12,949,849
2025	12,949,849	(997,776)	(1,202,381)	(3,004,711)	1,202,381	(3,813,715)	26,552	264	7,006,287	187,861	433,820	3,147	13,574,677
2026	13,574,677	(1,710,800)	(2,110,253)	(3,068,003)	2,110,253	(3,955,073)	28,595	270	7,723,227	700,151	454,752	11,728	14,741,307
2027	14,741,307	(1,365,016)	(1,723,452)	(3,321,170)	1,723,452	(4,089,572)	30,422	276	8,410,654	999,911	530,687	17,998	16,289,903
2028	16,289,903	(3,890,773)	(5,028,329)	(3,321,170)	4,291,688	(3,611,303)	30,530	283	8,639,484	970,370	586,437	17,467	17,864,177
2029	17,864,177	(7,706,453)	(10,194,559)	(3,127,763)	6,437,532	(3,357,484)	30,530	290	8,843,292	(1,398,982)	643,110	(34,975)	17,073,331
2030	17,073,331	(2,948,249)	(3,992,125)	(2,212,636)	3,992,125	(3,117,554)	30,530	296	9,051,908	3,721,718	614,640	66,991	21,476,679
2031	21,476,679	(1,101,025)	(1,526,031)	(7,440,124)	1,526,031	(18,951,453)	15,265	303	4,632,723	(21,758,855)	880,544	(598,368)	0
Total		(55,819,198)	(64,090,281)	(49,176,032)	56,574,239	(58,206,322)	395,379		102,703,306		6,445,998	(476,281)	

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%	1.45% - 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	\$553,534	
Discount Rate Applied to Post 2031 Debt Payments	3.60%	

Calculated Development Charge per Sqft	\$0.57
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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	906,213	(808,852)	(808,852)	(323,999)	696,034	(4,959)	1,458,420	0.57	829,558	387,781	13,140	2,811	1,309,946
2018	1,309,946	(683,761)	(699,891)	(320,285)	687,005	(80,115)	1,453,659	0.58	846,355	433,070	25,544	4,222	1,772,782
2019	1,772,782	(952,329)	(997,790)	(307,882)	997,790	(157,643)	1,453,659	0.60	866,321	400,796	43,433	4,910	2,221,921
2020	2,221,921	(524,619)	(562,629)	(322,223)	539,751	(260,892)	1,458,537	0.61	889,733	283,741	57,770	3,689	2,567,120
2021	2,567,120	(139,047)	(152,640)	(321,459)	152,640	(315,320)	1,218,291	0.62	760,711	123,933	73,163	1,766	2,765,982
2022	2,765,982	(198,522)	(223,069)	(326,944)	183,056	(332,255)	907,415	0.64	579,964	(119,248)	85,745	(2,683)	2,729,796
2023	2,729,796	(254,167)	(292,331)	(326,944)	233,490	(352,799)	907,415	0.65	593,645	(144,939)	91,448	(3,442)	2,672,863
2024	2,672,863	(366,659)	(431,663)	(326,944)	350,235	(379,542)	907,415	0.67	607,650	(180,265)	89,541	(4,281)	2,577,858
2025	2,577,858	(108,568)	(130,831)	(326,944)	130,831	(414,972)	898,077	0.69	615,584	(126,332)	86,358	(3,000)	2,534,885
2026	2,534,885	(186,153)	(229,617)	(333,830)	229,617	(430,353)	926,103	0.70	649,768	(114,415)	84,919	(2,717)	2,502,671
2027	2,502,671	(148,528)	(187,529)	(361,378)	187,529	(444,988)	987,763	0.72	709,379	(96,986)	90,096	(2,425)	2,493,356
2028	2,493,356	(423,356)	(547,134)	(361,378)	466,980	(392,947)	987,763	0.74	726,114	(108,365)	89,761	(2,709)	2,472,043
2029	2,472,043	(838,542)	(1,109,273)	(340,333)	700,470	(365,329)	987,763	0.75	743,243	(371,223)	88,994	(9,281)	2,180,533
2030	2,180,533	(320,800)	(434,385)	(240,758)	434,385	(339,222)	992,437	0.77	764,376	184,396	78,499	3,319	2,446,748
2031	2,446,748	(119,803)	(166,048)	(808,507)	166,048	(2,057,545)	498,555	0.79	393,046	(2,473,005)	88,083	(61,825)	(0)
Total		(6,073,706)	(6,973,685)	(5,349,805)	6,155,862	(6,328,881)	16,043,274		10,575,448		1,086,494	(71,646)	

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%	1.45% - 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	\$1,256,326	
Discount Rate Applied to Post 2031 Debt Payments	3.60%	

Calculated Development Charge per Sqft	\$0.44
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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	959,734	(2,135,097)	(2,135,097)	(855,248)	1,837,294	(13,091)	5,530,404	0.44	2,459,423	1,293,281	13,916	9,376	2,276,307
2018	2,276,307	(1,804,899)	(1,804,899)	(845,443)	1,804,899	(211,406)	5,530,404	0.44	2,459,423	1,402,574	44,388	13,675	3,736,944
2019	3,736,944	(2,513,828)	(2,513,828)	(812,706)	2,513,828	(414,051)	5,530,404	0.44	2,459,423	1,232,666	91,555	15,100	5,076,265
2020	5,076,265	(1,384,816)	(1,384,816)	(850,560)	1,384,816	(674,425)	5,548,360	0.44	2,467,408	942,423	131,983	12,252	6,162,923
2021	6,162,923	(367,038)	(367,038)	(848,543)	367,038	(813,808)	4,668,523	0.44	2,076,136	413,785	175,643	5,896	6,758,248
2022	6,758,248	(524,032)	(524,032)	(863,021)	483,207	(855,013)	3,521,469	0.44	1,566,031	(192,829)	209,506	(4,339)	6,770,585
2023	6,770,585	(670,914)	(670,914)	(863,021)	616,335	(909,244)	3,521,469	0.44	1,566,031	(260,814)	226,815	(6,194)	6,730,391
2024	6,730,391	(967,856)	(967,856)	(863,021)	924,502	(979,836)	3,521,469	0.44	1,566,031	(320,180)	225,468	(7,604)	6,628,075
2025	6,628,075	(286,584)	(286,584)	(863,021)	286,584	(1,072,660)	3,487,932	0.44	1,551,116	(384,565)	222,041	(9,133)	6,456,417
2026	6,456,417	(491,380)	(491,380)	(881,200)	491,380	(1,106,215)	3,605,314	0.44	1,603,317	(384,098)	216,290	(9,122)	6,279,486
2027	6,279,486	(392,063)	(392,063)	(953,915)	392,063	(1,132,462)	3,699,037	0.44	1,644,996	(441,381)	226,062	(11,035)	6,053,132
2028	6,053,132	(1,117,518)	(1,117,518)	(953,915)	1,117,518	(983,875)	3,699,037	0.44	1,644,996	(292,793)	217,913	(7,320)	5,970,932
2029	5,970,932	(2,213,468)	(2,213,468)	(898,364)	1,849,005	(902,960)	3,699,037	0.44	1,644,996	(520,791)	214,954	(13,020)	5,652,075
2030	5,652,075	(846,804)	(846,804)	(635,519)	846,804	(841,711)	3,715,550	0.44	1,652,340	175,110	203,475	3,152	6,033,812
2031	6,033,812	(316,239)	(316,239)	(2,134,185)	316,239	(4,794,222)	1,866,032	0.44	829,842	(6,098,565)	217,217	(152,464)	(0)
Total		(16,032,538)	(16,032,538)	(14,121,683)	15,231,514	(15,704,978)	61,144,441		27,191,508		2,637,224	(160,780)	

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%	1.45% - 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	\$10,268	
Discount Rate Applied to Post 2031 Debt Payments	3.60%	

Calculated Development Charge per Sqft	\$0.13
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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	(15,004)	(15,004)	(6,010)	12,911	(92)	106,037	0.13	13,372	5,177	0	38	5,215
2018	5,215	(12,684)	(12,983)	(5,941)	12,744	(1,486)	110,798	0.13	14,302	6,636	102	65	12,017
2019	12,017	(17,665)	(18,509)	(5,711)	18,509	(2,924)	110,798	0.13	14,640	6,004	294	74	18,389
2020	18,389	(9,732)	(10,437)	(5,977)	10,012	(4,839)	111,000	0.14	15,012	3,771	478	49	22,688
2021	22,688	(2,579)	(2,831)	(5,963)	2,831	(5,849)	102,354	0.14	14,169	2,357	647	34	25,725
2022	25,725	(3,683)	(4,138)	(6,065)	3,396	(6,163)	93,714	0.14	13,279	309	797	5	26,837
2023	26,837	(4,715)	(5,423)	(6,065)	4,331	(6,544)	93,714	0.15	13,593	(108)	899	(3)	27,625
2024	27,625	(6,801)	(8,007)	(6,065)	6,497	(7,040)	93,714	0.15	13,913	(702)	925	(17)	27,832
2025	27,832	(2,014)	(2,427)	(6,065)	2,427	(7,698)	93,517	0.15	14,212	449	932	8	29,221
2026	29,221	(3,453)	(4,259)	(6,192)	4,259	(7,983)	98,863	0.16	15,378	1,203	979	20	31,423
2027	31,423	(2,755)	(3,479)	(6,703)	3,479	(8,254)	104,405	0.16	16,624	1,666	1,131	30	34,250
2028	34,250	(7,853)	(10,149)	(6,703)	8,662	(7,289)	104,405	0.16	17,016	1,537	1,233	28	37,047
2029	37,047	(15,555)	(20,577)	(6,313)	12,994	(6,777)	104,405	0.17	17,417	(3,256)	1,334	(81)	35,044
2030	35,044	(5,951)	(8,058)	(4,466)	8,058	(6,292)	104,607	0.17	17,863	7,104	1,262	128	43,538
2031	43,538	(2,222)	(3,080)	(14,998)	3,080	(38,167)	52,404	0.17	9,160	(44,005)	1,567	(1,100)	0
Total		(112,665)	(129,360)	(99,237)	114,189	(117,399)	1,484,734		219,950		12,581	(724)	

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%	1.45% - 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	\$300,087	
Discount Rate Applied to Post 2026 Debt Payments	3.22%	

Calculated Development Charge per Capita	\$10
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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	10	235,181	217,353	0	1,576	218,929
2018	218,929	(357,459)	(365,892)	0	365,892	(270,387)	26,213	10	265,829	(4,558)	4,269	(76)	218,563
2019	218,563	0	0	0	0	(306,563)	26,213	10	272,100	(34,463)	5,355	(663)	188,792
2020	188,792	0	0	0	0	(306,563)	26,213	11	278,519	(28,044)	4,909	(561)	165,095
2021	165,095	0	0	0	0	(306,563)	26,888	11	292,430	(14,132)	4,705	(300)	155,368
2022	155,368	0	0	0	0	(306,563)	27,676	11	308,096	1,533	4,816	24	161,741
2023	161,741	0	0	0	0	(306,563)	27,676	11	315,364	8,801	5,418	147	176,108
2024	176,108	0	0	0	0	(306,563)	27,788	12	324,116	17,553	5,900	294	199,855
2025	199,855	0	0	0	0	(306,563)	27,788	12	331,762	25,199	6,695	422	232,171
2026	232,171	0	0	0	0	(600,092)	29,926	12	365,710	(234,382)	7,778	(5,567)	0
Total		(2,859,631)	(2,868,063)	0	2,868,063	(3,034,246)	270,120		2,989,106		49,845	(4,704)	

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%	1.45% - 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%	2.85% to 5.00%
Target Reserve Balance 2021	\$25,975	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Sqft	\$0.02
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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	0.02	33,250	31,233	0	226	31,460
2018	31,460	(99)	(101)	0	101	(30,236)	1,453,659	0.02	33,923	3,687	613	36	35,796
2019	35,796	0	0	0	0	(30,246)	1,453,659	0.02	34,723	4,477	877	55	41,205
2020	41,205	0	0	0	0	(30,246)	1,458,537	0.02	35,662	5,415	1,071	70	47,762
2021	47,762	0	0	0	0	(30,246)	1,218,291	0.03	30,490	244	1,361	3	49,371
2022	49,371	0	0	0	0	(30,246)	907,415	0.03	23,246	(7,000)	1,530	(158)	43,744
2023	43,744	0	0	0	0	(30,246)	907,415	0.03	23,794	(6,452)	1,465	(153)	38,604
2024	38,604	0	0	0	0	(30,246)	907,415	0.03	24,355	(5,891)	1,293	(140)	33,866
2025	33,866	0	0	0	0	(30,246)	898,077	0.03	24,673	(5,573)	1,135	(132)	29,296
2026	29,296	0	0	0	0	(55,618)	926,103	0.03	26,043	(29,575)	981	(702)	(0)
Total		(283,103)	(283,106)	0	283,106	(299,593)	11,588,993		290,159		10,328	(894)	

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%	1.45% - 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	\$99,662	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Sqft	\$0.02
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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	0.02	126,096	118,360	0	858	119,218
2018	119,218	(379)	(388)	0	388	(116,012)	5,530,404	0.02	129,071	13,059	2,325	127	134,729
2019	134,729	0	0	0	0	(116,051)	5,530,404	0.02	132,116	16,065	3,301	197	154,292
2020	154,292	0	0	0	0	(116,051)	5,548,360	0.02	135,672	19,621	4,012	255	178,179
2021	178,179	0	0	0	0	(116,051)	4,668,523	0.03	116,850	800	5,078	11	184,068
2022	184,068	0	0	0	0	(116,051)	3,521,469	0.03	90,220	(25,831)	5,706	(581)	163,362
2023	163,362	0	0	0	0	(116,051)	3,521,469	0.03	92,348	(23,703)	5,473	(563)	144,569
2024	144,569	0	0	0	0	(116,051)	3,521,469	0.03	94,526	(21,524)	4,843	(511)	127,376
2025	127,376	0	0	0	0	(116,051)	3,487,932	0.03	95,835	(20,216)	4,267	(480)	110,947
2026	110,947	0	0	0	0	(213,401)	3,605,314	0.03	101,397	(112,004)	3,717	(2,660)	(0)
Total		(1,086,238)	(1,086,247)	0	1,086,247	(1,149,505)	44,465,748		1,114,131		38,721	(3,347)	

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%	1.45% - 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	\$2,274	
Discount Rate Applied to Post 2026 Debt Payments	3.31%	

Calculated Development Charge per Sqft	\$0.02
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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	0.02	2,421	2,245	0	16	2,261
2018	2,261	(9)	(9)	0	9	(2,647)	110,798	0.02	2,590	(57)	44	(1)	2,247
2019	2,247	0	0	0	0	(2,648)	110,798	0.02	2,651	3	55	0	2,305
2020	2,305	0	0	0	0	(2,648)	111,000	0.02	2,718	70	60	1	2,436
2021	2,436	0	0	0	0	(2,648)	102,354	0.03	2,566	(82)	69	(2)	2,422
2022	2,422	0	0	0	0	(2,648)	93,714	0.03	2,404	(243)	75	(5)	2,248
2023	2,248	0	0	0	0	(2,648)	93,714	0.03	2,461	(187)	75	(4)	2,133
2024	2,133	0	0	0	0	(2,648)	93,714	0.03	2,519	(129)	71	(3)	2,072
2025	2,072	0	0	0	0	(2,648)	93,517	0.03	2,573	(74)	69	(2)	2,066
2026	2,066	0	0	0	0	(4,870)	98,863	0.03	2,785	(2,085)	69	(50)	0
Total		(24,783)	(24,783)	0	24,783	(26,227)	1,014,508		25,688		589	(50)	

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%	1.45% - 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	\$6,843,301	
Discount Rate Applied to Post 2031 Debt Payments	3.60%	

Calculated Development Charge per Capita	\$54
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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	11,780,977	(871,366)	(871,366)	0	871,366	(6,208)	22,682	54	1,233,271	1,227,063	170,824	8,896	13,187,760
2018	13,187,760	(7,920,323)	(8,107,166)	0	8,107,166	(173,408)	25,047	56	1,393,985	1,220,577	257,161	11,901	14,677,399
2019	14,677,399	(8,183,681)	(8,574,346)	0	8,574,346	(1,110,756)	25,047	57	1,426,870	316,114	359,596	3,872	15,356,982
2020	15,356,982	(4,617,342)	(4,951,885)	0	4,951,885	(2,248,726)	25,047	58	1,460,530	(788,195)	399,282	(15,764)	14,952,305
2021	14,952,305	(162,976)	(178,907)	0	178,907	(2,834,131)	25,692	60	1,533,482	(1,300,649)	426,141	(27,639)	14,050,158
2022	14,050,158	0	0	0	0	(2,855,368)	26,445	61	1,615,631	(1,239,738)	435,555	(27,894)	13,218,081
2023	13,218,081	0	0	0	0	(2,855,368)	26,445	63	1,653,744	(1,201,624)	442,806	(28,539)	12,430,723
2024	12,430,723	(42,268)	(49,761)	0	49,761	(2,855,959)	26,552	64	1,699,637	(1,156,322)	416,429	(27,463)	11,663,368
2025	11,663,368	(438,528)	(528,453)	0	528,453	(2,868,229)	26,552	66	1,739,732	(1,128,497)	390,723	(26,802)	10,898,792
2026	10,898,792	(4,385,276)	(5,409,191)	0	5,409,191	(2,989,919)	28,595	67	1,917,755	(1,072,164)	365,110	(25,464)	10,166,273
2027	10,166,273	(4,274,323)	(5,396,708)	0	5,396,708	(3,602,250)	30,422	69	2,088,451	(1,513,800)	365,986	(37,845)	8,980,615
2028	8,980,615	(15,850)	(20,485)	0	20,485	(3,868,015)	30,530	70	2,145,271	(1,722,743)	323,302	(43,069)	7,538,105
2029	7,538,105	0	0	0	0	(2,854,141)	30,530	72	2,195,879	(658,262)	271,372	(16,457)	7,134,759
2030	7,134,759	0	0	0	0	(1,972,566)	30,530	74	2,247,680	275,115	256,851	4,952	7,671,677
2031	7,671,677	0	0	0	0	(8,209,559)	15,265	75	1,150,352	(7,059,207)	276,180	(176,480)	712,170
Total		(30,911,933)	(34,088,268)	0	34,088,268	(41,304,603)	395,379		25,502,272		5,157,318	(423,793)	

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%	1.45% - 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	\$744,622	
Discount Rate Applied to Post 2031 Debt Payments	3.60%	

Calculated Development Charge per Capita	\$0.12
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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	1,714,929	(94,814)	(94,814)	0	94,814	(676)	1,458,420	0.12	170,895	170,219	24,866	1,234	1,911,248
2018	1,911,248	(861,813)	(882,143)	0	882,143	(18,869)	1,453,659	0.12	174,355	155,486	37,269	1,516	2,105,520
2019	2,105,520	(890,469)	(932,978)	0	932,978	(120,862)	1,453,659	0.12	178,468	57,606	51,585	706	2,215,418
2020	2,215,418	(502,415)	(538,816)	0	538,816	(244,685)	1,458,537	0.13	183,291	(61,393)	57,601	(1,228)	2,210,397
2021	2,210,397	(17,733)	(19,467)	0	19,467	(308,383)	1,218,291	0.13	156,712	(151,671)	62,996	(3,223)	2,118,500
2022	2,118,500	0	0	0	0	(310,694)	907,415	0.13	119,477	(191,217)	65,673	(4,302)	1,988,654
2023	1,988,654	0	0	0	0	(310,694)	907,415	0.13	122,295	(188,399)	66,620	(4,474)	1,862,401
2024	1,862,401	(4,599)	(5,415)	0	5,415	(310,758)	907,415	0.14	125,180	(185,578)	62,390	(4,407)	1,734,806
2025	1,734,806	(47,716)	(57,501)	0	57,501	(312,093)	898,077	0.14	126,815	(185,279)	58,116	(4,400)	1,603,243
2026	1,603,243	(477,163)	(588,576)	0	588,576	(325,334)	926,103	0.14	133,857	(191,477)	53,709	(4,548)	1,460,927
2027	1,460,927	(465,091)	(587,218)	0	587,218	(391,962)	987,763	0.15	146,137	(245,825)	52,593	(6,146)	1,261,549
2028	1,261,549	(1,725)	(2,229)	0	2,229	(420,880)	987,763	0.15	149,584	(271,296)	45,416	(6,782)	1,028,887
2029	1,028,887	0	0	0	0	(310,560)	987,763	0.16	153,113	(157,447)	37,040	(3,936)	904,544
2030	904,544	0	0	0	0	(214,636)	992,437	0.16	157,467	(57,169)	32,564	(1,429)	878,510
2031	878,510	0	0	0	0	(893,285)	498,555	0.16	80,970	(812,315)	31,626	(20,308)	77,513
Total		(3,363,538)	(3,709,156)	0	3,709,156	(4,494,368)	16,043,274		2,178,616		740,066	(61,729)	

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%	1.45% - 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	\$1,965,551	
Discount Rate Applied to Post 2031 Debt Payments	3.60%	

Calculated Development Charge per Capita	\$0.13
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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	1,816,212	(250,276)	(250,276)	0	250,276	(1,783)	5,530,404	0.13	700,332	698,548	26,335	5,064	2,546,160
2018	2,546,160	(2,274,896)	(2,328,562)	0	2,328,562	(49,807)	5,530,404	0.13	716,853	667,046	49,650	6,504	3,269,359
2019	3,269,359	(2,350,539)	(2,462,746)	0	2,462,746	(319,034)	5,530,404	0.13	733,763	414,729	80,099	5,080	3,769,268
2020	3,769,268	(1,326,205)	(1,422,294)	0	1,422,294	(645,885)	5,548,360	0.14	753,512	107,627	98,001	1,399	3,976,295
2021	3,976,295	(46,810)	(51,386)	0	51,386	(814,027)	4,668,523	0.14	648,979	(165,047)	113,324	(3,507)	3,921,065
2022	3,921,065	0	0	0	0	(820,126)	3,521,469	0.14	501,074	(319,053)	121,553	(7,179)	3,716,386
2023	3,716,386	0	0	0	0	(820,126)	3,521,469	0.15	512,894	(307,232)	124,499	(7,297)	3,526,356
2024	3,526,356	(12,140)	(14,293)	0	14,293	(820,296)	3,521,469	0.15	524,993	(295,303)	118,133	(7,013)	3,342,173
2025	3,342,173	(125,955)	(151,784)	0	151,784	(823,820)	3,487,932	0.15	532,260	(291,560)	111,963	(6,925)	3,155,651
2026	3,155,651	(1,259,551)	(1,553,642)	0	1,553,642	(858,773)	3,605,314	0.16	563,152	(295,621)	105,714	(7,021)	2,958,724
2027	2,958,724	(1,227,682)	(1,550,057)	0	1,550,057	(1,034,648)	3,699,037	0.16	591,421	(443,226)	106,514	(11,081)	2,610,931
2028	2,610,931	(4,553)	(5,884)	0	5,884	(1,110,981)	3,699,037	0.16	605,373	(505,608)	93,994	(12,640)	2,186,676
2029	2,186,676	0	0	0	0	(819,774)	3,699,037	0.17	619,654	(200,120)	78,720	(5,003)	2,060,273
2030	2,060,273	0	0	0	0	(566,566)	3,715,550	0.17	637,104	70,538	74,170	1,270	2,206,251
2031	2,206,251	0	0	0	0	(2,357,971)	1,866,032	0.18	327,516	(2,030,455)	79,425	(50,761)	204,459
Total		(8,878,607)	(9,790,923)	0	9,790,923	(11,863,617)	61,144,441		8,968,880		1,382,095	(99,110)	

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%	1.45% - 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	\$13,813	
Discount Rate Applied to Post 2031 Debt Payments	3.60%	

Calculated Development Charge per Capita	\$0.05
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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	(1,759)	(1,759)	0	1,759	(13)	106,037	0.05	4,841	4,828	0	35	4,863
2018	4,863	(15,986)	(16,363)	0	16,363	(350)	110,798	0.05	5,177	4,827	95	47	9,832
2019	9,832	(16,518)	(17,306)	0	17,306	(2,242)	110,798	0.05	5,299	3,058	241	37	13,168
2020	13,168	(9,320)	(9,995)	0	9,995	(4,539)	111,000	0.05	5,434	896	342	12	14,418
2021	14,418	(329)	(361)	0	361	(5,720)	102,354	0.05	5,129	(591)	411	(13)	14,225
2022	14,225	0	0	0	0	(5,763)	93,714	0.05	4,807	(956)	441	(22)	13,688
2023	13,688	0	0	0	0	(5,763)	93,714	0.05	4,920	(843)	459	(20)	13,284
2024	13,284	(85)	(100)	0	100	(5,764)	93,714	0.05	5,037	(728)	445	(17)	12,984
2025	12,984	(885)	(1,067)	0	1,067	(5,789)	93,517	0.06	5,145	(645)	435	(15)	12,759
2026	12,759	(8,851)	(10,918)	0	10,918	(6,035)	98,863	0.06	5,567	(468)	427	(11)	12,707
2027	12,707	(8,627)	(10,893)	0	10,893	(7,271)	104,405	0.06	6,018	(1,253)	457	(31)	11,880
2028	11,880	(32)	(41)	0	41	(7,807)	104,405	0.06	6,160	(1,648)	428	(41)	10,619
2029	10,619	0	0	0	0	(5,761)	104,405	0.06	6,305	544	382	10	11,556
2030	11,556	0	0	0	0	(3,981)	104,607	0.06	6,466	2,485	416	45	14,501
2031	14,501	0	0	0	0	(16,571)	52,404	0.06	3,316	(13,256)	522	(331)	1,436
Total		(62,393)	(68,804)	0	68,804	(83,370)	1,484,734		79,621		5,501	(316)	

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%	1.45% - 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	\$7,931,316	
Discount Rate Applied to Post 2026 Debt Payments	3.32%	

Calculated Development Charge per Capita	\$97
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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	1,775,375	(9,651,716)	(9,651,716)	(185,834)	6,457,505	(46,010)	23,738	97	2,291,537	(1,134,519)	25,743	(16,167)	650,432
2018	650,432	(5,673,329)	(5,807,165)	(185,834)	3,767,386	(721,448)	26,213	99	2,590,159	(356,901)	12,683	(5,978)	300,237
2019	300,237	(4,286,329)	(4,490,946)	(185,834)	2,571,488	(1,118,679)	26,213	101	2,651,262	(572,709)	7,356	(11,025)	(276,141)
2020	(276,141)	(564,765)	(605,685)	(185,834)	605,685	(1,376,915)	26,213	104	2,713,806	1,151,057	(11,046)	14,964	878,834
2021	878,834	(2,595,382)	(2,849,088)	(177,369)	2,849,088	(1,466,444)	26,888	106	2,849,357	1,205,544	25,047	17,179	2,126,604
2022	2,126,604	(322,924)	(362,854)	(187,332)	362,854	(1,748,183)	27,676	108	3,001,997	1,066,482	65,925	16,530	3,275,541
2023	3,275,541	0	0	(187,332)	0	(1,783,410)	27,676	111	3,072,815	1,102,073	109,731	18,460	4,505,804
2024	4,505,804	(1,593,470)	(1,875,975)	(187,332)	1,441,010	(1,800,522)	27,788	114	3,158,089	735,270	150,944	12,316	5,404,334
2025	5,404,334	0	0	(187,332)	0	(1,939,901)	27,788	116	3,232,590	1,105,356	181,045	18,515	6,709,250
2026	6,709,250	(1,593,470)	(1,965,529)	(1,715,083)	1,532,600	(8,188,510)	29,926	119	3,563,374	(6,773,148)	224,760	(160,862)	0
Total		(26,281,387)	(27,608,957)	(3,385,116)	19,587,615	(20,190,022)	270,120		29,124,985		792,188	(96,068)	

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%	1.45% - 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	\$317,156	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Sqft	\$0.07
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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	258,437	(385,951)	(385,951)	(7,431)	258,221	(1,840)	1,458,420	0.07	106,870	(30,130)	3,747	(429)	231,625
2018	231,625	(226,864)	(232,216)	(7,431)	150,650	(28,849)	1,453,659	0.08	109,034	(8,812)	4,517	(148)	227,181
2019	227,181	(171,401)	(179,583)	(7,431)	102,828	(44,733)	1,453,659	0.08	111,606	(17,313)	5,566	(333)	215,101
2020	215,101	(22,584)	(24,220)	(7,431)	24,220	(55,060)	1,458,537	0.08	114,622	52,131	5,593	678	273,502
2021	273,502	(103,784)	(113,929)	(7,093)	113,929	(58,640)	1,218,291	0.08	98,001	32,268	7,795	460	314,025
2022	314,025	(12,913)	(14,510)	(7,491)	14,510	(69,906)	907,415	0.08	74,715	(2,682)	9,735	(60)	321,018
2023	321,018	0	0	(7,491)	0	(71,315)	907,415	0.08	76,478	(2,328)	10,754	(55)	329,389
2024	329,389	(63,719)	(75,016)	(7,491)	57,623	(71,999)	907,415	0.09	78,282	(18,601)	11,035	(442)	321,381
2025	321,381	0	0	(7,491)	0	(77,572)	898,077	0.09	79,304	(5,759)	10,766	(137)	326,251
2026	326,251	(63,719)	(78,597)	(68,514)	61,285	(327,241)	926,103	0.09	83,708	(329,358)	10,929	(7,822)	(0)
Total		(1,050,935)	(1,104,022)	(135,295)	783,266	(807,155)	11,588,993		932,621		80,437	(8,289)	

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%	1.45% - 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	\$838,547	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Sqft	\$0.06
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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	273,700	(1,020,438)	(1,020,438)	(19,647)	682,727	(4,864)	5,530,404	0.06	330,706	(31,518)	3,969	(449)	245,702
2018	245,702	(599,819)	(613,969)	(19,647)	398,311	(76,276)	5,530,404	0.06	338,507	26,926	4,791	263	277,682
2019	277,682	(453,177)	(474,810)	(19,647)	271,873	(118,273)	5,530,404	0.06	346,493	5,635	6,803	69	290,189
2020	290,189	(59,710)	(64,037)	(19,647)	64,037	(145,576)	5,548,360	0.06	355,818	190,595	7,545	2,478	490,807
2021	490,807	(274,400)	(301,223)	(18,753)	301,223	(155,041)	4,668,523	0.07	306,457	132,663	13,988	1,890	639,348
2022	639,348	(34,142)	(38,363)	(19,806)	38,363	(184,828)	3,521,469	0.07	236,614	31,979	19,820	496	691,643
2023	691,643	0	0	(19,806)	0	(188,553)	3,521,469	0.07	242,195	33,837	23,170	567	749,216
2024	749,216	(168,471)	(198,339)	(19,806)	152,352	(190,362)	3,521,469	0.07	247,909	(8,246)	25,099	(196)	765,873
2025	765,873	0	0	(19,806)	0	(205,098)	3,487,932	0.07	251,340	26,436	25,657	443	818,409
2026	818,409	(168,471)	(207,808)	(181,147)	162,036	(865,211)	3,605,314	0.07	265,928	(826,203)	27,417	(19,622)	(0)
Total		(2,778,627)	(2,918,986)	(357,713)	2,070,921	(2,134,084)	44,465,748		2,921,966		158,258	(14,062)	

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%	1.45% - 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	\$5,585	
Discount Rate Applied to Post 2026 Debt Payments	3.33%	

Calculated Development Charge per Sqft	\$0.02
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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	2,049	(363)	0	(5)	(369)
2018	(369)	(3,995)	(4,090)	(131)	2,653	(508)	110,798	0.02	2,192	116	(12)	1	(263)
2019	(263)	(3,019)	(3,163)	(131)	1,811	(788)	110,798	0.02	2,244	(27)	(10)	(1)	(301)
2020	(301)	(398)	(427)	(131)	427	(970)	111,000	0.02	2,301	1,200	(12)	16	903
2021	903	(1,828)	(2,006)	(125)	2,006	(1,033)	102,354	0.02	2,172	1,014	26	14	1,957
2022	1,957	(227)	(256)	(132)	256	(1,231)	93,714	0.02	2,035	672	61	10	2,700
2023	2,700	0	0	(132)	0	(1,256)	93,714	0.02	2,083	695	90	12	3,498
2024	3,498	(1,122)	(1,321)	(132)	1,015	(1,268)	93,714	0.02	2,132	426	117	7	4,048
2025	4,048	0	0	(132)	0	(1,366)	93,517	0.02	2,178	680	136	11	4,875
2026	4,875	(1,122)	(1,384)	(1,208)	1,079	(5,766)	98,863	0.02	2,357	(4,921)	163	(117)	0
Total		(18,508)	(19,443)	(2,384)	13,794	(14,218)	1,014,508		21,742		558	(51)	

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%	1.45% - 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	\$8,852,226	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Capita	\$23
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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	7,232,563	(1,483,169)	(1,483,169)	0	1,483,169	(10,568)	23,738	23	545,885	535,318	104,872	3,881	7,876,634
2018	7,876,634	(1,483,169)	(1,518,157)	0	1,518,157	(171,171)	26,213	24	617,023	445,852	153,594	4,347	8,480,427
2019	8,480,427	(1,483,169)	(1,553,971)	0	1,553,971	(336,227)	26,213	24	631,578	295,351	207,770	3,618	8,987,167
2020	8,987,167	(1,483,169)	(1,590,629)	0	1,590,629	(504,528)	26,213	25	646,477	141,949	233,666	1,845	9,364,628
2021	9,364,628	(1,483,169)	(1,628,153)	0	1,628,153	(677,446)	26,888	25	678,768	1,322	266,892	19	9,632,861
2022	9,632,861	(1,483,169)	(1,666,561)	0	1,666,561	(854,866)	27,676	26	715,130	(139,736)	298,619	(3,144)	9,788,599
2023	9,788,599	(1,483,169)	(1,705,876)	0	1,705,876	(1,036,920)	27,676	26	732,000	(304,920)	327,918	(7,242)	9,804,355
2024	9,804,355	(1,483,169)	(1,746,118)	0	1,746,118	(1,222,653)	27,788	27	752,314	(470,339)	328,446	(11,171)	9,651,292
2025	9,651,292	(1,483,169)	(1,787,310)	0	1,787,310	(1,412,767)	27,788	28	770,061	(642,706)	323,318	(15,264)	9,316,640
2026	9,316,640	(1,483,169)	(1,829,473)	0	1,829,473	(10,254,230)	29,926	28	848,860	(9,405,370)	312,107	(223,378)	0
Total		(14,831,685)	(16,509,415)	0	16,509,415	(16,481,375)	270,120		6,938,096		2,557,204	(246,488)	

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%	1.45% - 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	\$121,018	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Sqft	\$0.01
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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	100,529	(20,276)	(20,276)	0	20,276	(144)	1,458,420	0.01	10,449	10,304	1,458	75	112,366
2018	112,366	(20,276)	(20,755)	0	20,755	(2,340)	1,453,659	0.01	10,660	8,320	2,191	81	122,958
2019	122,958	(20,276)	(21,244)	0	21,244	(4,597)	1,453,659	0.01	10,912	6,315	3,012	77	132,363
2020	132,363	(20,276)	(21,745)	0	21,745	(6,897)	1,458,537	0.01	11,207	4,309	3,441	56	140,170
2021	140,170	(20,276)	(22,258)	0	22,258	(9,261)	1,218,291	0.01	9,582	320	3,995	5	144,490
2022	144,490	(20,276)	(22,784)	0	22,784	(11,687)	907,415	0.01	7,305	(4,382)	4,479	(99)	144,489
2023	144,489	(20,276)	(23,321)	0	23,321	(14,176)	907,415	0.01	7,477	(6,698)	4,840	(159)	142,472
2024	142,472	(20,276)	(23,871)	0	23,871	(16,715)	907,415	0.01	7,654	(9,061)	4,773	(215)	137,968
2025	137,968	(20,276)	(24,434)	0	24,434	(19,314)	898,077	0.01	7,754	(11,560)	4,622	(275)	130,756
2026	130,756	(20,276)	(25,011)	0	25,011	(140,185)	926,103	0.01	8,184	(132,001)	4,380	(3,135)	(0)
Total		(202,763)	(225,700)	0	225,700	(225,316)	11,588,993		91,184		37,192	(3,589)	

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%	1.45% - 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	\$121,018	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Sqft	(0.00)
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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	280,132	(20,276)	(20,276)	0	20,276	(144)	5,530,404	(0.00)	(12,164)	(12,308)	4,062	(175)	271,710
2018	271,710	(20,276)	(20,755)	0	20,755	(2,340)	5,530,404	(0.00)	(12,451)	(14,791)	5,298	(248)	261,970
2019	261,970	(20,276)	(21,244)	0	21,244	(4,597)	5,530,404	(0.00)	(12,745)	(17,341)	6,418	(334)	250,714
2020	250,714	(20,276)	(21,745)	0	21,745	(6,897)	5,548,360	(0.00)	(13,088)	(19,985)	6,519	(400)	236,847
2021	236,847	(20,276)	(22,258)	0	22,258	(9,261)	4,668,523	(0.00)	(11,272)	(20,533)	6,750	(436)	222,628
2022	222,628	(20,276)	(22,784)	0	22,784	(11,687)	3,521,469	(0.00)	(8,703)	(20,390)	6,901	(459)	208,681
2023	208,681	(20,276)	(23,321)	0	23,321	(14,176)	3,521,469	(0.00)	(8,908)	(23,084)	6,991	(548)	192,039
2024	192,039	(20,276)	(23,871)	0	23,871	(16,715)	3,521,469	(0.00)	(9,118)	(25,833)	6,433	(614)	172,026
2025	172,026	(20,276)	(24,434)	0	24,434	(19,314)	3,487,932	(0.00)	(9,245)	(28,559)	5,763	(678)	148,552
2026	148,552	(20,276)	(25,011)	0	25,011	(140,185)	3,605,314	(0.00)	(9,781)	(149,966)	4,976	(3,562)	(0)
Total		(202,763)	(225,700)	0	225,700	(225,316)	44,465,748		(107,475)		60,112	(7,454)	

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%	1.45% - 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	\$2,023	
Discount Rate Applied to Post 2026 Debt Payments	3.35%	

Calculated Development Charge per Sqft	\$0.00
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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	323	321	0	2	323
2018	323	(339)	(347)	0	347	(39)	110,798	0.00	346	306	6	3	639
2019	639	(339)	(355)	0	355	(77)	110,798	0.00	354	277	16	3	935
2020	935	(339)	(363)	0	363	(115)	111,000	0.00	363	247	24	3	1,210
2021	1,210	(339)	(372)	0	372	(155)	102,354	0.00	342	188	34	3	1,434
2022	1,434	(339)	(381)	0	381	(195)	93,714	0.00	321	126	44	2	1,606
2023	1,606	(339)	(390)	0	390	(237)	93,714	0.00	328	91	54	2	1,753
2024	1,753	(339)	(399)	0	399	(279)	93,714	0.00	336	57	59	1	1,870
2025	1,870	(339)	(408)	0	408	(323)	93,517	0.00	343	21	63	0	1,953
2026	1,953	(339)	(418)	0	418	(2,343)	98,863	0.00	372	(1,972)	65	(47)	(0)
Total		(3,389)	(3,773)	0	3,773	(3,766)	1,014,508		3,428		366	(27)	

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%	1.45% - 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	\$8,194,972	
Discount Rate Applied to Post 2021 Debt Payments	3.33%	

Calculated Development Charge per Capita	\$75
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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	(803,178)	(2,557,546)	(2,557,546)	(314,338)	2,557,546	(18,223)	23,738	75	1,782,039	1,449,479	(22,891)	10,509	633,918
2018	633,918	(4,978,969)	(5,096,425)	(314,338)	5,096,425	(315,921)	26,213	77	2,014,266	1,384,007	12,361	13,494	2,043,780
2019	2,043,780	(3,298,969)	(3,456,453)	(314,338)	1,809,000	(837,215)	26,213	79	2,061,783	(737,222)	50,073	(14,192)	1,342,439
2020	1,342,439	(2,205,044)	(2,364,807)	(314,338)	2,364,807	(1,038,267)	26,213	81	2,110,421	757,816	34,903	9,852	2,145,010
2021	2,145,010	(12,191)	(13,383)	(314,338)	13,383	(1,269,770)	26,888	82	2,215,834	631,726	61,133	9,002	2,846,871
2022	2,846,871	(12,191)	(13,699)	(314,338)	13,699	(1,271,228)	27,676	84	2,334,536	748,970	88,253	11,609	3,695,703
2023	3,695,703	(12,191)	(14,022)	(314,338)	14,022	(1,272,725)	27,676	86	2,389,608	802,546	123,806	13,443	4,635,498
2024	4,635,498	(12,191)	(14,353)	(314,338)	14,353	(1,274,252)	27,788	88	2,455,923	867,334	155,289	14,528	5,672,649
2025	5,672,649	(12,191)	(14,691)	(314,338)	14,691	(1,275,814)	27,788	90	2,513,859	923,707	190,034	15,472	6,801,861
2026	6,801,861	(774,145)	(954,899)	(4,844,514)	954,899	(4,793,224)	29,926	93	2,771,097	(6,866,641)	227,862	(163,083)	0
Total		(13,875,630)	(14,500,277)	(7,673,552)	12,852,824	(13,366,639)	270,120		22,649,364		920,824	(79,366)	

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%	1.45% - 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
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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%	1.45% - 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
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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%	1.45% - 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
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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%	1.45% - 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	\$497,757	
Discount Rate Applied to Post 2021 Debt Payments	3.30%	

Calculated Development Charge per Capita	\$9
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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	9	221,109	214,104	0	1,552	215,656
2018	215,656	(1,109,921)	(1,136,104)	0	1,136,104	(114,544)	26,213	10	249,923	135,379	4,205	1,320	356,561
2019	356,561	(560,847)	(587,621)	0	587,621	(232,526)	26,213	10	255,818	23,292	8,736	285	388,874
2020	388,874	(40,335)	(43,258)	0	43,258	(290,585)	26,213	10	261,853	(28,732)	10,111	(575)	369,678
2021	369,678	0	0	0	0	(294,817)	26,888	10	274,932	(19,885)	10,536	(423)	359,907
2022	359,907	0	0	0	0	(294,817)	27,676	10	289,661	(5,157)	11,157	(116)	365,791
2023	365,791	0	0	0	0	(294,817)	27,676	11	296,494	1,677	12,254	28	379,750
2024	379,750	0	0	0	0	(294,817)	27,788	11	304,722	9,905	12,722	166	402,542
2025	402,542	0	0	0	0	(294,817)	27,788	11	311,910	17,093	13,485	286	433,406
2026	433,406	0	0	0	0	(781,361)	29,926	11	343,827	(437,534)	14,519	(10,391)	(0)
Total		(2,694,186)	(2,750,065)	0	2,750,065	(2,900,106)	270,120		2,810,249		97,725	(7,867)	

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%	1.45% - 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	\$59,713	
Discount Rate Applied to Post 2021 Debt Payments	3.35%	

Calculated Development Charge per Sqft	\$0.03
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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	37,874	37,034	0	268	37,303
2018	37,303	(133,150)	(136,291)	0	136,291	(13,741)	1,453,659	0.03	38,641	24,900	727	243	63,173
2019	63,173	(67,281)	(70,493)	0	70,493	(27,895)	1,453,659	0.03	39,553	11,658	1,548	143	76,522
2020	76,522	(4,839)	(5,189)	0	5,189	(34,860)	1,458,537	0.03	40,622	5,762	1,990	75	84,348
2021	84,348	0	0	0	0	(35,367)	1,218,291	0.03	34,731	(636)	2,404	(14)	86,102
2022	86,102	0	0	0	0	(35,367)	907,415	0.03	26,479	(8,888)	2,669	(200)	79,683
2023	79,683	0	0	0	0	(35,367)	907,415	0.03	27,103	(8,264)	2,669	(196)	73,893
2024	73,893	0	0	0	0	(35,367)	907,415	0.03	27,743	(7,624)	2,475	(181)	68,562
2025	68,562	0	0	0	0	(35,367)	898,077	0.03	28,105	(7,262)	2,297	(172)	63,425
2026	63,425	0	0	0	0	(93,695)	926,103	0.03	29,666	(64,029)	2,125	(1,521)	(0)
Total		(323,204)	(329,907)	0	329,907	(347,866)	11,588,993		330,517		18,904	(1,555)	

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%	1.45% - 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	\$157,878	
Discount Rate Applied to Post 2021 Debt Payments	25.76%	

Calculated Development Charge per Sqft	\$0.02
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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	98,977	96,756	0	701	97,457
2018	97,457	(352,043)	(360,348)	0	360,348	(36,331)	5,530,404	0.02	101,312	64,982	1,900	634	164,973
2019	164,973	(177,889)	(186,380)	0	186,380	(73,752)	5,530,404	0.02	103,702	29,950	4,042	367	199,332
2020	199,332	(12,793)	(13,720)	0	13,720	(92,167)	5,548,360	0.02	106,493	14,326	5,183	186	219,027
2021	219,027	0	0	0	0	(93,510)	4,668,523	0.02	91,720	(1,790)	6,242	(38)	223,441
2022	223,441	0	0	0	0	(93,510)	3,521,469	0.02	70,816	(22,693)	6,927	(511)	207,164
2023	207,164	0	0	0	0	(93,510)	3,521,469	0.02	72,487	(21,023)	6,940	(499)	192,583
2024	192,583	0	0	0	0	(93,510)	3,521,469	0.02	74,197	(19,313)	6,452	(459)	179,263
2025	179,263	0	0	0	0	(93,510)	3,487,932	0.02	75,224	(18,286)	6,005	(434)	166,548
2026	166,548	0	0	(39,635)	0	(208,089)	3,605,314	0.02	79,590	(168,135)	5,579	(3,993)	0
Total		(854,537)	(872,261)	(39,635)	872,261	(880,109)	44,465,748		874,520		49,270	(4,046)	

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%	1.45% - 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	\$1,052	
Discount Rate Applied to Post 2021 Debt Payments	3.34%	

Calculated Development Charge per Sqft	\$0.01
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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	555	540	0	4	544
2018	544	(2,345)	(2,400)	0	2,400	(242)	110,798	0.01	593	351	11	3	909
2019	909	(1,185)	(1,241)	0	1,241	(491)	110,798	0.01	607	116	22	1	1,049
2020	1,049	(85)	(91)	0	91	(614)	111,000	0.01	623	9	27	0	1,086
2021	1,086	0	0	0	0	(623)	102,354	0.01	588	(35)	31	(1)	1,081
2022	1,081	0	0	0	0	(623)	93,714	0.01	551	(72)	34	(2)	1,041
2023	1,041	0	0	0	0	(623)	93,714	0.01	564	(59)	35	(1)	1,016
2024	1,016	0	0	0	0	(623)	93,714	0.01	577	(46)	34	(1)	1,003
2025	1,003	0	0	0	0	(623)	93,517	0.01	590	(33)	34	(1)	1,003
2026	1,003	0	0	0	0	(1,650)	98,863	0.01	638	(1,012)	34	(24)	0
Total		(5,692)	(5,810)	0	5,810	(6,126)	1,014,508		5,886		261	(21)	

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	<ul style="list-style-type: none"> • Heritage house relocation;¹ • Non-profit community uses;¹ • Tax-exempt burial grounds; • Tax exempt private schools;¹ • s.39 <i>Planning Act</i> 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; and • 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	<ul style="list-style-type: none"> • Enlargement of the gross floor area of an industrial building by 50 per cent or less;

Policy	Description
	<ul style="list-style-type: none"> • Public schools; • Single family detached home adding up to two additional dwelling units; • Semi-detached or row dwelling adding one additional dwelling unit; and • Other residential buildings adding one additional dwelling unit.
Applicability of Water and Wastewater Charges	<ul style="list-style-type: none"> • Only where the lands, buildings or structures are serviced by regional water supply and/or wastewater service.
Non-Residential Charges	<ul style="list-style-type: none"> • Different sets of charges are imposed—one for industrial/office/institutional, one for retail uses and one for hotels
Multiple Non-Residential Uses	<ul style="list-style-type: none"> • In the case of a non-residential building that is be used for 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. 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.
Timing of Payment	<ul style="list-style-type: none"> • 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; and • For other services and development circumstances, payment is to be made as of building permit issuance, with additional clarifying conditions.
Current Deferral Options	<ul style="list-style-type: none"> • Retail developments; • High-rise condominium developments; and • Office developments.
Indexing	<ul style="list-style-type: none"> • The development charges shall be adjusted on July 1st of each year.
Reserve Funds	<ul style="list-style-type: none"> • Development charges shall be deposited in a specific reserve fund established for each individual service.

Policy	Description
Roadworks Credits	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> The entire municipality must be designated for the purposes of the <i>Development Charges Act</i>
Complaints	<ul style="list-style-type: none"> York Region has established a detailed Development Charge Complaint procedure under authority of the <i>Development Charges Act</i> (see section 13.2.4).

¹Only exempt in the Area Municipality also exempts that type of development

²No 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 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 to reflect a change in service description:

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

12.3.5 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).

12.4 Development charge policies that have been expanded

12.4.1 Deferral policy for private purpose-built rentals

Currently, the Region does not have a formal policy to allow the deferral of development charges for private 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, 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 private purpose-built rentals.

TABLE 12-2

PROPOSED REGIONAL DEFERRAL POLICY FOR PRIVATE PURPOSE-BUILT RENTALS

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)
Other requirement	Region gets first choice of up to 10 per cent of units (no obligation)

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; and
- For a developer 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.
- 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.
- 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. 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 and Community Planning shall be authorized to approve the eligible cost of the works.

The current development charge credit policy was adopted by Regional Council on May 9, 1996 and May 23, 1996, and subsequent revisions adopted by Council on June 25, 1998 and subsequent revision adopted by Council on November 21, 2013.

Under the current policy, 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 creates a 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. Revisions to the development charge credit policy are proposed in order to address this issue. The revised policy is 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. 2012 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.

CHAPTER 14
ASSET MANAGEMENT PLAN

1. Contents

1. Background.....	235
1.1. Growth to 2031	235
1.2. Development Charges Act Requirements	236
2. Transit Infrastructure	236
2.1. Requirements under the Development Charges Act and Regulation	236
2.2. State of Infrastructure	237
2.1.1 Asset Type and Historical Cost.....	237
2.3. Growth Planning Level of Service.....	237
2.3.3 Current Level of Performance Relative to the Targets	240
2.4. Transit Asset Management Strategy	242
2.3.1 Estimated Useful Life	242
2.3.2 Fleet Age	242
2.3.4 Fleet remedial schedule and costs.....	244
2.3.5 Average Sustainment Requirements	245
2.3.5 Transit Asset Management Strategy.....	248
3. Estimated Lifecycle Costs	249
3.1. Lifecycle Cost Projection Methodology.....	249
3.2. Lifecycle Cost Summary	251
4. Potential Asset Management Strategies	252
4.1. Asset Condition Monitoring.....	252
4.2. Asset Lifecycle Rehabilitation & Replacement Analysis.....	252
5. Financial Strategy	253
5.1. Rate Funded (Water and Wastewater).....	254
5.2. Tax Levy Funded	256
5.3. Transit Services	258
6. Conclusion	260

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

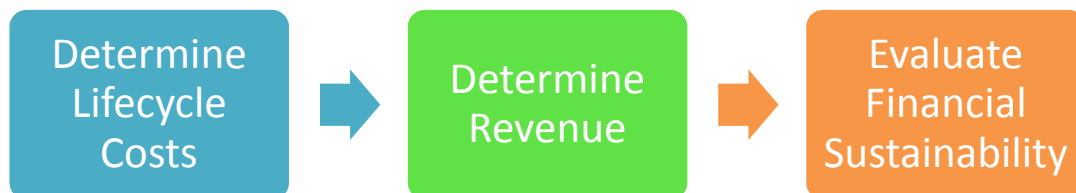
In 2014 York Region initiated the Municipal Comprehensive Review (MCR) process to update the Region's Official Plan, and address growth to 2041. In conjunction with the MCR, the Region has completed an update of the Transportation and Water & Wastewater Master Plans in 2016. Through these Master Plans, 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)

Asset Type	2015 Inventory	2015 Historical Cost (\$M)
Bus Fleet	528	285
Building loops and terminals	36	376
Transit stops	5,078	
Technology (IT)	Various	56
Equipment	Various	79
TOTAL		796

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 <i>Values based on 2015</i>
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. Table 2-7 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)

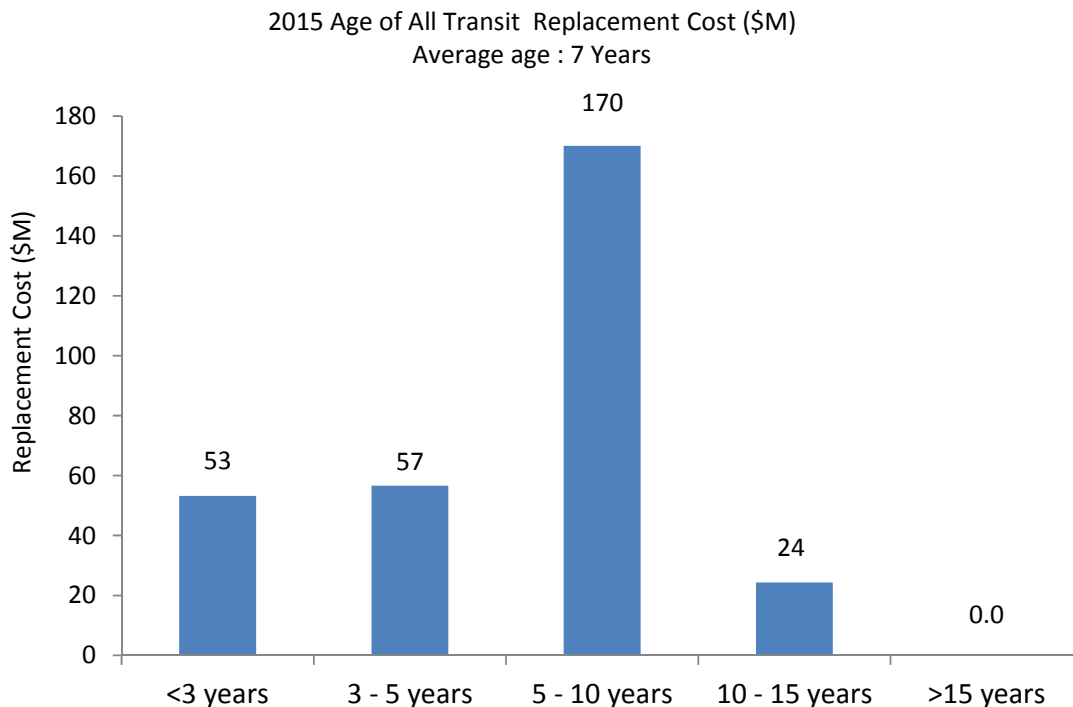
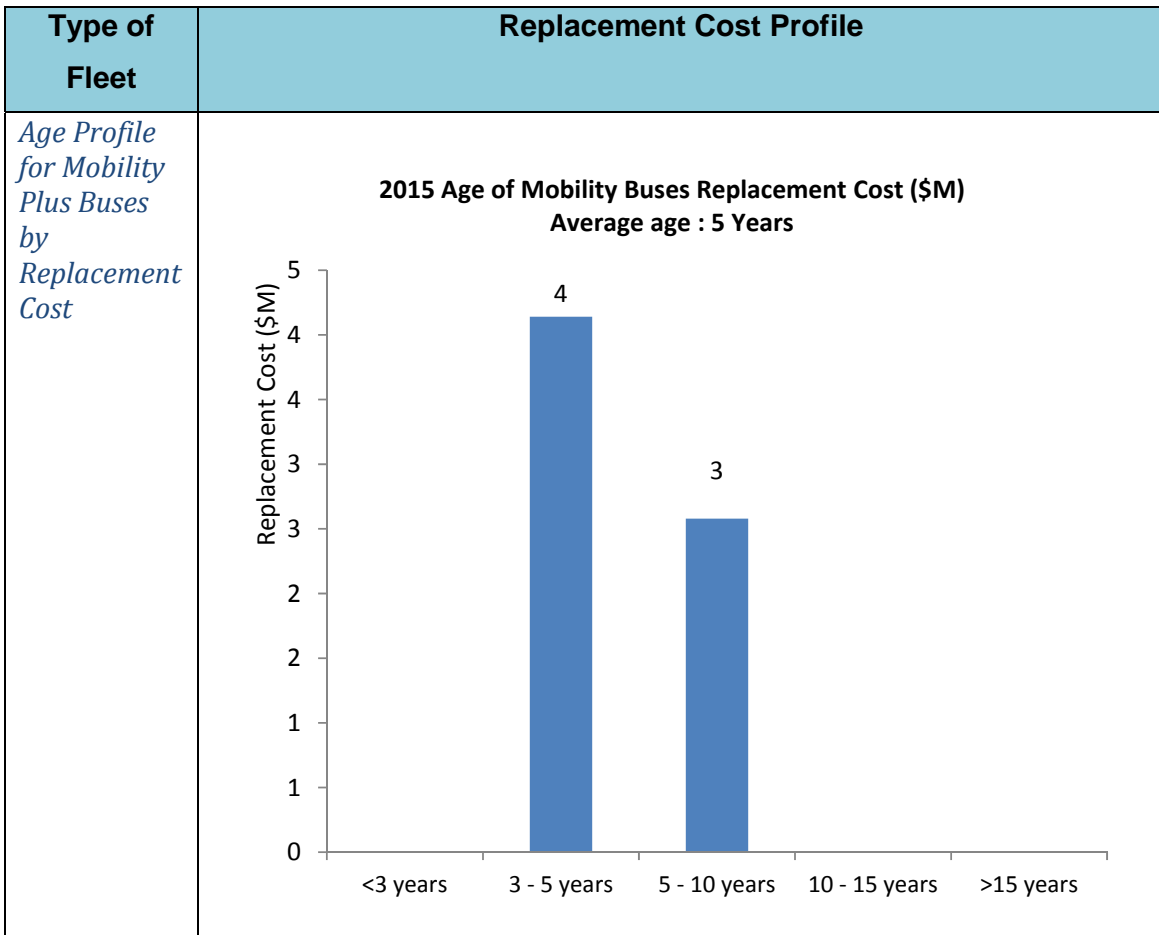


Table 2-7 – Replacement cost profile by type of fleet

Type of Fleet	Replacement Cost Profile												
<p><i>Age Profile for Conventional Buses by Replacement Cost (2015 Data)</i></p>	<p align="center">2015 Age of Conventional Bus Replacement Cost (\$M) Average age : 7 Years</p> <table border="1"> <thead> <tr> <th>Age Group</th> <th>Replacement Cost (\$M)</th> </tr> </thead> <tbody> <tr> <td><3 years</td> <td>28</td> </tr> <tr> <td>3 - 5 years</td> <td>38</td> </tr> <tr> <td>5 - 10 years</td> <td>107</td> </tr> <tr> <td>10 - 15 years</td> <td>24</td> </tr> <tr> <td>>15 years</td> <td>0.0</td> </tr> </tbody> </table>	Age Group	Replacement Cost (\$M)	<3 years	28	3 - 5 years	38	5 - 10 years	107	10 - 15 years	24	>15 years	0.0
Age Group	Replacement Cost (\$M)												
<3 years	28												
3 - 5 years	38												
5 - 10 years	107												
10 - 15 years	24												
>15 years	0.0												
<p><i>Age Profile for Viva Buses by Replacement Cost (2015 Data)</i></p>	<p align="center">2015 Age of Viva Buses Replacement Cost (\$M) Average age : 7 Years</p> <table border="1"> <thead> <tr> <th>Age Group</th> <th>Replacement Cost (\$M)</th> </tr> </thead> <tbody> <tr> <td><3 years</td> <td>26</td> </tr> <tr> <td>3 - 5 years</td> <td>14</td> </tr> <tr> <td>5 - 10 years</td> <td>61</td> </tr> <tr> <td>10 - 15 years</td> <td>0.0</td> </tr> <tr> <td>>15 years</td> <td>0.0</td> </tr> </tbody> </table>	Age Group	Replacement Cost (\$M)	<3 years	26	3 - 5 years	14	5 - 10 years	61	10 - 15 years	0.0	>15 years	0.0
Age Group	Replacement Cost (\$M)												
<3 years	26												
3 - 5 years	14												
5 - 10 years	61												
10 - 15 years	0.0												
>15 years	0.0												



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

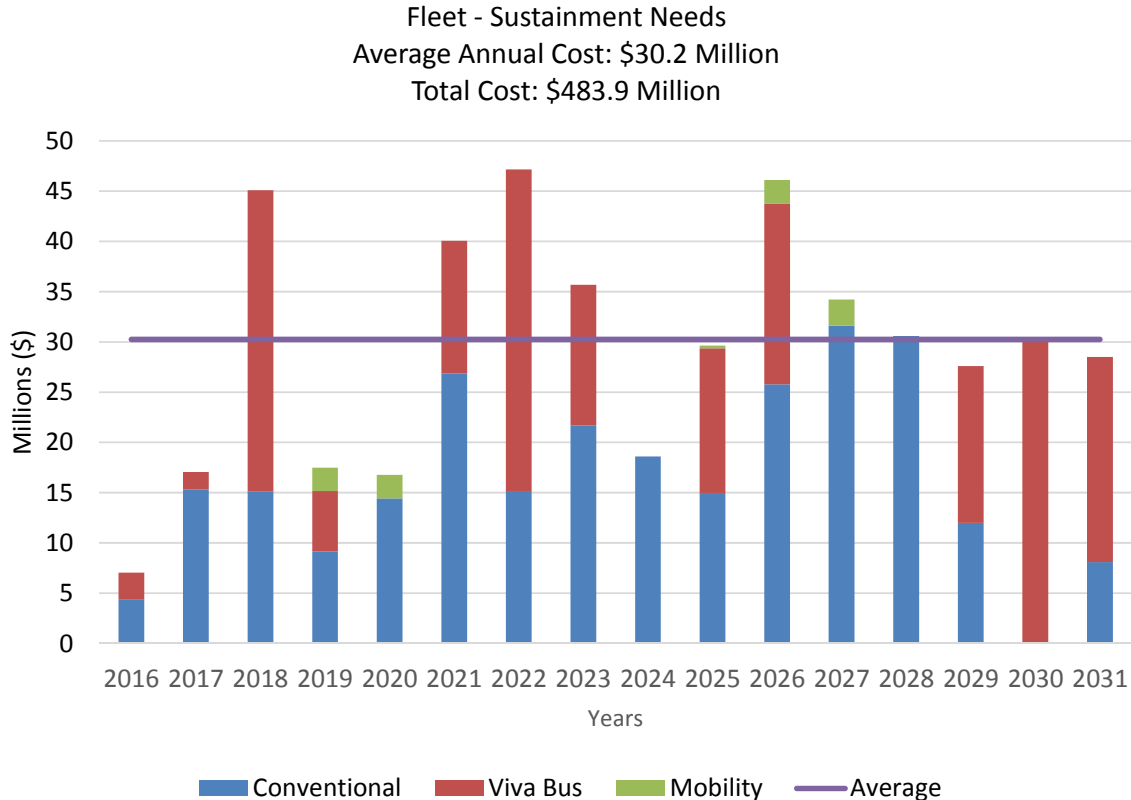
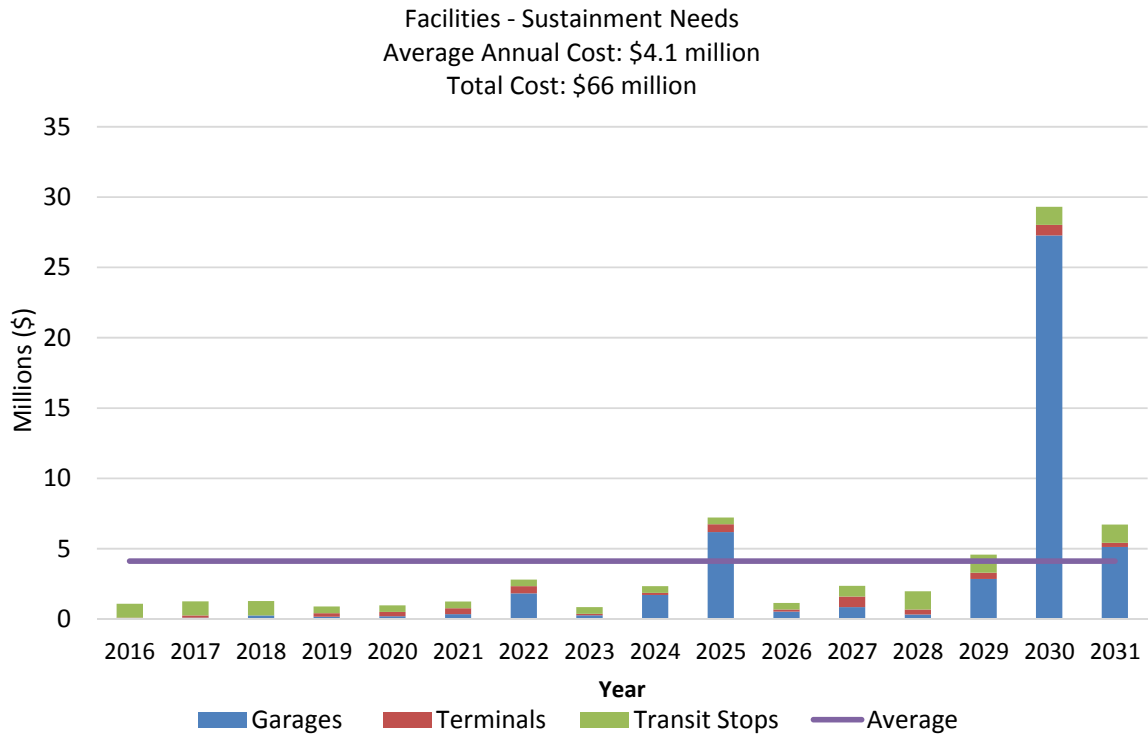


Figure 2-11: Anticipated Facilities Sustainment Needs



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

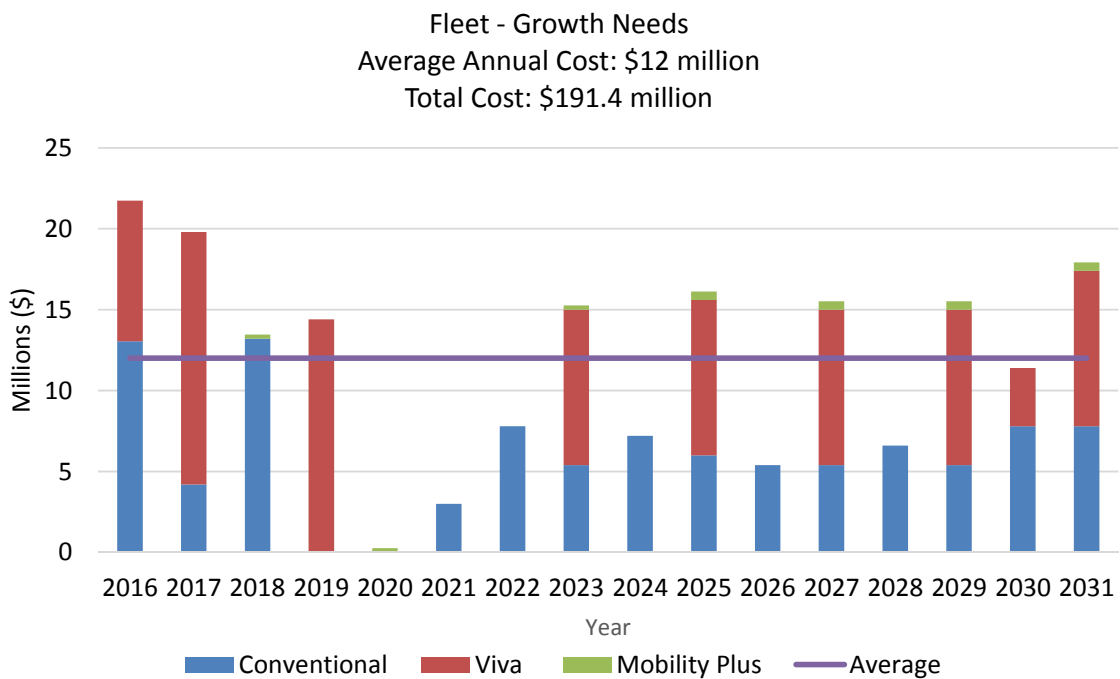
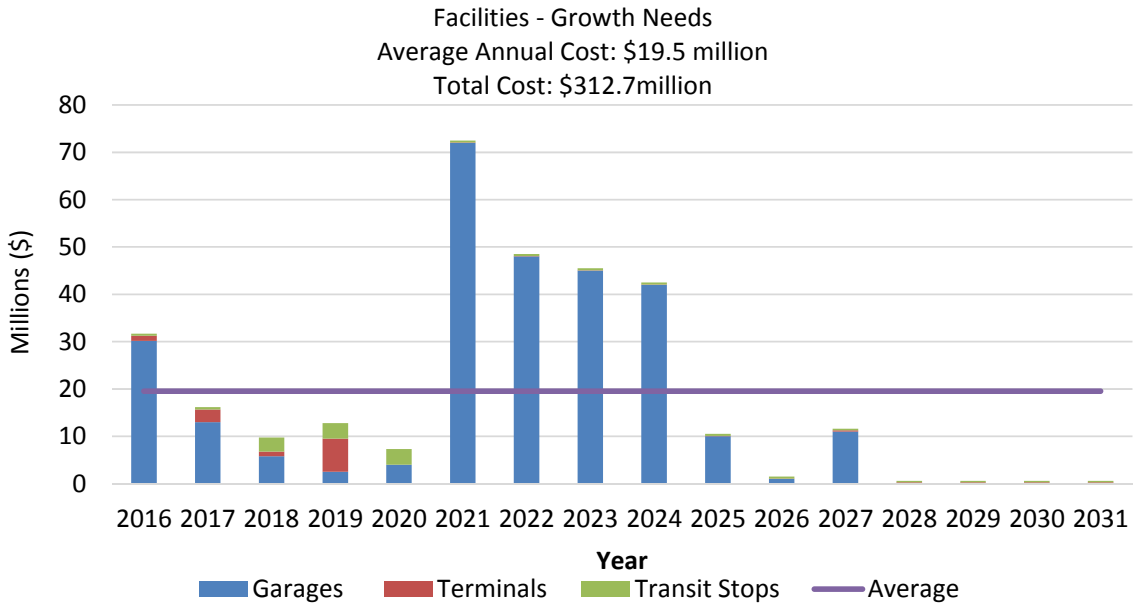
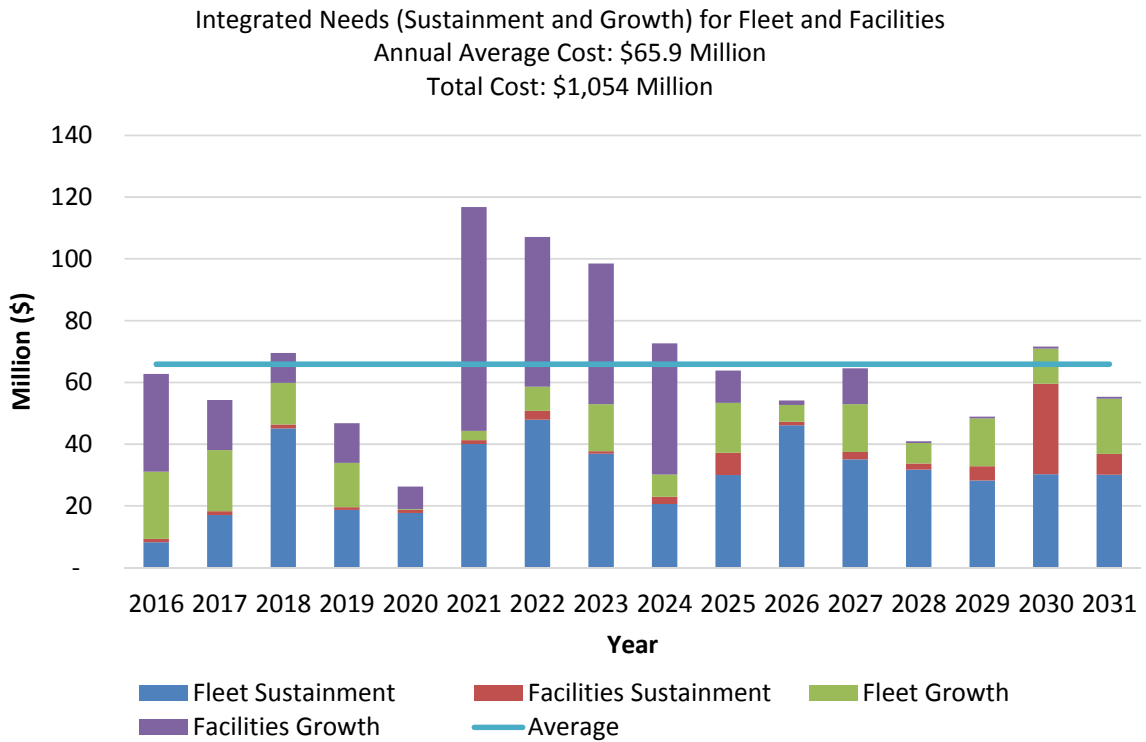


Figure 2-13: Anticipated Facilities Growth Needs



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

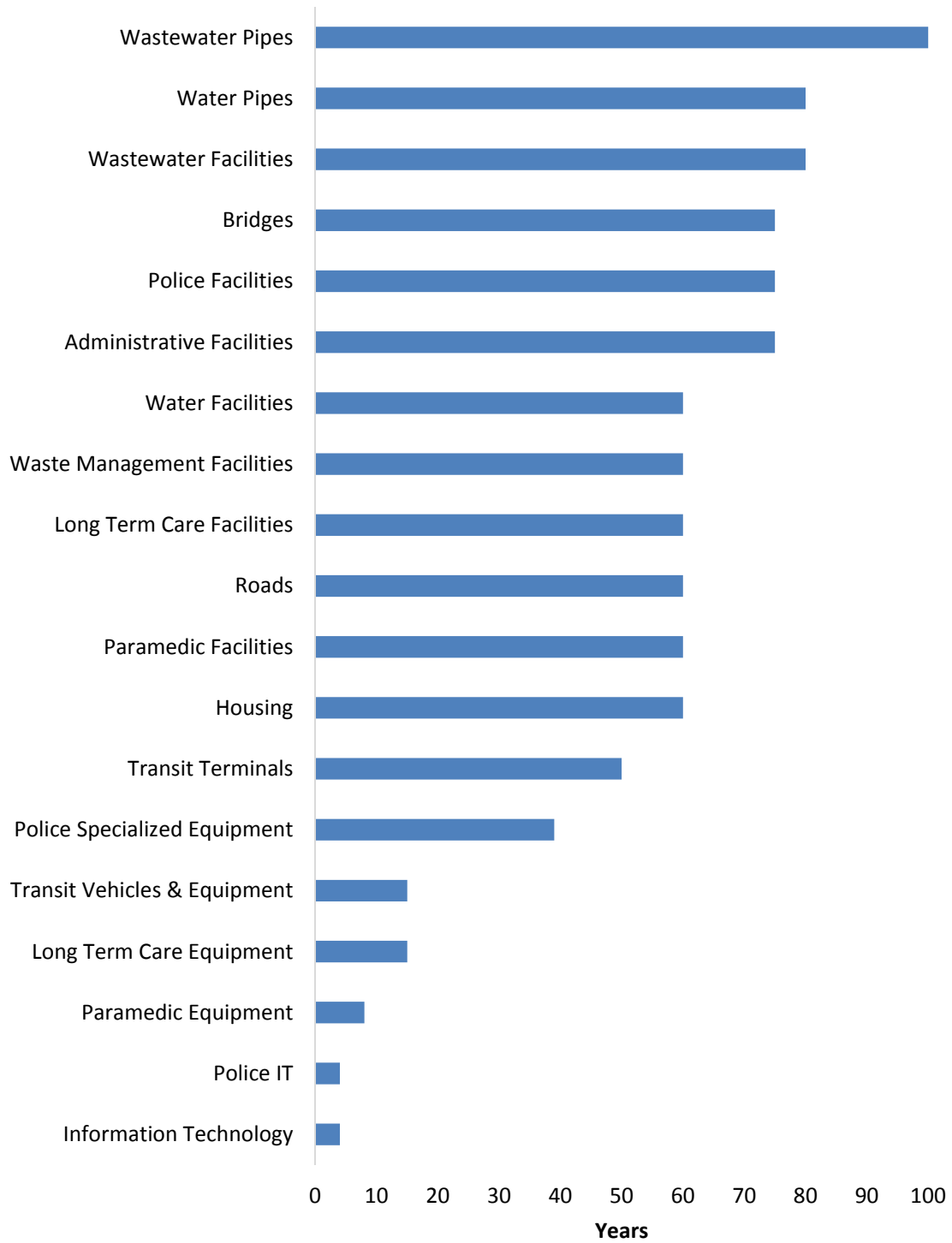
Asset lifecycles have been projected based on two methods depending on whether sufficient condition information is available. Typically, meaningful condition assessment information is not available until determinate signs of deterioration are observable. The two methods are summarized below in *Table 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 (\$Billions)

Service Area	Gross Project Costs (Emplacement)	100-Year Lifecycle Needs (Excluding Emplacement)
<u>Rate-Funded:</u>		
Water	603	1,207
Wastewater	1,793	6,675
Sub-Total – Rate	2,395	7,883
<u>Tax Levy-Funded</u>		
Roads*	2,782	5,288
Transit	382	2,752
Toronto-York Spadina Extension**	282	-
Police*	227	1,098
Waste Diversion	10	56
Public Works*	65	137
Paramedic Services	52	123
Public Health	17	156
Social Housing	185	294
Courts	38	69
Sub-Total: Tax Levy	4,040	9,972
GRAND TOTAL	6,435	17,855

*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)	861,742	390,262	239,910	231,570
Development Charges	2,599,385	1,171,347	791,243	636,795
Other Funding	579,235	311,959	159,333	107,942
Total	4,040,362	1,873,569	1,190,486	976,307

As shown in Table 5-4, it is anticipated that growth will increase operating expenditures by \$641 million and increase operating and assessment growth revenue by \$418 million, resulting in a net impact of \$223 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 (\$000's)	Total	2017-2021	2022-2026	2027-2031
Salaries and Benefits	292,910	75,675	89,449	127,786
General Expenses	56,430	14,869	16,453	25,108
Program Specific Expenses	126,747	20,537	48,421	57,788
Financing Costs	(13,712)	(3,180)	(4,248)	(6,283)
Professional Contracted Services	26,376	5,638	9,255	11,483
Occupancy & R&M Costs	56,763	12,271	18,068	26,424
Contribution to Replacement of New Assets	53,549	18,668	19,523	15,359
Contribution to Asset Emplacement	82,608	28,797	30,117	23,694
Allocations and Capital Recoveries	(40,438)	(11,798)	(9,840)	(18,799)
Other Expenses*	3	(329)	148	184
Gross Expenditures	641,235	161,149	217,345	262,742
Grant Subsidies	(117,803)	(27,034)	(40,499)	(50,270)
User Rates	(29,954)	(8,569)	(9,637)	(11,748)
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	(173,433)	(40,248)	(60,106)	(73,079)
Net Budget Before Assessment Growth	467,802	120,900	157,239	189,663
Assessment Growth Revenue	(245,196)	(81,259)	(81,671)	(82,266)
Potential Tax Levy Requirements	222,606	39,641	75,568	107,397

*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 (\$000's)	Total	2017-2021	2022-2026	2027-2031
Maintenance/Non-Infrastructure Solutions				
Salaries and Benefits	6,912	1,723	2,346	2,843
General Expenses	17,397	814	7,380	9,203
Program Specific Expenses	46,044	7,859	18,125	20,060
Financing Costs	213	(1,798)	877	1,133
Professional Contracted Services	(563)	(563)	-	(0)
Occupancy & R&M Costs	23,794	4,552	8,649	10,593
Minor Capital	7	7	0	(0)
Allocations and Capital Recoveries	(121)	78	(87)	(111)
Renewal/Rehabilitation & Replacement/Disposal Activities				
Contribution to Replacement of New Assets	30,412	10,602	11,088	8,723
Expansion Activities				
Contribution to Asset Emplacement	163	57	60	47
Gross Expenditures	124,258	23,331	48,437	52,491
User Rates	(29,880)	(8,512)	(9,629)	(11,738)
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	(33,971)	(8,793)	(11,320)	(13,857)
Potential Tax Levy Requirements	90,288	14,538	37,117	38,633

As shown in the table, growth in Transit services is projected to create an additional \$124 million in expenses for the Region, of which only \$34 million (27%) 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.

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 provides an interjurisdictional scan of development charge rates in neighboring municipalities (as of December 22, 2016). 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 December 22, 2016.

Figure A-2 provides a comparison of **total** development charge rates for all Greater Toronto Area municipalities per large apartments as of December 22, 2016.

Figure A-3 provides a comparison of **total** development charge rates for all Greater Toronto Area municipalities per small apartments as of December 22, 2016.

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 December 22, 2016.

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 December 22, 2016.

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 December 22, 2016.

Figure A-1

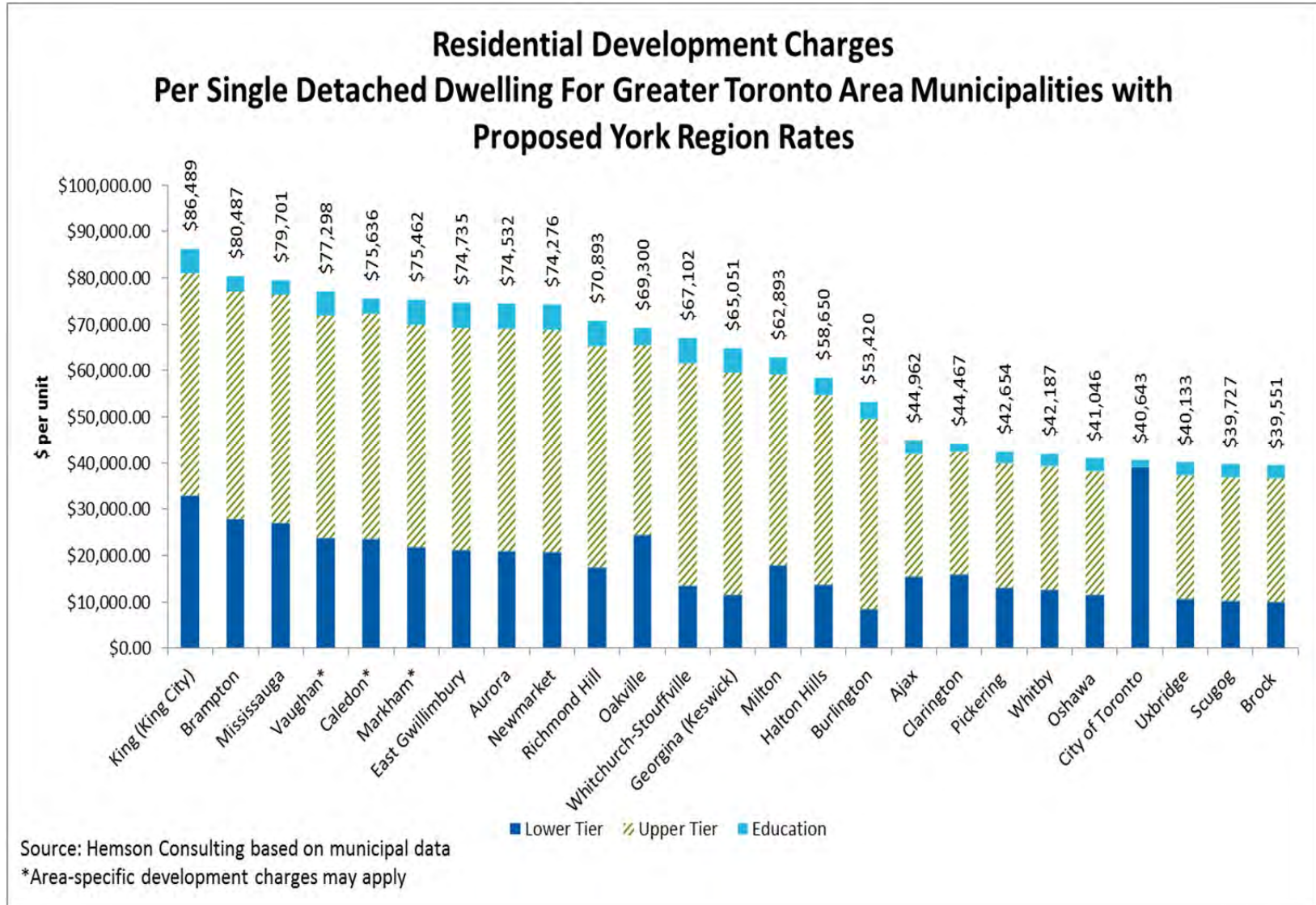


Figure A-2

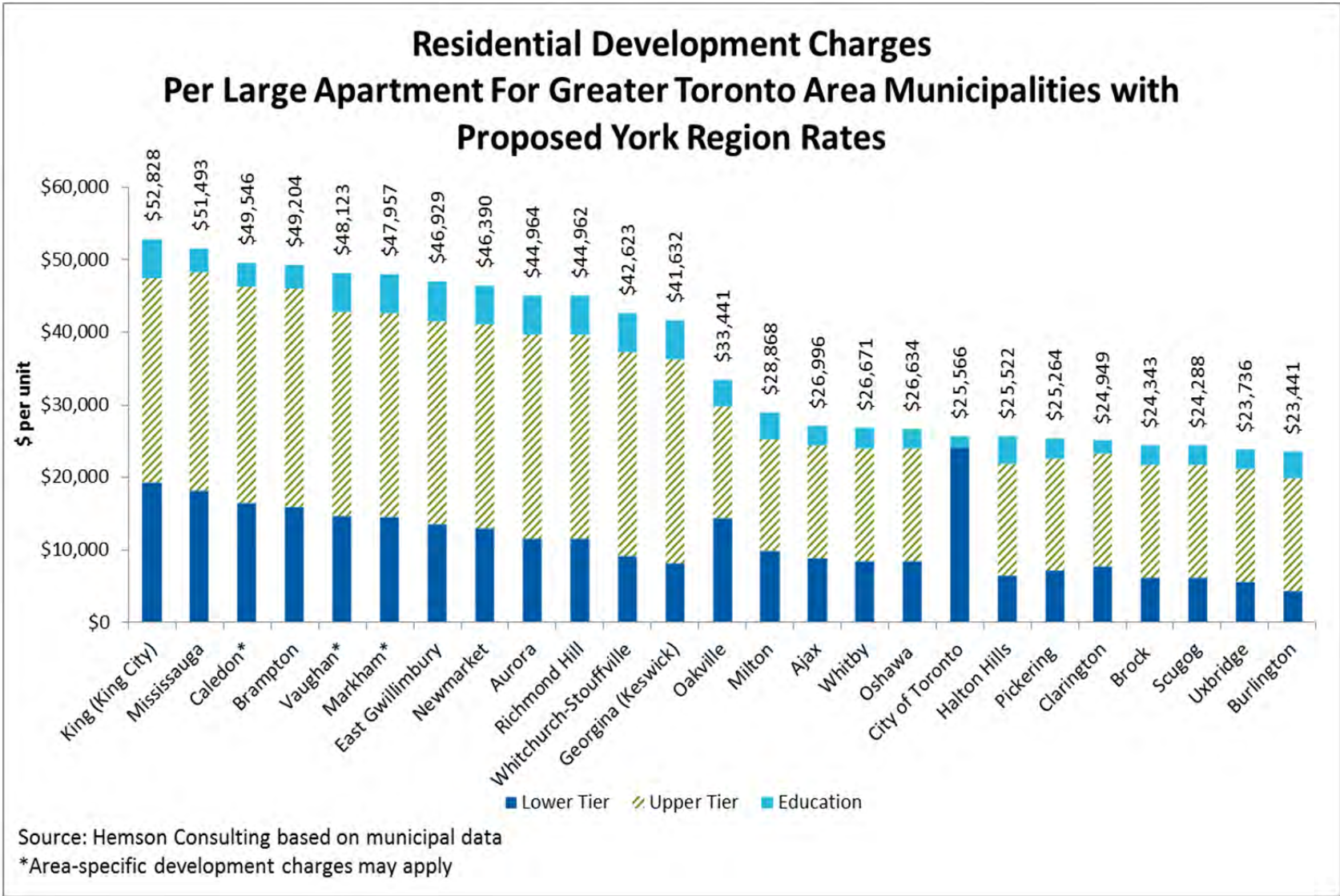


Figure A-3

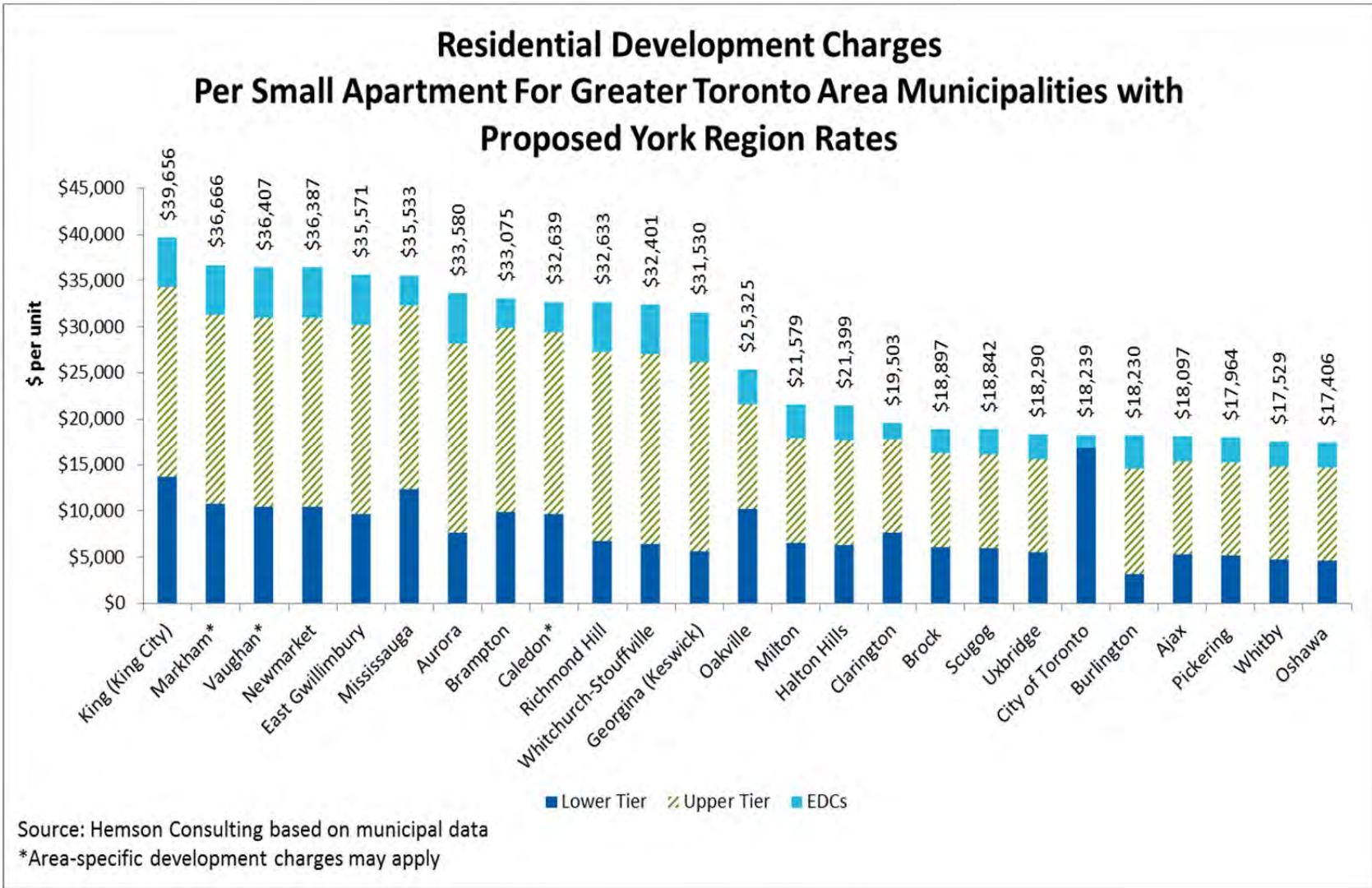
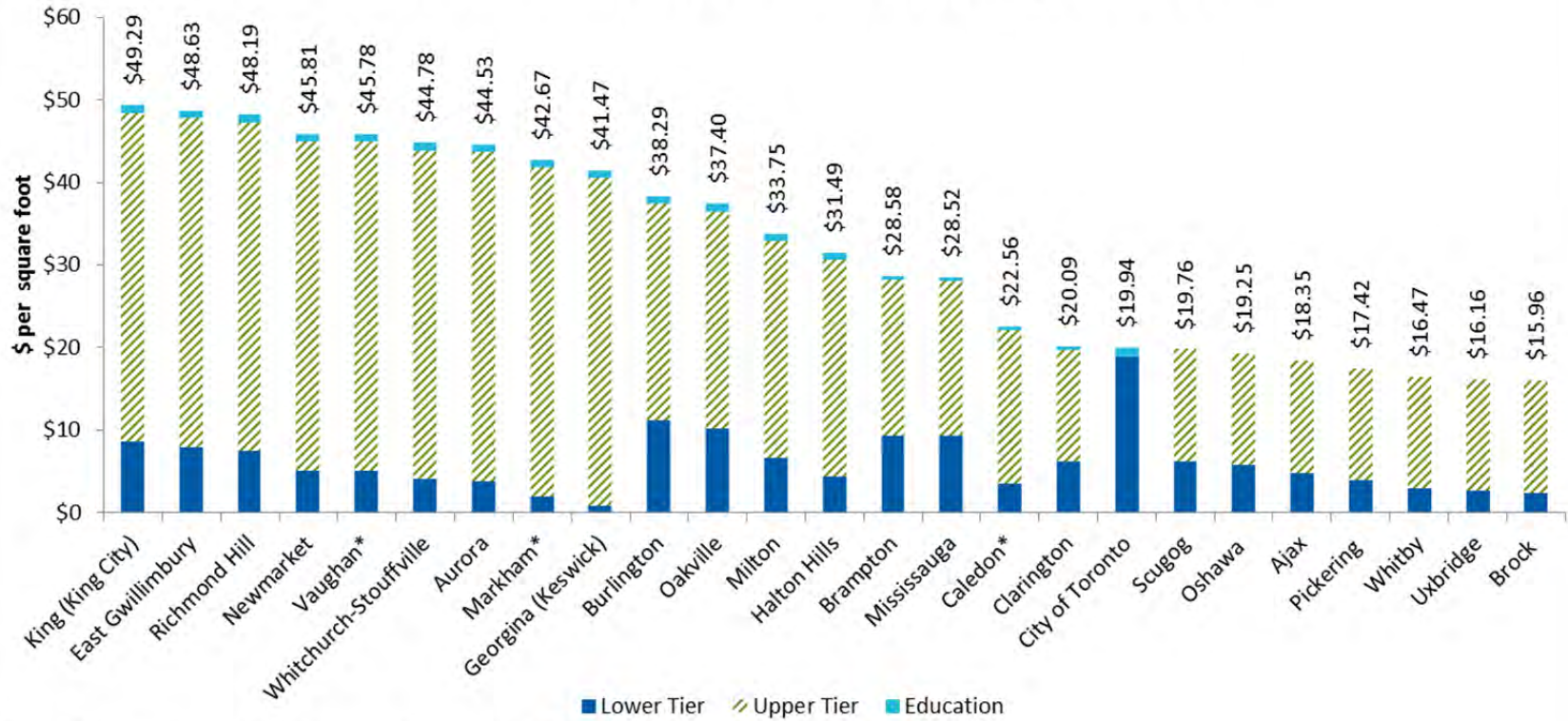


Figure A-4

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

Figure A-5

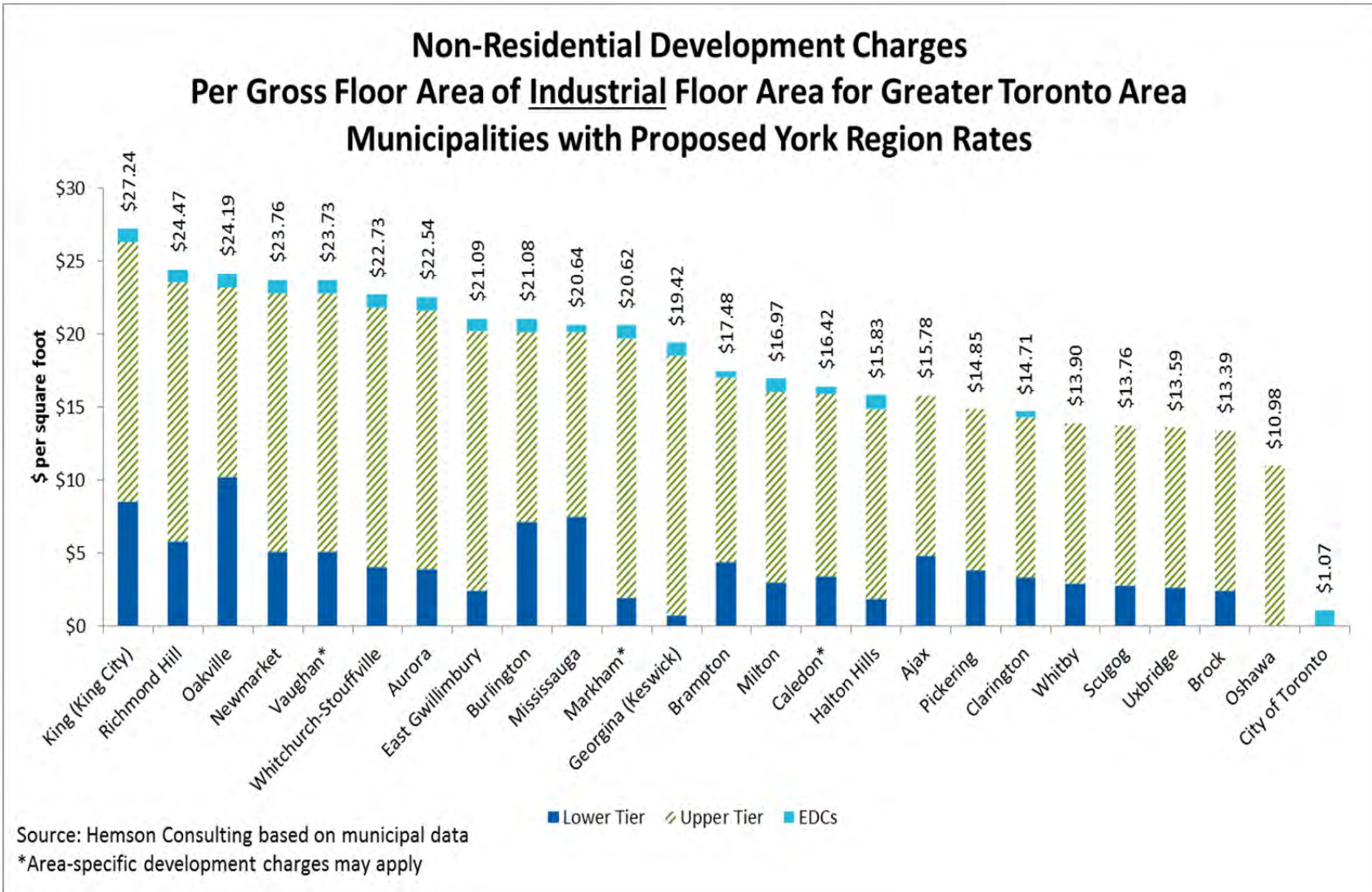
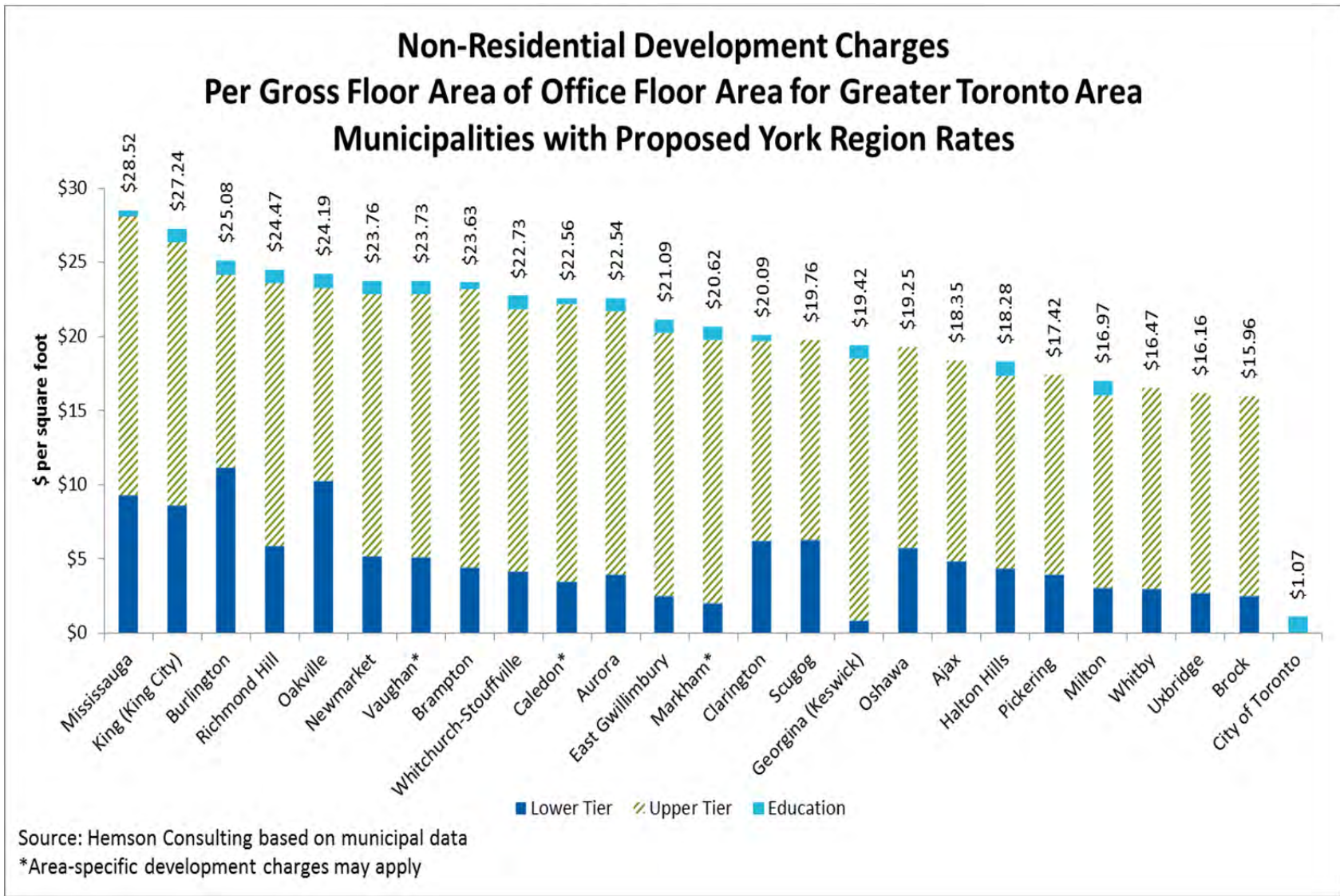


Figure A-6



APPENDIX B

STAFF REPORTS

2017 DEVELOPMENT CHARGE BYLAW UPDATE REPORTS

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	Time Elapsed
Report to Council	November 17, 2016	
Notice of public meeting	February 2, 2017	
2017 Background Study and Bylaw publicly released	February 3, 2017	} 34 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 consideration of passage	May 18, 2017	
2017 Development Charges Bylaw comes into force	June 17, 2017	} 104 days*

*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:

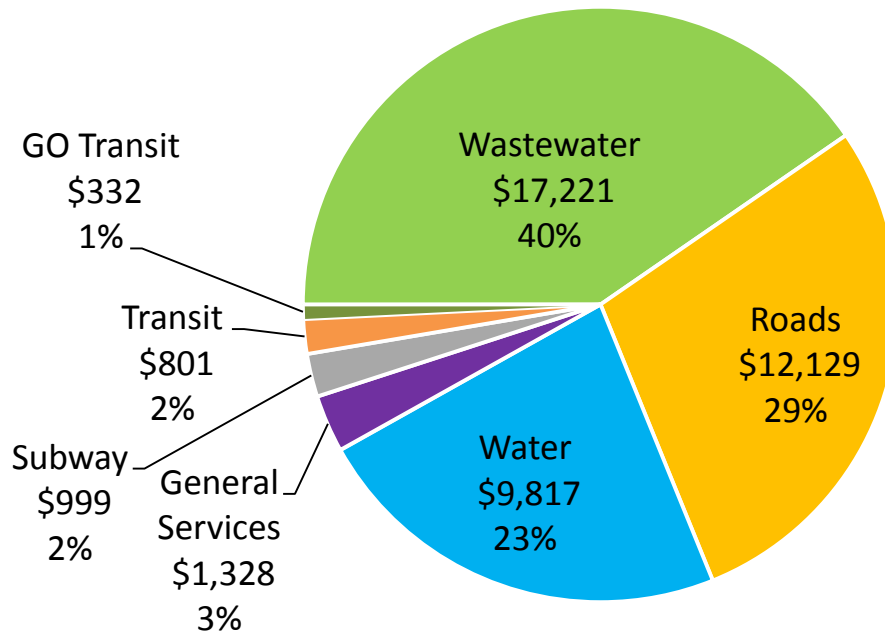
- Collecting data for the development charge rate calculation (e.g., level of service, growth forecast, capital cost, etc.)
- Reviewing and updating development charge calculation methodologies and assumptions
- Developing and reviewing development charge policies
- Consulting with local municipalities 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 <i>Development Charges Act, 1997</i> 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

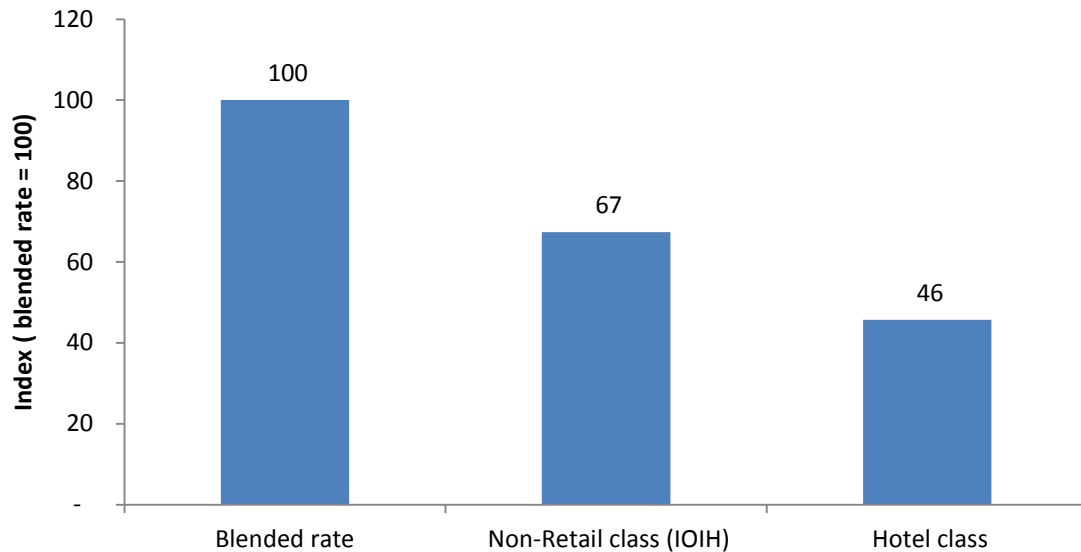
Any proposed change to the treatment for hotels would be prescribed in the 2017 Bylaw both through definition and rate structure. Hotels are often developed with ‘other’ uses (e.g., retail, office). The definition for hotels in the 2017 Bylaw will recognize that the principal use of a hotel should be 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 <i>Public Hospital Act, 1990</i>
		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 <i>Assessment Act, 1990</i>
		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 <i>Assessment Act, 1990</i> 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 through 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 <i>Act</i> 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		Time Elapsed
Committee of the Whole Report on potential policy changes	Fall 2016		
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*		
Public meeting at Committee of the Whole	March 9, 2017*	}	70 days
New bylaw to Council for consideration of passage	May 18, 2017*		
2017 Development Charges Bylaw comes into force	June 17, 2017*		84 days

*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.

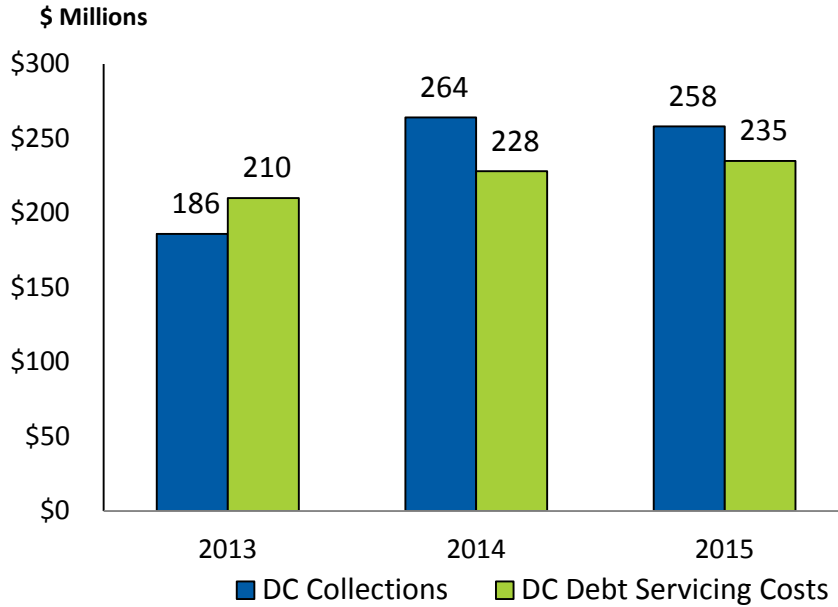
DC collections are critical to managing debt levels and debt servicing

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.

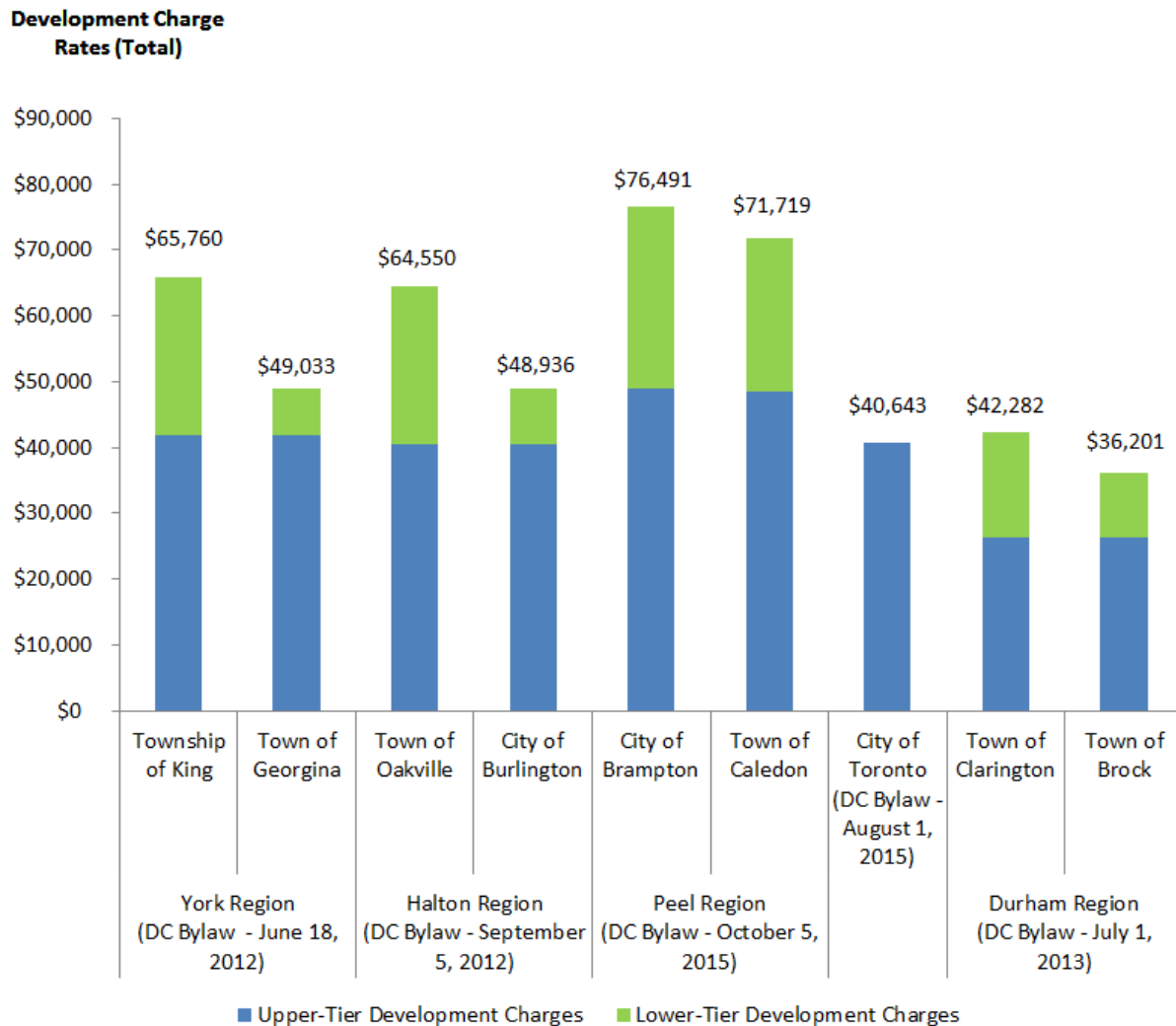
June 1, 2016

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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

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
Richmond Hill	Towneplace Suites by Marriott Toronto Northeast Markham	2015
	Travelodge	2005
Newmarket	Holiday Inn Express & Suites	2008
	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 proformas 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

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Accessible formats or communication supports are available upon request

DEVELOPMENT CHARGES RELATED REPORTS

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)	<i>Development Charges Act, 1997</i> (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 <i>Bill 6, Infrastructure for Jobs and Prosperity Act</i>

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.

February 26, 2016

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Accessible formats or communication supports are available upon request

APPENDIX C
PROPOSED YORK REGION DEVELOPMENT CHARGE
BYLAW (2017)

THE REGIONAL MUNICIPALITY OF YORK

BILL NO.

BY-LAW NO. 2017-

A by-law to impose development charges against lands to pay for increased capital costs required because of increased needs for services arising from development within The Regional Municipality of York.

WHEREAS Section 2 of the *Development Charges Act*, S.O. 1997, ch. 27 (the "Act") authorizes the Council of the Regional Corporation to enact a by-law to impose development charges against land to pay for increased capital costs required because of increased needs for services arising from development;

AND WHEREAS a background study dated _____, 2017 required by Section 10 of the Act was presented to Regional Council along with a draft of this by-law as then proposed on _____, 2017 and was completed within a one-year period prior to the enactment of this by-law;

AND WHEREAS Regional Council directed that the background study and draft proposed by-law be made available to the public and such documents were made available to the public at least two weeks prior to the public meeting required pursuant to Section 12 of the Act;

AND WHEREAS notice of the public meeting was provided in accordance with the requirements of Section 12 of the Act and in accordance with the Regulations under the Act, and such public meeting was held on _____, 2017;

AND WHEREAS any person who attended the public meeting was afforded an opportunity to make representations and the public generally were afforded an opportunity to make written submissions relating to the proposed by-law;

AND WHEREAS Regional Council resolved on _____, 2017 that it is the intention of Regional Council to ensure that the increase in need for services identified in connection with the enactment of the by-law will be met;

AND WHEREAS Regional Council resolved on _____, 2017 that no further public meeting be required and that this by-law be brought forward for enactment;

NOW THEREFORE, the Council of The Regional Municipality of York hereby enacts as follows:

1.0 DEFINITIONS

1.1 In this by-law,

“accessory use” means that the building or structure is naturally and normally incidental to or subordinate in purpose or both, and exclusively devoted to a principal use, building or structure;

“agricultural use” means lands, buildings or structures, excluding any portion thereof used as a dwelling unit, used or designed or intended for use for the purpose of a *bona fide* farming operation including, but not limited to, animal husbandry, dairying, livestock, fallow, field crops, removal of sod, forestry, fruit farming, horticulture, market gardening, pasturage, poultry keeping, equestrian facilities and any other activities customarily carried on in the field of agriculture;

“apartment building” means a residential building or the residential portion of a mixed use building, other than a townhouse or a stacked townhouse, consisting of more than 3 dwelling units, which dwelling units have a common entrance to grade;

“area municipality” means a city, town or township in the Region;

“banquet hall” means a building or part of a building used primarily for the purpose of catering to banquets, weddings, receptions or similar social functions for which food and beverages are served;

“building permit” means a permit issued under the *Building Code Act, 1992*, which permits the construction of a building or structure or, which permits the construction of the foundation of a building or structure;

“community use” means a facility traditionally provided by a municipality which serves a municipal purpose and shall include a community centre, library/research facility, recreation facility and a shelter;

“convention centre” means a building with a gross floor area greater than 40,000 square feet which is designed and used primarily to accommodate the following:

- (i) the assembly of large gatherings of persons for trade, business or educational purposes, or any combination thereof;
- (ii) the display of products or services;
- (iii) accessory uses may include administrative offices, display areas, show-rooms, training facilities and banquet facilities, but does not include a banquet hall;

“development” includes redevelopment;

“development charges” means charges imposed pursuant to this by-law adjusted in accordance with Section 5;

“duplex” means a building comprising, by horizontal division, two dwelling units, each of which has a separate entrance to grade;

“dwelling unit” means a room or suite of rooms used, or designed or intended for use by one person or persons living together, in which culinary and sanitary facilities are provided for the exclusive use of such person or persons;

“funeral home” means a building with facilities for the preparation of dead persons for burial or cremation, for the viewing of the body and for funeral services;

“future development” means development which requires a subsequent planning approval, in addition to a building permit, which planning approval shall include a site plan approval or the approval of a plan of condominium;

“general services” means services in regard to transit, Toronto-York subway extension, police, paramedic services, public health, senior services-capital component, public works, growth studies, social housing, court services and waste diversion;

“gross floor area” means, in the case of a non-residential building or structure or the non-residential portion of a mixed-use building or structure, the aggregate of the areas of each floor, whether above or below grade, measured between the exterior faces of the exterior walls of the building or structure or from the centre line of a common wall separating a non-residential and a residential use, excluding, in the case of a building or structure containing an atrium, the sum of the areas of the atrium at the level of each floor surrounding the atrium above the floor level of the atrium, and excluding, in the case of a building containing parking spaces, the sum of the areas of each floor used, or designed or intended for use for the parking of motor vehicles unless the building or structure is a parking structure, and, for the purposes of this definition, notwithstanding any other section of this by-law, the non-residential portion of a mixed-use building is deemed to include one-half of any area common to the residential and non-residential portions of such mixed-use building or structure. Notwithstanding any other section of this by-law, gross floor area shall not include the surface area of swimming pools or the playing surfaces of indoor sport fields including hockey arenas, and basketball courts;

“group home” means a residential building or the residential portion of a mixed-use building containing a single housekeeping unit supervised on a 24 hour a day basis on site by agency staff on a shift rotation basis, funded wholly or in part

by any government and licensed, approved or supervised by the Province of Ontario under any general or special act, for the accommodation of not less than 3 and not more than 8 residents, exclusive of staff;

“hard services” means water services, wastewater services and road services;

“heritage property” means a building or structure which, in the opinion of the local architectural conservation advisory committee is of historic or architectural value or interest, or which has been so designated under the *Ontario Heritage Act*;

“hotel” means a commercial establishment offering lodging to travelers and sometimes to permanent residents, which shall be assessed at a per square foot charge and may include, without limitation, other services such as restaurants, meeting rooms and stores, that are available to guests and/or to the general public. If the combined gross floor area of other such services are greater than thirty three percent of the combined gross floor area of the lodging quarters, the entirety of the structure will be assessed at the rate applicable to such other services;

“high rise residential” means an apartment building that is 4 or more storeys above grade, consisting of four or more dwelling units and shall not include a townhouse or a stacked townhouse;

“industrial” means lands, buildings or structures used or designed or intended for use for manufacturing, processing, fabricating or assembly of raw goods, warehousing or bulk storage of goods, and includes office uses and the sale of commodities to the general public where such uses are accessory to an industrial use, but does not include the sale of commodities to the general public through a warehouse club;

“institutional” means lands, buildings or structures used or designed or intended for use by an organized body, society or religious group for promoting a public or non-profit purpose and shall include, but without limiting the generality of the foregoing, places of worship, medical clinics and special care facilities;

“industrial/office/institutional” means lands, buildings or structures used or designed or intended for use for any of an industrial use, office use or institutional use and shall include a convention centre and any other non-residential use which is not a retail use;

“large apartment” means a dwelling unit in an apartment building or plex that is 700 square feet or larger in size;

“live-work unit” means a unit intended for both residential and non-residential uses concurrently;

“local board” means a local board as defined in the *Act*;

“mixed-use” means land, buildings or structures used, or designed or intended for use, for a combination of non-residential and residential uses;

“mobile home” means any dwelling that is designed to be made mobile, and constructed or manufactured to provide a permanent residence for one or more persons, but does not include a travel trailer or tent trailer;

“multiple unit dwellings” includes townhouses, stacked and back-to-back townhouses, mobile homes, group homes and all other residential uses that are not included in the definition of “apartment building”, “small apartment”, “large apartment”, “single detached dwelling” or “semi-detached dwelling”;

“non-profit” means a corporation without share capital that has objects of a charitable nature;

“non-residential use” means lands, buildings or structures or portions thereof used, or designed or intended for use for other than residential use;

“office” means lands, buildings or structures used or designed or intended for use for the practice of a profession, the carrying on of a business or occupation or the conduct of a non-profit organization and shall include but not be limited to the office of a physician, lawyer, dentist, architect, engineer, accountant, real estate or insurance agency, veterinarian, surveyor, appraiser, financial institution, contractor, builder, land developer;

“parking structure” means a building or structure principally used for the parking of motor vehicles and shall include a building or structure, or any part thereof, where motor vehicles are stored prior to being sold or rented to the general public and, notwithstanding the foregoing, parking structure shall include any underground parking area of a building or structure where such building or structure is used for the sale or renting of motor vehicles to the general public;

“place of worship” means a building or structure that is used primarily for worship;

“plex” means a duplex, a semi-detached duplex, a triplex or a semi-detached triplex;

“private school” means an educational institution operated on a non-profit basis, excluding any dormitory or residence accessory to such private school, that is used primarily for the instruction of students in courses of study approved or authorized by the Minister of Education and Training;

“Region” means The Regional Municipality of York;

“Regional Council” means the Council of The Regional Municipality of York;

“region-wide charges” means the development charges imposed with respect to the following services:

- (i) roads;
- (ii) transit;
- (iii) Toronto-York subway extension;
- (iv) police;
- (v) paramedic services;
- (vi) public health;
- (vii) senior services – capital component;
- (viii) public works;
- (ix) growth studies;
- (x) social housing;
- (xi) court services; and
- (xii) waste diversion.

“residential use” means lands, buildings or structures used, or designed or intended for use as a residence for one or more individuals, and shall include, but is not limited to, a single detached dwelling, a semi-detached dwelling, a townhouse, a stacked townhouse, a plex, an apartment building, a group home, a mobile home and a residential dwelling unit accessory to a non-residential use but shall not include a lodging house licensed by a municipality;

“residential in-fill use” means ground related residential use, such as a single detached-dwelling, semi-detached dwelling, townhouse or stacked townhouse, comprising three lots or less;

“retail” means lands, buildings or structures used or designed or intended for use for the sale or rental or offer for sale or rental of goods or services to the general public for consumption or use and shall include, but not be limited to, a banquet hall, a funeral home, but shall exclude office;

“self storage building” means a building or part of a building consisting of individual storage units, which are accessible by the users, that are used to provide storage space to the public;

“semi-detached duplex” means one of a pair of attached duplexes, each duplex divided vertically from the other by a party wall;

“semi-detached dwelling” means a building divided vertically into and comprising 2 dwelling units;

“semi-detached triplex” means one of a pair of triplexes divided vertically one from the other by a party wall;

“serviced” for the purposes of section 3 means the particular service is connected to or available to be connected to the lands, buildings or structures, or, as a result of the development, will be connected to or will be available to be connected to the lands, buildings or structures;

“services” means services designated in section 2.1 of this by-law;

“shelter” means a building in which supervised short-term emergency shelter and associated support services are provided to individuals who are fleeing situations of physical, financial, emotional or psychological abuse;

“single detached dwelling” and **“single detached”** means a residential building consisting of one dwelling unit that is not attached to another structure above grade. For greater certainty, a residential building consisting of one dwelling unit that is attached to another structure by footings only shall be considered a single family dwelling for purposes of this by-law;

“small apartment” means a dwelling unit in an apartment building or a plex that is less than 700 square feet in size;

“special care facilities” means lands, buildings or structures used or designed or intended for use for the purpose of providing residential accommodation, supervision, nursing care or medical treatment, which do not comprise dwelling units, that are licensed, approved or supervised under any special or general Act;

“stacked townhouse” means a building, other than a plex, townhouse or apartment building, containing at least 3 dwelling units, each dwelling unit being separated from the other vertically and/or horizontally and each dwelling unit having an entrance to grade shared with no more than 3 other units;

“townhouse” means a building, other than a plex, stacked townhouse or apartment building, containing at least 3 dwelling units, each dwelling unit separated vertically from the other by a party wall and each dwelling unit having a separate entrance to grade;

“triplex” means a building comprising 3 dwelling units, each of which has a separate entrance to grade;

“uniform charges” means the development charges imposed with respect to the following services:

- (i) water; and
- (ii) wastewater.

2.0 DESIGNATION OF SERVICES

2.1 The categories of services for which development charges are imposed under this by-law are as follows:

- (a) water;
- (b) wastewater;
- (c) roads;
- (d) transit;
- (e) Toronto-York subway extension;
- (f) police;
- (g) paramedic services;
- (h) public health;
- (i) senior services – capital component;
- (j) public works;
- (k) growth studies;
- (l) social housing;
- (m) court services; and
- (n) waste diversion.

2.2 The components of the services designated in subsection 2.1 are described on Schedule A.

3.0 APPLICATION OF BY-LAW - RULES

3.1 Development charges shall be payable in the amounts set out in subsections 3.6, 3.9 and 3.10 of this by-law where:

- (a) the lands are located in the area described in subsection 3.2; and
- (b) the development of the lands requires any of the approvals set out in subsection 3.4(a).

3.1.1 Development charges shall be calculated in accordance with this by-law, the background study and all policies contained within the background study dated February , 2017, save and except for the development charge credit policy described in section 12.5 of the background study.

Area to Which by-law Applies

3.2 Subject to subsection 3.3, this by-law applies to all lands in the geographic area of the Region.

- 3.3 This by-law shall not apply to lands that are owned by and used for the purposes of:
- (a) the Region or a local board thereof;
 - (b) a board as defined in section 1(1) of the *Education Act*;
 - (c) an area municipality or a local board thereof.

Approvals for Development

- 3.4 (a) Development charges shall be imposed on all lands, buildings or structures that are developed for residential or non-residential uses if the development requires,
- (i) the passing of a zoning by-law or of an amendment to a zoning by-law under section 34 of the *Planning Act* or any successor thereto;
 - (ii) the approval of a minor variance under section 45 of the *Planning Act* or any successor thereto;
 - (iii) a conveyance of land to which a by-law passed under subsection 50(7) of the *Planning Act* or any successor thereto applies;
 - (iv) the approval of a plan of subdivision under section 51 of the *Planning Act* or any successor thereto;
 - (v) a consent under section 53 of the *Planning Act* or any successor thereto;
 - (vi) the approval of a description under the *Condominium Act, 1998*, or any successor thereto; or
 - (vii) the issuing of a permit under the *Building Code Act, 1992*, or any successor thereto, in relation to a building or structure.
- (b) No more than one development charge for each service designated in subsection 2.1 shall be imposed upon any lands, buildings or structures to which this by-law applies even though two or more of the actions described in subsection 3.4(a) are required before the lands, buildings or structures can be developed.
- (c) Despite subsection 3.4(b) and despite any other section of this by-law, if two or more of the actions described in subsection 3.4(a) occur at different times, additional development charges shall be imposed if the subsequent

action has the effect of increasing the need for services.

Exemptions

3.51 Notwithstanding the provisions of this by-law, but subject to subsection 3.5.2, development charges shall not be imposed or may be deferred, on terms and conditions, satisfactory to the Region, with respect to:

- (a) the relocation of a heritage house;
- (b) a building or structure used for a community use owned by a non-profit corporation;
- (c) land owned by and used for the purposes of a private school that is exempt from taxation under the *Assessment Act* or any successor thereto;
- (d) lands, buildings or structures used or to be used for the purposes of a cemetery or burial ground exempt from taxation under the *Assessment Act* or any successor thereto;
- (e) non-residential uses permitted pursuant to section 39 of the *Planning Act* or any successor thereto;
- (f) the issuance of a building permit not resulting in the creation of additional non-residential gross floor area;
- (g) agricultural uses;
- (h) development creating or adding an accessory use or structure not exceeding 100 square metres of gross floor area save and except for any live work units with a retail component; for such units development charges will be payable pursuant to subsection 3.10 on the retail component;
- (i) a public hospital receiving aid under the *Public Hospitals Act* or any successor thereto;

3.52 The provisions of subsection 3.5.1 shall only apply to exempt or defer, as the case may be, a development described in paragraph (a), (b) or (c) thereof from the payment of development charges if the area municipality in which the development is to be located does not collect development charges with respect to the development in question.

Amount of Charge

Residential

3.6 The development charges described in Schedule B to this by-law shall be imposed on residential uses of lands, buildings or structures, including a dwelling unit accessory to a non-residential use and, in the case of a mixed use building or structure, on the residential uses in the mixed use building or structure, according to the type of residential unit, and calculated as follows:

(a) **Region-wide Charges**

- (i) a development charge with respect to each of the general services according to the type of residential use;
- (ii) a development charge with respect to road services according to the type of residential use;

(b) **Uniform Charges**

- (i) where the lands, buildings or structures are serviced by regional water services, the development charge with respect to water services according to the type of residential use;
- (ii) where the lands, buildings or structures are serviced by regional wastewater services, the development charge with respect to wastewater services according to the type of residential use;

3.7 Despite subsection 3.6(b),

- (a) a development charge with respect to regional water services shall not be imposed against the lands shown on Schedule C;
- (b) a development charge with respect to regional wastewater services shall not be imposed against the lands shown on Schedule D;
- (c) A development charge with respect to regional wastewater services shall not be imposed against the lands shown on Schedule E.

Contingent Development Charges

3.8 Thirty days after the happening of an event described in Column 2 of Schedule G, the residential development charge under subsection 3.6 which corresponds to the service described in Column 1 of Schedule G shall be increased by the amounts shown in Columns 3, 4, 5 and 6 of Schedule G according to the type of residential unit.

Non-Residential

Industrial/Office/Institutional Uses

3.9 The development charges described in Schedule F to this by-law shall be imposed on industrial/office/institutional uses of lands, buildings or structures, and, in the case of a mixed use building or structure, on the industrial/office/institutional uses in the mixed use building or structure, and calculated as follows:

(a) **Region-wide Charges**

- (i) a development charge with respect to each of the general services according to the gross floor area of the industrial/office/institutional use;
- (ii) a development charge with respect to road services according to the gross floor area of the industrial/office/institutional use;

(b) **Uniform Charges**

- (i) where the lands, buildings or structures are serviced by regional water services, the development charge with respect to water services according to the gross floor area of the industrial/office/institutional use;
- (ii) where the lands, buildings or structures are serviced by regional wastewater services, the development charge with respect to wastewater services according to the gross floor area of the industrial/office/institutional use.

3.9.1 Despite subsection 3.9(b)(ii), a development charge with respect to regional wastewater services shall not be imposed against the lands shown on Schedule E.

Retail Uses

3.10 The development charges described in Schedule F to this by-law shall be imposed on retail uses of lands, buildings or structures, and, in the case of a mixed use building or structure, on the retail uses in the mixed use building or structure, and calculated as follows:

(a) **Region-wide Charges**

- (i) a development charge with respect to each of the general services according to the gross floor area of the retail use;

- (ii) a development charge with respect to road services according to the gross floor area of the retail use;

(b) Uniform Charges

- (i) where the lands, buildings or structures are serviced by regional water services, the development charge with respect to water services according to the gross floor area of the retail use;
- (ii) where the lands, buildings or structures are serviced by wastewater services, the development charge with respect to wastewater services according to the gross floor area of the retail use.

3.10.1 Despite subsection 3.10(b)(ii) a development charge with respect to regional wastewater services shall not be imposed against the lands shown on Schedule E.

Hotels Uses

3.11 The development charges described in Schedule F to this by-law shall be imposed on hotel uses of lands, buildings or structures and calculated as follows:

(a) Region-wide Charges

- (i) a development charge with respect to each of the general services according to the gross floor area of the hotel use;
- (ii) a development charge with respect to road services according to the gross floor area of the hotel use;

(b) Uniform Charges

- (i) where the lands, buildings or structures are serviced by regional water services, the development charge with respect to water services according to the gross floor area of the hotel use;
- (ii) where the lands, buildings or structures are serviced by wastewater services, the development charge with respect to wastewater services according to the gross floor area of the hotel use.

3.11.1 Despite subsection 3.11(b)(ii) a development charge with respect to regional wastewater services shall not be imposed against the lands shown on Schedule E.

Multiple Industrial/Office/Institutional and Retail Uses

- 3.12 In the case of lands, buildings or structures used or designed or intended for use for both industrial/office/institutional uses and retail uses, the development charges otherwise applicable to such development under both subsections 3.9 and 3.10 shall be determined on the following basis:
- (a) as between the industrial/office/institutional uses and the retail uses, the principal use of the development shall be that use which has the greater gross floor area, such principal use being the use of 55% or greater of the total gross floor area. If no single use has 55% 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;
 - (b) the development charges under either subsection 3.9 or 3.10 applicable to such principal use as determined under paragraph (a), provided that there is a principal use determined under paragraph (a), shall be applied to the total non-residential gross floor area of the development;
 - (c) Notwithstanding this Section 3.13, in any building or structure designed or intended for use for both industrial/office/institutional uses and retail uses, and, where such building or structure contains multiple individually owned units, each unit's payable development charges will be assessed individually based on the predominant use of that unit.

Contingent Development Charges

- 3.13 Thirty days after the happening of an event described in Column 2 of Schedule G, the non-residential development charge under subsections 3.9, 3.10 and 3.11 which corresponds to the service described in Column 1 of Schedule G shall be increased by the amounts shown in Columns 7, 8, and 9 of Schedule G according to the type of non-residential development.

Place of Worship

- 3.14 Despite subsection 3.9, development charges shall not be imposed in respect of the gross floor area of a place of worship to a maximum of 5,000 square feet (or 464.5 square metres) or in respect of that portion of the gross floor area of a place of worship which is used as an area for worship, whichever is greater.

Reduction of Development Charges Where Redevelopment

- 3.15 Where, as a result of the redevelopment of land, a building or structure existing on the land within 48 months prior to the date of payment of development charges in regard to such redevelopment was, or is to be demolished, in whole

or in part, or converted from one principal use to another, in order to facilitate the redevelopment, the development charges otherwise payable with respect to such redevelopment shall be reduced by the following amounts:

- (a) in the case of a residential building or structure, or in the case of a mixed-use building or structure, the residential uses in the mixed-use building or structure, an amount calculated by multiplying the applicable development charge under subsection 3.6 of this by-law by the number, according to type, of dwelling units that have been or will be demolished or converted to another principal use; and
- (b) in the case of a non-residential building or structure or, in the case of mixed-use building or structure, the non-residential uses in the mixed-use building or structure, an amount calculated by multiplying the applicable development charges under subsection 3.9, 3.10 3.11 or 3.12 of this by-law by the gross floor area that has been or will be demolished or converted to another principal use;

provided that such amounts shall not exceed, in total, the amount of the development charges otherwise payable with respect to the redevelopment. The 48 month time frame shall be calculated from the date of the issuance of the demolition permit.

3.15.1 For the purposes of subsection 3.15, the onus is on the applicant to produce evidence to the satisfaction of the Region, acting reasonably, to establish the following:

- (a) the number of dwelling units that have been or will be demolished or converted to another principal use; or
- (b) the non-residential gross floor area that has been or will be demolished or converted to another principal use; and
- (c) in the case of a demolition, that the dwelling units and/or non-residential gross floor area were demolished within 48 months prior to the date of the payment of development charges in regard to the redevelopment.

3.15.2 Any residential building or structure, that is determined to be derelict, or the equivalent of derelict by the municipal council of the area municipality in which the building or structure is located, shall be eligible for development charge credits in accordance with section 3.15.3.

3.15.3 Any residential building or structure deemed derelict, or the equivalent of derelict in accordance with subsection 3.15.2 shall be eligible for development charge credits if a building permit is issued for a building or structure on the lands previously occupied by the deemed derelict residential building or structure within 120 months or less of the issuance of demolition permit for the

deemed derelict building or structure. The development charge credit shall be calculated in accordance with the time requirements between demolition permit issuance and building permit issuance as set out in Schedule H. The amount of development charges payable for any development to which subsections 3.15.2 and 3.15.3 apply, shall be calculated in accordance with subsections 3.15 and 3.15.1.

Reduction of Development Charges Where Gross Floor Area is Increased

- 3.16 Despite any other provisions of this by-law, if a development includes the expansion of the gross floor area of an industrial, office or institutional building, the amount of the development charge that is payable in respect of the expansion shall be calculated as follows:
- (a) If the gross floor area is expanded by fifty percent of the original gross floor area of the existing development, or less, the amount of the development charge in respect of the expansion is zero;
 - (b) If the gross floor area is expanded by more than fifty percent of the original gross floor area of the existing development the amount of the development charge in respect of the expansion is the amount of the development charge that would otherwise be payable multiplied by the fraction determined as follows:
 - (i) determine the area by which the expansion exceeds fifty percent of the original gross floor area of the existing development before any expansion; and
 - (ii) divide the amount under paragraph (b)(i) by the amount of the expansion of the original gross floor area of the existing development.

Time of Payment of Development Charges

- 3.17 Development charges imposed under this section are payable on the date on which a building permit is issued with respect to each dwelling unit, building or structure.
- 3.17.1 If a use or development of land, buildings or structures does not require the issuance of a building permit but requires one or more of the actions listed in subsection 3.4(a)(i) to (vi) inclusive, a development charge shall be payable and shall be calculated and collected on the earliest of any of the actions listed in section 3.4(a)(i) to (vi) being required.
- 3.18 Despite subsection 3.17, development charges with respect to hard services imposed under subsection 3.6 with respect to an approval of a residential plan

of subdivision under section 51 of the *Planning Act*, are payable immediately upon the owner entering into the Regional development charge agreement respecting such plan of subdivision, on the basis of the following, unless such a plan of subdivision includes blocks intended for future development, in which case development charges payable for such blocks shall be determined at building permit issuance

- (a) the proposed number and type of dwelling units in the final plan of subdivision; and
- (b) with respect to blocks in the plan of subdivision intended for future development, development charges for such blocks shall be payable at building permit issuance.

3.19 For the purposes of paragraph (b) of subsection 3.18, where the use or uses to which a block in a plan of subdivision may be put pursuant to a zoning by-law passed under section 34 of the *Planning Act*, are affected by the use of a holding symbol in the zoning by-law as authorized by section 36 of the *Planning Act*, the development charges for such blocks shall be payable at building permit issuance.

3.20 For the purposes of subsections 3.18 and 3.19, and despite any other provision to this bylaw, where a subdivision agreement identifies the number and type of dwelling units proposed for the residential plan of subdivision, the number and type of dwelling units so identified shall be used to calculate the development charges payable under subsection 3.18.

3.21 Despite subsections 3.18 and 3.19, Regional Council, from time to time, and at any time, may authorize agreements providing for all or any part of a development charge to be paid before or after it would otherwise be payable.

3.22 (a) If, at the time of issuance of a building permit or permits in regard to a lot or block on a plan of subdivision for which payments have been made pursuant to section 3.18, the type of dwelling unit for which building permits are being issued is different from that used for the calculation and payment under section 3.18, and there has been no change in the zoning affecting such lot or block, and the development charges for the type of dwelling unit for which building permits are being issued were greater at the time that payments were made pursuant to section 3.18 than for the type of dwelling unit used to calculate the payment under section 3.18, an additional payment to the Region is required, which payment, in regard to such different unit types, shall be the difference between the development charges in respect to the type of dwelling unit for which building permits are being issued, calculated as at the date of issuance of the building permit or permits, and the development charges previously collected in regard thereto, adjusted in accordance with section 5.1 of this by-law.

- (b) If, at the time of issuance of a building permit or permits in regard to a lot or block on a plan of subdivision for which payments have been made pursuant to section 3.18, the total number of dwelling units of a particular type for which building permits have been or are being issued is greater, on a cumulative basis, than that used for the calculation and payment under section 3.18, and there has been no change in the zoning affecting such lot or block, an additional payment to the Region is required, which payment shall be calculated on the basis of the number of additional dwelling units at the rate prevailing as at the date of issuance of the building permit or permits for such dwelling units.
- (c) If, at the time of issuance of a building permit or permits in regard to a lot or block on a plan of subdivision for which payments have been made pursuant to section 3.18, the type of dwelling unit for which building permits are being issued is different than that used for the calculation and payment under section 3.18, and there has been no change in the zoning affecting such lot or block, and the development charges for the type of dwelling unit for which building permits are being issued were less at the time that payments were made pursuant to section 3.18 than for the type of dwelling unit used to calculate the payment under section 3.18, a refund in regard to such different unit types shall be paid by the Region, which refund shall be the difference between the development charges previously collected, adjusted in accordance with section 5.1 of this by-law to the date of issuance of the building permit or permits, and the development charges in respect to the type of dwelling unit for which building permits are being issued, calculated as at the date of issuance of the building permit or permits.
- (d) If, at the time of issuance of a building permit or permits in regard to a lot or block on a plan of subdivision for which payments have been made pursuant to section 3.18, the total number of dwelling units of a particular type for which building permits have been or are being issued is less, on a cumulative basis, than that used for the calculation and payment under section 3.18, and there has been no change in the zoning affecting such lot or block, a refund shall be paid by the Region, which refund shall be calculated on the basis of the number of fewer dwelling units at the rate prevailing as at the date of issuance of the building permit or permits.

3.23 Despite subsections 3.22(c) and (d), a refund shall not exceed the amount of the development charges paid under subsection 3.18.

4.0 PAYMENT BY SERVICES

4.1 Despite the payments required under subsections 3.17 and 3.18, Regional

Council may, by agreement, and in accordance with approved policies, give a credit towards a development charge in exchange for work that relates to a service for which a development charge is imposed under this by-law.

5.0 INDEXING

5.1 Development charges imposed pursuant to this by-law shall be adjusted annually, without amendment to this by-law, commencing on July 1st 2018 and each anniversary of that date thereafter, in accordance with the Statistics Canada Quarterly Construction Price Statistics.

6.0 SCHEDULES

6.1 The following schedules to this by-law form an integral part thereof:

- Schedule A - Components of Services Designated in subsection 2.1
- Schedule B - Residential Development Charges
- Schedule C - Lands Exempt from Residential Development Charge in Regard to Regional Water Supply Services

- Schedule D - Lands Exempt from Residential Development Charge in Regard to Regional Wastewater Services (Kleinburg Community)
- Schedule E - Lands exempt from Residential and Non-Residential Development Charges in regard to Regional Wastewater Services (Nobleton Community)
- Schedule F - Non-Residential Development Charges
- Schedule G - Contingent Residential and Non-Residential Development Charges
- Schedule H - Calculation of Development Charge Credits provided to Residential Derelict Buildings

7.0 DATE BY-LAW IN FORCE

7.1 This by-law shall come into force on the 17th day of June, 2017.

8.0 DATE BY-LAW EXPIRES

8.1 This by-law will expire on the 16th day of June, 2022, unless it is repealed at an earlier date.

9.0 REPEAL

9.1 By-law No. 2016-36 is hereby repealed as of the 17th day of June, 2017.

ENACTED AND PASSED this ____ day of ____ 2017.

Christopher Raynor
Regional Clerk

Wayne Emmerson
Regional Chair

Authorized by Clause _____, Report _____ of the Committee of the Whole, adopted by Regional Council at its meeting on _____, 2017.

**SCHEDULE “A”
COMPONENTS OF DESIGNATED SERVICES**

Services	Service Components
Water	<ul style="list-style-type: none"> • Water supply, including wells and treatment • Pumping • Storage • Watermains • Cost shared projects (with Toronto and Peel) • Planning and studies
Wastewater	<ul style="list-style-type: none"> • Treatment • Pumping • Conveyance • Cost shared capital (with Peel) • Planning and studies
Roads	<ul style="list-style-type: none"> • Grade separation <ul style="list-style-type: none"> ○ New structures ○ Widening • 400-series interchanges and ramp extensions • Jog elimination/intersection improvement • Mid-block crossing • New Arterial road link • Reconstruction • Road widening <ul style="list-style-type: none"> ○ Rural areas ○ Urban areas ○ HOV corridor • Urbanization • Intersection and miscellaneous capital • Programs and studies
Transit	<ul style="list-style-type: none"> • Facilities • Vehicles • Equipment
Toronto-York Subway extension	<ul style="list-style-type: none"> • Toronto-York Subway Extension
Police	<ul style="list-style-type: none"> • Facilities • Land • Vehicles • Equipment
Paramedic Services	<ul style="list-style-type: none"> • Facilities • Vehicles
Public Health	<ul style="list-style-type: none"> • Provision for future facilities
Waste Diversion	<ul style="list-style-type: none"> • Facilities • Equipment
Public Works	<ul style="list-style-type: none"> • Facilities • Equipment

Services	Service Components
Social Housing	<ul style="list-style-type: none"> • Facilities (pre-development and redevelopment) • Land acquisition
Court Services	<ul style="list-style-type: none"> • Facilities (Court Services share of the Annex Building)
Growth Studies	<ul style="list-style-type: none"> • Growth-related studies of a corporate nature, including Development Charge Background Studies, Official Plan updates and General Service Master plans
Senior Services – Capital Component	<ul style="list-style-type: none"> • Construction of a new Senior Services Facility

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SCHEDULE "B"

Residential Development Charges

June 18, 2017 to June 17, 2022				
Service	Residential Development Charges (\$ per Unit)			
	Single and Semi-detached	Multiple Unit Dwelling	Apartments (>= 700 Sqft)	Apartments (< 700 Sqft)
<u>Hard Services</u>				
Water	\$9,263	\$7,457	\$5,419	\$3,959
Wastewater *	\$18,708	\$15,060	\$10,945	\$7,996
Roads	\$14,240	\$11,463	\$8,331	\$6,087
Subtotal Hard Services	\$42,211	\$33,980	\$24,696	\$18,042
<u>General Services</u>				
Transit	\$1,215	\$978	\$711	\$519
Toronto-York Subway Extension	\$2,547	\$2,051	\$1,490	\$1,089
Police	\$820	\$660	\$480	\$350
Waste Diversion	\$37	\$30	\$22	\$16
Public Works	\$204	\$164	\$119	\$87
Paramedic Services	\$361	\$291	\$211	\$154
Public Health	\$86	\$69	\$50	\$37
Social Housing	\$281	\$226	\$164	\$120
Court Services	\$35	\$28	\$20	\$15
Senior Services	\$0	\$0	\$0	\$0
Growth Studies	\$0	\$0	\$0	\$0
Subtotal General Services	\$5,586	\$4,497	\$3,268	\$2,388
GO Transit	\$342	\$269	\$198	\$125
Total	\$48,139	\$38,745	\$28,161	\$20,555

*Nobleton community is excluded in this table and is subject to a separate charge for Wastewater Tr

SCHEDULE "C"

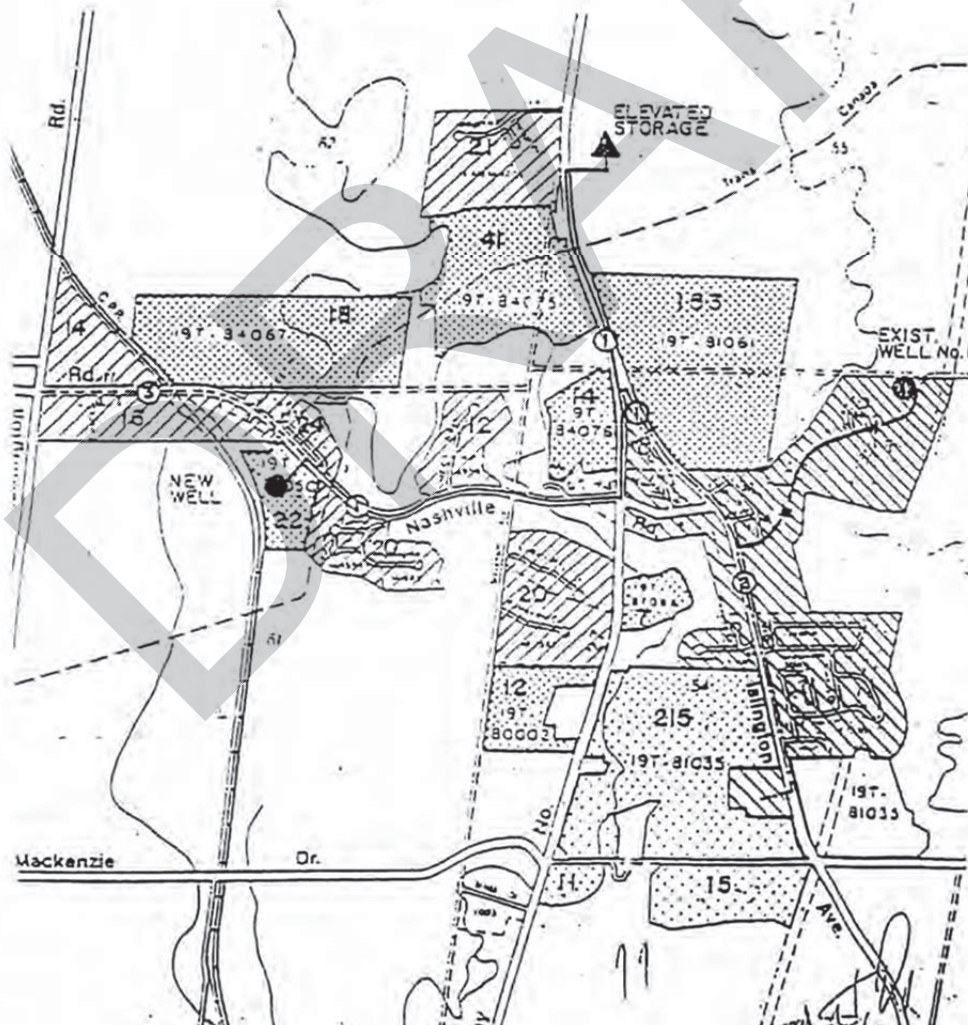
Lands Exempt from Residential Development Charge in Regard to Regional Water Supply Services

WATER DISTRIBUTION

- EXISTING SERVICED AREA (343 LOTS)
- EXISTING AREA TO BE SERVICED (127 LOTS)
- PROP. DEVELOPMENT TO BE SERVICED (508 LOTS)
- ① TRUNK WATERMAIN No. 1
- ② TRUNK WATERMAIN No. 2
- ③ TRUNK WATERMAIN No. 3
- W— EXISTING TRUNK WATERMAIN

CITY OF VAUGHAN






Water Development Charge Credit Area

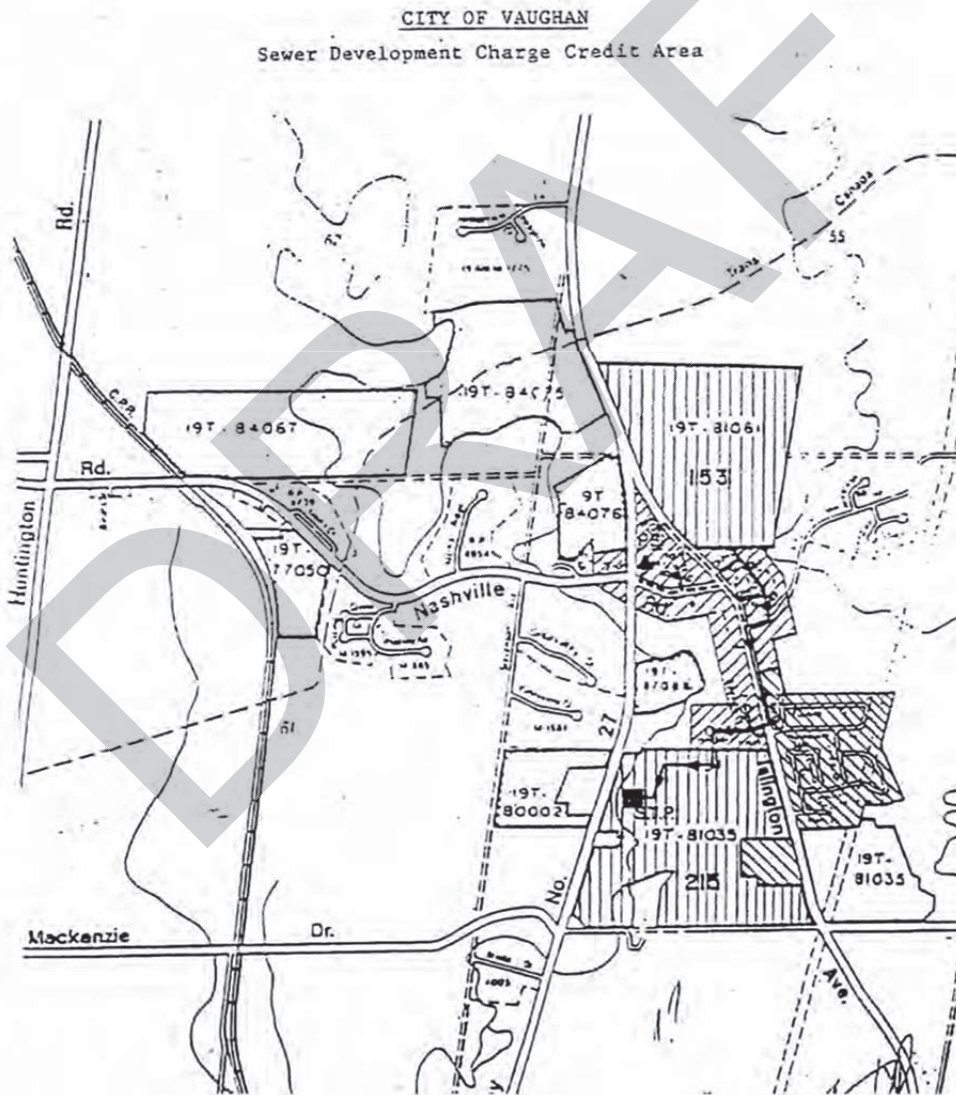


SCHEDULE "D"

Lands Exempt from Residential Development Charge in Regard to Regional Wastewater Services (Kleinburg Community)

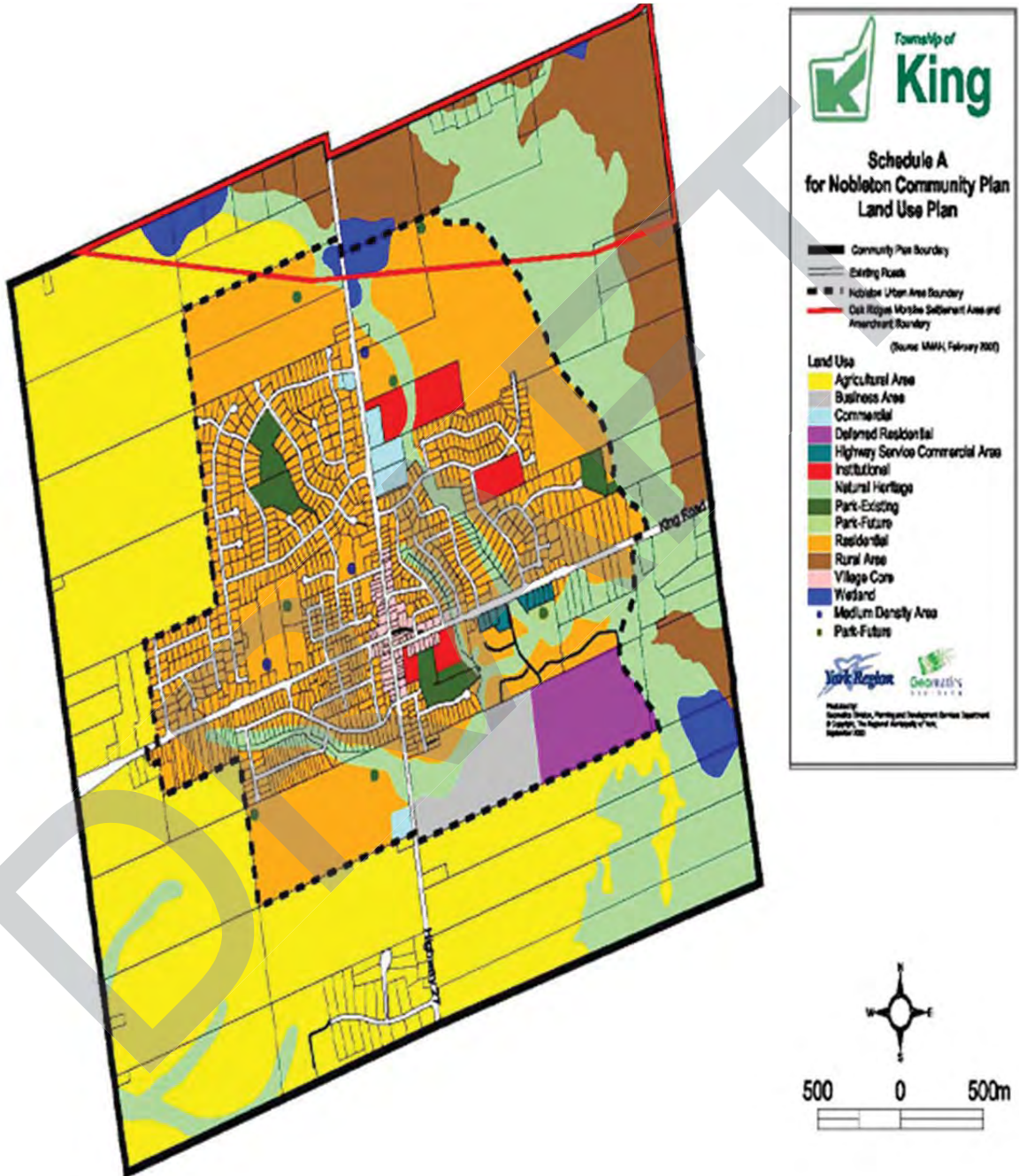
SANITARY SEWERS

-  EXISTING SERVICED AREA (205 LOTS)
-  EXISTING AREA TO BE SERVICED (111 LOTS)
-  PROP. DEVELOPMENT TO BE SERVICED (368 LOTS)
-  PROP. SANITARY TRUNK SEWER
-  PROP. LOCAL SANITARY SEWER



SCHEDULE "E"

Lands exempt from Residential and Non-Residential Development Charges in regard to Regional Wastewater Services (Nobleton Community)



SCHEDULE "F"

Non-Residential Development Charges

June 18, 2017 to June 17, 2022						
Service	Non-residential Development Charges (\$ per Sqft)			Non-residential Development Charges (\$ per Sqm)		
	Retail	Industrial/Office/ Institutional	Hotel	Retail	Industrial/Office/ Institutional	Hotel
Hard Services						
Water	\$5.57	\$3.43	\$0.97	\$59.93	\$36.93	\$10.49
Wastewater *	\$10.53	\$6.93	\$1.95	\$113.31	\$74.61	\$21.00
Roads	\$18.15	\$5.33	\$3.73	\$195.39	\$57.42	\$40.15
Subtotal Hard Services	\$34.25	\$15.70	\$6.66	\$368.63	\$168.97	\$71.64
General Services						
Transit	\$1.64	\$0.48	\$0.36	\$17.63	\$5.16	\$3.90
Toronto-York Subway Extension	\$3.11	\$0.91	\$0.71	\$33.53	\$9.84	\$7.67
				\$0.00	\$0.00	\$0.00
Police	\$0.57	\$0.44	\$0.13	\$6.12	\$4.79	\$1.36
Waste Diversion	\$0.02	\$0.02	\$0.02	\$0.25	\$0.25	\$0.25
Public Works	\$0.12	\$0.13	\$0.05	\$1.26	\$1.36	\$0.49
Paramedic Services	\$0.07	\$0.06	\$0.02	\$0.79	\$0.64	\$0.21
Public Health	\$0.01	(\$0.00)	\$0.00	\$0.08	(\$0.02)	\$0.03
Social Housing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Court Services	\$0.03	\$0.02	\$0.01	\$0.28	\$0.19	\$0.06
Senior Services	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Growth Studies	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal General Services	\$5.57	\$2.06	\$1.30	\$59.93	\$22.21	\$13.96
Total	\$39.81	\$17.76	\$7.95	\$428.56	\$191.18	\$85.61

*Nobleton community is excluded in this table and is subject to a separate charge for Wastewater Treatment Services.

SCHEDULE "G"
Contingent Residential and Non-Residential Development Charges

Project Description	Scheduled Increase	Residential Development Charges (\$ per Unit)				Non-Residential Development Charges (\$ per square foot)			
		Single and Semi- detached	Multiple Unit Dwelling	Apartments (>= 700 Sqft)	Apartments (< 700 Sqft)	Retail	Industrial/Office/ Institutional	Hotel	
		3.74	3.01	2.19	1.60				
Roads - Rail grade separation									
1	Barrie GO Grade Separation Kirby Road west of Keele Street	The local municipality transfers responsibility of Kirby Road between Jane Street and Keele Street to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	114.84	92.45	67.19	49.09	0.14	0.04	0.03
2	Stouffville GO Grade Separation Steeles Avenue east of Kennedy Road	York Region executes an agreement with the City of Toronto to cost share road capital improvements along Steeles Avenue.	26.29	21.16	15.38	11.24	0.03	0.01	0.01
Roads - Interchange (New)									
3	Hwy 400 New Interchange at Kirby Road	The local municipality or Province transfers responsibility of Kirby Road between Weston Road and Jane Street to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	241.63	194.51	141.36	103.28	0.30	0.09	0.06
4	Hwy 404 New Interchange at 19th Avenue	The local municipality transfers responsibility of 19th Avenue between Leslie Street and Woodbine Avenue to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	241.63	194.51	141.36	103.28	0.30	0.09	0.06
5	Hwy 404 New Interchange at Glenwoods Avenue	The local municipality transfers responsibility of Glenwoods Avenue between Woodbine Avenue and Warden Avenue to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	241.63	194.51	141.36	103.28	0.30	0.09	0.06
Roads - Missing Link									
6	Kirby Road Dufferin Street to Bathurst Street	The local municipality or Province transfers responsibility of this section of arterial road to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	278.86	224.48	163.15	119.19	0.35	0.10	0.06
Roads - Widen to 4 lanes									
7	19th Avenue Leslie Street to Woodbine Avenue	The local municipality or Province transfers responsibility of this section of arterial road to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	113.48	91.36	66.39	48.51	0.14	0.04	0.03

SCHEDULE "G"
Contingent Residential and Non-Residential Development Charges

Project Description	Scheduled Increase	Residential Development Charges (\$ per Unit)				Non-Residential Development Charges (\$ per square foot)		
		Single and Semi-detached	Multiple Unit Dwelling	Apartments (>= 700 Sqft)	Apartments (< 700 Sqft)	Retail	Industrial/Office/Institutional	Hotel
		3.74	3.01	2.19	1.60			
8 Elgin Mills Road Woodbine Ave to Kennedy Road	The local municipality or Province transfers responsibility of this section of arterial road to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	138.30	111.33	80.91	59.12	0.17	0.05	0.03
9 Glenwoods Avenue Woodbine to Highway 404 Extension (inc. jog elimination at Woodbine Avenue)	The local municipality or Province transfers responsibility of this section of arterial road to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	32.69	26.31	19.12	13.97	0.04	0.01	0.01
10 Highway 7 (MTO) Donald Cousens Parkway to York-Durham Line	The local municipality or Province transfers responsibility of this section of arterial road to York Region and York Region adopts an Official Plan Admendment and/or amends the Regional Roads Consolidation Bylaw as required.	83.35	67.10	48.76	35.63	0.10	0.03	0.02
11 Highway 9 (MTO) Highway 27 to Weston Road	The local municipality or Province transfers responsibility of this section of arterial road to York Region and York Region adopts an Official Plan Admendment and/or amends the Regional Roads Consolidation Bylaw as required.	89.07	71.70	52.11	38.07	0.11	0.03	0.02
12 Jefferson Sideroad Bathurst Street to Yonge Street	The local municipality or Province transfers responsibility of this section of arterial road to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	49.65	39.97	29.05	21.22	0.06	0.02	0.01
13 Kirby Road Weston Road to Dufferin Street	The local municipality or Province transfers responsibility of this section of arterial road to York Region and York Region adopts an Official Plan Admendment and/or amends the Regional Roads Consolidation Bylaw as required.	395.53	318.40	231.40	169.06	0.49	0.14	0.09
Roads - Widen to 6 lanes (Steeles)								
14 Steeles Avenue Bathurst Street to Hilda Avenue	York Region executes an agreement with the City of Toronto to cost share works on Steeles Avenue.	49.90	40.17	29.20	21.33	0.06	0.02	0.01
15 Steeles Avenue Kennedy Road to Markham Road	York Region executes an agreement with the City of Toronto to cost share works on Steeles Avenue.	66.76	53.74	39.06	28.54	0.08	0.02	0.02
16 Steeles Avenue Ninth Line to York Durham Line	York Region executes an agreement with the City of Toronto to cost share works on Steeles Avenue.	74.48	59.95	43.57	31.83	0.09	0.03	0.02
17 Steeles Avenue McCowan Road to Markham Road	York Region executes an agreement with the City of Toronto to cost share works on Steeles Avenue.	47.24	38.03	27.64	20.19	0.06	0.02	0.01
18 Steeles Avenue Reesor Road to east of 11th Concession (Beare)	York Region executes an agreement with the City of Toronto to cost share works on Steeles Avenue.	42.04	33.84	24.60	17.97	0.05	0.02	0.01
19 Steeles Avenue East of 11th Concession to York-Durham Line	York Region executes an agreement with the City of Toronto to cost share works on Steeles Avenue.	3.80	3.80	3.80	3.80	0.02	0.01	0.00

SCHEDULE "G"
Contingent Residential and Non-Residential Development Charges

Project Description	Scheduled Increase	Residential Development Charges (\$ per Unit)				Non-Residential Development Charges (\$ per square foot)			
		Single and Semi- detached	Multiple Unit Dwelling	Apartments (>= 700 Sqft)	Apartments (< 700 Sqft)	Retail	Industrial/Office/ Institutional	Hotel	
		3.74	3.01	2.19	1.60				
Roads - Regional Standard									
20	Caledon-King Townline Wolfe Road/17th Sideroad to King - Vaughan Boundary	The local municipality or Province transfers responsibility of this section of arterial road to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	275.17	221.51	160.99	117.62	0.34	0.10	0.06
18	Albion-Vaughan Road King - Vaughan Boundary to Highway 50	The local municipality or Province transfers responsibility of this section of arterial road to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	113.74	91.56	66.54	48.61	0.14	0.04	0.03
19	Dufferin Street Davis Drive to Miller's Sideroad	The local municipality or Province transfers responsibility of this section of arterial road to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	73.38	59.07	42.93	31.36	0.09	0.03	0.02
20	Miller's Sideroad Bathurst Street to Yonge Street	The local municipality or Province transfers responsibility of this section of arterial road to York Region and York Region adopts an Official Plan Amendment and/or amends the Regional Roads Consolidation Bylaw as required.	73.38	59.07	42.93	31.36	0.09	0.03	0.02
Roads - Programs & Studies									
21	Finer Grid (Municipal Partnership Program)	Regional Council endorses policy to implement Municipal Partnership Program.	917.23	738.37	536.63	392.06	1.13	0.32	0.21
Water									
22	Gormley Servicing	Regional Council approve the servicing of the East and West Gormley Community	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wastewater									
23	Gormley Servicing	Regional Council approve the servicing of the East and West Gormley Community	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Senior Services									
24	Construction of a new Senior Services Facility	The province indicating they would build/fund new senior services facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total			3,784.07	3,046.92	2,215.45	1,619.61	4.70	1.36	0.88

SCHEDULE "H"

Calculation of Development Charge Credits provided to Residential Derelict 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 96 months 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.