



Development Charges Background Study

City of Richmond Hill

December 22, 2023

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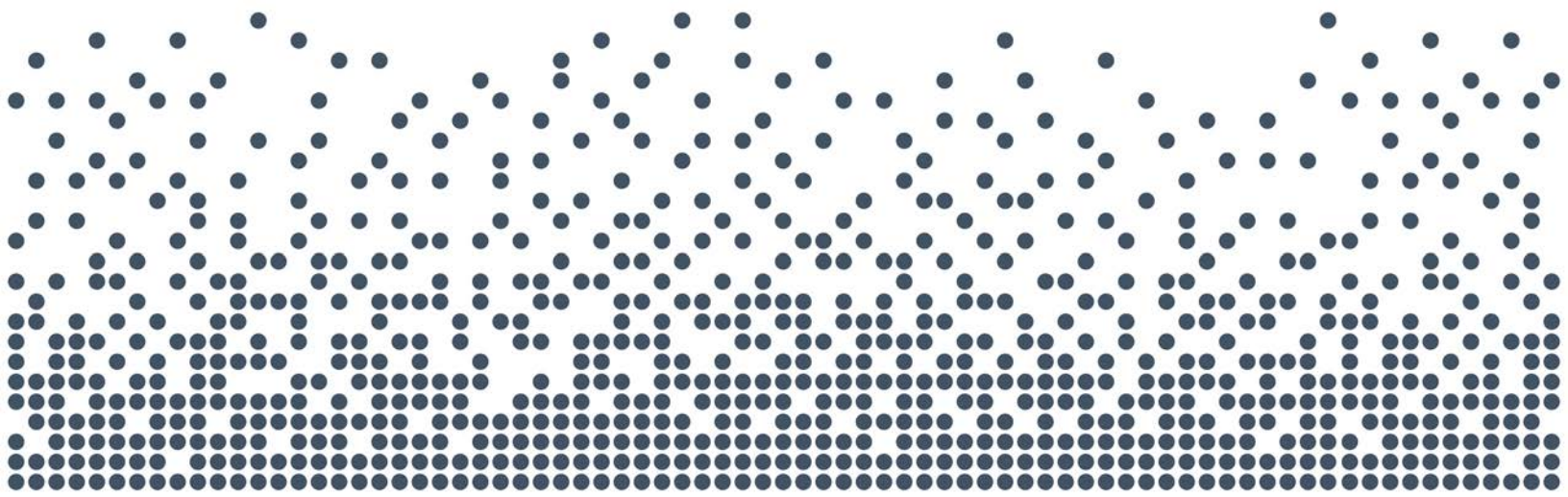
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List of Acronyms and Abbreviations

A.M.P.	Asset management plan
A.S.D.C.	Area-specific Development Charge
C.B.C.	Community Benefits Charge
D.C.	Development charge
D.C.A.	Development Charges Act, 1997, as amended
F.I.R.	Financial Information Return
F.S.W.	Floor Space per Worker
G.F.A.	Gross floor area
LPAT	Local Planning Appeal Tribunal
N.F.P.O.W.	No fixed place of work
O.L.T.	Ontario Land Tribunal
O.M.B.	Ontario Municipal Board
O.P.A.	Official Plan Amendment
O. Reg.	Ontario Regulation
P.O.A.	Provincial Offences Act
P.P.U.	Persons per unit
S.D.E.	Single detached equivalent
S.D.U.	Single detached unit
S.W.M.	Stormwater management
sq.ft.	square foot
sq.m	square metre
T.M.P.	Transportation Master Plan
U.M.E.S.P.	Urban Master Environmental Servicing Plan



Executive Summary



Executive Summary

1. The report provided herein represents the Development Charges (D.C.) Background Study for the City of Richmond Hill required by the *Development Charges Act, 1997*, as amended (D.C.A.). This report has been prepared in accordance with the methodology required under the D.C.A. The contents include the following:
 - Chapter 1 – Overview of the legislative requirements of the Act;
 - Chapter 2 – Review of present D.C. policies of the City;
 - Chapter 3 – Summary of the residential and non-residential growth forecasts for the City;
 - Chapter 4 – Approach to calculating the D.C.;
 - Chapter 5 – Review of historical service standards and identification of future capital requirements to service growth and related deductions and allocations;
 - Chapter 6 – Calculation of the D.C.s;
 - Chapter 7 – D.C. policy recommendations and rules; and
 - Chapter 8 – By-law implementation.

2. D.C.s provide for the recovery of growth-related capital expenditures from new development. The D.C.A. is the statutory basis to recover these charges. The methodology is detailed in Chapter 4; a simplified summary is provided below.
 - 1) Identify amount, type and location of growth.
 - 2) Identify servicing needs to accommodate growth.
 - 3) Identify capital costs to provide services to meet the needs.
 - 4) Deduct:
 - Grants, subsidies and other contributions;
 - Benefit to existing development;
 - Amounts in excess of 15-year historical service calculation; and
 - D.C. reserve funds (where applicable);
 - 5) Net costs are then allocated between residential and non-residential benefit; and
 - 6) Net costs divided by growth to provide the D.C.



3. A number of changes to the D.C.A. have occurred since the passage of the City's 2019 D.C. By-law. These changes were introduced through four (4) bills passed in the Ontario legislature; Bill 108, Bill 138, Bill 197, and Bill 213, and were detailed in the City's 2021 D.C. Update Study, dated April 9, 2021. These changes included the following:

- Instalment payments for rental housing, institutional developments, and non-profit housing;
- Rate freeze on D.C.s for applications proceeding through Site Plan or Zoning By-law Amendment applications;
- Removal of the 10% mandatory deduction on all D.C. eligible services;
- Introduction of a new authority under the Planning Act to implement Community Benefit Charges (C.B.C.);
- Eligible Services: The list of eligible services for the D.C. has now been expanded to include most services eligible under the D.C.A. prior to Bill 108; and
- New exemption for universities that receive operating funds from the Government.

4. Since the completion of the D.C. Update Study in 2021, further legislative changes have been made to the D.C.A.

1) On November 28, 2022 Bill 23, *More Homes Built Faster Act, 2022* received Royal Assent. The Bill provides the following changes (further details are provided in Section 1.4 of this report). It is noted that, as of the time of writing, the Province has announced (on December 13, 2023) potential changes to the phased-in requirements and the removal of studies as eligible capital costs. The details of these changes will be forthcoming in early 2024 and Watson will monitor and advise as to the nature of these changes:

- Additional Residential Unit Exemption: exemptions for up to two (2) additional units;
- Removal of Housing as an Eligible D.C. Service;
- New Statutory Exemptions for Affordable and Attainable Units (currently not in force);



- New Statutory Exemptions: Non-Profit Housing and Affordable Inclusionary Zoning Units;
- Historical Level of Service extended to previous 15-year period instead of the previous 10-year period;
- Capital Cost definition revised to remove studies and prescribe services for which land or an interest in land will be restricted (nothing prescribed to date);
- Mandatory Phase-in of a D.C. passed after January 1, 2022, as follows:
 - Year 1 – 80% of the maximum charge;
 - Year 2 – 85% of the maximum charge;
 - Year 3 – 90% of the maximum charge;
 - Year 4 – 95% of the maximum charge; and
 - Year 5 to expiry – 100% of the maximum charge.
- D.C. By-law expiry will be a maximum of 10 years after the date the by-law comes into force;
- D.C. for Rental Housing developments to receive a discount as follows:
 - Three or more bedrooms – 25% reduction;
 - Two bedrooms – 20% reduction; and
 - All other bedroom quantities – 15% reduction.
- Maximum Interest Rate for Installments and Determination of Charge for Eligible Site Plan and Zoning By-law Amendment Applications to be set at the average prime rate plus 1%; and
- Requirement to Allocate Funds Received – municipalities are required to spend or allocate at least 60% of their reserve fund at the beginning of the year for water, wastewater, and services related to a highway.

2) On April 14, 2022 Bill 109, More Homes for Everyone Act, 2022 received Royal Assent. The Bill provides for additional reporting requirements as part of the Annual Treasurer's statement. Further details are provided in Section 1.5 of this report.

5. Further legislative changes have been proposed through Bill 134: *Affordable Homes and Good Jobs Act, 2023*. Although this bill has not yet been proclaimed, the proposed amendment to the D.C.A. involves a change to the definition for



affordable residential units. Further discussion is provided in Section 1.6 of this report.

6. The growth forecast (Chapter 3) on which the D.C. study is based, projects the following population, housing, and non-residential floor area for the 10-year (2023 to 2032), and 18-year (2023 to 2041) periods.

Table ES-1
Summary of Growth Forecast by Planning Period
City of Richmond Hill

Measure	10 Year	18-Year
	2023-2032	2023-2041
(Net) Population Increase	43,263	66,870
Residential Unit Increase	18,243	29,549
Non-Residential Gross Floor Area Increase (sq.ft.)	4,609,400	7,510,300

7. On May 28, 2019, the City of Richmond Hill passed City-Wide By-law 47-19 under the D.C.A. The by-law imposes D.C.s on residential and non-residential uses. This by-law was amended on June 23, 2021 via By-law 34-21. The City is undertaking a D.C. public process and anticipates passing a new by-law on March 5, 2024, with the mandatory public meeting scheduled for February 13, 2024.
8. The City also has eight (8) area-specific D.C.s by-laws currently in place:
 - Oak Ridges-Lake Wilcox Greenfield Development Area (By-law 41-19);
 - North Leslie West Development Area (By-law 42-19);
 - North Leslie East Development Area (By-law 43-19);
 - West Gormley Development Area (By-law 44-19);
 - Elgin West Development Area (By-law 45-19);
 - Headford Storm North of Rouge Development Area (By-law 46-19);
 - Bayview North East Development Area (By-law 32-21); and
 - Headford – Excluding Storm Development Area (By-law 33-21).



As part of this D.C. background study process, the City is proposing to repeal or update all eight of these by-laws. Certain works included in the A.S.D.C. by-laws have been determined to provide a City-wide growth-related benefit. These works have been included in the D.C. calculations provided herein. Further detail on the approach to the A.S.D.C.s is provided in Appendix H.

9. The City-Wide D.C. currently in effect is \$29,110 for single detached dwelling units for full services. The City-Wide non-residential non-retail charge is \$8.56 per sq.ft. (\$92.11 per sq.m.) for full services, and the City-Wide non-residential retail charge is \$11.72 per sq.ft. (\$126.19 per sq.m) for full services. This report has undertaken a recalculation of the charges based on future identified needs (presented in Schedule ES-3 for residential and non-residential). Charges have been provided on a City-wide basis for all services. The corresponding residential single detached unit charge for full services is \$44,950. The non-residential, non-retail charge is \$13.25 per sq.ft. (\$142.62 per sq.m) of building area, and the non-residential retail charge is \$16.50 per sq.ft. (\$177.60 per sq.m) of building area for full services. These rates are submitted to Council for their consideration.
10. A summary of the total growth-related capital program identified by the City is provided in ES-4. The total capital program is approximately \$1.62 billion, of which \$576.46 million is considered to benefit growth beyond the forecast periods identified for the respective services. Further deductions related to ineligible works have been made in the amount of \$14.31 million, in addition to deductions related to the portion of works which provide a benefit to the existing development (\$250.65 million. This results in a total D.C. recoverable amount of \$778.93 million which has been included in the D.C. calculation. Of this amount, \$688.12 million is recoverable from residential development, and \$90.81 million is recoverable from non-residential development.
11. The D.C.A. requires a summary be provided of the gross capital costs and the net costs to be recovered over the life of the by-law. This calculation is provided by service and is presented in Table 6-7. A summary of these costs is provided below:



Table ES-2
Summary of Expenditures Anticipated Over the Life of the By-law

Summary of Expenditures Anticipated Over the Life of the By-law	Expenditure Amount
Total gross expenditures planned over the next ten years	\$833,449,249
Less: Benefit to existing development	\$93,099,720
Less: Post planning period benefit	\$125,990,827
Less: Ineligible	\$14,243,000
Less: Grants, subsidies and other contributions	\$0
Net costs to be recovered from development charges	\$600,115,702

This suggests that for the non-D.C. cost over the life of the D.C. by-law (benefit to existing development, and grants, subsidies and other contributions), \$107.34 million (or an annual amount of \$10.73 million) will need to be contributed from taxes and rates, or other sources. With respect to the post period benefit amount of \$125.99 million, it will be included in subsequent D.C. study updates to reflect the portion of capital that benefits growth in the post period D.C. forecasts.

Based on the above table, the City plans to spend \$833.45 million over the life of the by-law, of which \$600.12 million (72%) is recoverable from D.C.s. Of this net amount, \$539.42 million is recoverable from residential development and \$60.70 million from non-residential development. It is noted also that any exemptions or reductions in the charges would reduce this recovery further.

12. Considerations by Council – The background study represents the service needs arising from residential and non-residential growth over the forecast periods.

The following services are calculated based on a long-term forecast to 2041:

- Engineering Services; and
- Fire Protection Services.

The following services are calculated based on a 10-year forecast to 2032:

- Public Works (facilities and fleet);
- Parks and Recreation Services; and



- Library Services.

Council will consider the findings and recommendations provided in the report and, in conjunction with public input, approve such policies and rates it deems appropriate. These directions will refine the draft D.C. by-law which is appended in Appendix H (to be provided under separate cover). These decisions may include:

- adopting the charges and policies recommended herein;
- considering additional exemptions to the by-law; and
- considering reductions in the charge by class of development (obtained by removing certain services on which the charge is based and/or by a general reduction in the charge).



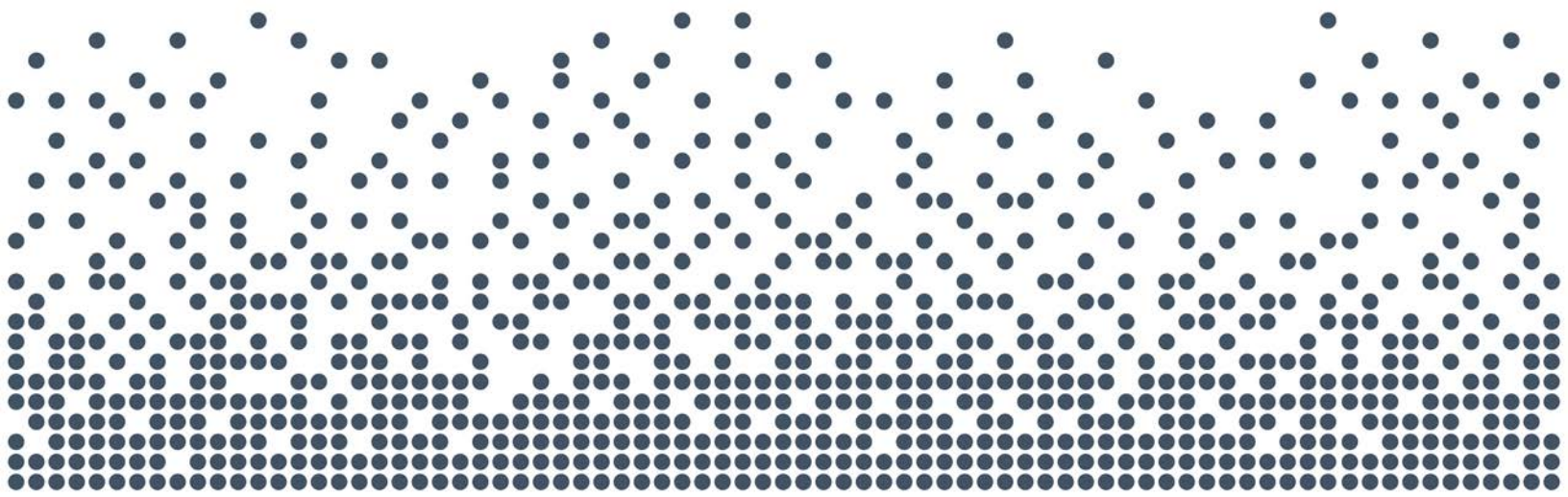
Table ES-3
City of Richmond Hill
Schedule of Development Charges

Service/Class of Service	RESIDENTIAL					NON-RESIDENTIAL			
	Single and Semi-Detached Dwelling	Multiples	Apartments - Large (>= 700 sq.ft.)	Apartments - Small (<700 sq.ft.)	Special Care/Special Dwelling Units	Retail (per sq.m. of Gross Floor Area)	Non-Retail (per sq.m. of Gross Floor Area)	Retail (per sq.ft. of Gross Floor Area)	Non-Retail (per sq.ft. of Gross Floor Area)
Municipal Wide Services/Class of Service:									
Engineering Services	15,885	13,207	10,032	7,121	5,018	106.13	87.83	9.86	8.16
Public Works (Facilities and Fleet)	1,849	1,537	1,168	829	584	12.92	9.80	1.20	0.91
Fire Protection Services	1,297	1,078	819	581	410	8.61	7.21	0.80	0.67
Parks and Recreation Services	22,750	18,915	14,367	10,199	7,187	43.81	33.15	4.07	3.08
Library Services	3,169	2,635	2,001	1,421	1,001	6.14	4.63	0.57	0.43
Total Municipal Wide Services/Class of Services	44,950	37,372	28,387	20,151	14,200	177.60	142.62	16.50	13.25



Table ES-4
City of Richmond Hill
Summary of Capital Costs Included in the D.C.

Service/Class of Service	Forecast Period	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
						Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
Fire Protection Services	2023-2041	46,585,885	-	-	46,585,885	15,879,000	-	30,706,885	25,486,715	5,220,170
Engineering Services	2023-2041	1,022,715,300	494,673,600	-	528,041,700	152,052,139	-	375,989,561	312,071,336	63,918,225
Public Works	2023-2032	32,560,000	-	-	32,560,000	4,767,302	-	27,792,698	23,345,866	4,446,832
Parks and Recreation Services	2023-2032	474,481,530	81,783,000	14,308,000	378,390,530	76,067,451	-	302,323,079	287,206,925	15,116,154
Library Services	2023-2032	44,000,000	-	-	44,000,000	1,884,847	-	42,115,153	40,009,396	2,105,758
Total		1,620,342,715	576,456,600	14,308,000	1,029,578,115	250,650,738	-	778,927,377	688,120,238	90,807,139



Report



Chapter 1

Introduction



1. Introduction

1.1 Purpose of this Document

This background study has been prepared pursuant to the requirements of the D.C.A., as amended, (D.C.A.) (section 10) and, accordingly, recommends new development charges (D.C.s) and policies for the City of Richmond Hill.

The City retained Watson & Associates Economists Ltd. (Watson), to undertake the D.C. study process beginning in September 2022 with anticipated completion prior to by-law expiry in mid-2024. Watson worked with City staff and HDR Inc. (HDR) in preparing the D.C. analysis and policy recommendations.

This D.C. background study will be distributed to members of the public in order to provide interested parties with sufficient background information on the legislation, the study's recommendations, and an outline of the basis for these recommendations. The draft D.C. by-law will be provided under separate cover.

This report has been prepared, in the first instance, to meet the statutory requirements applicable to the City's D.C. background study, as summarized in Chapter 4. It also addresses the requirement for "rules" (contained in Chapter 7) and the proposed by-laws to be made available as part of the approval process (included as Appendix H).

In addition, the report is designed to set out sufficient background on the legislation (Chapter 4), Richmond Hill's current D.C. policies (Chapter 2) and the policies underlying the proposed by-law, to make the exercise understandable to those who are involved.

Finally, it addresses post-adoption implementation requirements (Chapter 8) which are critical to the successful application of the new policy.

The chapters in the report are supported by Appendices containing the data required to explain and substantiate the calculation of the charge. A full discussion of the statutory requirements for the preparation of a background study and calculation of a D.C. is provided herein.



1.2 Summary of the Process

The public meeting required under section 12 of the D.C.A. has been scheduled for February 13, 2024. Its purpose is to present the study to the public and to solicit public input. The meeting is also being held to answer any questions regarding the study's purpose, methodology, and the proposed modifications to the City's D.C.s.

In accordance with the legislation, the background study and proposed D.C. by-law will be available for public review on December 22, 2023.

The process to be followed in finalizing the report and recommendations includes:

- consideration of responses received prior to, at, or immediately following the public meeting; and
- finalization of the report and Council consideration of the by-law subsequent to the public meeting.

Figure 1-1 outlines the proposed schedule to be followed with respect to the D.C. by-law adoption process.

Figure 1-1
Schedule of Key D.C. Process Dates for the City of Richmond Hill

Schedule of Study Milestone	Dates
1. Data collection, staff review, engineering work, D.C. calculations and policy work	September 2022 to November 2023
2. Developer Consultation Meetings	August 12, 2022 February 24, 2023 April 17, 2023 July 4, 2023 August 11, 2023 September 7, 2023 September 22, 2023 December 12, 2023
3. Special Council Meeting – Education Session	October 10, 2023
4. Public release of final D.C. Background study and proposed by-law	December 22, 2023
5. Public meeting advertisement placed in newspaper(s)	No later than January 23, 2024
6. Public meeting of Council	February 13, 2024



Schedule of Study Milestone	Dates
7. Council considers adoption of background study and passage of by-law	March 5, 2024
8. Newspaper notice given of by-law passage	By 20 days after passage
9. Last day for by-law appeal	40 days after passage
10. City makes pamphlet available (where by-law not appealed)	By 60 days after in force date

1.3 Changes to the D.C.A.: *Bill 108, 138, 197, and 213*

1.3.1 *Bill 108: More Homes, More Choice Act – An Act to Amend Various Statutes with Respect to Housing, Other Development, and Various Matters*

On May 2, 2019, the Province introduced Bill 108, which proposed changes to the D.C.A. The Bill was introduced as part of the Province's "More Homes, More Choice: Ontario's Housing Supply Action Plan." The Bill received Royal Assent on June 6, 2019.

While having received royal assent, many of the amendments to the D.C.A. would not come into effect until they are proclaimed by the Lieutenant Governor (many of these changes were revised through Bill 197). At the time of writing, the following provisions have been proclaimed:

- Effective January 1, 2020, rental housing and institutional developments will pay D.C.s in six equal annual payments commencing at occupancy. Interest may be charged on the instalments, and any unpaid amounts may be added to the property and collected as taxes. As per Bill 23, non-profit housing developments are now exempt from paying D.C.s, however, prior to Bill 23, and as a result of Bill 108, non-profit housing developments paid D.C.s in 21 equal annual payments. Effective January 1, 2020, the D.C. amount for all developments occurring within 2 years of a Site Plan or Zoning By-law Amendment planning approval (for application submitted after this section is proclaimed), shall be determined based on the D.C. in effect on the day of Site Plan or Zoning By-law Amendment application. If the development is not proceeding via these planning approvals, then the amount is determined as of the date of issuance of a building permit.



On February 28, 2020, the Province released updated draft regulations related to the D.C.A. and the Planning Act. A summary of the changes that were to take effect upon proclamation by the Lieutenant Governor is provided below:

Changes to Eligible Services – Prior to Bill 108, the D.C.A. provided a list of ineligible services whereby municipalities could include growth related costs for any service that was not listed. With Bill 108, the changes to the D.C.A. would now specifically list the services that are eligible for inclusion in the by-law. Further, the initial list of eligible services under Bill 108 was limited to "hard services", with the "soft services" being removed from the D.C.A. These services would be considered as part of a new community benefits charge (discussed below) imposed under the Planning Act. As noted in the next section this list of services has been amended through Bill 197.

Mandatory 10% deduction - The amending legislation would have removed the mandatory 10% deduction for all services that remain eligible under the D.C.A.

Remaining Services to be Included in a New Community Benefits Charge (C.B.C.) Under the Planning Act - It was proposed that a municipality may, by by-law, impose a C.B.C. against land to pay for the capital costs of facilities, services and matters required because of development or redevelopment in the area to which the by-law applies. The C.B.C. was proposed to include formerly eligible D.C. services that are not included in the above listing, in addition to parkland dedication and bonus zoning contributions.

1.3.2 Bill 138: Plan to Build Ontario Together Act, 2019

On November 6, 2019, the Province released Bill 138 which provided further amendments to the D.C.A. and Planning Act. This Bill received Royal Assent on December 10, 2019, and was proclaimed which resulted in sections related to the D.C.A. (schedule 10) becoming effective on January 1, 2020. The amendments to the D.C.A. included removal of instalment payments for commercial and industrial developments that were originally included in Bill 108.

1.3.3 Bill 197: COVID-19 Economic Recovery Act, 2020

In response to the global pandemic that began affecting Ontario in early 2020, the Province released Bill 197 which provided amendments to a number of Acts, including the D.C.A. and Planning Act. This Bill also revised some of the proposed changes



identified in Bill 108. Bill 197 was tabled on July 8, 2020, received Royal Assent on July 21, 2020, and was proclaimed on September 18, 2020. The following provides a summary of the changes:

1.3.3.1 D.C. Related Changes

List of D.C. Eligible Services

- As noted above, under Bill 108 some services were to be included under the D.C.A. and some would be included under the C.B.C. authority. Bill 197, however, revised this proposed change and has included all services (with some exceptions) under the D.C.A. These services are as follows:
 - Water supply services, including distribution and treatment services;
 - Wastewater services, including sewers and treatment services.
 - Storm water drainage and control services.
 - Services related to a highway.
 - Electrical power services.
 - Toronto-York subway extension.
 - Transit services.
 - Waste diversion services.
 - Policing services.
 - Fire protection services.
 - Ambulance services.
 - Library services.
 - Long-term Care services.
 - Parks and Recreation services, but not the acquisition of land for parks.
 - Public Health services.
 - Childcare and early years services.
 - Housing services (no longer eligible as per Bill 23).
 - Provincial Offences Act services.
 - Services related to emergency preparedness.
 - Services related to airports, but only in the Regional Municipality of Waterloo.
 - Additional services as prescribed.



Classes of Services – D.C.

Pre-Bill 108/197 legislation (i.e., D.C.A., 1997) allowed for categories of services to be grouped together into a minimum of two categories (90% and 100% services).

The Act (as amended) repeals and replaces the above with the four following subsections:

- A D.C. by-law may provide for any eligible service or capital cost related to any eligible service to be included in a class, set out in the by-law.
- A class may be composed of any number or combination of services and may include parts or portions of the eligible services or parts or portions of the capital costs in respect of those services.
- A D.C. by-law may provide for a class consisting of studies in respect of any eligible service whose capital costs are described in paragraphs 5 and 6 of s. 5 of the D.C.A.
- A class of service set out in the D.C. by-law is deemed to be a single service with respect to reserve funds, use of monies, and credits.

Note: An initial consideration of “class” appears to mean any group of services.

Mandatory 10% Deduction

As well, the removal of the 10% deduction for soft services under Bill 108 has been maintained.

As a result of the passage of Bill 197, and subsequent proclamation on September 18, 2020, this report has provided the D.C. calculations without the 10% mandatory deduction.

1.3.3.2 C.B.C. Related Changes

C.B.C. Eligibility

The C.B.C. is limited to lower-tier and single-tier municipalities; upper-tier municipalities will not be allowed to impose this charge.



1.3.3.3 Combined D.C. and C.B.C. Impacts

D.C. vs. C.B.C. Capital Cost

A C.B.C. may be imposed with respect to the services listed in s. 2 (4) of the D.C.A. (eligible services), “provided that the capital costs that are intended to be funded by the community benefits charge are not capital costs that are intended to be funded under a development charge by-law.”

1.3.4 **Bill 213: Better for People, Smarter for Business Act, 2020**

On December 8, 2020, Bill 213 received Royal Assent. One of the changes of the Bill that took effect upon Royal Assent included amending the Ministry of Training, Colleges and Universities Act by introducing a new section that would exempt the payment of D.C.s for developments of land intended for use by a university that receives operating funds from the Government. As a result, this mandatory exemption will be included in the D.C. by-law.

1.4 **Recent Changes to the D.C.A. - Bill 23: More Homes Built Faster Act, 2022**

On November 28, 2022, Bill 23 received Royal Assent. This Bill amends a number of pieces of legislation including the Planning Act and the D.C.A. The following provides a summary of the changes to the D.C.A. It is noted that, as of the time of writing, the Province has announced (on December 13, 2013) potential changes to the phased-in requirements and the removal of studies as eligible capital costs. The details of these changes will be forthcoming in early 2024 and Watson will monitor and advise as to the nature of these changes.

1.4.1 **Additional Residential Unit Exemption**

The rules for these exemptions are now provided in the D.C.A., rather than the regulations and are summarized as follows:

- Exemption for residential units in existing rental residential buildings – For rental residential buildings with four or more residential units, the creation of the greater of one unit or 1% of the existing residential units will be exempt from a D.C.



- Exemption for additional residential units in existing and new residential buildings
 - The following developments will be exempt from a D.C.:
 - A second unit in a detached, semi-detached, or rowhouse if all buildings and ancillary structures cumulatively contain no more than one residential unit;
 - A third unit in a detached, semi-detached, or rowhouse if no buildings or ancillary structures contain any residential units; and
 - One residential unit in a building or structure ancillary to a detached, semi-detached, or rowhouse on a parcel of urban land, if the detached, semi-detached, or rowhouse contains no more than two residential units and no other buildings or ancillary structures contain any residential units.

1.4.2 Removal of Housing as an Eligible D.C. Service

Housing services are removed as an eligible service. Municipalities with by-laws that include a charge for housing services can no longer collect for this service.

1.4.3 New Statutory Exemption for Non-Profit Housing

Non-profit housing units are exempt from D.C.s and D.C. instalment payments due after November 28, 2022.

1.4.4 New Statutory Exemptions for Affordable Units, Attainable Units, and Affordable Inclusionary Zoning Units

Affordable units, attainable units, and inclusionary zoning units (affordable) are exempt from the payment of D.C.s, as follows:

- Affordable Rental Units: Where rent is no more than 80% of the average market rent as defined by a new bulletin published by the Ministry of Municipal Affairs and Housing.
- Affordable Owned Units: Where the price of the unit is no more than 80% of the average purchase price as defined by a new bulletin published by the Ministry of Municipal Affairs and Housing.
- Attainable Units: Excludes affordable units and rental units; will be defined as prescribed development or class of development and sold to a person who is at “arm’s length” from the seller.



- Note: for affordable and attainable units, the municipality shall enter into an agreement that ensures the unit remains affordable or attainable for 25 years.

Note: the above exemptions are not currently in force. These exemptions will be in force upon proclamation and revisions to the regulations. The bulletin has yet to be published as at the time of writing this report. Section 1.5 below discusses further changes to the above definitions proposed from Bill 134.

- Inclusionary Zoning Units: Affordable housing units required under inclusionary zoning by-laws are exempt from a D.C.

1.4.5 Historical Level of Service Extended to Previous 15-Year Period

Prior to Bill 23, the increase in need for service was limited by the average historical level of service calculated over the 10-year period preceding the preparation of the D.C. background study. This average is now extended to the historical 15-year period.

1.4.6 Revised Definition of Capital Costs

The definition of capital costs has been revised to remove studies. Further, the regulations to the Act may prescribe services for which land or an interest in land will be restricted. As at the time of writing, no services have been prescribed.

1.4.7 Mandatory Phase-in of a D.C.

For all D.C. by-laws passed after January 1, 2022, the charge must be phased-in annually over the first five years the by-law is in force, as follows:

- Year 1 – 80% of the maximum charge;
- Year 2 – 85% of the maximum charge;
- Year 3 – 90% of the maximum charge;
- Year 4 – 95% of the maximum charge; and
- Year 5 to expiry – 100% of the maximum charge.



1.4.8 D.C. By-law Expiry

A D.C. by-law now expires 10 years after the day it comes into force (unless the by-law provides for an earlier expiry date). This extends the by-law's life from five (5) years, prior to Bill 23.

1.4.9 Installment Payments

Non-profit housing development has been removed from the instalment payment section of the Act (section 26.1), as these units are now exempt from the payment of a D.C.

1.4.10 Rental Housing Discount

The D.C. payable for rental housing development will be reduced based on the number of bedrooms in each unit as follows:

- Three or more bedrooms – 25% reduction;
- Two bedrooms – 20% reduction; and
- All other bedroom quantities – 15% reduction.

1.4.11 Maximum Interest Rate for Instalments and Determination of Charge for Eligible Site Plan and Zoning By-law Amendment Applications

No maximum interest rate was previously prescribed. As per Bill 23, the maximum interest rate is set at the average prime rate plus 1%. This maximum interest rate provision would apply to all instalment payments and eligible site plan and zoning by-law amendment applications occurring after November 28, 2022.

1.4.12 Requirement to Allocate Funds Received

Annually, beginning in 2023, municipalities will be required to spend or allocate at least 60% of the monies in a reserve fund at the beginning of the year for water, wastewater, and services related to a highway. Other services may be prescribed by the regulation.



1.5 Changes to the D.C.A.: Bill 109: More Homes for Everyone Act, 2022

Bill 109 (More Homes for Everyone Act, 2022) provides that Council shall make the Annual Treasurer's Statement available to the public by posting the statement on the website or, if there is no such website, in the municipal office. In addition, Bill 109 introduced the following requirements which shall be included in the Treasurer's Statement.

- For each service for which a development charge is collected during the year
 - whether, as of the end of the year, the municipality expects to incur the amount of capital costs that were estimated, in the relevant development charge background study, to be incurred during the term of the applicable development charge by-law, and
 - if the answer to subparagraph i is no, the amount the municipality now expects to incur and a statement as to why this amount is expected;
- For any service for which a development charge was collected during the year but in respect of which no money from a reserve fund was spent during the year, a statement as to why there was no spending during the year.

1.6 Changes to the D.C.A. – Bill 134: Affordable Homes and Good Jobs Act, 2023

The exemption for affordable residential units was included in the *More Homes Built Faster Act* (Bill 23), enacted by the Province on November 28, 2022. Under this legislation, affordable residential units were defined within subsection 4.1 of the D.C.A. and exemptions for D.C.s provided in respect of this definition. While the legislation was enacted in November 2022, the ability for municipalities to implement the exemptions required the Minister of Municipal Affairs and Housing to publish an "Affordable Residential Units for the Purposes of the Development Charges Act, 1997 Bulletin." This bulletin would inform average market rent and purchase price to be used in determining which developments qualify as affordable residential units. At the time of writing, this bulletin had not been published by the Minister.



Bill 134 was released on September 28, 2023 and has received Second Reading in the legislature at the time of writing. Bill 134 proposes a modification to the affordable residential unit definition by:

- introducing an income-based test for affordable rent and purchase price; and
- increasing the threshold for the market test of affordable rent and purchase price.

The proposed amendment would provide the exemption based on the lesser of the two measures. Moreover, the rules in subsection 4.1 of the D.C.A. are unchanged with respect to:

- the tenant and purchaser transacting the affordable unit being at arm's length;
- the intent of maintaining the affordable residential unit definition for a 25-year period, requiring an agreement with the municipality (which may be registered on title); and
- exemptions for attainable residential units and associated rules (requiring further regulations).

The following table provides a comparison of the current definitions within the D.C.A. and those being proposed in Bill 134 (underlining added for emphasis).

Item	D.C.A. Definition	Bill 134 Definition
Affordable residential unit rented (subsection 4.1 (2), para. 1)	The rent is no greater than <u>80 per cent of the average market rent</u> , as determined in accordance with subsection (5).	The rent is no greater than <u>the lesser of</u> , i. the <u>income-based affordable rent</u> for the residential unit set out in the Affordable Residential Units bulletin, as identified by the Minister of Municipal Affairs and Housing in accordance with subsection (5), and ii. the <u>average market rent</u> identified for the residential unit set out in the Affordable Residential Units bulletin.
Average market rent/rent based on income (subsection 4.1 (5)) for the	the <u>average market rent for the year in which the residential unit is occupied by a tenant</u> , as identified in	The Minister of Municipal Affairs and Housing shall,



Item	D.C.A. Definition	Bill 134 Definition
<p>purposes of subsection 4.1 (2), para. 1</p>	<p>the bulletin entitled the “Affordable Residential Units for the Purposes of the Development Charges Act, 1997 Bulletin.”</p>	<p>(a) determine the <u>income of a household</u> that, in the Minister’s opinion, is at the <u>60th percentile of gross annual incomes for renter households in the applicable local municipality</u>; and</p> <p>(b) identify the <u>rent</u> that, in the Minister’s opinion, is <u>equal to 30 per cent of the income of the household</u> referred to in clause (a).</p>
<p>Affordable residential unit ownership (subsection 4.1 (3), para. 1)</p>	<p>The price of the residential unit is no greater than <u>80 per cent of the average purchase price</u>, as determined in accordance with subsection (6).</p>	<p>The price of the residential unit is no greater than <u>the lesser of</u>,</p> <p>i. the <u>income-based affordable purchase price</u> for the residential unit set out in the Affordable Residential Units bulletin, as identified by the Minister of Municipal Affairs and Housing in accordance with subsection (6), and</p> <p>ii. <u>90 per cent of the average purchase price</u> identified for the residential unit set out in the Affordable Residential Units bulletin.</p>
<p>Average market purchase price/purchase price based on income (subsection 4.1 (6)) for the purposes of subsection 4.1 (3), para. 1</p>	<p>the <u>average purchase price for the year in which the residential unit is sold</u>, as identified in the bulletin entitled the “Affordable Residential Units for the Purposes of the Development Charges Act, 1997 Bulletin,” as it is amended from time to time, that is published by the Minister of Municipal Affairs and Housing on a website</p>	<p>the Minister of Municipal Affairs and Housing shall,</p> <p>(a) determine the <u>income of a household</u> that, in the Minister’s opinion, is at the <u>60th percentile of gross annual incomes for households in the applicable local municipality</u>; and</p> <p>(b) identify the <u>purchase price</u> that, in the Minister’s opinion, <u>would result in annual accommodation</u></p>



Item	D.C.A. Definition	Bill 134 Definition
	of the Government of Ontario.	<u>costs equal to 30 per cent of the income of the household referred to in clause (a)</u>



Chapter 2

Current City of Richmond Hill Policy



2. Current City of Richmond Hill Policy

2.1 City-Wide D.C.s

2.1.1 Schedule of Charges

On May 28, 2019, the City of Richmond Hill passed By-law 47-19 under the D.C.A. This by-law was amended on June 23, 2021 via By-law 34-21. These by-laws impose City-Wide D.C.s for residential and non-residential uses.

The table below provides the City-wide rates currently in effect, as at July 1, 2023.

Table 2-1
City of Richmond Hill
Current D.C. Rates
July 1, 2023

Service	Residential				Non-Residential			
	Single & Semi Detached	Multiples	Apartments & Stacked Townhouses - Large >=700 sq.ft.	Apartments & Stacked Townhouses - Small <700 sq.ft.	Retail (per sq.m. of Gross Floor Area)	Non-Retail (per sq.m. of Gross Floor Area)	Retail (per sq.ft. of Gross Floor Area)	Non-Retail (per sq.ft. of Gross Floor Area)
Engineering Services	11,024	8,952	7,240	4,237	88.37	64.34	8.21	5.98
Public Works	1,258	1,020	827	485	9.26	6.81	0.86	0.63
Fire Protection Services	671	545	440	258	4.59	3.17	0.43	0.29
Parks and Recreation Services	13,648	11,246	9,585	6,565	18.08	13.42	1.68	1.25
Growth Studies	545	450	382	262	3.27	2.43	0.30	0.23
Library Services	1,964	1,619	1,379	946	2.61	1.94	0.24	0.18
Total	29,110	23,832	19,854	12,753	126.19	92.11	11.72	8.56

2.1.2 Services Covered

The following services are covered under By-law 47-19 (as amended):

- Engineering Services;
- Public Works Services;
- Fire Protection Services;
- Growth Studies;
- Parks and Recreation Services; and
- Library Services.

2.1.3 Timing of D.C. Calculation and Payment

D.C.s are calculated as of, and shall be payable, on the date a building permit is issued in relation to a building or structure on land to which the development charge applies.



2.1.4 Indexing

Rates are adjusted, without amendment to the By-law, annually on July 1, in accordance with the Statistics Canada Quarterly, Non-Residential Building Construction Price Index (Table 18-10-0276-02)¹.

2.1.5 Redevelopment Allowance

As a result of the redevelopment of land, a building or structure existing on the same land within 48 months prior to the date of payment of D.C.s in regard to such redevelopment was, or is to be demolished, in whole or in part, or converted from one principal use to another principal use on the same land in order to facilitate the redevelopment, the D.C.s 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 D.C. 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 D.C. 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.

It is noted that any building or structure deemed derelict shall be eligible for D.C. credits if a building permit is issued for a building or structure on the lands previously occupied by the derelict building within 120 months or less of the issuance of a demolition permit

¹ O. Reg. 82/98 referenced “The Statistics Canada Quarterly, Construction Price Statistics, catalogue number 62-007” as the index source. Since implementation, Statistics Canada has modified this index twice and the above-noted index is the most current.



for the building. The calculation of the credits shall be based on the redevelopment allowance provision noted above, based on the time that has passed between the date of issuance of the demolition permit and the date of issuance of the building permit.

2.1.6 Exemptions

The following non-statutory exemptions are provided under By-law 47-19 (as amended):

- Buildings or structures to be used as a public hospital;
- The gross floor area of a place of worship up to a maximum of 464.5 square meters (5,000 square feet) 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; and
- The relocation of a residential heritage building within the boundaries of the City of Richmond Hill.

2.2 Area-Specific Development Charges (A.S.D.C.s)

In addition to the City-wide by-laws, the City currently imposes area-specific development charges (A.S.D.C.s) within the following areas:

- Oak Ridges-Lake Wilcox Greenfield Development Area (By-law 41-19);
- North Leslie West Development Area (By-law 42-19);
- North Leslie East Development Area (By-law 43-19);
- West Gormley Development Area (By-law 44-19);
- Elgin West Development Area (By-law 45-19);
- Headford Storm North of Rouge Development Area (By-law 46-19);
- Bayview North East Development Area (By-law 32-21); and
- Headford – Excluding Storm Development Area (By-law 33-21).

Six of the eight A.S.D.C.s are expiring in May 2024, with the remaining two expiring in June 2026 (By-law 32-21 and By-law 33-21). As part of this D.C. process, six of the eight A.S.D.C. by-laws are proposed to be repealed. By-laws 32-21 and 33-21 are proposed to continue. There are certain capital works which have been determined to provide a City-wide growth-related benefit. These outstanding works and associated reserve fund balances related to these works have been incorporated into the City-wide D.C. calculation. Further discussion is provided in Section 5.3.1 and Appendix H.



2.2.1 Schedule of Charges

The table below provides the A.S.D.C. rates currently in effect, as at July 1, 2023.

Table 2-2
City of Richmond Hill
Current A.S.D.C. Rates
July 1, 2023

By-law	Charge per net hectare
By-law 41-19 Oak Ridges - Lake Wilcox (Greenfield) Development Area	\$314,782
By-law 42-19 North Leslie West Development Area	\$51,900
By-law 43-19 North Leslie East Development Area	\$24,553
By-law 44-19 West Gormley Development Area	\$64,691
By-law 45-19 Elgin West Development Area	\$232,742
By-law 46-19 Headford Storm North of Rouge Development Area	\$63,515
By-law 32-21 Bayview North East Development Area	\$590,792
By-law 33-21 Headford - Excluding Storm Development Area	\$321,819

2.2.2 Services Covered

The following provides the services covered under each A.S.D.C by-law:

- Oak Ridges – Lake Wilcox (Greenfield) Development Area:
 - Water mains and appurtenances
 - Sanitary sewers and appurtenances
 - Storm sewers and appurtenances
- North Leslie West Development Area:
 - Sanitary sewers and appurtenances
 - Boundary roads
- North Leslie East Development Area:
 - Boundary roads
- West Gormley Development Area:
 - Boundary roads
- Elgin West Development Area:
 - Collector roads
 - Water mains and appurtenances
 - Storm sewers and appurtenances
 - Boundary roads



- Credit carryforwards
- Headford Storm North of Rouge Development Area:
 - Storm sewers and appurtenances
- Bayview North East Development Area:
 - Collector roads
 - Storm sewers and appurtenances
 - Boundary roads
 - Credit carryforwards
- Headford – Excluding Storm Development Area:
 - Collector roads
 - Water mains and appurtenances
 - Boundary roads

2.2.3 Timing of D.C. Calculation and Payment

A.S.D.C.s are calculated and payable on the date of execution of site plan/subdivision agreement/land severance or issuance of a building permit in relation to a building or structure on land to which the D.C. applies.

2.2.4 Indexing

Rates for A.S.D.C.s are adjusted, without amendment to the By-law, annually on July 1, in accordance with the Statistics Canada Quarterly, Non-Residential Building Construction Price Index (Table 18-10-0276-02)¹.

2.2.5 Redevelopment Allowance

The same redevelopment allowance policy provided for City-wide D.C.s also applies to A.S.D.C.s (see Section 2.1.5).

¹ O. Reg. 82/98 referenced “The Statistics Canada Quarterly, Construction Price Statistics, catalogue number 62-007” as the index source. Since implementation, Statistics Canada has modified this index twice and the above-noted index is the most current.



2.2.6 Exemptions

The same exemption policies provided for City-wide D.C.s also applies to A.S.D.C.s (see Section 2.1.5).



Chapter 3

Anticipated Development in the City of Richmond Hill



3. Anticipated Development in the City of Richmond Hill

3.1 Requirement of the Act

The growth forecast contained in this chapter (with supplemental tables in Appendix A) provides for the anticipated development for which the City will be required to provide services over a 10-year (2023 to 2032) and a longer-term (2023 to 2041) time horizon.

Chapter 4 provides the methodology for calculating a D.C. as per the D.C.A. Figure 4-1 presents this methodology graphically. It is noted in the first box of the schematic that in order to determine the D.C. that may be imposed, it is a requirement of subsection 5 (1) of the D.C.A. that “the anticipated amount, type and location of development, for which development charges can be imposed, must be estimated.”

3.2 Basis of Population, Household and Non-Residential Gross Floor Area Forecast

The D.C. growth forecast has been derived by Watson. In preparing the growth forecast, the following information sources were consulted to assess the residential and non-residential development potential for the City over the forecast period, including:

- City of Richmond Hill 2051 Forecast Demographic Update, July 2023 - ongoing, Watson & Associates Economists Ltd.;
- City of Richmond Hill 2021 Growth Analysis by Traffic Zone Final Report, March 31, 2022, Watson & Associates Economists Ltd.;
- City of Richmond Hill Official Plan, January 2023 Consolidation;
- City of Richmond Hill 2019 Development Charges Background Study Consolidated Report, March 26, 2019, Watson & Associates Economists Ltd.
- City of Richmond Hill 2021 Development Charges Update Study, April 9, 2021, Watson & Associates Economists Ltd.
- 2011, 2016 and 2021 population, household and employment Census data;
- Historical residential building permit data over the 2013 to June 2023 year-to-date period;



- Residential and non-residential supply opportunities as identified by City of Richmond Hill staff; and
- Discussions with City staff regarding anticipated residential and non-residential development in the City of Richmond Hill.

3.3 Summary of Growth Forecast

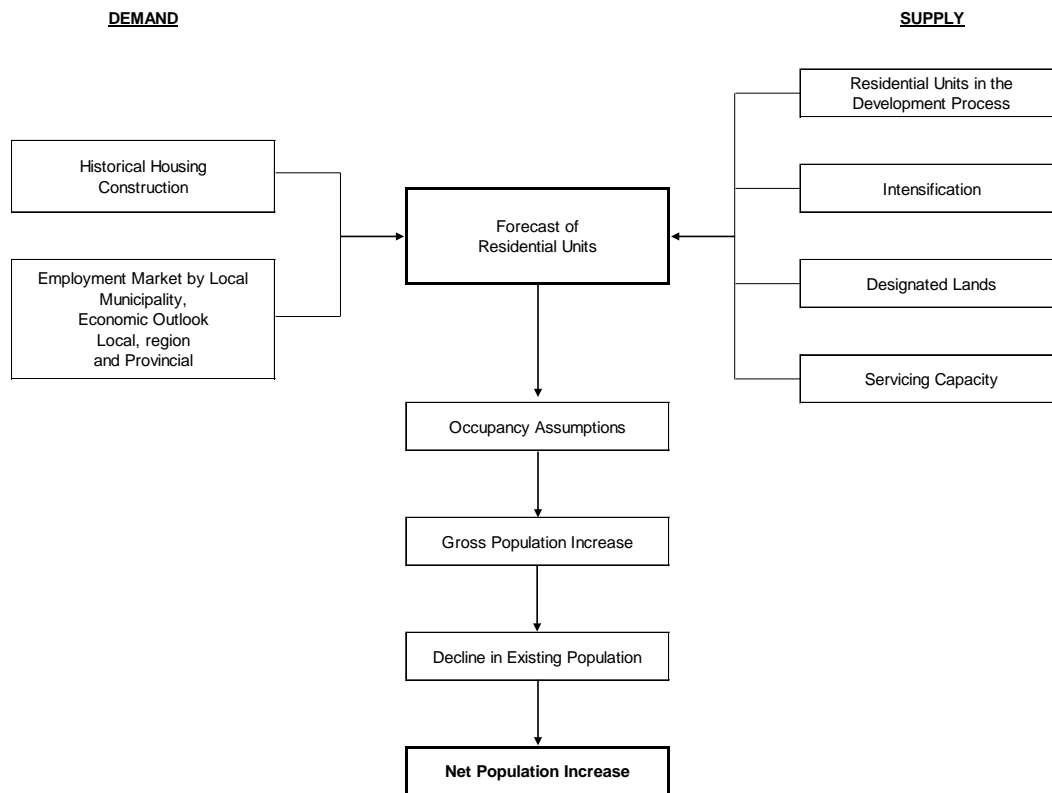
A detailed analysis of the residential and non-residential growth forecasts is provided in Appendix A and the methodology employed is illustrated in Figure 3-1. The discussion provided herein summarizes the anticipated growth for the City and describes the basis for the forecast. The results of the residential growth forecast analysis are summarized in Table 3-1 below, and Schedule 1 in Appendix A.

As identified in Table 3-1 and Appendix A – Schedule 1, population in the City of Richmond Hill (excluding census undercount) is anticipated to reach approximately 254,570 by late-2033 and 278,180 by 2041, resulting in an increase of approximately 43,260 and 66,870 persons, respectively. ^[1]

^[1] The population figures used in the calculation of the 2023 D.C. exclude the net Census undercount, which is estimated at approximately 3.1%. Population figures presented herein have been rounded.



Figure 3-1
Population and Household Forecast Model





**Table 3-1
City of Richmond Hill
Residential Growth Forecast Summary**

	Year	Population (Including Census Undercount) ^[1]	Excluding Census Undercount			Housing Units						Persons Per Unit (P.P.U.): Total Population/ Total Households
			Population	Institutional Population	Population Excluding Institutional Population	Singles & Semi- Detached	Multiple Dwellings ^[2]	Apartments ^[3]	Other	Total Households	Equivalent Institutional Households	
Historical	Mid 2011	191,467	185,541	1,171	184,370	38,835	10,300	9,455	61	58,651	1,065	3.163
	Mid 2016	201,050	195,022	1,222	193,800	40,195	11,610	12,240	55	64,100	1,111	3.042
	Mid 2021	208,260	202,022	1,093	200,929	41,960	12,640	14,655	55	69,310	994	2.915
Forecast	Late 2023	217,840	211,310	1,141	210,169	42,595	13,952	16,553	55	73,155	1,037	2.889
	Late 2033	262,440	254,573	1,375	253,198	45,648	19,217	26,265	55	91,185	1,250	2.792
	Mid 2041	286,780	278,180	1,502	276,678	46,281	21,784	34,255	55	102,375	1,365	2.717
Incremental	Mid 2011 - Mid 2016	9,583	9,481	51	9,430	1,360	1,310	2,785	-6	5,449	46	
	Mid 2016 - Mid 2021	7,210	7,000	-129	7,129	1,765	1,030	2,415	0	5,210	-117	
	Mid 2021 - Late 2023	9,580	9,288	48	9,240	635	1,312	1,898	0	3,845	43	
	Late 2023 - Late 2033	44,600	43,263	234	43,029	3,053	5,265	9,712	0	18,031	213	
	Late 2023 - Mid 2041	68,940	66,870	361	66,509	3,687	7,832	17,702	0	29,221	328	

[1] Population includes the Census undercount estimated at approximately 3.1% and has been rounded.

[2] Includes townhouses and apartments in duplexes.

[3] Includes bachelor, 1-bedroom, and 2-bedroom+ apartment units.

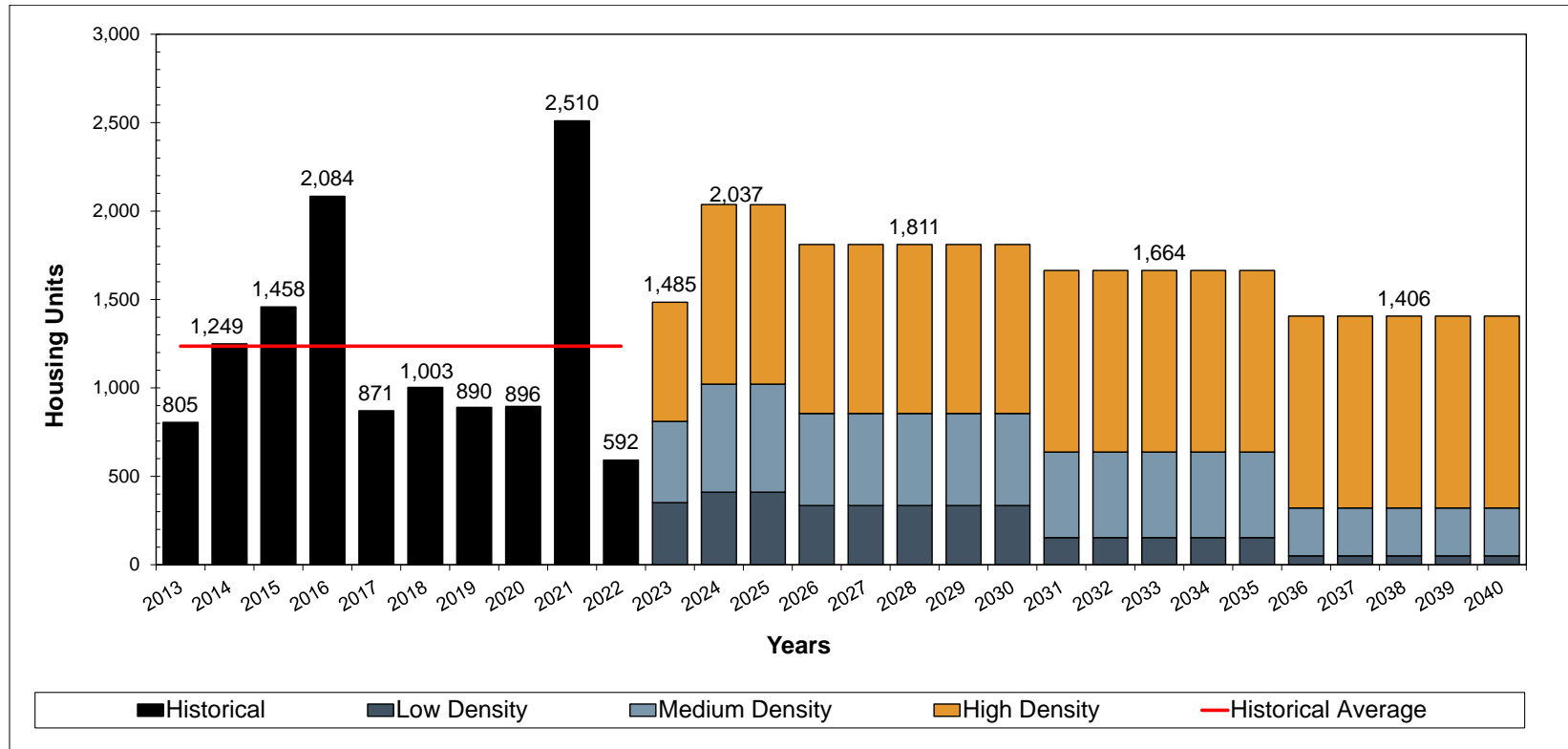
Notes:

Numbers may not add due to rounding.

Source: Watson & Associates Economists Ltd.



Figure 3-2
City of Richmond Hill
Annual Housing Forecast ^[1]



^[1] Growth forecast represents calendar year.

Source: Historical housing activity derived from City of Richmond Hill building permit data, 2013 to July 2023 year-to-date.



Provided below is a summary of the key assumptions and findings regarding the City of Richmond Hill D.C. growth forecast:

1. Unit Mix (Appendix A – Schedules 1, 6 and 7)

- The housing unit mix for the City was derived from a detailed review of historical development activity (as per Schedule 7), as well as active residential development applications (as per Schedule 6) and discussions with City staff regarding anticipated development trends for the City of Richmond Hill.
- Based on the above indicators, the 2023 to 2041 household growth forecast for the City is comprised of a unit mix of 13% low density units (single detached and semi-detached), 27% medium density (multiples except apartments) and 60% high density (bachelor, 1-bedroom and 2-bedroom apartments).

2. Planning Period

- Short- and longer-term time horizons are required for the D.C. process. The D.C.A. limits the planning horizon for transit services to a 10-year planning horizon. All other services can utilize a longer planning period if the municipality has identified the growth-related capital infrastructure needs associated with the longer-term growth planning period.

3. Population in New Units (Appendix A – Schedules 2, 3 and 4)

- The number of housing units to be constructed by 2041 in the City of Richmond Hill over the forecast period is presented in Table 3-1. Over the 2023 to 2041 forecast period, the City is anticipated to average approximately 1,670 new housing units per year.
- Institutional population ^[1] is anticipated to increase by approximately 360 people between 2023 to 2041.
- Population in new units is derived from Schedules 2, 3 and 4, which incorporate historical development activity, anticipated units (see unit mix

^[1] Institutional population largely includes special care facilities such as nursing home or residences for senior citizens. A P.P.U. of 1.100 depicts 1-bedroom and 2-or-more-bedroom units in collective households.



discussion) and average persons per unit (P.P.U.) by dwelling type for new units.

- Schedule 7 summarizes the average P.P.U. assumed for new housing units by age and type of dwelling based on Statistics Canada 2021 custom Census data for the City of Richmond Hill. The total calculated P.P.U. for all density types has been adjusted accordingly to account for the P.P.U. trends which has been recently experienced in both new and older units. Forecasted 20-year average P.P.U.s by dwelling type are as follows:

- Low density: 3.482
- Medium density: 2.895
- High density: 1.838

4. Existing Units and Population Change (Appendix A – Schedules 2, 3, and 4)

- Existing households for late-2023 are based on the 2021 Census households, plus estimated residential units constructed between mid-2021 to the beginning of the growth period, assuming a minimum six-month lag between construction and occupancy (see Schedule 3).
- The change in average occupancy levels for existing housing units is calculated in Schedules 2 through 4.^[1] The forecast population change in existing households over the 2023 to 2041 forecast period is forecast to decline by approximately 1,540.

5. Employment (Appendix A – Schedules 9a, 9b and 9c)

- The employment projections provided herein are largely based on the activity rate method, which is defined as the number of jobs in the City divided by the number of residents. Key employment sectors include primary, industrial, commercial/population-related, institutional, and work at home, which are considered individually below.

^[1] Change in occupancy levels for existing households occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.



- 2016 employment data ^{[1],[2]} (place of work) for the City of Richmond Hill is outlined in Schedule 9a. The 2016 employment base is comprised of the following sectors:
 - 85 primary (<1%);
 - 9,990 work at home employment (14%);
 - 12,040 industrial (17%);
 - 18,473 commercial (retail) (26%)
 - 15,036 commercial (non-retail) (21%); and
 - 15,423 institutional (22%).
- The 2016 employment by usual place of work, including work at home, is 71,047. An additional 7,750 employees have been identified for the City of Richmond Hill in 2016 that have no fixed place of work (N.F.P.O.W.).^[3]
- Total employment, including work at home and N.F.P.O.W. for the City of Richmond Hill is anticipated to reach approximately 100,610 by late-2033 and 109,900 by 2041. This represents an employment increase of approximately 12,900 for the 10-year forecast period and 22,190 for the longer-term forecast period.
- Schedule 9b, Appendix A, summarizes the employment forecast, excluding work at home employment and N.F.P.O.W. employment, which is the basis for the D.C. employment forecast. The impact on municipal services from work at home employees has already been included in the population forecast. The need for municipal services related to N.F.P.O.W. employees has largely been included in the employment forecast by usual place of work (i.e., employment and gross floor area generated from N.F.P.O.W. construction employment). Furthermore, since these employees have no fixed work address, they cannot be

^[1] 2016 employment is based on Statistics Canada 2016 Place of Work Employment dataset by Watson & Associates Economists Ltd.

^[2] Statistics Canada 2021 Census place of work employment data has been reviewed. The 2021 Census employment results have not been utilized due to a significant increase in work at home employment captured due to Census enumeration occurring during the provincial COVID-19 lockdown from April 1, 2021 to June 14, 2021.

^[3] No fixed place of work is defined by Statistics Canada as "persons who do not go from home to the same workplace location at the beginning of each shift. Such persons include building and landscape contractors, travelling salespersons, independent truck drivers, etc."



captured in the non-residential G.F.A. calculation. Accordingly, work at home and N.F.P.O.W. employees have been removed from the D.C.A. employment forecast and calculation.

- Total employment for the City of Richmond Hill (excluding work at home and N.F.P.O.W. employment) is anticipated to reach approximately 73,360 by late-2033 and 79,430 by 2041. This represents an employment increase of approximately 8,180 for the 10-year forecast period and 14,250 for the longer-term forecast period. ^[1]

6. Non-Residential Sq.ft. Estimates (G.F.A.), Appendix A – Schedule 9b)

- Square footage estimates were calculated in Schedule 9b based on the following employee density assumptions:
 - 1,100 sq.ft. per employee for industrial;
 - 460 sq.ft. per employee for commercial (retail);
 - 285 sq.ft. per employee for commercial (non-retail); and
 - 670 sq.ft. per employee for institutional employment.
- The City-wide incremental G.F.A. is anticipated to increase by 4.6 million sq.ft. over the ten year forecast period and 7.5 million sq.ft. over the longer-term forecast period.
- In terms of percentage growth, the 2023 to 2041 incremental G.F.A. forecast by sector is broken down as follows:
 - industrial – 33%;
 - commercial (retail) – 21%;
 - commercial (non-retail) – 21%; and
 - institutional – 25%.

^[1] G.F.A. and employment associated within special care institutional dwellings treated as residential, resulting in an institutional employment difference between Schedules 9a and 9b. Total employment growth in Schedule 9b (excluding work at home and N.F.P.O.W. employment) has been downwardly adjusted to account for institutional employment associated with special care facilities. Total employment in Schedule 9b is anticipated to reach approximately 73,170 by late-2033 and 79,180 by 2041.



Chapter 4

The Approach to the Calculation of the Charge



4. The Approach to the Calculation of the Charge

4.1 Introduction

This chapter addresses the requirements of subsection 5 (1) of the D.C.A. with respect to the establishment of the need for service which underpins the D.C. calculation. These requirements are illustrated schematically in Figure 4-1.

4.2 Services Potentially Involved

Table 4-1 lists the full range of municipal services that are provided within the City.

A number of these services are not included in the list of eligible services provided in subsection 2 (4) of the D.C.A. as being ineligible for inclusion in D.C.s. These are shown as “ineligible” on Table 4-1. Two ineligible costs defined in subsection 5 (3) of the D.C.A. are “computer equipment” and “rolling stock with an estimated useful life of (less than) seven years.” In addition, local roads are covered separately under subdivision agreements and related means (as are other local services). Services that are potentially eligible for inclusion in the City’s D.C. are indicated with a “Yes.”

4.3 Increase in the Need for Service

The D.C. calculation commences with an estimate of “the increase in the need for service attributable to the anticipated development,” for each service to be covered by the by-law. There must be some form of link or attribution between the anticipated development and the estimated increase in the need for service. While the need could conceivably be expressed generally in terms of units of capacity, subsection 5 (1) 3, which requires that City Council indicate that it intends to ensure that such an increase in need will be met, suggests that a project-specific expression of need would be most appropriate.



Figure 4-1
The Process of Calculating a Development Charge under the Act that Must be Followed

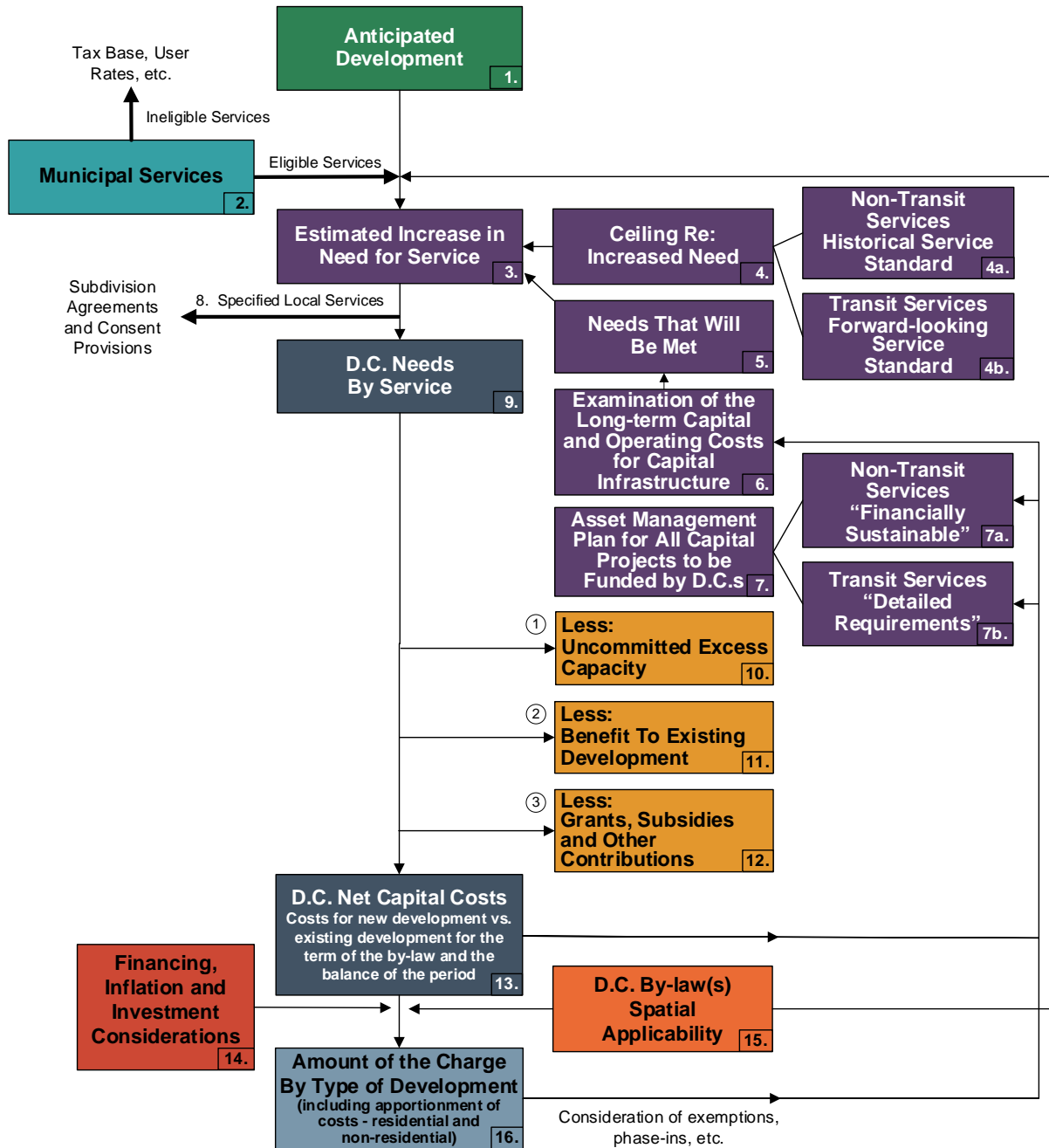




Table 4-1
Categories of Municipal Services to be Addressed as Part of the Calculation

Eligibility for Inclusion in the D.C. Calculation	Description
Yes	Municipality provides the service – service has been included in the D.C. calculation.
No	Municipality provides the service – service has not been included in the D.C. calculation.
n/a	Municipality does not provide the service.
Ineligible	Service is ineligible for inclusion in the D.C. calculation.

Categories of Municipal Services	Eligibility for Inclusion in the D.C. Calculation	Service Components	Maximum Potential D.C. Recovery %
1. Services Related to a Highway	Yes	1.1 Arterial roads	100
	Yes	1.2 Collector roads	100
	Yes	1.3 Bridges, culverts and roundabouts	100
	No	1.4 Local municipal roads	0
	Yes	1.5 Traffic signals	100
	Yes	1.6 Sidewalks and streetlights	100
	Yes	1.7 Active transportation	100
2. Other Transportation Services	n/a	2.1 Transit vehicles ^[1] & facilities	100
	n/a	2.2 Other transit infrastructure	100
	Ineligible	2.3 Municipal parking spaces - indoor	0
	Ineligible	2.4 Municipal parking spaces - outdoor	0
	Yes	2.5 Works yards	100
	Yes	2.6 Rolling stock ¹	100
	n/a	2.7 Ferries	100
	n/a	2.8 Airport (Waterloo Region only)	100
3. Stormwater Drainage and	Yes	3.1 Main channels and drainage trunks	100
	Yes	3.2 Channel connections	100

^[1] with 7+ year lifetime



Categories of Municipal Services	Eligibility for Inclusion in the D.C. Calculation	Service Components	Maximum Potential D.C. Recovery %
Control Services	Yes	3.3 Retention/detention ponds	100
4. Fire Protection Services	Yes	4.1 Fire stations	100
	Yes	4.2 Fire pumpers, aerials and rescue vehicles ^[1]	100
	Yes	4.3 Small equipment and gear	100
5. Park Services (i.e., Parks and Open Space) and Recreation Services	Ineligible	5.1 Acquisition of land for parks, woodlots and E.S.A.s	0
	Yes	5.2 Development of area municipal parks	100
	Yes	5.3 Development of district parks	100
	Yes	5.4 Development of municipal-wide parks	100
	Yes	5.5 Development of special purpose parks	100
	Yes	5.6 Parks rolling stock ^[1] and yards	100
	Yes	5.7 Arenas, indoor pools, fitness facilities, community centres, etc. (including land)	100
	Yes	5.8 Recreation vehicles and equipment ^[1]	100
6. Library Services	Yes	6.1 Public library space (incl. furniture and equipment)	100
	Yes	6.2 Library vehicles ^[1]	100
	Yes	6.3 Library materials	100
7. Emergency Preparedness Services	No	7.1 Facility space (incl. furniture and equipment)	100
	No	7.2 Vehicles ^[1]	100
	No	7.3 Equipment	100
8. Electrical Power Services	Ineligible	8.1 Electrical substations	0
	Ineligible	8.2 Electrical distribution system	0
	Ineligible	8.3 Electrical system rolling stock	0

^[1] with 7+ year lifetime



Categories of Municipal Services	Eligibility for Inclusion in the D.C. Calculation	Service Components	Maximum Potential D.C. Recovery %
9. Provision of Cultural, Entertainment and Tourism Facilities and Convention Centres	Ineligible	9.1 Cultural space (e.g., art galleries, museums and theatres)	0
	Ineligible	9.2 Tourism facilities and convention centres	0
10. Wastewater Services	n/a	10.1 Treatment plants	100
	Yes	10.2 Sewage trunks	100
	No	10.3 Local systems	0
	Yes	10.4 Vehicles and equipment ^[1]	100
11. Water Supply Services	n/a	11.1 Treatment plants	100
	Yes	11.2 Distribution systems	100
	No	11.3 Local systems	0
	Yes	11.4 Vehicles and equipment ^[1]	100
12. Waste Management Services	Ineligible	12.1 Landfill collection, transfer vehicles and equipment	0
	Ineligible	12.2 Landfills and other disposal facilities	0
	n/a	12.3 Waste diversion facilities	100
	n/a	12.4 Waste diversion vehicles and equipment ^[1]	100
13. Policing Services	n/a	13.1 Policing detachments	100
	n/a	13.2 Policing rolling stock ^[1]	100
	n/a	13.3 Small equipment and gear	100
14. Homes for the Aged	n/a	14.1 Homes for the aged space	100
	n/a	14.2 Vehicles ^[1]	100
15. Child Care	n/a	15.1 Child-care space	100
	n/a	15.2 Vehicles ^[1]	100
16. Health	n/a	16.1 Health department space	100
	n/a	16.2 Health department vehicles ^[1]	100
17. Social Housing	Ineligible	17.1 Social housing space	0
18. Provincial Offences Act (P.O.A.)	n/a	18.1 P.O.A. space	100
19. Social Services	Ineligible	19.1 Social service space	0

^[1] with 7+ year lifetime



Categories of Municipal Services	Eligibility for Inclusion in the D.C. Calculation	Service Components	Maximum Potential D.C. Recovery %
20. Ambulance	n/a n/a	20.1 Ambulance station space 20.2 Vehicles ^[1]	100 100
21. Hospital Provision	Ineligible	21.1 Hospital capital contributions	0
22. Provision of Headquarters for the General Administration of Municipalities and Area Municipal Boards	Ineligible Ineligible Ineligible	22.1 Office space 22.2 Office furniture 22.3 Computer equipment	0 0 0
23. Other Services	Ineligible	23.1 Studies in connection with acquiring buildings, rolling stock, materials and equipment, and improving land and facilities, including the D.C. background study cost	0
	Yes	23.2 Interest on money borrowed to pay for growth-related capital	0-100

^[1] with a 7+ year lifetime

4.4 Local Service Policy

Some of the need for services generated by additional development consists of local services related to a plan of subdivision. As such, they will be required as a condition of subdivision agreements or consent conditions. The City's detailed Local Service Policy is provided in Appendix E.

4.5 Capital Forecast

Paragraph 7 of subsection 5 (1) of the D.C.A. requires that "the capital costs necessary to provide the increased services must be estimated." The Act goes on to require two



potential cost reductions and the regulation sets out the way in which such costs are to be presented. These requirements are outlined below.

These estimates involve capital costing of the increased services discussed above. This entails costing actual projects or the provision of service units, depending on how each service has been addressed.

The capital costs include:

- a) costs to acquire land or an interest therein (including a leasehold interest);
- b) costs to improve land;
- c) costs to acquire, lease, construct or improve buildings and structures;
- d) costs to acquire, lease or improve facilities, including rolling stock (with a useful life of 7 or more years), furniture and equipment (other than computer equipment), materials acquired for library circulation, reference, or information purposes; and
- e) interest on money borrowed to pay for the above-referenced costs;

In order for an increase in need for service to be included in the D.C. calculation, City Council must indicate “that it intends to ensure that such an increase in need will be met” (subsection 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 section 3). The capital program contained herein reflects the City’s approved and proposed capital budgets and master servicing/needs studies.

4.6 Treatment of Credits

Section 8, paragraph 5, of O. Reg. 82/98 indicates that a D.C. background study must set out “the estimated value of credits that are being carried forward relating to the service.” Subsection 17, paragraph 4, of the same regulation indicates that “the value of the credit cannot be recovered from future D.C.s,” if the credit pertains to an ineligible service. This implies that a credit for eligible services can be recovered from future D.C.s. As a result, this provision should be made in the calculation, in order to avoid a



funding shortfall with respect to future service needs. There are no current outstanding credits for inclusion in the D.C. calculations.

4.7 Classes of Services

Section 7 of the D.C.A. states that a D.C. by-law may provide for any D.C. eligible service or the capital costs with respect to those services. Further, a class may be composed of any number or combination of services and may include parts or portions of each D.C. eligible service.

These provisions allow for services to be grouped together to create a class for the purposes of the D.C. by-law and D.C. reserve funds. The D.C. calculations and by-law provided herein have identified Engineering Services, and Public Works (Facilities and Fleet) as classes of service.

4.8 Existing Reserve Funds

Section 35 of the D.C.A. states that:

“The money in a reserve fund established for a service may be spent only for capital costs determined under paragraphs 2 to 7 of subsection 5 (1).”

There is no explicit requirement under the D.C.A. calculation method set out in subsection 5 (1) to net the outstanding reserve fund balance as part of making the D.C. calculation; however, section 35 does restrict the way in which the funds are used in the future.

For services that are subject to a per capita based, service level “cap,” the reserve fund balance should be applied against the development-related costs for which the charge was imposed once the project is constructed (i.e., the needs of recent growth). This cost component is distinct from the development-related costs for the future forecast periods, which underlie the D.C. calculation herein.

The alternative would involve the City spending all reserve fund monies prior to renewing each by-law, which would not be a sound basis for capital budgeting. Thus, the City will use these reserve funds for the City’s cost share of applicable development-related projects, which are required but have not yet been undertaken, as a way of



directing the funds to the benefit of the development that contributed them (rather than to future development, which will generate the need for additional facilities directly proportionate to future growth).

The City's City-wide D.C. Reserve Fund balances by service as of December 31, 2022, are shown below:

Table 4-2
Summary of Development Charges Reserve Fund Balances
As of December 31, 2022

Service	Reserve Fund Balance at December 31, 2022 – Before Commitments	Adjustments	Reserve Fund Balance at December 31, 2022 – After Commitments
Engineering Services	75,599,069	(39,019,029)	36,580,040
Fire Protection Services	610,474	(1,668,359)	(1,057,885)
Public Works Services	1,610,591	(938,290)	672,302
Parks and Recreation Services	44,878,330	(6,271,679)	38,606,651
Library Services	3,139,969	(1,255,122)	1,884,847
Total	\$125,838,433	(\$49,152,479)	\$76,685,954

Note: Amounts in brackets are deficit balances.

4.9 Deductions

The D.C.A. potentially requires that four deductions be made to the increase in the need for service. These relate to:

- the level of service ceiling;
- uncommitted excess capacity;
- benefit to existing development; and
- anticipated grants, subsidies, and other contributions.

The requirements behind each of these reductions are addressed below.



4.9.1 Reduction Required by Level of Service Ceiling

This is designed to ensure that the increase in need included in section 4.3 does “not include an increase that would result in the level of service [for the additional development increment] exceeding the average level of the service provided in the municipality over the 15-year period immediately preceding the preparation of the background study” (D.C.A., subsection 5 (1) 4). O. Reg. 82/98 (section 4) goes further to indicate that “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.”

In many cases, this can be done by establishing a quantity measure in terms of units as floor area, land area, or road length per capita and a quality measure, in terms of the average cost of providing such units based on replacement costs, engineering standards, or recognized performance measurement systems, depending on circumstances. When the quantity and quality factors are multiplied together, they produce a measure of the level of service which meets the requirements of the Act, i.e., cost per unit.

With respect to transit services, the changes to the Act introduced in 2015 have provided for an alternative method for calculating the service standard ceiling. Transit services must now utilize a forward-looking service standard analysis, described later in this section.

The average service level calculation sheets for each service component in the D.C. calculation are set out in Appendix B.

4.9.2 Reduction for Uncommitted Excess Capacity

Paragraph 5 of subsection 5 (1) requires a deduction from the increase in the need for service attributable to the anticipated development that can be met using the City’s “excess capacity,” other than excess capacity which is “committed.”

“Excess capacity” is undefined, but in this case must be able to meet some or all of the increase in need for service, in order to potentially represent a deduction. The deduction of uncommitted excess capacity from the future increase in the need for service would normally occur as part of the conceptual planning and feasibility work associated with justifying and sizing new facilities, e.g., if a road widening to accommodate increased traffic is not required because sufficient excess capacity is



already available, then widening would not be included as an increase in need, in the first instance.

4.9.3 Reduction for Benefit to Existing Development

Section 5 (1) 6 of the D.C.A. provides that, “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.” The general guidelines used to consider benefit to existing development included:

- the repair or unexpanded replacement of existing assets that are in need of repair;
- an increase in average service level of quantity or quality (compare water as an example);
- the elimination of a chronic servicing problem not created by growth; and
- providing services where none previously existed (generally considered for water or wastewater services).

This step involves a further reduction in the need, by the extent to which such an increase in service would benefit existing development. The level of service cap in section 4.9.1 is related but is not the identical requirement. Sanitary, storm, and water trunks are highly localized to growth areas and can be more readily allocated in this regard than other services such as services related to a highway, which do not have a fixed service area.

Where existing development has an adequate service level which will not be tangibly increased by an increase in service, no benefit would appear to be involved. For example, where expanding existing library facilities simply replicates what existing residents are receiving, they receive very limited (or no) benefit as a result. Alternatively, where a clear existing service problem is to be remedied, a deduction should be made accordingly.

In the case of services such as recreation facilities, community parks, libraries, etc., the service is typically provided on a City-wide system basis. For example, facilities of the same type may provide different services (i.e., leisure pool vs. competitive pool), different programs (i.e., hockey vs. figure skating), and different time availability for the same service (i.e., leisure skating available on Wednesdays in one arena and Thursdays in another). As a result, residents will travel to different facilities to access



the services they want at the times they wish to use them, and facility location generally does not correlate directly with residence location. Even where it does, displacing users from an existing facility to a new facility frees up capacity for use by others and generally results in only a very limited benefit to existing development. Further, where an increase in demand is not met for a number of years, a negative service impact to existing development is involved for a portion of the planning period.

4.9.4 Reduction for Anticipated Grants, Subsidies and Other Contributions

This step involves reducing the capital costs necessary to provide the increased services by capital grants, subsidies, and other contributions (including direct developer contributions required due to the local service policy) made or anticipated by Council and in accordance with various rules such as the attribution between the share related to new vs. existing development. That is, some grants and contributions may not specifically be applicable to growth or where Council targets fundraising as a measure to offset impacts on taxes (O. Reg. 82/98, section 6).

4.10 Municipal-wide vs. Area Rating

This step involves determining whether all of the subject costs are to be recovered on a uniform municipal-wide basis or whether some or all are to be recovered on an area-specific basis. Under the amended D.C.A., it is now mandatory to “consider” area rating of services (providing charges for specific areas and services), however, it is not mandatory to implement area rating. Further discussion is provided in section 7.4.4 of this report.

4.11 Allocation of Development

This step involves relating the costs involved to anticipated development for each period under consideration and using allocations between residential and non-residential development and between one type of development and another, to arrive at a schedule of charges.



4.12 Asset Management

The legislation now requires that a D.C. background study must include an asset management plan (A.M.P.) (subsection 10 (2) c. 2). The A.M.P. must deal with all assets that are proposed to be funded, in whole or in part, by D.C.s. The current regulations provide very extensive and specific requirements for the A.M.P. related to transit services (as noted in the subsequent subsection); however, they are silent with respect to how the A.M.P. is to be provided for all other services. As part of any A.M.P., the examination should be consistent with the municipality's existing assumptions, approaches, and policies on the asset management planning. This examination has been included in Appendix F.

4.13 Transit

The D.C.A. provides for the following matters for Transit:

- The Background Study requires the following in regard to transit costs (as per subsection 8 (2) of the Regulations):
 - The calculations that were used to prepare the estimate for the planned level of service for the transit services, as mentioned in subsection 5.2 (3) of the Act.
 - i. An identification of the portion of the total estimated capital cost relating to the transit services that would benefit,
 - ii. the anticipated development over the 10-year period immediately following the preparation of the background study, or
 - iii. the anticipated development after the 10-year period immediately following the preparation of the background study.
 - An identification of the anticipated excess capacity that would exist at the end of the 10-year period immediately following the preparation of the background study.
 - An assessment of 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, categorized by development types, and whether the forecasted ridership will be from existing or planned development.



- An assessment of the 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.
- A forward-looking service standard (as per 6.1(2) of the Regulations):
 - The service is a discrete service.
 - No portion of the service that is intended to benefit anticipated development after the 10-year period immediately following the preparation of the background study may be included in the estimate.
 - No portion of the service that is anticipated to exist as excess capacity at the end of the 10-year period immediately following the preparation of the background study may be included in the estimate.
- A detailed asset management strategy and reporting requirements (subsection 6.1 (3) of the Regulation) that includes lifecycle costs, action plans that will enable the assets to be sustainable, summary of how to achieve the proposed level of service, discussion on procurement measures and risk.

Transit services are provided at the Regional level. Therefore, the above calculations and reporting requirements are not required for the City's D.C.

4.14 Mandatory Phase-in of a D.C.

As described in Chapter 1, all D.C. by-laws passed after January 1, 2022, the charge must be phased-in relative to the maximum charge that could be imposed under the by-law. The phase-in for the first 5-years that the by-law is in force, is as follows:

- Year 1 – 80% of the maximum charge;
- Year 2 – 85% of the maximum charge;
- Year 3 – 90% of the maximum charge;
- Year 4 – 95% of the maximum charge; and
- Year 5 to expiry – 100% of the maximum charge.



Chapter 5

D.C.-Eligible Cost Analysis by Service



5. D.C. Eligible Cost Analysis by Service

5.1 Introduction

This chapter outlines the basis for calculating eligible costs for the D.C.s to be applied on a uniform basis. In each case, the required calculation process set out in subsection 5 (1) paragraphs 2 to 7 in the D.C.A. and described in Chapter 4 was followed in determining D.C.-eligible costs.

The nature of the capital projects and timing identified in the Chapter reflect Council's current intention. Over time, however, City projects and Council priorities change; accordingly, Council's intentions may alter, and different capital projects (and timing) may be necessary to meet the need for services required by new growth.

5.2 Service Levels and Capital Costs to Service Growth to 2032 for Richmond Hill's D.C. Calculation

This section evaluates the development-related capital requirements for public works (facilities and fleet), parks and recreation services, and library services over the 2023 to 2032 planning period. The service component is evaluated on two format sheets; the average historical 15-year level of service calculation (see Appendix B), which “caps” the D.C. amounts, and the infrastructure cost calculation, which determines the potential D.C. recoverable cost.

5.2.1 *Public Works (Facilities and Fleet)*

The City's public works department predominately oversees the roads, water, wastewater, and stormwater operations. As such, public works is considered to be a Class of Service (as described in section 4.7 of this report). Public works operates out of 167,005 sq.ft. of facility space including operations centres, storage buildings, and office space located at 225 East Beaver Creek. Over the historical 15-year period, this provides an average level of service of 0.86 sq.ft. per capita, which equates to an investment of \$916 per capita.



Based on the growth forecasted over the 10-year forecast period, the D.C.-eligible amount for public works facilities is \$39.62 million.

In addition to facility space, the public works department has a total of 179 vehicles and equipment with a value totalling approximately \$26.68 million. Over the historical 15-year period, this provides an average level of service of 1.00 vehicle per 1,000 population, which equates to an investment of \$136 per capita.

Based on the growth over the 10-year forecast period, the D.C.-eligible amount for public works vehicles and equipment is \$5.88 million. In total, the City is eligible to collect \$45.50 million for public works.

To support future growth, the City has identified growth-related capital projects for public works totalling \$32.56 million, of which \$4.10 million benefits existing development. The capital project listing includes an expansion to the Operations Centre and North Operations Yard, a DDO Park operations maintenance facility, and provisions for various vehicles and additional traffic equipment. A deduction of \$672,302 has been made for the existing reserve fund balance. Therefore, the net D.C.-eligible amount to be included in the calculations is \$27.79 million

For public works, an 84% residential benefit and a 16% non-residential benefit has been applied towards the capital costs provided above, based on the incremental growth in population to employment over the 10-year forecast period.



Table 5-1
 City of Richmond Hill
 Infrastructure Cost Included in the Development Charges Calculation
 Public Works (Facilities and Fleet)

Prj .No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
	2023-2032									84%	16%
	Facilities										
1	Operations Centre Expansion	2026-2029	18,500,000	-		18,500,000	3,700,000		14,800,000	12,432,000	2,368,000
2	North Operations Yard Expansion and Retrofit	2023-2024	3,950,000	-		3,950,000	395,000		3,555,000	2,986,200	568,800
3	DDO Park Operations Maintenance Facility	2027-2029	4,030,000	-		4,030,000	-		4,030,000	3,385,200	644,800
	Fleet										
4	New Capital Projects (Various Vehicles)	2023-2032	5,520,000	-		5,520,000	-		5,520,000	4,636,800	883,200
5	Additional Traffic Equipment	2023-2032	560,000	-		560,000	-		560,000	470,400	89,600
	Reserve Fund Adjustment	Reserve	-	-		-	672,302		(672,302)	(564,734)	(107,568)
	Total		32,560,000	-	-	32,560,000	4,767,302	-	27,792,698	23,345,866	4,446,832



5.2.2 Parks and Recreation Services

The City currently has 814.65 acres of parkland within its jurisdiction. This parkland consists of various sized local parks, community parks, destination parks, linear parks, urban squares, passive open space, and the Beaver Pond Lit Asphalt Trail. Over the historical 15-year period (2008 to 2022), the City has provided an average of 4.1 acres of parkland per 1,000 population. The City also currently provides 594 parkland amenities including various lit and unlit sports fields and courts, playgrounds, fitness equipment, water play facilities, etc. Over the historical 15-year period the City provided an average of 2.90 amenities per 1,000 population. In addition to parkland development and amenities, the City has 8,459 square meters of park skate trails and skateboard parks which has provided an average of 32.60 square meters per 1,000 population, over the 15-year period. Including parkland development, amenities, park skate trails and skateboard parks, the average level of service provided equates to \$2,491 per capita. When applied over the forecast period, this average level of service translates into a D.C. eligible amount of \$107.81 million.

The City operates and maintains 279 parks and recreation related vehicles and equipment, which has provided an average level of service over the historical 15-year period (2008-2022) of 1.70 vehicles and equipment per 1,000 population. This level of service translates to an average investment of \$169 per capita. When applied over the forecast period, this average level of service translates into a D.C.-eligible amount of \$7.30 million.

With respect to recreation facilities, there are currently many facilities provided by the City, including community centres, indoor pools, twin pad and single pad arenas, fitness centres, senior centres and various other facilities as well. In total, these facilities provide the City with 880,314 sq.ft. of recreation facility space. Based on the inventory of facility space over the historical 15-year period (2008 to 2022), the City has provided an average of approximately 3.89 sq.ft. of space per capita, or an investment of \$4,327 per capita. Based on this service standard, the City would be eligible to collect \$187.22 million from D.C.s for facility space.

In total, the City is eligible to collect \$302.33 million for parks and recreation services.



Based on the projected growth over the 10-year forecast period, the City has identified \$474.48 million in future growth capital costs for parks and recreation services, with \$37.46 million benefiting existing development, and \$81.78 million benefiting growth in the post 2032 period. These capital needs include the development and enhancement of various types of parks and trails, various vehicles, and the need for eight (8) capital projects related to recreation facilities including the North Leslie Community Centre, and the TOC Community Centre.

Further, a deduction in the amount of \$38.61 million has been made to reflect the balance in the D.C. reserve fund. Therefore, the net growth capital cost is \$302.15 million to be included in the D.C calculation.

As the predominant users of parks and recreation tend to be residents of the City, the forecast growth-related costs have been allocated 95% to residential development and 5% to non-residential development.



Table 5-2
Infrastructure Cost Included in the Development Charges Calculation
Parks and Recreation Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions*	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non- Residential Share
2023-2032									95%	5%	
	Parkland Development										
1	Bayview Hill Park Enhancements	2023-2030	12,400,000	-		12,400,000	4,235,400		8,164,600	7,756,370	408,230
2	Harding Park Enhancements	2024	2,900,000	-		2,900,000	990,500		1,909,500	1,814,025	95,475
3	Richmond Hill David Dunlap Observatory Park	2023-2032	39,230,000	-	5,815,000	33,415,000	8,927,600		24,487,400	23,263,030	1,224,370
4	Leno Park	2026-2028	5,780,000	-		5,780,000	2,323,800		3,456,200	3,283,390	172,810
5	Town and Unity Park Enhancement	2024-2030	11,284,000	-	231,000	11,053,000	3,230,700		7,822,300	7,431,185	391,115
6	Mill Pond Park Enhancement	2024-2032	20,412,000	-	3,997,000	16,415,000	8,265,700		8,149,300	7,741,835	407,465
7	North Leslie East Community Park	2024-2025	5,252,200	-	375,000	4,877,200	-		4,877,200	4,633,340	243,860
8	West Gormley Local Park (Centerfield)	2024-2025	2,034,300	-	113,000	1,921,300	-		1,921,300	1,825,235	96,065
9	West Gormley Community Park	2024-2025	4,848,300	-	238,000	4,610,300	-		4,610,300	4,379,785	230,515
10	North Leslie East Local Park	2024-2025	1,759,000	-	102,000	1,657,000	-		1,657,000	1,574,150	82,850
11	North Leslie West Community Park (NLMPA#5)	2025-2026	4,271,300	-	271,000	4,000,300	-		4,000,300	3,800,285	200,015
12	Lake Wilcox Canoe Club Precinct	2025-2029	4,380,000	-	329,000	4,051,000	324,100		3,726,900	3,540,555	186,345
13	Dr. James Langstaff Park Revitalization	2025-2027	6,407,930	-	231,000	6,176,930	2,109,800		4,067,130	3,863,774	203,357
14	North Leslie West Local Park (NLMPA #10)	2026-2027	2,668,000	-	150,000	2,518,000	-		2,518,000	2,392,100	125,900



Table 5-2 (Continued)
Infrastructure Cost Included in the Development Charges Calculation
Parks and Recreation Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions*	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non- Residential Share
	2023-2032									95%	5%
15	NL West Local Park (NLMPA#11/12)	2026-2027	3,051,000	-	193,000	2,858,000	-		2,858,000	2,715,100	142,900
16	Brodie House Parkette	2027-2028	780,000	-	44,000	736,000	-		736,000	699,200	36,800
17	Bernard KDA Linear Park (NW quad)	2027-2028	229,000	-		229,000	-		229,000	217,550	11,450
18	North Leslie West Local Park (NLMPA#8)	2027-2028	1,921,000	-	106,000	1,815,000	-		1,815,000	1,724,250	90,750
19	West Gormley Local Park	2028-2029	933,000	-	69,000	864,000	-		864,000	820,800	43,200
20	North Leslie East Parkette	2028-2029	452,000	-		452,000	-		452,000	429,400	22,600
21	Bond Crescent Local Park	2028-2029	396,000	-		396,000	-		396,000	376,200	19,800
22	Richmond Hill Centre Local Park	2029-2030	1,148,000	-	31,000	1,117,000	-		1,117,000	1,061,150	55,850
23	Oneida Crescent Linear Park	2029-2030	213,000	-		213,000	-		213,000	202,350	10,650
24	CN Rail Overpass - Linear Park to Subway	2029-2030	3,042,000	-		3,042,000	-		3,042,000	2,889,900	152,100
25	Russell Tilt Park Revitalization	2030-2032	2,968,000	-	151,000	2,817,000	234,900		2,582,100	2,452,995	129,105
26	West Gormley Parkette	2030-2031	440,000	-		440,000	-		440,000	418,000	22,000
27	North Leslie West Local Park (NLMPA#1)	2030-2031	1,444,000	-	81,000	1,363,000	7,600		1,355,400	1,287,630	67,770
28	NL West Local Park (NLMPA#2)	2031-2032	1,470,000	-	96,000	1,374,000	-		1,374,000	1,305,300	68,700
29	NL West Local Park (NLMPA#9)	2031-2032	675,000	-	38,000	637,000	-		637,000	605,150	31,850
30	NL West Local Park (NLMPA#3)	2031-2032	2,664,000	-	144,000	2,520,000	-		2,520,000	2,394,000	126,000
31	NL West Local Park (NLMPA#4)	2031-2032	1,072,000	-	67,000	1,005,000	-		1,005,000	954,750	50,250
32	Mackenzie Common Local Park (west)	2031-2032	1,121,000	-		1,121,000	-		1,121,000	1,064,950	56,050



Table 5-2 (Continued)
Infrastructure Cost Included in the Development Charges Calculation
Parks and Recreation Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions*	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non- Residential Share
	2023-2032									95%	5%
33	Mackenzie Common Local Park (east)	2031-2032	1,415,000	-		1,415,000	-		1,415,000	1,344,250	70,750
34	Baif Oak Ridges Community Park	2031-2032	3,962,000	-	241,000	3,721,000	-		3,721,000	3,534,950	186,050
35	Baif Oak Ridges Local Park	2031-2032	1,308,000	-	84,000	1,224,000	-		1,224,000	1,162,800	61,200
36	Bernard KDA Linear Park (SE quad)	2032	104,000	-	28,000	76,000	-		76,000	72,200	3,800
37	16th KDA Local Park	2032	163,000	-	41,000	122,000	-		122,000	115,900	6,100
38	RH Centre Urban Square (adj. subway)	2032	160,000	-	56,000	104,000	-		104,000	98,800	5,200
39	RH Centre Local Park (east of Red Maple)	2032	95,000	-	31,000	64,000	-		64,000	60,800	3,200
40	RH Centre Major Urban Open Space Enhancement	2032	61,000	-	27,000	34,000	13,700		20,300	19,285	1,015
41	Tollbar Park Enhancement	2025-2026	3,308,000	-	117,000	3,191,000	1,282,900		1,908,100	1,812,695	95,405
42	Bridgeview Park Enhancement	2024	2,430,000	-	486,000	1,944,000	202,500		1,741,500	1,654,425	87,075
43	Additional facilities for Phyllis Rawlison Park	2029-2033	6,364,500	-	325,000	6,039,500	4,831,600		1,207,900	1,147,505	60,395
44	Provision for Parkland Development in Intensification Areas	2023-2033	5,000,000	-		5,000,000	-		5,000,000	4,750,000	250,000
							-				
	Local Trail Priorities						-				
45	Jefferson Forest Trail	2024-2025	2,000,000	-		2,000,000	-		2,000,000	1,900,000	100,000



Table 5-2 (Continued)
Infrastructure Cost Included in the Development Charges Calculation
Parks and Recreation Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions*	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non- Residential Share
	2023-2032									95%	5%
46	Beaver Woodland Trail South	2024-2025	1,675,000	-		1,675,000	-		1,675,000	1,591,250	83,750
47	Elgin East Channel Lands Trail	2024-2025	725,000	-		725,000	-		725,000	688,750	36,250
48	Rouge River Headwaters Valley & Trails	2028-2029	2,000,000	-		2,000,000	-		2,000,000	1,900,000	100,000
49	TRCA Elgin West Channel Lands Trail	2024-2025	1,200,000	-		1,200,000	-		1,200,000	1,140,000	60,000
50	Humberview Pond Trails	2031-2032	1,150,000	-		1,150,000	-		1,150,000	1,092,500	57,500
51	Webster Park Trail North	2026-2027	650,000	-		650,000	-		650,000	617,500	32,500
							-				
	Vehicles						-				
52	New Capital Projects (Various Vehicles)	2023-2033	6,030,000	-		6,030,000	-		6,030,000	5,728,500	301,500
	Recreation Facilities						-				
53	Elgin Barrow Arena - Kitchen Renovation	2023	350,000	-		350,000	280,000		70,000	66,500	3,500
54	Sports Dome Air Conditioning	2024-2025	450,000	-		450,000	-		450,000	427,500	22,500
55	Conversion of Fitness Centre	2023-2024	300,000	-		300,000	200,000		100,000	95,000	5,000
56	Agriculture Building/Indoor Bocce Court Air Conditioning	2024	310,000	-		310,000	-		310,000	294,500	15,500
57	North Leslie Community Centre	2025-2030	233,000,000	81,783,000		151,217,000	-		151,217,000	143,656,150	7,560,850



Table 5-2 (Continued)
Infrastructure Cost Included in the Development Charges Calculation
Parks and Recreation Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions*	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non- Residential Share
2023-2032									95%	5%	
58	Indoor Soccer Facility - Richmond Green Park	2024-2028	1,200,000	-		1,200,000	-		1,200,000	1,140,000	60,000
59	Richvale - Conversion of Unused Daycare Space	2024-2026	425,000	-		425,000	-		425,000	403,750	21,250
60	TOC Community Centre	2031-2041	51,000,000	-		51,000,000	-		51,000,000	48,450,000	2,550,000
	Reserve Fund Adjustment	Reserve		-		-	38,606,651		(38,606,651)	(36,676,319)	(1,930,333)
	Total		474,481,530	81,783,000	14,308,000	378,390,530	76,067,451	-	302,323,079	287,206,925	15,116,154

*Other deductions relate to portion of project eligible for CBC funding



5.2.3 Library Services

The City provides four (4) library facilities which total 147,455 sq.ft. in library space. Over the past 15 years, the average level of service was 0.72 sq.ft. of space per capita or an investment of \$894 per capita. Based on the service standard, the City would be eligible to collect a total of \$38.68 million from D.C.s for library facilities.

The City has an inventory of library collection items totalling 447,828, along with one (1) vehicle. These collection items are comprised of various materials including books, periodicals, audio visual materials, and electronic resources, all of which have a total value of approximately \$16.00 million. Over the past 15 years, the average level of service was 2.83 items per capita or an average investment of \$88 per capita. Based on this service standard, the City would be eligible to collect approximately \$3.81 million from D.C.s for library collection items and vehicles over the 10-year forecast period.

In total, the City is eligible to collect \$42.49 million for library services.

The City is currently undertaking a library master plan to identify growth-related capital needs. Although specific facilities and materials have not yet been identified, preliminary estimates in growth-related needs have been identified at a cost of \$44.00 million. A deduction in the amount of \$1.88 million has been made to reflect the balance in the D.C. reserve fund. Therefore, the net growth capital cost is \$42.12 million to be included in the D.C calculation.

While library usage is predominately residential based, there is some use of the facilities by non-residential users, for the purpose of research. To acknowledge this use by the non-residential sector, the growth-related capital costs have been allocated 95% residential development and 5% non-residential development.



Table 5-3
 City of Richmond Hill
 Infrastructure Cost Included in the Development Charges Calculation
 Library Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
	2023-2032									95%	5%
1	Provision for Additional Facility Space and Materials	2024-2032	44,000,000	-		44,000,000	-		44,000,000	41,800,000	2,200,000
	Reserve Fund Adjustment	Reserve	-	-		-	1,884,847		(1,884,847)	(1,790,604)	(94,242)
	Total		44,000,000	-	-	44,000,000	1,884,847	-	42,115,153	40,009,396	2,105,758



5.3 Service Levels and Capital Costs to Service Growth to 2041 for Richmond Hill's D.C. Calculation

This section evaluates the development-related capital requirements for Engineering Services and Fire Protection Services over a planning period from 2023 to 2041.

5.3.1 Engineering Services

Engineering capital needs for the City are based upon the City's Transportation Master Plan (T.M.P.) and Urban Master Environment Service Plan (U.M.E.S.P.) It is noted that both of these studies were approved by Council on December 13, 2023.

Engineering services, like public works services is a class of service as it includes roads, water, wastewater, and stormwater operations.

The City owns and maintains 116 km of collector roads and 8.2km of arterial roads. Over the past 15 years, the average level of service was 0.60 km of roads per 1,000 population, or an average level of investment of \$21,893 per capita. Based on this service standard, the City would be eligible to collect a total of \$1,463,966,855 from D.C.s for City collector and arterial roads.

The City also has 18 bridges, 45 culverts and 1/3 of the Norman Bethune Avenue flyover. Note: the remaining cost of the Norman Bethune Avenue flyover is shared with the City of Markham and the province. In total this equates to an average level of investment of \$1,304 per capita, resulting in a D.C.-eligible recoverable amount of \$87,180,425 over the forecast period to 2041.

The total D.C.-eligible amount over the forecast period to 2041 for engineering services is \$1,551,147,280.

The City retained HDR Inc. (HDR) to undertake the transportation D.C. background study which assessed the growth-related capital needs, and the allocations to existing development, and development beyond the forecast period. HDR's analysis can be found in Appendix G of this report.

With respect to future needs, HDR has identified a number of projects which include new roads and extensions of existing roads and sidewalks throughout the City, intersection improvements, bridge improvements, overpasses, active transportation



trails and bridges. The gross capital cost of these projects is \$915.79 million. Deductions to account for the benefit to existing development and development beyond the 2041 forecast period have been made in the amounts of \$85.31 million and \$468.81 million, respectively. This results in a net growth related cost related to transportation projects of \$361.67 million.

In addition to the above, the City has also identified and isolated the growth-related components of storm, sanitary, and water system improvements as part of road reconstruction works. The growth-related component of these works is \$15.90 million which has been included in the D.C. calculation.

In addition to road related works, the City has provided for the inclusion of several projects that will service the growth and intensification areas based on the U.M.E.S.P. The listing of projects includes new sanitary sewers/watermains in addition to upgrades to existing sanitary sewers and watermains. For works that are being replaced with larger sewers/mains than what currently exists, the benefit to existing was based on two components. The first component is the incremental increase in cost for larger sewers, whereas the second component is based on the number of years the pipe was in services versus the expected useful life of the pipe. The balance is then attributed to growth as the pipe is being replaced prior to its full useful life as a result of growth. The detailed calculations for the benefit to existing are provided in Tables 5-4 and 5-5 for wastewater and water, respectively. The gross capital cost of these projects is \$62.89 million, however, \$22.53 million of these costs benefit growth outside of the forecast period and \$23.03 million of the costs benefit existing development. As a result, \$17.34 million has been included in the D.C. calculations related to U.M.E.S.P. works.

Furthermore, works related to the Elgin Mills Culvert in the amount of \$15.56 million have been identified for inclusion in the D.C. \$3.34 million of the costs relate to development outside of the forecast period and \$5.43 million benefits existing development. As such, \$6.79 million has been included in the D.C. calculation.

It is noted that the City has proposed to repeal or update all eight of their existing A.S.D.C. by-laws. Through this process, a number of boundary road works and the works related to Vogell bridge (City portion only) have been determined to provide a City-wide growth-related benefit. As a result, the capital cost of these works (\$12.57 million) has been incorporated into the City-wide D.C. calculation. The details on the approach to the A.S.D.C.s and the works/reserve fund balances that have been



incorporated into the City-wide D.C. are provided in Appendix H of this Background Study.

The reserve fund balance of \$36.58 million has also been deducted from the D.C. calculation, resulting in a total D.C. eligible amount of \$365.12 million for engineering services.

For engineering services, an 83% residential benefit and a 17% non-residential benefit have been applied towards the capital costs provided above based on the incremental growth in population to employment, for the forecast period to 2041.



**Table 5-4
City of Richmond Hill
U.M.E.S.P. Wastewater Costing Details**

U.M.E.S.P. Project #	Anticipated Timing as per MESP	Description	Location	From	To	Existing Pipe Size (mm)	New Pipe Size (mm)	Cost (2023\$)	Cost/m of Existing Pipe	Cost/m of New Pipe	Difference in Cost/m of pipe	Total Cost of Existing Pipe 2023\$	Existing Benefit of Existing Pipe 2023\$	% of pipe cost related to upsizing/new	% of pipe cost related to existing	% of Existing Pipe related to BTE for DC	% of Existing Pipe related to Growth	\$ of pipe cost related to upsizing/new	\$ of pipe cost related to existing	\$ of Existing Pipe related to BTE for DC	\$ of Existing Pipe related to Growth
WW-1	2041	Sewer Upgrade	King Road and Shomberg Road	on King Street	on Schomberg Road	250	375	\$855,092	\$2,553	\$3,009	\$456	\$532,129	\$248,327	15%	85%	47%	53%	\$129,559	\$725,533	\$338,582	\$386,951
WW-1	Post 2051	Sewer Upgrade	King Road and Shomberg Road	on King Street	on Schomberg Road	250	300	\$810,031	\$2,553	\$2,590	\$36	\$668,480	\$311,958	1%	99%	47%	53%	\$11,409	\$798,622	\$372,690	\$425,932
WW-2	2041	New Pipe	Yonge Street	Muirhead Crescent	Jefferson Sideroad		450	\$2,444,174			\$0	\$0	\$0	100%	0%	0%	0%	\$2,444,174	\$0	\$0	\$0
WW-3	2041	New Pipe	Yonge Street north of Harris Avenue	on Yonge Street	Harris Avenue		250	\$581,355			\$0	\$0	\$0	100%	0%	0%	100%	\$581,355	\$0	\$0	\$0
WW-3	Post 2051	Sewer Upgrade	Grange Drive and townwood Drive	on Grange Drive	on Townwood Drive	250	300	\$1,145,080	\$2,553	\$2,590	\$36	\$942,205	\$238,692	1%	99%	25%	75%	\$16,128	\$1,128,952	\$286,001	\$842,951
WW-4	2041	New Pipe	Yonge Street	NA	NA		250	\$381,896			\$0	\$0	\$0	100%	0%	0%	0%	\$381,896	\$0	\$0	\$0
WW-5	2041	New Pipe	Yonge Street	NA	NA		250	\$205,766			\$0	\$0	\$0	100%	0%	0%	0%	\$205,766	\$0	\$0	\$0
WW-6	2041	New Pipe	Yonge Street	NA	NA		300	\$401,508			\$0	\$0	\$0	100%	0%	0%	0%	\$401,508	\$0	\$0	\$0
WW-7	2041	Sewer Upgrade	Industrial Road and Beechy Drive	Yonge Street/Industrial Road	Beechy Drive/Newkirk Road	250	375	\$3,090,110	\$2,553	\$3,009	\$456	\$2,084,086	\$1,611,693	15%	85%	77%	23%	\$468,198	\$2,621,912	\$2,027,612	\$594,300
WW-8	2041	Sewer Upgrade	Yonge Street	Levendale Road	Dunlop Street	300	450	\$629,633	\$2,590	\$2,827	\$237	\$510,465	\$598,946	8%	92%	117%	-17%	\$52,808	\$576,825	\$676,808	-\$99,983
WW-8	2041	Sewer Upgrade	Yonge Street	Levendale Road	Dunlop Street	300	525	\$828,454	\$2,590	\$3,192	\$602	\$594,895	\$698,010	19%	81%	117%	-17%	\$156,223	\$672,231	\$788,751	-\$116,520
WW-8	Post 2051	Sewer Upgrade	Yonge Street	Levendale Road	Dunlop Street	300	375	\$369,983	\$2,590	\$3,009	\$419	\$281,779	\$330,620	14%	86%	117%	-17%	\$51,573	\$318,410	\$373,601	-\$55,191
WW-8	Post 2051	Sewer Upgrade	Yonge Street	Levendale Road	Dunlop Street	300	450	\$184,961	\$2,590	\$2,827	\$237	\$149,954	\$175,946	8%	92%	117%	-17%	\$15,513	\$169,448	\$198,819	-\$29,371
WW-9	Post 2041	Sewer Upgrade	Wright Street	Hall Street	Yonge Street	250	375	\$595,442	\$2,553	\$3,009	\$456	\$447,101	\$524,598	15%	85%	117%	-17%	\$90,218	\$505,224	\$592,796	-\$87,572
WW-9	Post 2051	Sewer Upgrade	Wright Street	Hall Street	Yonge Street	250	375	\$310,133	\$2,553	\$3,009	\$456	\$232,870	\$273,234	15%	85%	117%	-17%	\$46,990	\$263,143	\$308,755	-\$45,611
WW-10	2041	Sewer Upgrade	Dunlop Street and Church Street	Yonge Street	Centre Street East	375	600	\$442,746	\$1,926	\$2,101	\$175	\$230,156	\$153,438	8%	92%	67%	33%	\$36,896	\$405,851	\$270,567	\$135,284
WW-10	2041	Sewer Upgrade	Dunlop Street and Church Street	Yonge Street	Centre Street East	450	600	\$833,576	\$2,827	\$2,101	-\$726	\$635,222	\$423,482	-35%	135%	67%	33%	-\$287,989	\$1,121,565	\$747,710	\$373,855
WW-11	2041	Sewer Upgrade	Centre Street East and Pugsley Avenue	Church Street	Major Mackenzie Drive East	300	525	\$1,357,603	\$1,658	\$3,192	\$1,534	\$629,858	\$369,517	48%	52%	59%	41%	\$652,580	\$705,023	\$413,613	\$291,409
WW-11	Post 2041	Sewer Upgrade	Centre Street East and Pugsley Avenue	Church Street	Major Mackenzie Drive East	450	600	\$238,247	\$2,827	\$3,283	\$456	\$192,235	\$112,778	14%	86%	59%	41%	\$33,090	\$205,157	\$120,359	\$84,798
WW-11	Post 2051	Sewer Upgrade	Centre Street East and Pugsley Avenue	Church Street	Major Mackenzie Drive East	450	600	\$1,393,934	\$2,827	\$3,283	\$456	\$1,127,965	\$661,739	14%	86%	59%	41%	\$193,602	\$1,200,332	\$704,195	\$496,137
WW-12	2041	Sewer Upgrade	Major Mackenzie Drive East	Bayview Avenue	Essex Avenue	375	525	\$1,083,446	\$3,009	\$3,192	\$182	\$904,013	\$578,569	6%	94%	64%	36%	\$61,911	\$1,021,535	\$653,782	\$367,753
WW-12	Post 2051	Sewer Upgrade	Major Mackenzie Drive East	Bayview Avenue	Essex Avenue	250	300	\$681,889	\$2,553	\$2,590	\$36	\$594,942	\$380,763	1%	99%	64%	36%	\$9,604	\$672,285	\$430,262	\$242,023
WW-12	Post 2051	Sewer Upgrade	Major Mackenzie Drive East	Bayview Avenue	Essex Avenue	250	375	\$284,969	\$2,553	\$3,009	\$456	\$213,975	\$136,944	15%	85%	64%	36%	\$43,177	\$241,792	\$154,747	\$87,045
WW-12	Post 2051	Sewer Upgrade	Major Mackenzie Drive East	Bayview Avenue	Essex Avenue	375	450	\$712,690	\$2,572	\$2,827	\$255	\$573,733	\$367,189	9%	91%	64%	36%	\$64,372	\$648,318	\$414,924	\$233,394
WW-13	2041	Sewer Upgrade	Addison Street, May Avenue, Weldrick Road West and Springhead Gardens	Addison Street	Kitsilano Crescent	250	375	\$348,714	\$2,553	\$3,009	\$456	\$240,020	\$160,013	15%	85%	67%	33%	\$52,835	\$295,879	\$197,252	\$98,626
WW-13	2041	Sewer Upgrade	Addison Street, May Avenue, Weldrick Road West and Springhead Gardens	Addison Street	Kitsilano Crescent	300	450	\$1,442,950	\$2,590	\$2,827	\$237	\$1,169,848	\$779,899	8%	92%	67%	33%	\$121,022	\$1,321,928	\$881,286	\$440,643
WW-13	2041	Sewer Upgrade	Addison Street, May Avenue, Weldrick Road West and Springhead Gardens	Addison Street	Kitsilano Crescent	375	525	\$714,982	\$3,009	\$3,192	\$182	\$529,949	\$353,299	6%	94%	67%	33%	\$40,856	\$674,126	\$449,417	\$224,709
WW-13	2051	Sewer Upgrade	Addison Street, May Avenue, Weldrick Road West and Springhead Gardens	Addison Street	Kitsilano Crescent	250	375	\$288,988	\$2,553	\$3,009	\$456	\$198,910	\$132,607	15%	85%	100%	0%	\$43,786	\$245,202	\$245,202	\$0
WW-13	Post 2051	Sewer Upgrade	Addison Street, May Avenue, Weldrick Road West and Springhead Gardens	Addison Street	Kitsilano Crescent	525	600	\$3,742,290	\$3,192	\$3,283	\$91	\$2,897,791	\$1,931,861	3%	97%	67%	33%	\$103,953	\$3,638,338	\$2,425,558	\$1,212,779



Table 5-4 (Cont'd)
City of Richmond Hill
U.M.E.S.P. Wastewater Costing Details

U.M.E.S.P. Project #	Anticipated Timing as per MESP	Description	Location	From	To	Existing Pipe Size (mm)	New Pipe Size (mm)	Cost (2023\$)	Cost/m of Existing Pipe	Cost/m of New Pipe	Difference in Cost/m of pipe	Total Cost of Existing Pipe 2023\$	Existing Benefit of Existing Pipe 2023\$	% of pipe cost related to upsizing/new	% of pipe cost related to existing	% of Existing Pipe related to BTE for DC	% of Existing Pipe related to Growth	\$ of pipe cost related to upsizing/new	\$ of pipe cost related to existing	\$ of Existing Pipe related to BTE for DC	\$ of Existing Pipe related to Growth
WW-14	2041	New Pipe	Addison Street, Yonge Street, palmer Avenue	Addison Street	Harding Blvd		375	\$1,800,114			\$0	\$0	\$0	100%	0%	100%	0%	\$1,800,114	\$0	\$0	\$0
WW-15	Post 2051	Sewer Upgrade	Cedar Avenue	Fox Run Crescent	on Cedar Avenue	200	300	\$841,679	\$1,678	\$2,590	\$912	\$482,578	\$315,284	35%	65%	100%	0%	\$296,366	\$545,313	\$545,313	\$0
WW-16	Post 2051	Sewer Upgrade	Baif Boulevard	Yonge Street	Springhead Gardens	250	375	\$929,379	\$2,553	\$3,009	\$456	\$697,844	\$465,230	15%	85%	100%	0%	\$140,815	\$788,564	\$788,564	\$0
WW-16	Post 2051	Sewer Upgrade	Baif Boulevard	Yonge Street	Springhead Gardens	300	375	\$235,320	\$2,590	\$3,009	\$419	\$179,220	\$119,480	14%	86%	100%	0%	\$32,802	\$202,518	\$202,518	\$0
WW-17	Post 2051	Sewer Upgrade	Carrville Road	Yonge Street	Duncombe Lane	300	375	\$3,320,329	\$2,590	\$3,009	\$419	\$2,528,757	\$1,550,971	14%	86%	100%	0%	\$462,834	\$2,857,495	\$2,857,495	\$0
WW-18	2041	New Pipe	Dalemout Gate	Yonge Street	Ellesmere Street		300	\$148,879			\$0	\$0	\$0	100%	0%	100%	0%	\$148,879	\$0	\$0	\$0
WW-18	Post 2051	Sewer Upgrade	Dalemout Gate	Yonge Street	Ellesmere Street	250	300	\$158,796	\$2,553	\$2,590	\$36	\$117,456	\$40,718	1%	99%	100%	0%	\$2,237	\$156,559	\$156,559	\$0
WW-19	Post 2051	New Pipe	Yonge Street, High Tech Road and Red Maple Road	Yonge Street	Red Maple Road			\$5,997,674			\$0	\$0	\$0	100%	0%	0%	0%	\$5,997,674	\$0	\$0	\$0
WW-20	Post 2051	Sewer Upgrade	East Beaver Creek Road	York Blvd	East Pearce St	250	300	\$332,457	\$2,553	\$2,590	\$36	\$290,066	\$123,762	1%	99%	43%	57%	\$4,682	\$327,775	\$139,850	\$187,924
WW-20	Post 2051	Sewer Upgrade	East Beaver Creek Road	York Blvd	East Pearce St	300	450	\$983,263	\$2,590	\$3,465	\$875	\$650,318	\$277,469	25%	75%	43%	57%	\$248,403	\$734,860	\$313,540	\$421,320
Grand Total								\$41,148,532										\$15,357,820	\$25,790,712	\$19,077,129	\$6,713,583



**Table 5-5
City of Richmond Hill
U.M.E.S.P. Water Costing Details**

U.M.E.S.P. Project #	Anticipated Timing as per MESP	Description	OP Area	Location	Existing Pipe Size (mm)	New Pipe Size (mm)	Cost (2023\$)	Cost/m of Existing Pipe	Cost/m of New Pipe	Difference in Cost/m of pipe	Total Cost of Existing Pipe 2023\$	Existing Benefit of Existing Pipe 2023\$	% of pipe cost related to upsizing/new	% of pipe cost related to existing	% of Existing Pipe related to BTE for DC	% of Existing Pipe related to Growth	\$ of pipe cost related to upsizing/ new	\$ of pipe cost related to existing	\$ of Existing Pipe related to BTE for DC	\$ of Existing Pipe related to Growth
W1	2041	New 150 mm Watermain	Oak Ridges Local Centre	Yonge Street South of Elm Grove Avenue		150	\$400,209			\$0	\$0	\$0	100%	0%	0%	0%	\$400,209	\$0	\$0	\$0
W2.1	2041	Watermain Replacement (150mm to 300mm)	Regional Mixed Used Corridor	Yonge Street & Murihead Crescent	150	300	\$293,996	\$3,511	\$4,605	\$1,094	\$175,546	\$24,576	24%	76%	14%	86%	\$69,860	\$224,136	\$31,379	\$192,757
W2.2	2041	New 300mm Watermain	Regional Mixed Used Corridor	Yonge Street between Murihead Crescent and Stouffville Road		300	\$949,595			\$0	\$0	\$0	100%	0%	0%	0%	\$949,595	\$0	\$0	\$0
W2.3	2041	New 200mm Watermain	Regional Mixed Used Corridor	Yonge Street North of Murihead Crescent		200	\$179,444			\$0	\$0	\$0	100%	0%	0%	100%	\$179,444	\$0	\$0	\$0
W3.1	2041	New 250mm Watermain	Regional Mixed Used Corridor	Harris & Yonge		250	\$226,330			\$0	\$0	\$0	100%	0%	0%	0%	\$226,330	\$0	\$0	\$0
W3.2	2041	New 300mm Watermain	Regional Mixed Used Corridor	Harris & Yonge		300	\$960,621			\$0	\$0	\$0	100%	0%	0%	0%	\$960,621	\$0	\$0	\$0
W3.3	2041	New 300mm Watermain	Regional Mixed Used Corridor	Yonge Street West Side, North of Gamble Road		300	\$547,119			\$0	\$0	\$0	100%	0%	0%	0%	\$547,119	\$0	\$0	\$0
W4	2041	New 250mm Watermain	Regional Mixed Used Corridor	Yonge Street East Side, North of Silverwood Avenue		250	\$1,666,022			\$0	\$0	\$0	100%	0%	0%	0%	\$1,666,022	\$0	\$0	\$0
W5	2041	New 300mm Watermain	Key Development Area	South of Yonge Street and Canyon Hill Avenue		300	\$1,417,573			\$0	\$0	\$0	100%	0%	0%	0%	\$1,417,573	\$0	\$0	\$0
W6.1	2051	Watermain Replacement (150mm to 300mm)	Regional Mixed Used Corridor	Yonge St. North of Oxford St.	150	300	\$163,898	\$3,511	\$4,605	\$1,094	\$87,773	\$19,310	24%	76%	22%	78%	\$38,946	\$124,952	\$27,489	\$97,462
W6.2	2051	Watermain Replacement (150mm to 250mm)	Regional Mixed Used Corridor	Yonge St. & Oxford St.	150	250	\$218,101	\$3,511	\$4,240	\$730	\$122,882	\$27,034	17%	83%	22%	78%	\$37,523	\$180,578	\$39,727	\$140,851
W7.1	2041	Watermain Replacement (150mm to 250mm)	Downtown Local Centre	Lorne Ave & Church St. North of Major Mackenzie	150	250	\$1,855,100	\$1,437	\$2,961	\$1,524	\$668,216	\$614,759	51%	49%	92%	8%	\$954,736	\$900,364	\$828,335	\$72,029
W7.2	2051	Watermain Replacement (150mm to 300mm)	Downtown Local Centre/Regional Mixed Use Corridor	Church St. South of Major Mackenzie	150	300	\$3,606,203	\$1,742	\$3,234	\$1,492	\$1,454,299	\$756,235	46%	54%	52%	48%	\$1,664,120	\$1,942,083	\$1,009,883	\$932,200
W8.1	2041	Watermain Replacement (150mm to 300mm)	Downtown Local Centre	Yonge St East Side between Major Mackenzie Dr. and elmwood Ave.	150	300	\$848,983	\$3,511	\$4,605	\$1,094	\$772,404	\$463,442	24%	76%	60%	40%	\$201,739	\$647,245	\$388,347	\$258,898
W8.2	2041	New 300mm Watermain	Downtown Local Centre	Yonge St East Side between Major Mackenzie Dr. and elmwood Ave.		300	\$457,982			\$0	\$0	\$0	100%	0%	0%	0%	\$457,982	\$0	\$0	\$0
W8.3	2041	New 150 mm Watermain	Downtown Local Centre	Yonge St & Palmer Ave.		150	\$147,101			\$0	\$0	\$0	100%	0%	0%	0%	\$147,101	\$0	\$0	\$0
W9.1	Ultimate	Watermain Replacement (150mm to 250mm)	Local Development Area	Cedar Ave. South of Major Mackenzie Dr.	150	250	\$622,999	\$2,078	\$2,765	\$687	\$290,905	\$108,605	25%	75%	37%	63%	\$154,832	\$468,167	\$174,782	\$293,384
W9.2	2051	Watermain Replacement (150mm to 250mm)	Local Development Area	Norfolk Ave. South of Major Mackenzie Dr	150	250	\$522,027	\$2,102	\$3,219	\$1,117	\$231,174	\$61,646	35%	65%	27%	73%	\$181,180	\$340,847	\$90,893	\$249,954
W10	2041	Watermain Replacement (150mm to 300mm)	Local Development Area	Old Markham Rd. & Bayview Ave	150	300	\$937,539	\$1,368	\$3,192	\$1,824	\$294,097	\$137,245	57%	43%	47%	53%	\$535,737	\$401,802	\$187,508	\$214,295
W11.1	2041	Watermain Replacement (150mm to 250mm)	Regional Mixed Used Corridor	Yonhurst Drive at Yonge Street Intersection	150	250	\$81,305	\$1,687	\$2,918	\$1,231	\$25,306	\$10,460	42%	58%	41%	59%	\$34,300	\$47,004	\$19,428	\$27,576
W11.2	2041	New 300mm Watermain	Regional Mixed Used Corridor	Yonge Street East Side north of Clarissa Dr.		300	\$546,810			\$0	\$0	\$0	100%	0%	0%	0%	\$546,810	\$0	\$0	\$0
W11.3	2041	Watermain Replacement (150mm to 300mm)	Regional Mixed Used Corridor	Yonge Street East Side north of Clarissa Dr.	150	300	\$346,433	\$3,511	\$4,605	\$1,094	\$193,101	\$77,240	24%	76%	40%	60%	\$82,321	\$264,112	\$105,645	\$158,467
W12.1	2041	Watermain Replacement (150mm to 250mm)	Regional Mixed Used Corridor	Spruce Avenue at Yonge St. Intersection	150	250	\$498,929	\$1,687	\$2,918	\$1,231	\$202,448	\$83,679	42%	58%	41%	59%	\$210,486	\$288,444	\$119,223	\$169,220
W12.2	2041	Watermain Replacement (150mm to 250mm)	Regional Mixed Used Corridor	Oak Avenue at Yonge St. Intersection	150	250	\$439,537	\$1,687	\$2,918	\$1,231	\$185,578	\$71,757	42%	58%	39%	61%	\$185,430	\$254,107	\$98,255	\$155,852
W12.3	2041	Watermain Replacement (150mm to 250mm)	Regional Mixed Used Corridor	Edgar Avenue at Yonge St. intersection	150	250	\$403,367	\$1,687	\$2,918	\$1,231	\$160,272	\$57,698	42%	58%	36%	64%	\$170,170	\$233,196	\$83,951	\$149,246
W13.1	2041	Watermain Replacement (150mm to 250mm)	Regional Mixed Used Corridor/Richmond Hill Centre	Scott Drive at Yonge St. Intersection	150	250	\$485,805	\$1,687	\$2,918	\$1,231	\$202,448	\$94,476	42%	58%	47%	53%	\$204,949	\$280,856	\$131,066	\$149,790



Table 5-5 (Cont'd)
City of Richmond Hill
U.M.E.S.P. Water Costing Details

U.M.E.S.P. Project #	Anticipated Timing as per MESP	Description	OP Area	Location	Existing Pipe Size (mm)	New Pipe Size (mm)	Cost (2023\$)	Cost/m of Existing Pipe	Cost/m of New Pipe	Difference in Cost/m of pipe	Total Cost of Existing Pipe 2023\$	Existing Benefit of Existing Pipe 2023\$	% of pipe cost related to upsizing/new	% of pipe cost related to existing	% of Existing Pipe related to BTE for DC	% of Existing Pipe related to Growth	\$ of pipe cost related to upsizing/ new	\$ of pipe cost related to existing	\$ of Existing Pipe related to BTE for DC	\$ of Existing Pipe related to Growth
W13.2	Ultimate	Watermain Replacement (150mm to 250mm)	Richmond Hill Centre	Mackay Drive at Yonge St. Intersection	150	250	\$578,173	\$1,687	\$2,918	\$1,231	\$236,190	\$107,073	42%	58%	45%	55%	\$243,917	\$334,256	\$151,530	\$182,727
W14.1	2041	Watermain Replacement (150mm to 300mm)	Richmond Hill Centre	High Tech Road between Yonge St. and Red Maple Rd	150	300	\$366,785	\$1,687	\$3,192	\$1,505	\$143,401	\$45,888	47%	53%	32%	68%	\$172,913	\$193,872	\$62,039	\$131,833
W14.2	2041	New 300mm Watermain	Richmond Hill Centre	High Tech Road between Yonge St. and Red Maple Rd		300	\$847,386			\$0	\$0	\$0	100%	0%	0%	0%	\$847,386	\$0	\$0	\$0
W14.3	2041	Watermain Replacement (150mm to 300mm)	Richmond Hill Centre	High Tech Road between Yonge St. and Red Maple Rd	150	300	\$627,636	\$1,687	\$3,192	\$1,505	\$253,060	\$80,979	47%	53%	32%	68%	\$295,886	\$331,751	\$106,160	\$225,590
W15	2041	Watermain Replacement (150mm to 250mm)	Richmond Hill Centre	Garden Avenue at Yonge St. Intersection	150	250	\$498,929	\$1,687	\$2,918	\$1,231	\$202,448	\$75,581	42%	58%	100%	0%	\$210,486	\$288,443	\$288,443	\$0
Grand Total							\$21,741,937										\$13,995,723	\$7,746,215	\$3,944,083	\$3,802,132



Table 5-6
City of Richmond Hill
Infrastructure Cost Included in the Development Charges Calculation
Engineering Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
	2023-2041									83%	17%
	Transportation Infrastructure										
	Roadways										
1	East Beaver Creek Road - Leslie Street to Highway 7	2023-2031	15,938,000	-		15,938,000	3,187,600	-	12,750,400	10,582,832	2,167,568
2	Wertheim Court - West Beaver Creek to Leslie Street	2042-2051	4,827,000	4,827,000		-	-	-	-	-	-
3	Wertheim Court - Leslie Street to East Beaver Creek	2042-2051	1,383,000	1,383,000		-	-	-	-	-	-
4	West Beaver Creek Road - Leslie Street to Highway 7	2023-2031	17,968,000	-		17,968,000	3,593,600	-	14,374,400	11,930,752	2,443,648
5	Far Niente Street Extension - High Tech Road to Highway 7	2032-2041	3,938,000	984,500		2,953,500	-	-	2,953,500	2,451,405	502,095
6	Garden Avenue Extension - Red Maple Road to Bayview Avenue	2032-2041	9,169,000	2,292,300		6,876,700	-	-	6,876,700	5,707,661	1,169,039
7	Cedar Avenue Extension - High Tech Road to Langstaff Road	2023-2031	2,933,000	-		2,933,000	-	-	2,933,000	2,434,390	498,610
8	Garden Avenue Extension - Yonge Street to Red Maple Road	2042-2051	3,066,000	3,066,000		-	-	-	-	-	-
9	North-South Road - Carville Road to Garden Avenue	2032-2041	10,515,000	2,628,800		7,886,200	-	-	7,886,200	6,545,546	1,340,654
10	Addison Street Extension - to Weldrick Road West	2023-2031	3,463,000	-		3,463,000	-	-	3,463,000	2,874,290	588,710
11	Addison Street Extension - to Yonge Street	2032-2041	768,000	192,000		576,000	-	-	576,000	478,080	97,920
12	Enford Road Extension - to Yonge Street	2032-2041	4,279,000	1,069,800		3,209,200	-	-	3,209,200	2,663,636	545,564
13	Collector Road - Bawden Drive to future Highway 404 Overpass	2042-2051	2,881,000	2,881,000		-	-	-	-	-	-
14	Performance Drive Extension - to future Highway 404 Overpass	2032-2041	2,275,000	568,800		1,706,200	-	-	1,706,200	1,416,146	290,054
16	Brodie Drive Extension	2032-2041	1,547,000	386,800		1,160,200	-	-	1,160,200	962,966	197,234
17	Orlando Avenue Extension - to Highway 404 Overpass	2023-2031	2,607,000	-		2,607,000	-	-	2,607,000	2,163,810	443,190
18	Newkirk Road - Elgin Mills Road E to Major Mackenzie Drive East	2023-2031	16,532,000	-		16,532,000	3,306,400	-	13,225,600	10,977,248	2,248,352



Table 5-6 (Continued)
Infrastructure Cost Included in the Development Charges Calculation
Engineering Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
	2023-2041									83%	17%
19	East-West Minor Collector Road - between North-South Minor Collector Road and Yonge Street	2032-2041	1,097,000	274,300		822,700	-	-	822,700	682,841	139,859
20	Oak Avenue - from North-South Road (ID #9) to Yonge Street	2032-2041	1,247,000	249,400		997,600	249,400	-	748,200	621,006	127,194
	Intersection Improvements										
21	Multi-locations - 4 intersections	2023-2031	3,198,000	-		3,198,000	-	-	3,198,000	2,654,340	543,660
22	Multi-locations - 4 intersections	2032-2041	3,198,000	799,500		2,398,500	-	-	2,398,500	1,990,755	407,745
23	Multi-locations - 6 intersections	2023-2031	3,120,000	-		3,120,000	-	-	3,120,000	2,589,600	530,400
24	Multi-locations - 11 intersections	2032-2041	5,720,000	1,430,000		4,290,000	-	-	4,290,000	3,560,700	729,300
25	Multi-locations - 3 intersections	2042-2051	1,560,000	1,560,000		-	-	-	-	-	-
	Structures										
26	Iconic Bridge Improvement in Richmond Hill Centre	2042-2051	60,000,000	54,000,000		6,000,000	6,000,000	-	-	-	-
27	Weldrick Road East	2042-2051	60,000,000	54,000,000		6,000,000	6,000,000	-	-	-	-
28	Centre Street East	2042-2051	60,000,000	54,000,000		6,000,000	6,000,000	-	-	-	-
29	Crosby Avenue	2042-2051	60,000,000	54,000,000		6,000,000	6,000,000	-	-	-	-
30	Bethesda Sideroad	2042-2051	60,000,000	54,000,000		6,000,000	6,000,000	-	-	-	-
31	Performance Drive Rouge River Crossing (City-wide Share)	2032-2041	3,200,000	800,000		2,400,000	-	-	2,400,000	1,992,000	408,000
32	Highway Overpass North of 16th Avenue	2023-2031	22,862,000	-		22,862,000	-	-	22,862,000	18,975,460	3,886,540
33	Highway Overpass North of Major Mackenzie Drive	2032-2041	13,732,000	3,433,000		10,299,000	-	-	10,299,000	8,548,170	1,750,830
34	Highway Overpass North of Elgin Mills Road	2042-2051	20,693,000	20,693,000		-	-	-	-	-	-
	Land Acquisition										
35	Land Acquisition	2023-2051	135,023,300	45,198,300		89,825,000	1,638,100	-	88,186,900	73,195,127	14,991,773



Table 5-6 (Continued)
Infrastructure Cost Included in the Development Charges Calculation
Engineering Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
	2023-2041									83%	17%
	AT and Trails			-		-	-		-	-	-
36	Priority AT Spine Routes	2023-2051	25,027,200	115,100		24,912,100	2,502,700	-	22,409,400	18,599,802	3,809,598
37	Other AT Facilities and Trails	2023-2051	22,924,600	4,451,800		18,472,800	1,852,600	-	16,620,200	13,794,766	2,825,434
38	Sidewalks on Collector Roads	2023-2051	20,290,700	6,079,700		14,211,000	1,046,000	-	13,165,000	10,926,950	2,238,050
	AT Bridges			-		-	-		-	-	-
39	German Mills Creek / CNR	2042-2051	7,000,000	6,300,000		700,000	700,000	-	-	-	-
40	Trailwood Reserve Watercourse and Trail / CNR	2042-2051	7,000,000	6,300,000		700,000	700,000	-	-	-	-
41	Off-Road Trail West of Leslie Street / CNR	2042-2051	7,000,000	6,300,000		700,000	700,000	-	-	-	-
42	Trans Richmond Trail South of 29th Avenue/CNR	2042-2051	7,000,000	6,300,000		700,000	700,000	-	-	-	-
43	David Dunlop Observatory Park Trail/CNR	2023-2031	7,000,000	-		7,000,000	700,000	-	6,300,000	5,229,000	1,071,000
44	Off Road Trail West of Oneida Crescent/CNR	2023-2031	10,000,000	-		10,000,000	1,000,000	-	9,000,000	7,470,000	1,530,000
45	Newberry Park/CNR	2042-2051	7,000,000	6,300,000		700,000	700,000	-	-	-	-
46	Roseview Avenue Trail/Richmond Hill GO (Funding subject to Metrolinx)	2042-2051	7,000,000	6,300,000		700,000	700,000	-	-	-	-
47	Iconic Bridge in Richmond Hill Centre	2032-2041	10,000,000	2,250,000		7,750,000	1,000,000	-	6,750,000	5,602,500	1,147,500
48	Crossing south of Carrville and east of Yonge	2042-2051	7,000,000	6,300,000		700,000	700,000	-	-	-	-
49	High Tech Road	2023-2031	5,000,000	-		5,000,000	500,000	-	4,500,000	3,735,000	765,000
	York Region Boulevard Improvements										
50	York Region Boulevard Improvements	2023-2051	107,069,000	44,092,600		62,976,400	10,706,900	-	52,269,500	43,383,685	8,885,815
	Other Projects										
51	Walkway Illumination	2027-2041	4,198,500	629,800		3,568,700	419,900	-	3,148,800	2,613,504	535,296



Table 5-6 (Continued)
Infrastructure Cost Included in the Development Charges Calculation
Engineering Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
	2023-2041									83%	17%
52	Walkway & Street Illumination	2024-2026	1,000,000	-		1,000,000	100,000	-	900,000	747,000	153,000
53	Sidewalk Program	2024-2041	10,450,000	1,306,300		9,143,700	1,045,000	-	8,098,700	6,721,921	1,376,779
54	Pedestrian Crossover (PXO) Implementation	2024-2041	5,400,000	225,000		5,175,000	3,780,000	-	1,395,000	1,157,850	237,150
55	Automated Speed Enforcement (ASE) Implementation	2025-2041	7,140,000	315,000		6,825,000	4,998,000	-	1,827,000	1,516,410	310,590
56	TSOS Implementation	2024-2041	5,625,000	234,400		5,390,600	3,937,500	-	1,453,100	1,206,073	247,027
57	Annual Traffic Improvements	2024-2041	6,930,000	288,800		6,641,200	4,851,000	-	1,790,200	1,485,866	304,334
	Other										
58	Road Reconstruction - Storm Improvements	2024-2032	8,000,000	-		8,000,000	-	-	8,000,000	6,640,000	1,360,000
59	Road Reconstruction - Sanitary and Water System Improvements (Excluding U.M.E.S.P. Works)	2024-2039	7,900,000	-		7,900,000	-	-	7,900,000	6,557,000	1,343,000
	Previous A.S.D.C. Works with a City-wide Growth-Related Benefit										
60	Boundary Road Improvements	2024-2041	8,130,000	-		8,130,000	-	-	8,130,000	6,747,900	1,382,100
61	Vogell Bridge-City-Wide Share	2024-2041	4,440,000	-		4,440,000	-	-	4,440,000	3,685,200	754,800
	Water/Wastewater/Stormwater Infrastructure										
62	Elgin Mills Culvert (York Region)	2026-2027	15,560,000	3,342,600		12,217,400	5,430,800	-	6,786,600	5,632,878	1,153,722
63	Sanitary collection network - U.M.E.S.P.	2023-2041	17,590,000	2,730,000		14,860,000	7,450,000	-	7,410,000	6,150,300	1,259,700
64	Water distribution network - U.M.E.S.P.	2023-2041	16,030,000	3,650,000		12,380,000	2,450,000	-	9,930,000	8,241,900	1,688,100
65	Sanitary collection network - U.M.E.S.P.	2042+	23,560,000	11,928,000		11,632,000	11,632,000	-	-	-	-
66	Water distribution network - U.M.E.S.P.	2042+	5,711,000	4,217,000		1,494,000	1,494,000	-	-	-	-
67	Reserve Fund Adjustment	Reserve				-	36,580,040	-	(36,580,040)	(30,361,433)	(6,218,607)
68	Reserve Fund Adjustment - Adjustment for ASDC Projects	Reserve					1,700,599	-	(1,700,599)	(1,411,497)	(289,102)
	Total		1,022,715,300	494,673,600	-	528,041,700	152,052,139	-	375,989,561	312,071,336	63,918,225



5.3.2 Fire Protection Services

The City currently has six (6) fire stations, a fire facility at the operations centre, and a fire training building and burn tower at the Operations Centre, amounting to 70,234 sq.ft. of building area. Over the historical 15-year period (2008-2022), the City has provided an average level of service of 0.35 sq.ft. of fire facility space per capita. This translates to a level of service of approximately \$414 per capita. When applied over the forecast period, this average level of service translates into a D.C.-eligible amount of \$27.69 million.

The fire department has a current inventory of vehicles totalling 38 items including aerials, tankers, command vehicles, a boat, and other vehicles. The current value of these vehicles is \$23.51 million and provides a per capita investment of \$128. The total D.C. eligible amount for fire vehicles is \$8.55 million.

The City's fire department also has an inventory of small equipment and gear including self contained breathing apparatuses (SCBAs), bunker gear, helmets, radios, etc. totaling 876 items. These items have a total value of \$3.24 million, resulting in a D.C. eligible amount over the forecast period of \$890,040 for equipment and gear.

Based on the above, the maximum D.C.-eligible amount for recovery over the forecast period to 2041 is \$37.13 million for fire protection services.

To support future growth, the City has identified growth-related capital projects for fire protection services totalling \$45.53 million, of which \$15.88 million benefits existing development. The capital project listing includes a new Station 8-7 and 8-8, as well as other improvements and upgrades to various other facilities, various vehicles including aerials, pumpers, command vehicles, etc., and equipment such as bunker gear. An adjustment of \$1.06 million has been made to account for the reserve fund deficit, resulting in the D.C. eligible amount included in the calculation of \$30.71 million.

For fire protection services, an 83% residential benefit and a 17% non-residential benefit have been applied towards the capital costs provided above based on the incremental growth in population to employment, for the forecast period to 2041.



Table 5-7
Infrastructure Cost Included in the Development Charges Calculation
Fire Protection Services

Prj .No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non- Residential Share
	2023-2041									83%	17%
	Facilities										
1	Fire Station 8-6 - Improvements to Accommodate Additional Staff/Growth	2023-2025	250,000	-		250,000	-		250,000	207,500	42,500
2	Fire Station 8-7 - New	2024-2027	8,910,000	-		8,910,000	-		8,910,000	7,395,300	1,514,700
3	Fire Regional Training Centre	2024-2025	3,350,000	-		3,350,000	1,675,000		1,675,000	1,390,250	284,750
4	Fire Training Tower Upgrade	2024	315,000	-		315,000	-		315,000	261,450	53,550
5	Fire Station 8-5 - Improvements to Accommodate Additional Staff/Growth	2034-2035	350,000	-		350,000	-		350,000	290,500	59,500
6	Fire Station 8-8	2035-2041	4,000,000	-		4,000,000	-		4,000,000	3,320,000	680,000
7	Expansion to Station 8-1	2027-2029	14,250,000	-		14,250,000	11,400,000		2,850,000	2,365,500	484,500
	Vehicles										
8	Station 8-7 - Aerial	2029-2031	2,500,000	-		2,500,000	-		2,500,000	2,075,000	425,000
9	Station 8-7 - Pumper	2026-2028	1,700,000	-		1,700,000	-		1,700,000	1,411,000	289,000
10	Mechanical Vehicle	2023	180,000	-		180,000	144,000		36,000	29,880	6,120
11	Station 8-5 - Aerial	2035	2,500,000	-		2,500,000	-		2,500,000	2,075,000	425,000
12	Station 8-8 - Aerial	2040-2041	2,500,000	-		2,500,000	-		2,500,000	2,075,000	425,000
13	Command Vehicle - Deputy Chief #3	2025	145,000	-		145,000	-		145,000	120,350	24,650
14	Fire Prevention Inspector vehicle - additional	2025	72,000	-		72,000	-		72,000	59,760	12,240
15	Replace 8983 to suit FIU needs	2024	140,000	-		140,000	85,000		55,000	45,650	9,350
16	Purchase Fleet 8905	2024	2,800,000	-		2,800,000	2,500,000		300,000	249,000	51,000
	Equipment										
17	Bunker Gear for FFs to staff Fire Engine 8-7	2028	220,000	-		220,000	-		220,000	182,600	37,400



Table 5-7 (Continued)
Infrastructure Cost Included in the Development Charges Calculation
Fire Protection Services

Prj .No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2023\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non- Residential Share
	2023-2041									83%	17%
18	Bunker Gear for 8-7 Aerial	2033	220,000	-		220,000	-		220,000	182,600	37,400
19	Specialized Heavy Rescue Equipment	2033	77,000	-		77,000	-		77,000	63,910	13,090
20	Self Contained Breathing Apparatus - SCBA	2023	50,000	-		50,000	-		50,000	41,500	8,500
21	Equipment - Fire Regional Training Centre	2023	150,000	-		150,000	75,000		75,000	62,250	12,750
22	Bunker Gear for FFs to staff Fire Platform 8-5	2035	220,000	-		220,000	-		220,000	182,600	37,400
23	SCBA for Engine 8-8	2041	35,000	-		35,000	-		35,000	29,050	5,950
24	Bunker Gear for FFs to staff Fire Engine 8-8	2041	264,000	-		264,000	-		264,000	219,120	44,880
25	Dispatch Centre Upgrade	2034-2041	250,000	-		250,000	-		250,000	207,500	42,500
26	Specialized Technical Rescue	2024	80,000	-		80,000	-		80,000	66,400	13,600
	Reserve Fund Adjustment	Reserve	1,057,885	-		1,057,885	-		1,057,885	878,045	179,840
	Total		46,585,885	-	-	46,585,885	15,879,000	-	30,706,885	25,486,715	5,220,170



Chapter 6

D.C. Calculation



6. D.C. Calculation

Table 6-1 calculates the proposed uniform D.C.s to be imposed on anticipated development in the City based upon a forecast period to 2041. Table 6-2 calculates the proposed uniform D.C.s to be imposed on anticipated development in the City based upon a 10-year forecast period to 2032.

The calculation for residential development is generated on a per capita basis and is based upon five forms of housing types (singles and semi-detached, multiples, large apartments (≥ 700 sq.ft.), small apartments (< 700 sq.ft.), and special care/special dwelling units). The non-residential D.C. has been calculated on a per sq.ft. of G.F.A. basis for all types of non-residential development (industrial, commercial, and institutional). These charges are also presented in metric in the various tables.

The D.C.-eligible costs for each service component were developed in Chapter 5 for all City services, based on their proposed capital programs.

For the residential calculations, the total cost is divided by the “gross” (new resident) population to determine the per capita amount. The eligible-D.C. cost calculations set out in Chapter 5 are based on the net anticipated population increase (the forecast new unit population less the anticipated decline in existing units). The cost per capita is then multiplied by the average occupancy of the new units (Appendix A, Schedule 7) to calculate the charge in Tables 6-1, 6-2 and 6-3. Note that the non-residential charges are presented on a “Blended” basis whereas, as discussed in the next paragraph, the City imposes charges against retail and non-retail uses such that the City’s charges are consistent with the Region of York by-law.

With respect to non-residential development, the total costs in the uniform charge (in Tables 6-1 and 6-2) have been allocated by the anticipated development (i.e. employees) over the planning period. To calculate the cost per sq.ft. of gross floor area these cost allocations have been divided by the associated sq.ft. per employee. In the past the City has adopted its by-law with differentiated charges for retail versus non-retail. This differentiation is anticipated to continue, and therefore these charges have been calculated and are provided in Tables 6-4 and 6-5 and are summarized in Table 6-6.



Table 6-7 summarizes the gross capital expenditures and sources of revenue for works to be undertaken during the life of the by-law



Table 6-1
 City of Richmond Hill
 Development Charge Calculation
 Municipal-wide Services
 2023 to 2041

SERVICE/CLASS	2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost		
	Residential	Non-Residential	S.D.U.	Non-Residential (Blended)	
				per sq.m	per sq.ft.
	\$	\$	\$	\$	\$
1. <u>Engineering Services</u>					
1.1 Roads, water, wastewater & stormwater infrastructure	312,071,336	63,918,225	15,885	91.60	8.51
2. <u>Fire Protection Services</u>					
2.1 Fire facilities, vehicles & equipment	25,486,715	5,220,170	1,297	7.53	0.70
TOTAL	\$337,558,051	\$69,138,396	\$17,182	\$99.14	\$9.21
D.C.-Eligible Capital Cost	\$337,558,051	\$69,138,396			
2041 Gross Population/GFA Growth (sq.ft.)	68,408	7,510,300			
Cost Per Capita/Non-Residential GFA (sq.ft.)	\$4,934.48	\$9.21			
By Residential Unit Type	P.P.U.				
Single and Semi-Detached Dwelling	3.482	\$17,182			
Multiples	2.895	\$14,285			
Apartments - Large (>= 700 sq.ft.)	2.199	\$10,851			
Apartments - Small (<700 sq.ft.)	1.561	\$7,703			
Special Care/Special Dwelling Units	1.100	\$5,428			



Table 6-2
City of Richmond Hill
Development Charge Calculation
Municipal-wide Services
2023 to 2032

SERVICE/CLASS	2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost		
	Residential	Non-Residential	S.D.U.	Non-Residential (Blended)	
				per sq.m	per sq.ft.
	\$	\$	\$	\$	\$
3. <u>Public Works (Facilities and Fleet)</u>					
3.1 Public works facilities, vehicles and equipment	23,345,866	4,446,832	1,849	10.33	0.96
4. <u>Parks and Recreation Services</u>					
4.1 Park development, amenities, trails, vehicles, equipment, and recreation facilities	287,206,925	15,116,154	22,750	35.31	3.28
5. <u>Library Services</u>					
5.1 Library facilities and materials	40,009,396	2,105,758	3,169	4.95	0.46
TOTAL	\$350,562,187	\$21,668,743	\$27,768	\$50.59	\$4.70
D.C.-Eligible Capital Cost	\$350,562,187	\$21,668,743			
10-Year Gross Population/GFA Growth (sq.ft.)	43,959	4,609,400			
Cost Per Capita/Non-Residential GFA (sq.ft.)	\$7,974.75	\$4.70			
By Residential Unit Type	P.P.U.				
Single and Semi-Detached Dwelling	3.482	\$27,768			
Multiples	2.895	\$23,087			
Apartments - Large (>= 700 sq.ft.)	2.199	\$17,536			
Apartments - Small (<700 sq.ft.)	1.561	\$12,449			
Special Care/Special Dwelling Units	1.100	\$8,772			

Table 6-3
City of Richmond Hill
Development Charge Calculation
Total All Services

	2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost		
	Residential	Non-Residential	S.D.U.	per sq.m	per sq.ft.
	\$	\$	\$	\$	\$
Municipal-wide Services/Classes 2041	337,558,051	69,138,396	17,182	99.14	9.21
Municipal-wide Services/Classes 10 Year	350,562,187	21,668,743	27,768	50.59	4.70
TOTAL	\$688,120,238	\$90,807,139	\$44,950	\$149.73	\$13.91



Table 6-4
 City of Richmond Hill
 Development Charge Calculation
 Municipal-wide Services
 2023 to 2041

SERVICE/CLASS	2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost	
	Retail/Non-Retail		Retail/Non-Retail		Retail/Non-Retail	
	Retail	Non-Retail	Retail per sq.m.	Non-Retail per sq.m.	Retail per sq.ft.	Retail per sq.ft.
1. <u>Engineering Services</u>	\$	\$	\$	\$	\$	\$
1.1 Roads, water, wastewater & stormwater infrastructure	15,320,407	48,597,819	106.13	87.83	9.86	8.16
2. <u>Fire Protection Services</u>						
2.1 Fire facilities, vehicles & equipment	1,251,210	3,968,960	8.61	7.21	0.80	0.67
TOTAL	\$16,571,617	\$52,566,779	\$114.74	\$95.05	\$10.66	\$8.83
D.C.-Eligible Capital Cost	\$16,571,617	\$52,566,779				
2041 Retail/Non-Retail GFA Growth (sq.ft.)	1,554,900	5,955,400				
Cost per Retail/Non-Retail GFA (sq.ft.)	\$10.66	\$8.83				



Table 6-5
City of Richmond Hill
Development Charge Calculation
Municipal-wide Services
2023 to 2032

SERVICE/CLASS	2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost	
	Retail/Non-Retail		Retail/Non-Retail		Retail/Non-Retail	
	Retail	Non-Retail	Retail per sq.m.	Non-Retail per sq.m.	Retail per sq.ft.	Non-Retail per sq.ft.
3. <u>Public Works (Facilities and Fleet)</u>	\$	\$	\$	\$	\$	\$
3.1 Public works facilities, vehicles and equipment	1,115,150	3,331,682	12.92	9.80	1.20	0.91
4. <u>Parks and Recreation Services</u>						
4.1 Park development, amenities, trails, vehicles, equipment, and recreation facilities	3,790,738	11,325,416	43.81	33.15	4.07	3.08
5. <u>Library Services</u>						
5.1 Library facilities and materials	528,069	1,577,688	6.14	4.63	0.57	0.43
TOTAL	\$5,433,957	\$16,234,786	\$62.86	\$47.58	\$5.84	\$4.42
D.C.-Eligible Capital Cost	\$5,433,957	\$16,234,786				
10-Year Retail/Non-Retail GFA Growth (sq.ft.)	932,500	3,676,900				
Cost per Retail/Non-Retail GFA (sq.ft.)	\$5.83	\$4.42				

Table 6-6
City of Richmond Hill
Development Charge Calculation
Total All Services

	2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost		2023\$ D.C.-Eligible Cost	
	Retail/Non-Retail		Retail/Non-Retail		Retail/Non-Retail	
	Retail	Non-Retail	Retail per sq.m	Non-Retail per sq.m	Retail per sq.ft.	Non-Retail per sq.ft.
Municipal-wide Services/Classes 2041	\$ 16,571,617	\$ 52,566,779	\$ 114.74	\$ 95.05	\$ 10.66	\$ 8.83
Municipal-wide Services/Classes 10 Year	5,433,957	16,234,786	62.86	47.58	5.84	4.42
TOTAL	22,005,574	68,801,565	\$177.60	\$142.62	\$16.50	\$13.25



Table 6-7
City of Richmond Hill
Gross Expenditure and Sources of Revenue Summary
For Costs to be Incurred over the Life of the By-law

Service/Class	Total Gross Cost	Sources of Financing					
		Tax Base or Other Non-D.C. Source			Post D.C. Period Benefit	D.C. Reserve Fund	
		Other Deductions	Benefit to Existing	Other Funding		Residential	Non-Residential
1. Engineering Services							
1.1 Roads, water, wastewater & stormwater infrastructure	291,298,619	0	36,631,240	0	44,207,827	174,681,428	35,778,124
2. Fire Protection Services							
2.1 Fire facilities, vehicles & equipment	35,112,000	0	15,879,000	0	0	15,963,390	3,269,610
3. Public Works (Facilities and Fleet)							
3.1 Public works facilities, vehicles and equipment	32,560,000	0	4,095,000	0	0	23,910,600	4,554,400
4. Parks and Recreation Services							
4.1 Park development, amenities, trails, vehicles, equipment, and recreation facilities	430,478,630	14,243,000	36,494,480	0	81,783,000	283,060,243	14,897,908
5. Library Services							
5.1 Library facilities and materials	44,000,000	0	0	0	0	41,800,000	2,200,000
Total Expenditures & Revenues	\$833,449,249	\$14,243,000	\$93,099,720	\$0	\$125,990,827	\$539,415,661	\$60,700,041



Chapter 7

D.C. Policy Recommendations and D.C. By-law Rules



7. D.C. Policy Recommendations and D.C. By-law Rules

7.1 Introduction

Subsection 5 (1) 9 states that 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).”

Paragraph 10 of the section goes on to state that the rules may provide for exemptions, phasing in and/or indexing of D.C.s.

Subsection 5 (6) establishes the following restrictions on the rules:

- the total of all D.C.s that would be imposed on anticipated development must not exceed the capital costs determined under subsection 5 (1) 2-7 for all services involved;
- if the rules expressly identify a type of development, they must not provide for it to pay D.C.s that exceed the capital costs that arise from the increase in the need for service for that type of development; however, this requirement does not relate to any particular development; and
- if the rules provide for a type of development to have a lower D.C. than is allowed, the rules for determining D.C.s may not provide for any resulting shortfall to be made up via other development.

With respect to “the rules,” section 6 states that a D.C. by-law must expressly address the matters referred to above re subsection 5 (1) paragraphs 9 and 10, as well as how the rules apply to the redevelopment of land.

The rules provided are based on the City’s existing policies; with some modifications and consideration for the changes to the D.C.A. resulting from Bills 108, 197, 213 and 23.



7.2 D.C. By-law Structure

It is recommended that:

- the City uses a uniform City-wide D.C. calculation for all City-wide services; and
- separate D.C. by-laws be used for each service. Note the draft by-law provided in Appendix G will carry the same policies and definitions for each individual D.C. by-law.

7.3 D.C. By-law Rules

The following subsections set out the recommended rules governing the calculation, payment and collection of D.C.s in accordance with section 6 of the D.C.A.

It is recommended that the following sections provide the basis for the D.C.s.:

7.3.1 Payment in any Particular Case

In accordance with the D.C.A., subsection 2 (2), a D.C. be calculated, payable, and collected where the development requires one or more of the following:

- “(a) the passing of a zoning by-law or of an amendment to a zoning by-law under section 34 of the Planning Act;
- (b) the approval of a minor variance under section 45 of the Planning Act;
- (c) a conveyance of land to which a by-law passed under subsection 50 (7) of the Planning Act applies;
- (d) the approval of a plan of subdivision under section 51 of the Planning Act;
- (e) a consent under section 53 of the Planning Act;
- (f) the approval of a description under section 9 of the Condominium Act, 1998; or
- (g) the issuing of a permit under the Building Code Act, 1992 in relation to a building or structure.”



7.3.2 Determination of the Amount of the Charge

The following conventions be adopted:

- 1) Costs allocated to residential uses will be assigned to different types of residential units based on the average occupancy for each housing type constructed during the previous decade. Costs allocated to non-residential uses will be assigned based on the number of square feet of G.F.A. constructed for eligible uses (i.e., industrial, commercial, and institutional).
- 2) Costs allocated to residential and non-residential uses are based upon a number of conventions, as may be suited to each municipal circumstance, e.g.
 - for parks and recreation services and library services, a 5% non-residential attribution has been made to recognize use by the non-residential sector;
 - for public works (facilities and fleet) an 84% residential/16% non-residential attribution has been made based on a population vs. employment growth ratio over the 10-year (2023 to 2032) forecast period; and
 - for engineering services, and fire protection services, an 83% residential/17% non-residential allocation has been made based on population vs. employment growth over the forecast period to 2041.

7.3.3 Application to Redevelopment of Land (Demolition and Conversion)

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:

- 1) 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 by the number, according to type, of dwelling units that have been or will be demolished or converted to another principal use; and



- 2) 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 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.

The onus is on the applicant to produce evidence to the satisfaction of the City, acting reasonably, to establish the following:

- 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; and
- 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.

Any building or structure that is determined to be derelict, or the equivalent of derelict by the Council of the City, 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 calculation of the development charge credit shall be made in accordance with the above, the total amount of which shall be based on the time that has passed between the date of issuance of the demolition permit and the date of issuance of the building permit as set out in the following table:

Number of Months from Date of Demolition Permit to Date of Building Permit Issuance	Credit Provided (%)
Up to an including 48 months	100
Greater than 48 months up to and including 72 months	75



Number of Months from Date of Demolition Permit to Date of Building Permit Issuance	Credit Provided (%)
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

7.3.4 Exemptions (full or partial)

a) Statutory exemptions:

- industrial building additions of up to and including 50% of the existing G.F.A. (defined in O. Reg. 82/98, section 1) of the building; for industrial building additions that exceed 50% of the existing G.F.A., only the portion of the addition in excess of 50% is subject to D.C.s (subsection 4 (3) of the D.C.A.);
- buildings or structures owned by and used for the purposes of any municipality, local board, or Board of Education (section 3);
- may add up to 2 apartments in an existing or new detached, semi-detached, or rowhouse (including in an ancillary structure);
- add one additional unit or 1% of existing units in an existing rental residential building;
- a university in Ontario that receives direct, regular, and ongoing operating funding from the Government of Ontario;
- affordable units, attainable units, and affordable inclusionary zoning units (to be in force at a later date);
- non-profit housing; and
- discount for rental housing units based on bedroom size (i.e., three or more bedrooms – 25% reduction, two bedrooms – 20% reduction, and all others – 15% reduction).

b) Non-statutory exemptions:

- buildings or structures to be used as a public hospital;
- the gross floor area of a place of worship up to a maximum of 464.5 square meters (5,000 square feet) 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 lesser;

- non-residential temporary buildings, pursuant to Section 39 of the *Planning Act*;
- hospices;
- Cemeteries or burial grounds;
- agricultural use buildings constructed for bona fide farming uses; and
- The relocation of a residential heritage building.

It is noted that exemptions or any reductions to the D.C. rate applied to development would need to be funded from other sources (e.g. property taxes, rates, etc.)

7.3.5 Phasing in

As required by Bill 23, the calculated D.C. will be phased-in over a five-year period as follows:

- Year 1 – 80% of the maximum charge;
- Year 2 – 85% of the maximum charge;
- Year 3 – 90% of the maximum charge;
- Year 4 – 95% of the maximum charge; and
- Year 5 to expiry – 100% of the maximum charge.

It is noted that, as of the time of writing, the Province has announced (on December 13, 2013) potential changes to the phased-in requirements. The details of these changes will be forthcoming in early 2024 and Watson will monitor and advise as to the nature of these changes:

7.3.6 Timing of Collection

A D.C. that is applicable under Section 5 of the D.C.A. shall be calculated and payable;

- Where a permit is required under the Building Code Act in relation to a building or structure, the owner shall pay the D.C. prior to issuance of the first building permit prior to the commencement of development or redevelopment as the case may be; and



- Despite above, Council, from time to time, and at any time, may enter into agreements providing for all or any part of a D.C. to be paid before or after it would otherwise be payable.

7.3.7 Deferrals

- a) Office buildings that are a minimum of four (4) storeys, above grade shall enter into a development charges deferral agreement with the City to defer D.C.s payable until the date that is 18 months after the earlier of:
- the date of the issuance of a permit authorizing occupation of the building; or
 - the date the building is first occupied.
- b) Office buildings that are a minimum of four (4) storeys, above grade, a minimum of 50,000 sq.ft., and located within Richmond Hill Centre, along Yonge street from Highway 7 to Major Mackenzie shall enter into a development charges deferral agreement with the City to defer D.C.s payable for the following durations:

Gross Floor Area Size Threshold	Duration of the Development Charges Deferral Available
Between 50,000 square feet and 150,000 square feet	5 years
Between 150,000 square feet and 250,000 square feet	10 years
Greater than 250,000 square feet and less than or equal to 400,000 square feet	15 years
Greater than 400,000 square feet	20 years

The policy will only be available on a first-come, first-served basis to the first 1.5 million sq.ft. of GFA that enters into the D.C. deferral agreements.

- c) Lands owned by non-profit organizations (NPOs), or leased lands where the land owner has consented to register the deferral agreement on title and agrees to pay the deferred amount shall enter into a deferral agreement with the City to



have D.C.s not exceeding a maximum of \$2 million (at time of approval) deferred until the date that is a maximum of 5 years after the earlier of:

- the date of the issuance of a permit authorizing occupation of the building; or
- the date the building is first occupied.

7.3.8 The Applicable Areas

The charges developed herein provide for varying charges within the City, as follows:

- All City-wide services – the full residential and non-residential charge will be imposed on all lands within the City.

7.3.9 Indexing

Indexing of the D.C.s shall be implemented on a mandatory basis annually commencing on July 1, 2024, and each July 1st thereafter, in accordance with the Statistics Canada Quarterly, Non-Residential Building Construction Price Index (Table 18-10-0276-02)¹ for the most recent year-over-year period.

7.4 Other D.C. By-law Provisions

It is recommended that:

7.4.1 Categories of Services for Reserve Fund and Credit Purposes

The City's D.C. collections are currently reserved in five (5) separate reserve funds: Engineering Services, Fire Protection Services, Public Works Services, Parks and Recreation Services, and Library Services.

Appendix D outlines the reserve fund policies that the City is required to follow as per the D.C.A.

¹ O. Reg. 82/98 referenced "The Statistics Canada Quarterly, Construction Price Statistics, catalogue number 62-007" as the index source. Since implementation, Statistics Canada has modified this index twice and the above-noted index is the most current. The draft by-law provided herein refers to O. Reg. 82/98 to ensure traceability should this index continue to be modified over time.



7.4.2 By-law In-force Date

A by-law under the D.C.A. comes into force on the day after which the by-law is passed by Council.

7.4.3 Minimum Interest Rate Paid on Refunds and Charged for Inter-Reserve Fund Borrowing

The minimum interest rate is the Bank of Canada rate on the day on which the by-law comes into force (as per section 11 of O. Reg. 82/98).

7.4.4 Area Rating

The D.C.A. required that Council must consider the use of area specific charges:

1. Section 2 (9) of the D.C.A. now requires a municipality to implement area-specific D.C.s for either specific services which are prescribed and/or for specific municipalities which are to be regulated (note that at this time, no municipalities or services are prescribed by the regulations).
2. Section 10 (2) c.1 of the D.C.A. requires that “the development charges background study shall include consideration of the use of more than one development charge by-law to reflect different needs for services in different areas.”

In regard to the first item, there are no services or specific municipalities identified in the regulations which must be area rated. The second item requires Council to consider the use of area rating.

As noted in Section 2 of this report, the City currently provides for area-rating through eight A.S.D.C. by-laws. Through this City-wide D.C. background study update, the City is proposing to repeal/update these A.S.D.C. by-laws. The detailed approach in repealing/updating these by-laws is provided in Appendix H, however there are a number of works within the A.S.D.C. by-laws which provide a City-wide growth-related benefit. As such, these works and the associated reserve fund balances related to these works have been included in the City-wide D.C. calculation provided herein.



7.5 Other Recommendations

It is recommended that Council:

“Whenever appropriate, request that grants, subsidies and other contributions be clearly designated by the donor as being to the benefit of existing development or new development, as applicable;”

“Adopt the assumptions contained herein as an ‘anticipation’ with respect to capital grants, subsidies and other contributions;”

“Continue the D.C. approach to calculate the charges on a uniform City-wide basis for all services;”

“Approve the capital project listing set out in Chapter 5 of the D.C.s Background Study dated December 22, 2023, subject to further annual review during the capital budget process;”

“Approve the D.C.s Background Study dated December 22, 2023;”

“Determine that no further public meeting is required;” and

“Approve the D.C. By-law as set out in Appendix H.”



Chapter 8

By-law Implementation



8. By-law Implementation

8.1 Public Consultation Process

8.1.1 Introduction

This chapter addresses the mandatory, formal public consultation process (section 8.1.2), as well as the optional, informal consultation process (section 8.1.3). The latter is designed to seek the co-operation and participation of those involved, in order to produce the most suitable policy. Section 8.2 addresses the anticipated impact of the D.C. on development from a generic viewpoint.

8.1.2 Public Meeting of Council

Section 12 of the D.C.A. indicates that before passing a D.C. by-law, Council must hold at least one public meeting, giving at least 20 clear days' notice thereof, in accordance with the Regulation. Council must also ensure that the proposed by-law and background report are made available to the public at least two weeks prior to the (first) meeting.

Any person who attends such a meeting may make representations related to the proposed by-law.

If a proposed by-law is changed following such a meeting, Council must determine whether a further meeting (under this section) is necessary (i.e., if the proposed by-law which is proposed for adoption has been changed in any respect, Council should formally consider whether an additional public meeting is required, incorporating this determination as part of the final by-law or associated resolution. It is noted that Council's decision, once made, is final and not subject to review by a Court or the Ontario Land Tribunal (OLT) (formerly the Local Planning Appeal Tribunal (LPAT)).

8.1.3 Other Consultation Activity

There are three broad groupings of the public who are generally the most concerned with municipal D.C. policy:

1. The first grouping is the residential development community, consisting of land developers and builders, who are typically responsible for generating the majority



of the D.C. revenues. Others, such as realtors, are directly impacted by D.C. policy. They are, therefore, potentially interested in all aspects of the charge, particularly the quantum by unit type, projects to be funded by the D.C. and the timing thereof, and municipal policy with respect to development agreements, D.C. credits and front-ending requirements.

2. The second public grouping embraces the public at large and includes taxpayer coalition groups and others interested in public policy.
3. The third grouping is the industrial/commercial/institutional development sector, consisting of land developers and major owners or organizations with significant construction plans, such as hotels, entertainment complexes, shopping centres, offices, industrial buildings, and institutions. Also involved are organizations such as Industry Associations, the Chamber of Commerce, the Board of Trade, and the Economic Development Agencies, who are all potentially interested in municipal D.C. policy. Their primary concern is frequently with the quantum of the charge, G.F.A. exclusions such as basements, mechanical or indoor parking areas, or exemptions and phase-in or capping provisions in order to moderate the impact.

8.2 Anticipated Impact of the Charge on Development

The establishment of sound D.C. policy often requires the achievement of an acceptable balance between two competing realities. The first is that high non-residential D.C.s can, to some degree, represent a barrier to increased economic activity and sustained industrial/commercial growth, particularly for capital intensive uses. Also, in many cases, increased residential D.C.s can ultimately be expected to be recovered via housing prices and can impact project feasibility in some cases (e.g., rental apartments).

On the other hand, D.C.s or other municipal capital funding sources need to be obtained in order to help ensure that the necessary infrastructure and amenities are installed. The timely installation of such works is a key initiative in providing adequate service levels and in facilitating strong economic growth, investment, and wealth generation.



8.3 Implementation Requirements

8.3.1 Introduction

Once the City has calculated the charge, prepared the complete background study, carried out the public process and passed a new by-law, the emphasis shifts to implementation matters. These include notices, potential appeals and complaints, credits, front-ending agreements, subdivision agreement conditions and finally the collection of revenues and funding of projects.

The sections that follow present an overview of the requirements in each case.

8.3.2 Notice of Passage

In accordance with section 13 of the D.C.A., when a D.C. by-law is passed, the City Clerk shall give written notice of the passing and of the last day for appealing the by-law (the day that is 40 days after the day it was passed). Such notice must be given no later than 20 days after the day the by-law is passed (i.e., as of the day of newspaper publication or the mailing of the notice).

Section 10 of O. Reg. 82/98 further defines the notice requirements which are summarized as follows:

- notice may be given by publication in a newspaper which is (in the Clerk's opinion) of sufficient circulation to give the public reasonable notice, or by personal service, fax, or mail to every owner of land in the area to which the by-law relates;
- subsection 10 (4) lists the persons/organizations who must be given notice; and
- subsection 10 (5) lists the eight items that the notice must cover.

8.3.3 By-law Pamphlet

In addition to the "notice" information, the City must prepare a "pamphlet" explaining each D.C. by-law in force, setting out:

- a description of the general purpose of the D.C.s;
- the "rules" for determining if a charge is payable in a particular case and for determining the amount of the charge;



- the services to which the D.C.s relate; and
- a description of the general purpose of the Treasurer's statement and where it may be received by the public.

Where a by-law is not appealed to the OLT, the pamphlet must be readied within 60 days after the by-law comes into force. Later dates apply to appealed by-laws.

The City must give one copy of the most recent pamphlet without charge, to any person who requests one.

8.3.4 Appeals

Sections 13 to 19 of the D.C.A. set out the requirements relative to making and processing a D.C. by-law appeal and OLT hearing in response to an appeal. Any person or organization may appeal a D.C. by-law to the OLT by filing a notice of appeal with the City Clerk, setting out the objection to the by-law and the reasons supporting the objection. This must be done by the last day for appealing the by-law, which is 40 days after the by-law is passed.

The City is conducting a public consultation process in order to address the issues that come forward as part of that process, thereby avoiding or reducing the need for an appeal to be made.

8.3.5 Complaints

A person required to pay a D.C., or his agent, may complain to the City Council imposing the charge that:

- the amount of the charge was incorrectly determined;
- the reduction to be used against the D.C. was incorrectly determined; or
- there was an error in the application of the D.C.

Sections 20 to 25 of the D.C.A. set out the requirements that exist, including the fact that a complaint may not be made later than 90 days after a D.C. (or any part of it) is payable. A complainant may appeal the decision of City Council to the OLT.



8.3.6 Credits

Sections 38 to 41 of the D.C.A. set out a number of credit requirements, which apply where a municipality agrees to allow a person to perform work in the future that relates to a service in the D.C. by-law.

These credits would be used to reduce the amount of D.C.s to be paid. The value of the credit is limited to the reasonable cost of the work which does not exceed the average level of service. The credit applies only to the service to which the work relates unless the municipality agrees to expand the credit to other services for which a D.C. is payable.

8.3.7 Front-Ending Agreements

The City and one or more landowners may enter into a front-ending agreement that provides for the costs of a project that will benefit an area in the City to which the D.C. by-law applies. Such an agreement can provide for the costs to be borne by one or more parties to the agreement who are, in turn, reimbursed in future by persons who develop land defined in the agreement.

Part III of the D.C.A. (sections 44 to 58) addresses front-ending agreements and removes some of the obstacles to their use which were contained in the *Development Charges Act*, 1989. Accordingly, the City assesses whether this mechanism is appropriate for its use, as part of funding projects prior to City funds being available.

8.3.8 Severance and Subdivision Agreement Conditions

Section 59 of the D.C.A. prevents a municipality from imposing directly or indirectly, a charge related to development or a requirement to construct a service related to development, by way of a condition or agreement under section 51 or section 53 of the *Planning Act*, except for:

- “local services, related to a plan of subdivision or within the area to which the plan relates, to be installed or paid for by the owner as a condition of approval under section 51 of the *Planning Act*,” and
- “local services to be installed or paid for by the owner as a condition of approval under section 53 of the *Planning Act*.”

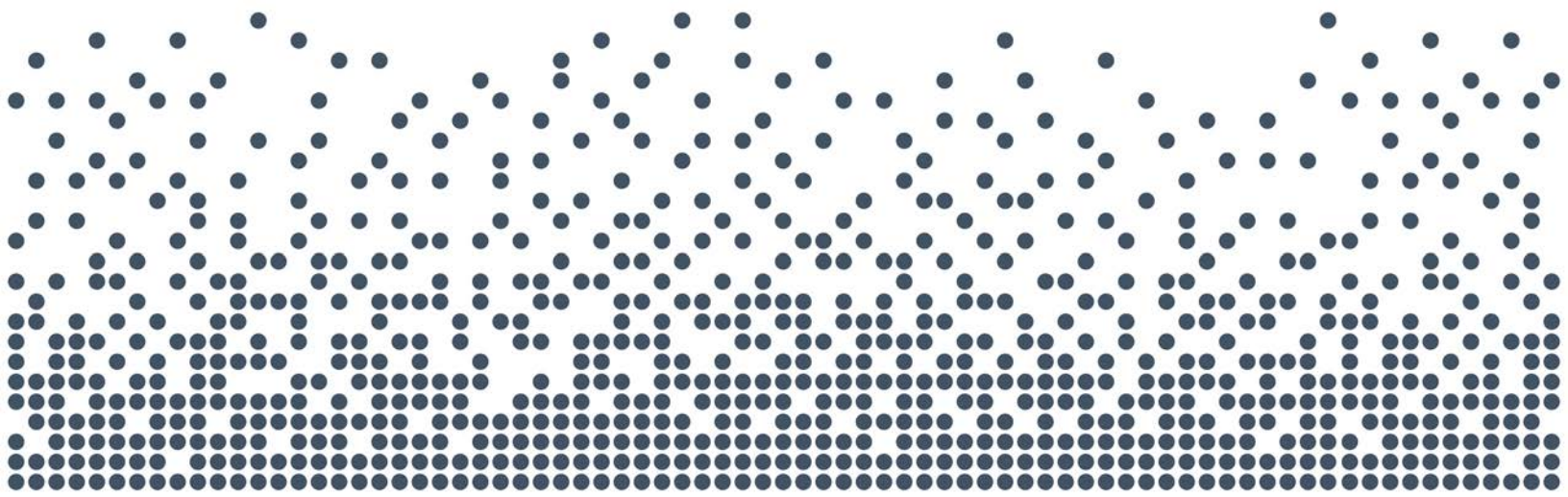


It is also noted that subsection 59 (4) of the D.C.A. requires that the municipal approval authority for a draft plan of subdivision under subsection 51 (31) of the *Planning Act*, use its power to impose conditions to ensure that the first purchaser of newly subdivided land is informed of all the D.C.s related to the development, at the time the land is transferred.

In this regard, if the municipality in question is a commenting agency, in order to comply with subsection 59 (4) of the D.C.A. it would need to provide to the approval authority information regarding the applicable municipal D.C.s related to the site.

If the City is an approval authority for the purposes of section 51 of the *Planning Act*, it would be responsible to ensure that it collects information from all entities that can impose a D.C.

The most effective way to ensure that purchasers are aware of this condition would be to require it as a provision in a registered subdivision agreement, so that any purchaser of the property would be aware of the charges at the time the title was searched prior to closing a transaction conveying the lands.



Appendices



Appendix A

Background Information on Residential and Non- Residential Growth Forecast



Schedule 1
City of Richmond Hill
Residential Growth Forecast Summary

Year	Population (Including Census Undercount) ^[1]	Excluding Census Undercount			Housing Units						Persons Per Unit (P.P.U.): Total Population/ Total Households	
		Population	Institutional Population	Population Excluding Institutional Population	Singles & Semi-Detached	Multiple Dwellings ^[2]	Apartments ^[3]	Other	Total Households	Equivalent Institutional Households		
Historical	Mid 2011	191,467	185,541	1,171	184,370	38,835	10,300	9,455	61	58,651	1,065	3.163
	Mid 2016	201,050	195,022	1,222	193,800	40,195	11,610	12,240	55	64,100	1,111	3.042
	Mid 2021	208,260	202,022	1,093	200,929	41,960	12,640	14,655	55	69,310	994	2.915
Forecast	Late 2023	217,840	211,310	1,141	210,169	42,595	13,952	16,553	55	73,155	1,037	2.889
	Late 2033	262,440	254,573	1,375	253,198	45,648	19,217	26,265	55	91,185	1,250	2.792
	Mid 2041	286,780	278,180	1,502	276,678	46,281	21,784	34,255	55	102,375	1,365	2.717
Incremental	Mid 2011 - Mid 2016	9,583	9,481	51	9,430	1,360	1,310	2,785	-6	5,449	46	
	Mid 2016 - Mid 2021	7,210	7,000	-129	7,129	1,765	1,030	2,415	0	5,210	-117	
	Mid 2021 - Late 2023	9,580	9,288	48	9,240	635	1,312	1,898	0	3,845	43	
	Late 2023 - Late 2033	44,600	43,263	234	43,029	3,053	5,265	9,712	0	18,031	213	
	Late 2023 - Mid 2041	68,940	66,870	361	66,509	3,687	7,832	17,702	0	29,221	328	

^[1] Population includes the Census undercount estimated at approximately 3.1% and has been rounded.

^[2] Includes townhouses and apartments in duplexes.

^[3] Includes bachelor, 1-bedroom, and 2-bedroom+ apartment units.

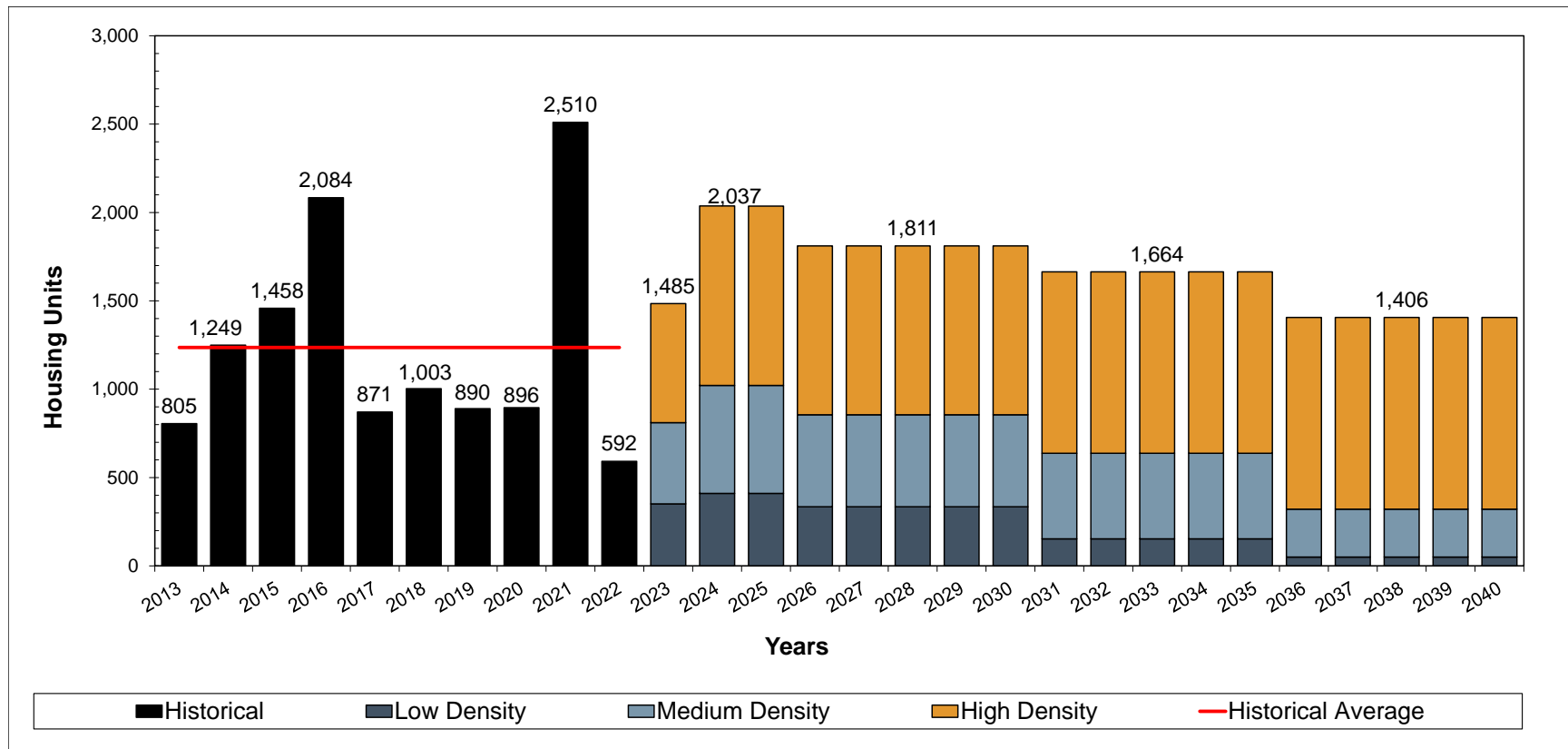
Notes:

Numbers may not add due to rounding.

Source: Watson & Associates Economists Ltd.



Figure 1
City of Richmond Hill
Annual Housing Forecast [1]



[1] Growth forecast represents calendar year.

Source: Historical housing activity derived from City of Richmond Hill building permit data, 2013 to June 2023 year-to-date.



Schedule 2
City of Richmond Hill
Current Year Growth Forecast
Mid-2021 to late-2023

		Population
Mid 2021 Population		202,022
Occupants of New Housing Units, Mid 2021 to Late 2023	<i>Units (2)</i>	3,845
	<i>multiplied by P.P.U. (3)</i>	2,382
	<i>gross population increase</i>	9,157
Occupants of New Equivalent Institutional Units, Mid 2021 to Late 2023	<i>Units</i>	43
	<i>multiplied by P.P.U. (3)</i>	1,100
	<i>gross population increase</i>	47
Decline in Housing Unit Occupancy, Mid 2021 to Late 2023	<i>Units (4)</i>	69,310
	<i>multiplied by P.P.U. decline rate (5)</i>	0.001
	<i>total decline in population</i>	84
Population Estimate to Late 2023		211,310
<i>Net Population Increase, Mid 2021 to Late 2023</i>		<i>9,288</i>

- (1) 2021 population based on Statistics Canada Census unadjusted for Census undercount.
 (2) Estimated residential units constructed, Mid-2021 to the beginning of the growth period assuming a six-month lag between construction and occupancy.
 (3) Average number of persons per unit (P.P.U.) is assumed to be:

Structural Type	Persons Per Unit ¹ (P.P.U.)	% Distribution of Estimated Units ²	Weighted Persons Per Unit Average
<i>Singles & Semi Detached</i>	3.220	17%	0.531
<i>Multiples (6)</i>	2.519	34%	0.860
<i>Apartments (7)</i>	1.839	54%	0.991
Total		104%	2.382

¹ Based on 2021 Census custom database

² Based on Building permit/completion activity

- (4) 2021 households taken from Statistics Canada Census.
 (5) Decline occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.
 (6) Includes townhouses and apartments in duplexes.
 (7) Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.



**Schedule 3
City of Richmond Hill
10-Year Growth Forecast
Late-2023 to Late-2033**

		Population
Late 2023 Population		211,310
Occupants of New Housing Units, Late 2023 to Late 2033	<i>Units (2)</i>	18,031
	<i>multiplied by P.P.U. (3)</i>	2,425
	<i>gross population increase</i>	43,725
Occupants of New Equivalent Institutional Units, Late 2023 to Late 2033	<i>Units</i>	213
	<i>multiplied by P.P.U. (3)</i>	1,100
	<i>gross population increase</i>	234
Decline in Housing Unit Occupancy, Late 2023 to Late 2033	<i>Units (4)</i>	73,155
	<i>multiplied by P.P.U. decline rate (5)</i>	-0.010
	<i>total decline in population</i>	-696
Population Estimate to Late 2033		254,573
Net Population Increase, Late 2023 to Late 2033		43,263

(1) Late 2023 Population based on:

2021 Population (202,022) + Mid 2021 to Late 2023 estimated housing units to beginning of forecast period (3,812 x 2.382 = 9,157) + (43 x 1.100 = 47) + (69,310 x 0.001 = 84) = 211,310

(2) Based upon forecast building permits/completions assuming a lag between construction and occupancy.

(3) Average number of persons per unit (P.P.U.) is assumed to be:

Structural Type	Persons Per Unit ¹ (P.P.U.)	% Distribution of Estimated Units ²	Weighted Persons Per Unit Average
<i>Singles & Semi Detached</i>	3.482	17%	0.590
<i>Multiples (6)</i>	2.895	29%	0.845
<i>Apartments (7)</i>	1.838	54%	0.990
<i>one bedroom or less</i>	1.561		
<i>two bedrooms or more</i>	2.199		
Total		100%	2.425

¹ Persons per unit based on adjusted Statistics Canada Custom 2021 Census database.

² Forecast unit mix based upon historical trends and housing units in the development process.

(4) Late 2023 households based upon 2021 Census (69,310 units) + Mid 2021 to Late 2023 unit estimate (3,845 units) = 73,155 units.

(5) Decline occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.

(6) Includes townhouses and apartments in duplexes.

(7) Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.



**Schedule 4
City of Richmond Hill
Long-Term Growth Forecast
Late-2023 to Mid-2041**

		Population
Late 2023 Population		211,310
Occupants of New Housing Units, Late 2023 to Mid 2041	<i>Units (2)</i>	29,221
	<i>multiplied by P.P.U. (3)</i>	2,329
	<i>gross population increase</i>	68,047
		68,047
Occupants of New Equivalent Institutional Units, Late 2023 to Mid 2041	<i>Units</i>	328
	<i>multiplied by P.P.U. (3)</i>	1,100
	<i>gross population increase</i>	361
		361
Decline in Housing Unit Occupancy, Late 2023 to Mid 2041	<i>Units (4)</i>	73,155
	<i>multiplied by P.P.U. decline rate (5)</i>	-0.021
	<i>total decline in population</i>	-1,538
		-1,538
Population Estimate to Mid 2041		278,180
Net Population Increase, Late 2023 to Mid 2041		66,870

(1) Late 2023 Population based on:

2021 Population (202,022) + Mid 2021 to Late 2023 estimated housing units to beginning of forecast period (3,812 x 2.382 = 9,157) + (43 x 1.100 = 47) + (69,310 x 0.001 = 84) = 211,310

(2) Based upon forecast building permits/completions assuming a lag between construction and occupancy.

(3) Average number of persons per unit (P.P.U.) is assumed to be:

Structural Type	Persons Per Unit ¹ (P.P.U.)	% Distribution of Estimated Units ²	Weighted Persons Per Unit Average
<i>Singles & Semi Detached</i>	3.482	12.6%	0.439
<i>Multiples (6)</i>	2.895	26.8%	0.776
<i>Apartments (7)</i>	1.838	60.6%	1.113
<i>one bedroom or less</i>	1.561		
<i>two bedrooms or more</i>	2.199		
Total		100%	2.329

¹ Persons per unit based on adjusted Statistics Canada Custom 2021 Census database.

² Forecast unit mix based upon historical trends and housing units in the development process.

(4) Late 2023 households based upon 2021 Census (69,310 units) + Mid 2021 to Late 2023 unit estimate (3,845 units) = 73,155 units.

(5) Decline occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.

(6) Includes townhouses and apartments in duplexes.

(7) Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.



Schedule 5
City of Richmond Hill
Summary of Active Development Applications as of 2023

Total Active Development Applications	Density Type			
	Singles & Semi-Detached	Multiples ^[1]	Apartments ^[2]	Total
Total Units	4,093	8,206	24,858	37,157
% Breakdown	11%	22%	67%	100%

^[1] Includes townhomes and apartments in duplexes.

^[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

Source: Data provided by City of Richmond Hill as of 2023.



Schedule 6
City of Richmond Hill
Historical Residential Building Permits
Years 2013 to 2022

Year	Residential Building Permits			
	Singles & Semi Detached	Multiples ^[1]	Apartments ^[2]	Total
2013	417	388	0	805
2014	330	512	407	1,249
2015	237	339	882	1,458
2016	533	204	1,347	2,084
2017	311	200	360	871
Sub-total	1,828	1,643	2,996	6,467
Average (2013 - 2017)	366	329	599	1,293
% Breakdown	28.3%	25.4%	46.3%	100.0%
2018	398	297	308	1,003
2019	283	405	202	890
2020	359	309	228	896
2021	397	616	1,497	2,510
2022	62	466	64	592
Sub-total	1,499	2,093	2,299	5,891
Average (2018 - 2022)	300	419	460	1,178
% Breakdown	25.4%	35.5%	39.0%	100.0%
2013 - 2022				
Total	3,327	3,736	5,295	12,358
Average	333	374	530	1,236
% Breakdown	26.9%	30.2%	42.8%	100.0%

^[1] Includes townhouses and apartments in duplexes.

^[2] Includes bachelor, 1-bedroom, and 2-bedroom+ apartment units.

Source: Historical housing activity derived from City of Richmond Hill building permit data, 2013 to 2022, by Watson & Associates Economists Ltd.



Schedule 7
City of Richmond Hill
Person Per Unit by Age and Type of Dwelling
(2021 Census)

Age of Dwelling	Singles and Semi-Detached						20 Year Average	20 Year Average Adjusted ^[3]
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	-	2.467	3.085	3.931	3.220		
6-10	-	-	2.533	3.414	3.990	3.480		
11-15	-	-	2.296	3.452	4.220	3.548		
16-20	-	-	2.528	3.382	4.101	3.490	3.434	3.482
20-25	-	-	2.889	3.211	3.993	3.364		
25-30	-	-	2.133	3.281	3.746	3.391		
30+	-	2.231	2.318	2.870	3.634	2.993		
Total	1.800	2.506	2.413	3.161	3.865	3.274		

Age of Dwelling	Multiples ^[1]						20 Year Average	20 Year Average Adjusted ^[3]
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	1.263	2.069	2.665	-	2.519		
6-10	-	-	1.864	3.141	-	3.062		
11-15	-	-	2.091	3.007	4.273	2.956		
16-20	-	-	2.097	2.883	3.636	2.830	2.842	2.895
20-25	-	1.429	2.171	2.859	3.933	2.778		
25-30	-	1.286	2.000	2.860	-	2.768		
30+	-	1.457	2.269	3.067	3.400	2.850		
Total	2.231	1.437	2.127	2.942	3.809	2.837		

Age of Dwelling	Apartments ^[2]						20 Year Average	20 Year Average Adjusted ^[3]
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	1.602	2.217	3.091	-	1.839		
6-10	-	1.508	2.063	2.875	-	1.770		
11-15	-	1.586	2.096	-	-	1.887		
16-20	-	1.464	1.991	2.621	-	1.833	1.832	1.838
20-25	-	1.491	2.010	2.773	-	1.929		
25-30	-	1.423	1.938	3.115	-	1.943		
30+	1.000	1.440	1.993	2.983	-	1.935		
Total	1.213	1.517	2.037	2.944	-	1.879		

Age of Dwelling	All Density Types					
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total
1-5	2.750	1.615	2.199	2.976	3.978	2.499
6-10	2.000	1.543	2.082	3.303	3.972	2.796
11-15	-	1.608	2.122	3.326	4.221	3.076
16-20	-	1.523	2.131	3.227	4.055	3.146
20-25	-	1.582	2.185	3.099	3.949	3.082
25-30	-	1.507	1.960	3.178	3.804	3.049
30+	1.481	1.510	2.077	2.897	3.625	2.739
Total	1.937	1.558	2.101	3.101	3.855	2.898

[1] Includes townhomes and apartments in duplexes.

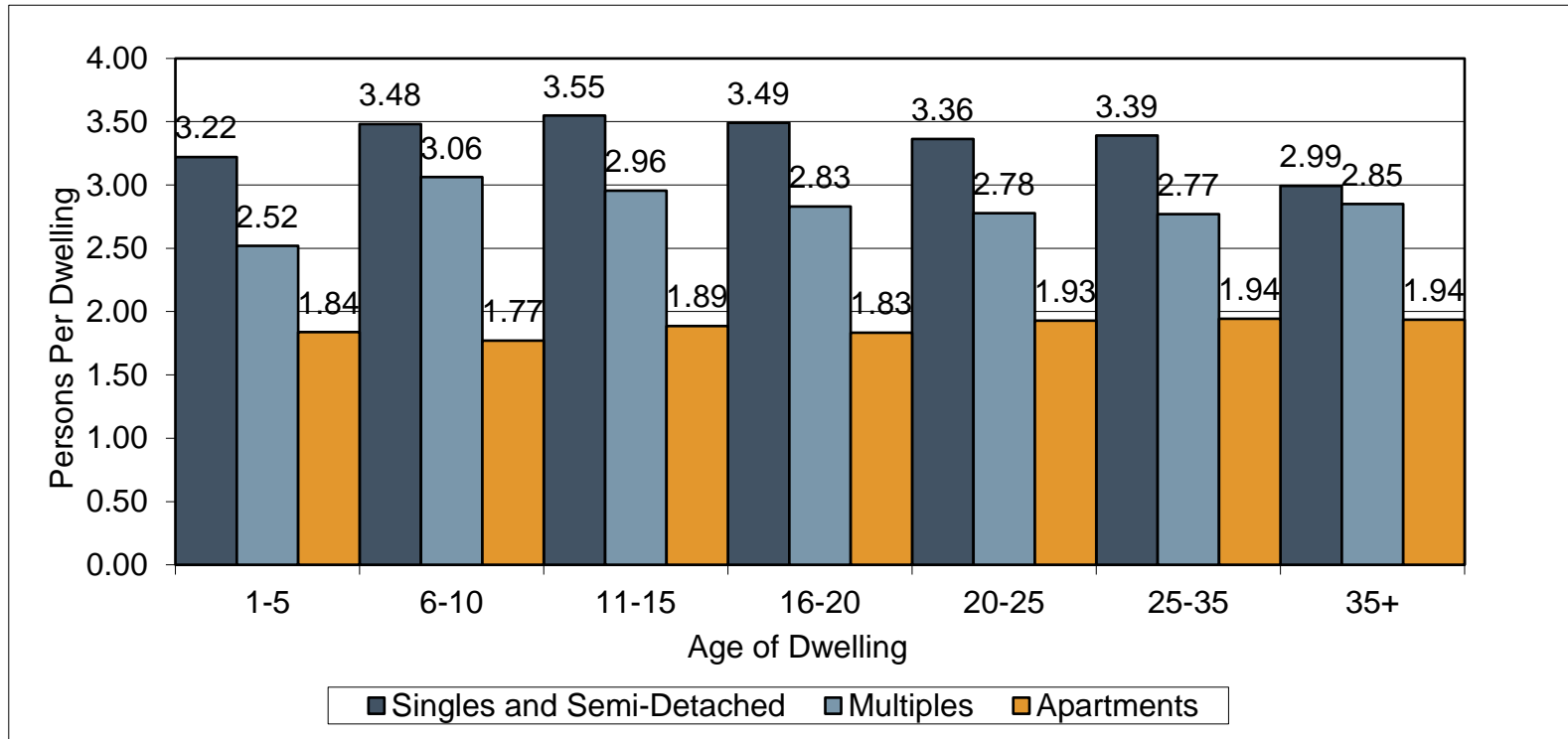
[2] Adjusted based on historical trends.

Note: Does not include Statistics Canada data classified as "Other."

P.P.U. Not calculated for samples less than or equal to 50 dwelling units and does not include institutional population.



Schedule 8
City of Richmond Hill
Person Per Unit Structural Type and Age of Dwelling
(2021 Census)





Schedule 9a City of Richmond Hill Employment Forecast, 2023 to 2041

Period	Population	Activity Rate									Employment									Employment
		Primary	Work at Home	Industrial	Commercial (Retail)	Commercial (Non-Retail)	Institutional	Total	N.F.P.O.W. ^[1]	Total Including N.F.P.O.W.	Primary	Work at Home	Industrial	Commercial (Retail)	Commercial (Non-Retail)	Institutional	Total	N.F.P.O.W. ^[1]	Total Employment (Including N.F.P.O.W.)	Total (Excluding Work at Home and N.F.P.O.W.)
Mid 2016	195,022	0.0%	5.1%	6.2%	9.5%	7.7%	7.9%	36.4%	4.0%	40.4%	85	9,990	12,040	18,473	15,036	15,423	71,047	7,753	78,800	61,057
Late 2023	211,310	0.0%	6.4%	6.4%	9.1%	7.5%	7.8%	37.3%	4.2%	41.5%	85	13,611	13,614	19,139	15,846	16,493	78,789	8,923	87,712	65,178
Late 2033	254,573	0.0%	6.5%	6.0%	8.3%	7.3%	7.2%	35.3%	4.2%	39.5%	85	16,602	15,158	21,164	18,545	18,410	89,964	10,644	100,608	73,362
Mid 2041	278,180	0.0%	6.8%	5.7%	8.1%	7.7%	7.0%	35.3%	4.2%	39.5%	85	18,887	15,857	22,515	21,512	19,462	98,318	11,582	109,900	79,431
Incremental Change																				
Mid 2016 - Late 2023	16,288	0.0%	1.3%	0.3%	-0.4%	-0.2%	-0.1%	0.9%	0.2%	1.1%	0	3,621	1,574	666	810	1,070	7,742	1,170	8,912	4,121
Late 2023 - Late 2033	43,263	0.0%	0.1%	-0.5%	-0.7%	-0.2%	-0.6%	-1.9%	0.0%	-2.0%	0	2,991	1,544	2,025	2,699	1,917	11,175	1,721	12,896	8,184
Late 2023 - Mid 2041	66,870	0.0%	0.3%	-0.7%	-1.0%	0.2%	-0.8%	-1.9%	-0.1%	-2.0%	0	5,276	2,243	3,376	5,665	2,969	19,529	2,659	22,188	14,253
Annual Average																				
Mid 2016 - Late 2023	2,172	0.0%	0.2%	0.0%	-0.1%	0.0%	0.0%	0.1%	0.0%	0.1%	0	483	210	89	108	143	1,032	156	1,188	549
Late 2023 - Late 2033	4,326	0.0%	0.0%	0.0%	-0.1%	0.0%	-0.1%	-0.2%	0.0%	-0.2%	0	299	154	203	270	192	1,118	172	1,290	818
Late 2023 - Mid 2041	3,821	0.0%	0.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%	0.0%	-0.1%	0	301	128	193	324	170	1,116	152	1,268	814

[1] Statistics Canada defines no fixed place of work (N.F.P.O.W.) employees as "persons who do not go from home to the same workplace location at the beginning of each shift. Such persons include building and landscape contractors, travelling salespersons, independent truck drivers, etc."

Note: Statistics Canada 2021 Census place of work employment data has been reviewed. The 2021 Census employment results have not been utilized due to a significant increase in work at home employment captured due to Census enumeration occurring during the provincial COVID-19 lockdown from April 1, 2021 to June 14, 2021.

Source: Watson & Associates Economists Ltd.



Schedule 9b
City of Richmond Hill
Employment and Gross Floor Area (G.F.A.) Forecast, 2023 to 2041

Period	Population	Employment					Gross Floor Area in Square Feet (Estimated) ^[1]				
		Industrial	Commercial (Retail)	Commercial (Non-Retail)	Institutional ^[2]	Total	Industrial	Commercial (Retail)	Commercial (Non-Retail)	Institutional	Total
Mid 2016	195,022	12,040	18,473	15,036	15,423	60,972					
Late 2023	211,310	13,614	19,139	15,846	16,493	65,093					
Late 2033	254,573	15,158	21,164	18,545	18,301	73,168					
Mid 2041	278,180	15,857	22,515	21,512	19,294	79,178					
Incremental Change											
Mid 2016 - Late 2023	16,288	1,574	666	810	1,070	4,121					
Late 2023 - Late 2033	43,263	1,544	2,025	2,699	1,808	8,075	1,698,100	932,500	767,700	1,211,100	4,609,400
Late 2023 - Mid 2041	66,870	2,243	3,376	5,665	2,801	14,085	2,467,000	1,554,900	1,611,700	1,876,700	7,510,300
Annual Average											
Mid 2016 - Late 2023	2,172	210	89	108	143	549					
Late 2023 - Late 2033	4,326	154	203	270	181	808	169,810	93,250	76,770	121,110	460,940
Late 2023 - Mid 2041	3,821	128	193	324	160	805	140,971	88,851	92,097	107,240	429,160

^[1] Square Foot Per Employee Assumptions

Industrial	1,100
Commercial/Population-Related	350
Retail	460
Non-Retail	285
Institutional	670

^[2] Forecast institutional employment and gross floor area has been adjusted downward to account for employment associated with special care units.

*Reflects Late-2023 to Mid-2041 forecast period.

Note: Numbers may not add up precisely due to rounding.

Source: Watson & Associates Economists Ltd.



Appendix B

Level of Service



Appendix B: Level of Service

SUMMARY OF SERVICE STANDARDS AS PER DEVELOPMENT CHARGES ACT, 1997, AS AMENDED							
Service Category	Sub-Component	15 Year Average Service Standard					Maximum Ceiling LOS
		Cost (per capita)	Quantity (per capita)		Quality (per capita)		
Engineering Services	Engineering Services - Roads	\$21,892.73	0.0006	km of roadways	36,487,883	per km	1,463,966,855
	Engineering Services- Bridges, Culverts & Structures	\$1,303.73	0.0003	Number of Bridges, Culverts & Structures	4,345,767	per item	87,180,425
Public Works	Public Works - Facilities	\$915.74	0.8604	sq.ft. of building area	1,064	per sq.ft.	39,617,660
	Public Works - Vehicles & Equipment	\$135.85	0.0010	No. of vehicles and equipment	135,850	per vehicle	5,877,279
Fire Protection	Fire Protection Services - Facilities	\$414.10	0.3487	sq.ft. of building area	1,188	per sq.ft.	27,690,867
	Fire Protection Services - Vehicles & Equipment	\$127.79	0.0002	No. of vehicles	638,950	per vehicle	8,545,317
	Fire Protection Services - Small Equipment and Gear	\$13.31	0.0036	No. of equipment and gear	3,697	per item	890,040
Parks & Recreation	Parkland Development	\$1,767.31	0.0041	Acres of Parkland	431,051	per acre	76,459,133
	Parkland Amenities	\$707.36	0.0029	No. of parkland amenities	243,917	per amenity	30,602,516
	Park Skate Trails & Skateboard Parks	\$17.20	0.0326	Square Metres of Skate Trails & Skateboard Parks	528	per sq.m	744,124
	Recreation Facilities	\$4,327.48	3.8907	sq.ft. of building area	1,112	per sq.ft.	187,219,767
	Parks & Recreation Vehicles and Equipment	\$168.78	0.0017	No. of vehicles and equipment	99,282	per vehicle	7,301,929
Library	Library Services - Facilities	\$893.99	0.7237	sq.ft. of building area	1,235	per sq.ft.	38,676,689
	Library Services - Collection Materials	\$88.00	2.8295	No. of library collection items	31	per collection item	3,807,144



**City of Richmond Hill
Service Standard Calculation Sheet**

Class of Service: Public Works - Facilities
Unit Measure: sq.ft. of building area

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land
Operations Centre East	41,230	41,230	41,230	41,230	41,230	41,230	41,230	41,230	41,230	41,230	41,230	41,230	41,230	41,230	41,230	\$770	\$1,634
Operations Centre West	74,921	74,921	74,921	74,921	74,921	74,921	74,921	74,921	74,921	74,921	74,921	74,921	74,921	74,921	74,921	\$770	\$1,154
Salt Canvas Dome	7,480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$235	\$442
Covered Storage	9,458	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	11,100	\$235	\$235
Salt Storage Shed	-	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	\$235	\$442
Truck Wash	-	4,351	4,351	4,351	4,351	4,351	4,351	4,351	4,351	4,351	4,351	4,351	4,351	4,351	4,351	\$770	\$770
Cold Storage Barn (Old Cattle Barn)	-	13,003	13,003	13,003	13,003	13,003	13,003	13,003	13,003	13,003	13,003	13,003	13,003	13,003	13,003	\$235	\$442
225 East Beaver Creek - Office Space	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	\$695	\$902
Total	135,089	167,005	167,005	167,005	167,005	167,005	167,005	167,005	167,005	167,005	167,005	167,005	167,005	167,005	167,005		

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	0.7850	0.9516	0.9287	0.9001	0.8904	0.8784	0.8736	0.8650	0.8563	0.8422	0.8393	0.8343	0.8306	0.8267	0.8037

15 Year Average	2008-2022
Quantity Standard	0.8604
Quality Standard	\$1,064
Service Standard	\$916

D.C. Amount (before deductions)	10 Year
Forecast Population	43,263
\$ per Capita	\$916
Eligible Amount	\$39,617,660



**City of Richmond Hill
Service Standard Calculation Sheet**

Class of Service: Public Works - Vehicles & Equipment
Unit Measure: No. of vehicles and equipment

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Value (\$/Vehicle)
Vehicles Related to D.C. Eligible Services:																
< 1/2 ton Trucks/Cars/SUVs	47	42	42	39	36	36	35	32	32	27	26	27	30	28	27	\$54,000
1/2 ton Pickups	29	28	25	23	23	22	20	19	17	18	16	17	19	17	16	\$60,000
3/4 ton Pickups and Vans	7	6	6	5	5	5	5	8	8	9	9	9	9	9	8	\$83,000
1 ton Trucks	5	4	4	4	4	4	4	5	4	2	2	2	2	2	2	\$123,000
3 ton Trucks	17	15	14	13	13	12	13	16	13	14	15	16	17	16	16	\$179,000
> 3 ton Trucks	23	19	19	19	18	19	21	21	20	17	17	15	17	16	14	\$491,000
Loaders/Backhoes/Flushers	7	7	6	6	6	6	6	6	7	6	6	6	5	5	5	\$659,000
Leased 1/2 ton Trucks	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	\$60,000
Leased 3/4 ton Trucks/Vans	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	\$83,000
Trailers	17	17	16	16	15	17	18	17	17	17	17	17	18	18	17	\$15,000
Dump Trailers	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$15,000
Other Equipment	52	49	45	47	50	52	53	54	50	45	42	39	39	35	28	\$78,500
Sidewalk Sweepers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$237,000
Windrow Machine	-	-	-	-	-	-	-	-	-	-	-	35	35	35	35	\$203,000
Total	214	198	188	183	180	182	185	188	180	166	159	193	201	192	179	

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	0.0012	0.0011	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0009	0.0008	0.0008	0.0010	0.0010	0.0009	0.0009

15 Year Average	2008-2022
Quantity Standard	0.0010
Quality Standard	\$135,850
Service Standard	\$136

D.C. Amount (before deductions)	10 Year
Forecast Population	43,263
\$ per Capita	\$136
Eligible Amount	\$5,877,279



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Parkland Development
Unit Measure: Acres of Parkland

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Value (\$/Acre)
Local Parks (Neighborhood/Parkettes)	259.3	262.27	263.67	263.67	263.67	265.58	269.20	281.80	282.60	283.30	287.39	287.69	290.14	290.72	291.49	\$404,000
Community Parks	236.2	236.20	236.20	237.97	237.97	237.97	237.97	243.60	243.60	243.60	241.81	240.71	240.71	240.71	240.71	\$362,000
Destination Parks - Other	184.27	184.27	184.27	184.27	184.27	180.74	170.72	170.72	170.72	167.22	167.22	167.22	167.22	167.22	167.22	\$353,000
Destination Park - Lake Wilcox	-	-	-	-	-	3.53	13.55	13.55	13.55	17.05	17.05	17.05	17.05	17.05	17.05	\$888,000
Linear Parks	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	\$305,000
Urban Squares	-	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	\$6,992,000
Passive Open Space (including Trails)	43.02	44.92	47.19	47.46	49.71	49.99	50.20	50.20	52.00	52.00	52.50	52.50	52.50	55.17	55.17	\$1,117,000
Beaver Pond Lit Asphalt Trail	-	-	-	-	-	-	-	-	-	-	-	-	0.20	0.20	0.20	\$2,830,000
Total	765.46	770.47	774.14	776.18	778.43	780.62	784.45	802.68	805.28	805.98	808.78	807.98	810.63	813.88	814.65	

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	0.0044	0.0044	0.0043	0.0042	0.0042	0.0041	0.0041	0.0042	0.0041	0.0041	0.0041	0.0040	0.0040	0.0040	0.0039

15 Year Average	2008-2022
Quantity Standard	0.0041
Quality Standard	\$431,051
Service Standard	\$1,767

D.C. Amount (before deductions)	10 Year
Forecast Population	43,263
\$ per Capita	\$1,767
Eligible Amount	\$76,459,133



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Parkland Amenities
Unit Measure: No. of parkland amenities

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Value (\$/item)
Lit Sportsfields:																
Senior Baseball (lit & Irrigated)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	\$1,100,000
Senior Softball (lit & Irrigated)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$640,000
Senior Softball (lit)	12	13	13	13	12	12	12	12	12	12	12	12	12	12	12	\$513,000
Senior Soccer (lit & Irrigated)	11	11	11	9	9	9	9	10	10	10	10	10	10	10	10	\$590,000
Senior Soccer (Artificial Turf)	-	-	-	2	3	3	3	3	3	3	3	3	3	3	3	\$1,900,000
Tennis (lit and colour coated)	15	15	21	21	21	21	21	21	21	21	21	21	25	25	25	\$143,000
Tennis (lit)	34	34	28	28	28	28	28	28	28	28	28	28	26	26	26	\$121,000
Bocci (lit)	4	4	4	4	6	6	6	6	6	6	6	6	6	6	6	\$71,000
Multi-Use Court (Sports Court) - lit	-	-	-	-	-	-	-	-	-	-	3	3	3	3	3	\$325,000
Unlit Sportsfields:																
Junior Baseball	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$129,400
Senior Softball (Unlit & Unirrigated)	4	4	4	4	2	2	2	2	2	2	2	2	2	2	2	\$246,000
Junior Softball (Unlit & Unirrigated)	17	16	16	16	20	20	20	20	20	19	19	19	19	19	19	\$157,000
Senior Soccer A (Unlit & Irrigated)	1	-	-	-	1	1	1	1	1	1	1	1	1	1	1	\$301,000
Senior Soccer (Unlit & Unirrigated)	3	4	4	4	2	2	2	2	2	2	2	2	2	2	2	\$123,000
Junior Soccer (Unlit & Unirrigated)	8	8	8	6	7	6	6	7	7	8	8	8	8	8	8	\$133,000
Mini Soccer (Unlit & Unirrigated)	17	18	18	18	16	16	18	18	18	18	18	18	18	18	18	\$57,000
Soccer Practice Field	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	\$42,000
Tennis (Unlit)	28	28	28	28	30	30	32	32	32	32	32	32	24	24	24	\$62,000
Bocci (Unlit)	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	\$50,400
Basketball Courts	79	83	83	86	86	86	88	88	88	88	88	88	88	88	88	\$45,100
Multi-Use Court (Sports Court) - unlit	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	\$177,000
Pickleball Court - Unlit	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	\$63,000
Tennis (Unlit & Colour Coated)	-	-	-	-	-	-	-	-	-	-	-	-	6	6	6	\$95,000
Beach Volleyball Court	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	\$139,000
Other:																
Fitness Equipment	2	3	4	6	6	6	6	7	7	8	9	9	9	9	9	\$80,900
Amphitheatre	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	\$281,300
Fieldhouse/Washrooms	12	12	12	12	12	12	12	11	11	11	11	11	11	11	11	\$370,300
Fieldhouse/Washrooms - Lake Wilcox	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	\$780,400



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Parkland Amenities
Unit Measure: No. of parkland amenities

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Value (\$/item)
Gazebo/Shelter - Neighbourhood Park	42	42	43	48	51	56	55	52	52	54	55	55	55	55	55	\$131,000
Gazebo/Shelter - Community/Destination Park	1	1	1	1	1	1	2	2	3	5	4	4	4	4	4	\$543,000
Playground - Community Parks (3 units req.)	54	54	57	57	57	57	57	59	58	58	58	59	59	59	59	\$543,000
Playground - Local Parks (2 units req.)	86	88	92	92	92	92	93	100	100	100	102	102	104	104	104	\$312,000
Playground - Parkettes (1 unit req.)	50	52	53	53	53	54	54	54	54	58	58	59	59	60	60	\$211,000
Playground - Barrier Free (3 units req.)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	\$317,500
Off Leash Area	-	1	1	1	2	2	2	2	2	2	2	2	2	2	2	\$63,000
Ropes Course	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	\$250,000
Water Play Facilities	9	9	9	9	9	9	9	10	11	12	12	12	13	13	13	\$391,000
Waterplay - Recirculated (Destination Park)	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	\$2,035,600
Water Play - Recirculation (Community Park)	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	\$1,062,500
Ping Pong	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	\$10,000
Total	505	516	527	536	544	549	556	568	569	578	584	587	593	594	594	

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029

15 Year Average	2008-2022
Quantity Standard	0.0029
Quality Standard	\$243,917
Service Standard	\$707

D.C. Amount (before deductions)	10 Year
Forecast Population	43,263
\$ per Capita	\$707
Eligible Amount	\$30,602,516



**City of Richmond Hill
Service Standard Calculation
Sheet**

Service: Park Skate Trails & Skateboard Parks
Unit Measure: Square Metres of Skate Trails & Skateboard Parks

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Value (\$/ Square Metre)
Artificial Ice Trail	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296	\$1,200
Skateboard Parks (Modular)	4,054	4,054	4,054	4,054	4,054	4,054	4,054	4,054	4,054	4,054	4,054	5,554	5,554	5,554	5,554	\$300
Concrete Skateboard Skatepark	-	-	-	-	-	-	-	-	-	-	1,609	1,609	1,609	1,609	1,609	\$800
Total	5,350	5,350	5,350	5,350	5,350	5,350	5,350	5,350	5,350	5,350	6,959	8,459	8,459	8,459	8,459	

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	0.0311	0.0305	0.0298	0.0288	0.0285	0.0281	0.0280	0.0277	0.0274	0.0270	0.0350	0.0423	0.0421	0.0419	0.0407

15 Year Average	2008-2022
Quantity Standard	0.0326
Quality Standard	\$528
Service Standard	\$17

D.C. Amount (before deductions)	10 Year
Forecast Population	43,263
\$ per Capita	\$17
Eligible Amount	\$744,124



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Parks & Recreation Vehicles and Equipment
Unit Measure: No. of vehicles and equipment

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Value (\$/Vehicle)
Parks																
< 1/2 ton Trucks/Cars/SUVs	17	16	15	15	14	13	13	12	12	10	9	10	11	11	10	\$54,000
1/2 ton Pickups	11	10	10	9	8	8	8	7	7	7	6	6	7	7	6	\$60,000
3/4 ton Pickups and Vans	12	11	10	9	9	9	8	15	13	16	15	15	16	15	14	\$83,000
3 ton Trucks	15	15	14	12	12	12	13	15	13	14	15	15	16	15	15	\$179,000
> 3 ton Trucks	3	3	3	3	2	2	3	3	3	2	2	2	2	2	2	\$491,000
Loaders/Backhoes/Flushers	3	3	2	2	2	2	2	2	3	2	2	2	2	2	2	\$659,000
Leased 1/2 ton Trucks	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	\$60,000
Leased 3/4 ton Trucks/Vans	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	\$83,000
Zero Turn Mowers	53	48	46	46	42	30	30	27	27	30	23	25	27	28	27	\$35,000
Large Format Mowers	23	22	22	20	19	19	20	19	15	11	11	10	10	11	10	\$178,000
Trailers	17	17	16	16	15	17	18	17	17	17	17	17	18	18	17	\$15,000
Dump Trailers	4	5	6	7	7	7	7	7	8	8	8	8	9	9	9	\$15,000
Other Equipment	160	151	138	145	154	159	161	165	154	138	127	118	119	106	86	\$78,500
Sidewalk Machines	20	17	14	14	14	17	17	21	21	21	25	34	32	40	33	\$233,000
UTVs	5	5	5	5	5	5	5	5	7	7	11	9	7	7	7	\$44,000
Ice Resurfacers	8	8	8	7	7	8	8	8	7	7	7	7	7	8	8	\$238,000
Sidewalk Sweepers	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	\$237,000
Soundstages	2	2	2	3	3	3	3	3	2	2	2	2	2	2	2	\$386,000
Total	383	361	340	342	344	342	346	357	339	323	312	312	316	311	279	

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	0.0022	0.0021	0.0019	0.0018	0.0018	0.0018	0.0018	0.0018	0.0017	0.0016	0.0016	0.0016	0.0016	0.0015	0.0013

15 Year Average	2008-2022
Quantity Standard	0.0017
Quality Standard	\$99,282
Service Standard	\$169

D.C. Amount (before deductions)	10 Year
Forecast Population	43,263
\$ per Capita	\$169
Eligible Amount	\$7,301,929



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Recreation Facilities
Unit Measure: sq.ft. of building area

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
Community Centres																	
Richvale Community Centre	19,298	19,298	19,298	19,298	19,298	19,298	19,298	19,298	19,298	19,298	19,298	19,298	19,298	19,298	19,298	\$1,300	\$1,507
Bayview Hill Community Centre	34,600	34,600	34,600	34,600	34,600	34,600	34,600	34,600	34,600	34,600	34,600	34,600	36,800	36,800	36,800	\$1,300	\$1,507
Spruce Ave Community Hall	5,000	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	\$362	\$591
Lions Hall	5,470	5,470	5,470	-	-	-	-	-	-	-	-	-	-	-	-	\$339	\$591
Lake Wilcox Community Hall	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	\$770	\$977
Elgin West Community Centre	21,100	21,100	21,100	21,100	21,100	21,100	21,100	21,100	21,100	21,100	21,100	21,100	21,100	21,100	21,100	\$1,300	\$1,507
Rouge Woods Community Centre	28,700	28,700	28,700	28,700	28,700	28,700	28,700	28,700	28,700	28,700	28,700	28,700	28,700	28,700	28,700	\$1,300	\$1,507
Langstaff Discovery Centre	23,010	23,010	23,010	23,010	23,010	23,010	23,010	23,010	23,010	23,010	23,010	23,010	23,010	23,010	23,010	\$1,300	\$1,507
Oak Ridges Community Centre	-	-	-	-	35,523	35,523	35,523	35,523	35,523	35,523	35,523	35,523	35,523	35,523	35,523	\$1,300	\$1,507
Meeting Rooms/Banquet Facilities (Richmond Hill Facilities)																	
Connor Room	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	\$770	\$977
Ed's Room - Elgin Barrow	980	980	980	980	980	980	980	980	980	980	980	980	980	980	980	\$770	\$977
Tom Graham Arena - Sports Hall of Fame	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	\$770	\$977
Richmond Hill Room - Elgin Barrow	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	\$770	\$977
Norm Taylor Room - Bond Lake Arena	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	3,400	\$770	\$977
Ed Sackfield	3,744	3,744	3,744	3,744	3,744	3,744	3,744	3,744	3,744	3,744	3,744	3,744	3,744	3,744	3,744	\$770	\$977
Centennial	-	-	-	-	-	-	-	-	2,200	2,200	2,200	2,200	2,200	2,200	2,200	\$770	\$1,066
Meeting Rooms/Banquet Facilities (Condo Facilities)																	
Signature Tao Inc. - 8763 Bayview Avenue	-	-	-	-	-	-	-	-	-	1,001	1,001	1,001	1,001	1,001	1,001	\$362	\$616
Xpressions Condo - 9471 Yonge St	-	-	-	-	-	-	-	-	-	2,750	2,750	2,750	2,750	2,750	2,750	\$346	\$598
The Beverly Hills Condo (Greatlands) - 9251 Yonge St	-	-	-	-	-	-	-	-	-	1,076	1,076	1,076	1,076	1,076	1,076	\$346	\$580



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Recreation Facilities
Unit Measure: sq.ft. of building area

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
Indoor Pools																	
Centennial	11,000	20,250	20,250	20,250	20,250	20,250	20,250	20,250	20,250	20,250	20,250	20,250	20,250	20,250	20,250	\$1,190	\$1,397
Richvale Pool	17,999	17,999	17,999	17,999	17,999	17,999	17,999	17,999	17,999	17,999	17,999	17,999	17,999	17,999	17,999	\$1,190	\$1,397
Lois Hancey Aquatic Centre (The Wave Pool)	30,200	30,200	30,200	30,200	30,200	30,200	30,200	30,200	30,200	30,200	30,200	30,200	30,200	30,200	30,200	\$1,190	\$1,397
Bayview Hill Pool	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	\$1,190	\$1,397
Elgin West Pool	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	\$1,190	\$1,397
Oak Ridges Community Indoor Pool	-	-	-	-	17,050	17,050	17,050	17,050	17,050	17,050	17,050	17,050	17,050	17,050	17,050	\$1,190	\$1,539
Arenas - Twin Pad																	
Elgin Barrow Arena	73,650	73,650	73,650	73,650	73,650	73,650	73,650	73,650	73,650	73,650	73,650	73,650	73,650	73,650	73,650	\$730	\$937
Ed Sackfield Arena	37,856	37,856	37,856	37,856	37,856	37,856	37,856	37,856	37,856	37,856	37,856	86,556	86,556	86,556	86,556	\$730	\$937
Tom Graham Arena	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	75,100	\$730	\$937
Arenas - Single Pad																	
Elvis Stojko Arena	35,600	35,600	35,600	35,600	35,600	35,600	35,600	35,600	35,600	35,600	35,600	35,600	35,600	35,600	35,600	\$730	\$937
Bond Lake Arena	35,900	35,900	35,900	35,900	35,900	35,900	35,900	35,900	35,900	35,900	35,900	35,900	35,900	35,900	35,900	\$730	\$937
Fitness Centres																	
Centennial Fitness Centre	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	-	-	-	-	-	-	-	\$729	\$1,021
Ed Sackfield Fitness Centre	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	18,300	18,300	18,300	18,300	\$1,105	\$1,312
Bayview Hill Community Fitness	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	-	-	-	\$1,105	\$1,312
Oak Ridges Community Fitness	-	-	-	-	8,081	8,081	8,081	8,081	8,081	8,081	8,081	8,081	8,081	8,081	8,081	\$1,105	\$1,380
Special City Wide Facilities																	
Railway Station - Soccer	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	\$615	\$822
Richmond Green Field House	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	\$608	\$887
Richmond Green Field House for Sports Dome	-	-	-	-	-	-	-	-	4,600	4,600	4,600	4,600	4,600	4,600	4,600	\$934	\$1,247
Richmond Green Sports Dome	-	-	-	-	-	-	-	-	95,000	95,000	95,000	95,000	95,000	95,000	95,000	\$38	\$259
Richmond Green Sports Complex	31,128	31,128	31,128	31,128	31,128	31,128	31,128	31,128	31,128	31,128	31,128	31,128	31,128	31,128	31,128	\$730	\$937
Richmond Green Fair Building	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	\$288	\$534
Richmond Green Poultry Building	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	\$235	\$442
Richmond Green Cattle Barn	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	15,900	\$235	\$442
Richmond Lawn Tennis Club - The Crosby Tennis Club House	3,111	3,111	3,111	3,111	3,111	3,111	3,111	3,111	3,111	3,111	3,111	3,111	3,111	3,111	3,111	\$893	\$1,100



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Recreation Facilities
Unit Measure: sq.ft. of building area

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
David Hamilton Park - Blackmore Tennis Club	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	\$893	\$1,100
Eyer Homestead	-	-	-	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	\$955	\$1,162
George Forester House and Barns	-	-	7,920	7,920	7,920	7,920	7,920	7,920	7,920	7,920	7,920	7,920	7,920	7,920	7,920	\$955	\$1,162
Robert Holland Interpretive Centre	-	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	\$955	\$1,162
David Dunlop Observatory	-	-	-	-	-	-	-	-	-	20,600	20,600	20,600	20,600	20,600	20,600	\$2,371	\$2,831
Senior Centres																	
McConaghy Centre	26,100	26,100	26,100	26,100	26,100	26,100	26,100	26,100	26,100	26,100	26,100	26,100	26,100	26,100	26,100	\$770	\$977
Other																	
Oak Ridges (Land Only - acres)	12	12	12	12	-	-	-	-	-	-	-	-	-	-	-	\$617,977	\$617,977
Recreation Space - 225 East Beaver Creek	-	12,055	12,055	12,055	12,055	12,055	12,055	12,055	12,055	12,055	12,055	12,055	12,055	12,055	12,055	\$695	\$902
Total	609,108	632,194	635,114	633,644	694,287	694,287	694,287	694,287	793,887	819,314	819,314	880,314	880,314	880,314	880,314		

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	3.5395	3.6023	3.5318	3.4151	3.7017	3.6518	3.6318	3.5962	4.0708	4.1320	4.1175	4.3977	4.3780	4.3575	4.2367

15 Year Average	2008-2022
Quantity Standard	3.8907
Quality Standard	\$1,112
Service Standard	\$4,327

D.C. Amount (before deductions)	10 Year
Forecast Population	43,263
\$ per Capita	\$4,327
Eligible Amount	\$187,219,767



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Library Services - Facilities
Unit Measure: sq.ft. of building area

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land
Central	107,515	107,515	107,515	107,515	107,515	107,515	107,515	107,515	107,515	107,515	107,515	107,515	107,515	107,515	107,515	\$1,105	\$1,212
Richvale	8,200	8,200	8,200	8,200	8,200	8,200	8,200	8,200	8,200	8,200	8,200	8,200	8,200	8,200	8,200	\$1,105	\$1,511
Oak Ridges Moraine	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	19,300	19,300	19,300	19,300	19,300	\$1,105	\$1,167
Richmond Green Library	12,100	12,100	12,100	12,440	12,440	12,440	12,440	12,440	12,440	12,440	12,440	12,440	12,440	12,440	12,440	\$1,105	\$1,312
Total	134,115	134,115	134,115	134,455	134,455	134,455	134,455	134,455	134,455	134,455	147,455	147,455	147,455	147,455	147,455		

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	0.7793	0.7642	0.7458	0.7247	0.7169	0.7072	0.7033	0.6964	0.6894	0.6781	0.7410	0.7366	0.7333	0.7299	0.7097

15 Year Average	2008-2022
Quantity Standard	0.7237
Quality Standard	\$1,235
Service Standard	\$894

D.C. Amount (before deductions)	10 Year
Forecast Population	43,263
\$ per Capita	\$894
Eligible Amount	\$38,676,689



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Library Services - Collection Materials
Unit Measure: No. of library collection items

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Value (\$/item)
Physical Books	464,784	509,050	436,194	442,756	436,108	444,394	520,277	516,996	388,755	363,240	371,841	337,607	338,230	332,701	310,229	\$25
Physical Periodicals (magazines & newspapers)	26,778	29,489	30,082	26,633	22,660	23,090	20,819	19,191	18,459	16,581	16,811	13,597	13,207	13,687	10,044	\$7
Physical Audio Visual Materials (CDs, DVDs, Playaways & video games)	76,785	79,300	68,161	70,910	72,389	73,764	87,596	84,354	98,110	85,557	83,837	52,518	52,841	49,703	42,445	\$37
Physical Library of Things (backpacks, STEAM kits, etc.)	-	-	-	-	-	-	-	-	-	-	-	-	-	331	411	\$108
Databases - Master's and Sub's	1	87	87	105	117	119	94	93	67	61	63	-	-	-	-	\$8,300
Digital Databases Flat Fee - Master's Only	-	-	-	-	-	-	-	-	-	-	-	29	28	32	31	\$8,076
Digital Materials Cost Per Use (eBooks & digital audiobooks, music, movies & television)	-	-	-	-	-	-	-	-	-	-	-	22,073	33,157	36,226	24,668	\$3
Digital Materials Metered Access or Owned Outright (eBooks & digital audiobooks)	-	-	-	-	8,731	10,048	15,250	27,373	25,613	34,813	35,857	48,557	51,905	55,763	58,629	\$37
2018 ISUZU Model NRR	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	\$57,300
Publicly Available Technology	83	90	199	241	276	317	663	864	1,002	1,037	1,167	1,371	1,371	1,371	1,371	\$3,000
Total	568,431	618,016	534,723	540,646	540,282	551,733	644,700	648,872	532,007	501,290	509,577	475,753	490,740	489,815	447,829	

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	3.30	3.52	2.97	2.91	2.88	2.90	3.37	3.36	2.73	2.53	2.56	2.38	2.44	2.42	2.16

15 Year Average	2008-2022
Quantity Standard	2.8295
Quality Standard	\$31
Service Standard	\$88

D.C. Amount (before deductions)	10 Year
Forecast Population	43,263
\$ per Capita	\$88
Eligible Amount	\$3,807,144



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Engineering Services - Roads
Unit Measure: km of roadways

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Value (\$/km) - Including Land
2 Lane Collector	82.3	87.8	91.9	91.9	91.9	92.7	92.7	94.8	94.8	95.0	95.0	95.0	95.0	95.0	95.0	\$37,200,000
4 Lane Collector	4.0	4.0	4.0	4.0	4.0	4.3	4.3	4.3	4.4	4.4	4.4	4.4	4.4	4.4	4.4	\$42,900,000
Industrial Collector	8.6	9.0	9.0	9.0	9.0	9.0	9.0	9.0	11.5	16.6	16.6	16.6	16.6	16.6	16.6	\$26,500,000
Arterial	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	\$31,900,000
Total	102	108	112	112	112	113	113	115	119	124	124	124	124	124	124	

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006

15 Year Average	2008-2022
Quantity Standard	0.0006
Quality Standard	\$36,487,883
Service Standard	\$21,893

D.C. Amount (before deductions)	2041
Forecast Population	66,870
\$ per Capita	\$21,893
Eligible Amount	\$1,463,966,855



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Engineering Services- Bridges, Culverts & Structures
Unit Measure: Number of Bridges, Culverts & Structures

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Value (\$/item)
Bridges	16	16	17	17	17	17	17	17	17	17	18	18	18	18	18	\$6,969,000
Culverts	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	\$2,824,000
Flyover - Norman Bethune Avenue*	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	\$14,768,000
Total	61	61	62	62	62	62	62	62	62	62	63	63	64	64	64	

*Cost is 1/3 of total to account for the City of Richmond Hill's share

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	0.0004	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003

15 Year Average	2008-2022
Quantity Standard	0.0003
Quality Standard	\$4,345,767
Service Standard	\$1,304

D.C. Amount (before deductions)	2041
Forecast Population	66,870
\$ per Capita	\$1,304
Eligible Amount	\$87,180,425



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Fire Protection Services - Facilities
Unit Measure: sq.ft. of building area

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
Station 8-1 - Alfred D. Stong	15,300	15,300	15,300	15,300	15,300	15,300	15,300	15,300	15,300	15,300	15,300	15,300	15,300	15,300	15,300	\$955	\$1,333
Station 8-2 - Robert G. Kennedy	6,050	6,050	6,050	6,050	6,050	6,050	6,050	6,050	6,050	6,050	6,050	6,050	6,050	6,050	6,050	\$955	\$1,284
Station 8-3 - Harold J. Mills	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	5,900	\$955	\$1,265
Station 8-4 - Russell Curley Lynett	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700	\$955	\$1,251
Station 8-5 - Bert Cook	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	\$955	\$1,268
Station 8-6 - Station - Gamble Road Fire Hall	-	-	-	-	8,935	8,935	8,935	8,935	8,935	8,935	8,935	8,935	8,935	8,935	8,935	\$955	\$1,162
Fire Facility (at Operations Centre)	11,249	11,249	11,249	11,249	11,249	11,249	11,249	11,249	11,249	11,249	11,249	11,249	11,249	11,249	11,249	\$700	\$907
Fire Training Building (at Operations Centre) & Burn Tower	-	-	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	\$520	\$982
Total	54,799	54,799	61,299	61,299	70,234	70,234	70,234	70,234	70,234	70,234	70,234	70,234	70,234	70,234	70,234		

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	0.3184	0.3123	0.3409	0.3304	0.3745	0.3694	0.3674	0.3638	0.3601	0.3542	0.3530	0.3509	0.3493	0.3477	0.3380

15 Year Average	2008-2022
Quantity Standard	0.3487
Quality Standard	\$1,188
Service Standard	\$414

D.C. Amount (before deductions)	2041
Forecast Population	66,870
\$ per Capita	\$414
Eligible Amount	\$27,690,867



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Fire Protection Services - Vehicles & Equipment
Unit Measure: No. of vehicles

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Value (\$/Vehicle)
Aerials	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	\$2,500,000
Engines/Pumpers	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	\$1,700,000
Large Rescue	4	3	3	3	3	3	3	3	3	3	1	1	1	1	1	\$1,160,000
Tankers/Pumpers	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	\$618,000
Hazmat	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$883,000
Large Command Post	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$883,000
Other Vehicles	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	\$72,000
Pick-Up Trucks (Utility Vehicles)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	\$85,000
Training Vehicle	1	2	2	2	2	2	2	3	3	3	3	3	3	3	3	\$65,000
All Terrain Vehicle	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	\$53,000
Small Rescue	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	\$121,000
1 Boat and Trailer	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	\$80,000
Small Command Vehicle	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$145,000
Total	31	34	34	34	34	34	34	36	36	37	37	38	38	38	38	

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002

15 Year Average	2008-2022
Quantity Standard	0.0002
Quality Standard	\$638,950
Service Standard	\$128

D.C. Amount (before deductions)	2041
Forecast Population	66,870
\$ per Capita	\$128
Eligible Amount	\$8,545,317



**City of Richmond Hill
Service Standard Calculation Sheet**

Service: Fire Protection Services - Small Equipment and Gear
Unit Measure: No. of equipment and gear

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Value (\$/item)
Self Contained Breathing Apparatus	54	54	54	54	60	60	60	60	60	60	60	60	60	60	60	\$11,000
Self Contained Breathing Apparatus Bottles	110	110	110	110	120	120	120	120	120	120	120	120	120	120	120	\$3,300
Sets of Bunker Gear / Gloves / Miscellaneous	139	139	139	139	146	146	146	146	146	146	146	190	233	277	320	\$4,000
Helmets	139	139	139	139	146	146	146	146	146	146	146	154	158	158	158	\$600
Leather Boots	139	139	139	139	146	146	146	146	146	146	146	154	158	158	158	\$800
Portable Radios	50	50	50	50	55	55	55	55	55	55	60	60	60	60	60	\$11,400
Total	631	631	631	631	673	673	673	673	673	673	678	738	789	833	876	

Population	172,088	175,497	179,826	185,541	187,558	190,120	191,171	193,063	195,022	198,284	198,982	200,176	201,076	202,022	207,785
Per Capita Standard	0.0037	0.0036	0.0035	0.0034	0.0036	0.0035	0.0035	0.0035	0.0035	0.0034	0.0034	0.0037	0.0039	0.0041	0.0042

15 Year Average	2008-2022
Quantity Standard	0.0036
Quality Standard	\$3,697
Service Standard	\$13

D.C. Amount (before deductions)	2041
Forecast Population	66,870
\$ per Capita	\$13
Eligible Amount	\$890,040



Appendix C

Long-Term Capital and Operating Cost Examination



Appendix C: Long-Term Capital and Operating Cost Examination

City of Richmond Hill

Annual Capital and Operating Cost Impact

As a requirement of the *Development Charges Act, 1997*, as amended, under subsection 10 (2) (c), an analysis must be undertaken to assess the long-term capital and operating cost impacts for the capital infrastructure projects identified within the development charge. As part of this analysis, it was deemed necessary to isolate the incremental operating expenditures directly associated with these capital projects, factor in cost savings attributable to economies of scale or cost sharing where applicable and prorate the cost on a per unit basis (i.e., sq.ft. of building space, per vehicle, etc.). This was undertaken through a review of the City's approved 2022 Financial Information Return (F.I.R.).

In addition to the operational impacts, over time the initial capital projects will require replacement. This replacement of capital is often referred to as lifecycle cost. By definition, lifecycle costs are all the costs which are incurred during the life of a physical asset, from the time its acquisition is first considered, to the time it is taken out of service for disposal or redeployment. The method selected for lifecycle costing is the sinking fund method which provides that money will be contributed annually and invested, so that those funds will grow over time to equal the amount required for future replacement. The following factors were utilized to calculate the annual replacement cost of the capital projects (annual contribution = factor X capital asset cost) and are based on an annual growth rate of 2% (net of inflation) over the average useful life of the asset:



Table C-1
City of Richmond Hill
Lifecycle Cost Factors and Average Useful Lives

Asset	Lifecycle Cost Factors	
	Average Useful Life	Factor
Water and Wastewater Infrastructure	80	0.005160705
Facilities	50	0.01182321
Services Related to a Highway	50	0.01182321
Parkland Development	40	0.016555748
Vehicles	15	0.057825472
Small Equipment & Gear	10	0.091326528
Library Materials	10	0.091326528

Table C-2 depicts the annual operating impact resulting from the proposed gross capital projects at the time they are all in place. It is important to note that, while City program expenditures will increase with growth in population, the costs associated with the new infrastructure (i.e., facilities) would be delayed until the time these works are in place.



Table C-2
City of Richmond Hill
Operating and Capital Expenditure Impacts for Future Capital Expenditures

SERVICE/CLASS OF SERVICE	GROSS COST LESS BENEFIT TO EXISTING	ANNUAL LIFECYCLE EXPENDITURES	ANNUAL OPERATING EXPENDITURES	TOTAL ANNUAL EXPENDITURES
1. Engineering Services				
1.1 Roads, water, wastewater & stormwater infrastructure	870,663,161	13,893,858	42,228,779	56,122,637
2. Fire Protection Services				
2.1 Fire facilities, vehicles & equipment	30,706,885	1,537,428	12,431,756	13,969,184
3. Public Works (Facilities and Fleet)				
3.1 Public works facilities, vehicles and equipment	27,792,698	1,495,161	8,583,826	10,078,987
4. Parks and Recreation Services				
4.1 Park development, amenities, trails, vehicles, equipment, and recreation facilities	398,414,079	18,544,595	9,376,836	27,921,431
5. Library Services				
5.1 Library facilities and materials	42,115,153	1,400,220	2,977,328	4,377,548
Total	1,369,691,977	36,871,262	75,598,525	112,469,787



Appendix D

D.C. Reserve Fund Policy



Appendix D: D.C. Reserve Fund Policy

D.1 Legislative Requirements

The *Development Charges Act, 1997*, as amended (D.C.A.) requires development charge (D.C.) collections (and associated interest) to be placed in separate reserve funds. Sections 33 through 36 of the D.C.A. provide the following regarding reserve fund establishment and use:

- A municipality shall establish a reserve fund for each service to which the D.C. by-law relates; subsection 7 (1), however, allows services to be grouped into categories of services for reserve fund (and credit) purposes and for classes of services to be established.
- The municipality shall pay each D.C. it collects into a reserve fund or funds to which the charge relates.
- The money in a reserve fund shall be spent only for the “capital costs” determined through the legislated calculation process (as per subsection 5 (1) 2 to 8).
- Money may be borrowed from the fund but must be paid back with interest (O. Reg. 82/98, subsection 11 (1) defines this as Bank of Canada rate either on the day the by-law comes into force or, if specified in the by-law, the first business day of each quarter).
- D.C. reserve funds may not be consolidated with other municipal reserve funds for investment purposes and may only be used as an interim financing source for capital undertakings for which D.C.s may be spent (section 37).

Annually, the Treasurer of the municipality is required to provide Council with a financial statement related to the D.C. by-law(s) and reserve funds. This statement must be made available to the public and may be requested to be forwarded to the Minister of Municipal Affairs and Housing.

Subsection 43 (2) and O. Reg. 82/98 prescribe the information that must be included in the Treasurer’s statement, as follows:

- opening balance;
- closing balance;



- description of each service and/or service category for which the reserve fund was established (including a list of services within a service category);
- transactions for the year (e.g. collections, draws) including each asset's capital costs to be funded from the D.C. reserve fund and the manner for funding the capital costs not funded under the D.C. by-law (i.e. non-D.C. recoverable cost share and post-period D.C. recoverable cost share);
- for projects financed by D.C.s, the amount spent on the project from the D.C. reserve fund and the amount and source of any other monies spent on the project;
- amounts borrowed, purpose of the borrowing, and interest accrued during previous year;
- amount and source of money used by the municipality to repay municipal obligations to the D.C. reserve fund;
- list of credits by service or service category (outstanding at the beginning of the year, given in the year, and outstanding at the end of the year by the holder);
- for credits granted under section 14 of the previous D.C.A., a schedule identifying the value of credits recognized by the municipality, the service to which it applies and the source of funding used to finance the credit; and
- a statement as to compliance with subsection 59 (1) of the D.C.A., whereby the 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 the D.C.A. or another Act.

Recent changes arising from Bill 109 (More Homes for Everyone Act, 2022) provide that the Council shall make the statement available to the public by posting the statement on the website or, if there is no such website, in the municipal office. In addition, Bill 109 introduced the following requirements which shall be included in the treasurer's statement.

- For each service for which a development charge is collected during the year
 - whether, as of the end of the year, the municipality expects to incur the amount of capital costs that were estimated, in the relevant development charge background study, to be incurred during the term of the applicable development charge by-law, and
 - if the answer to subparagraph i is no, the amount the municipality now expects to incur and a statement as to why this amount is expected;



- For any service for which a development charge was collected during the year but in respect of which no money from a reserve fund was spent during the year, a statement as to why there was no spending during the year.

Additionally, as per subsection 35(3) of the D.C.A.:

35(3) If a service is prescribed for the purposes of this subsection, beginning in the first calendar year that commences after the service is prescribed and in each calendar year thereafter, a municipality shall spend or allocate at least 60 per cent of the monies that are in a reserve fund for the prescribed service at the beginning of the year.

The services currently prescribed are water, wastewater, and services related to a highway. Therefore, as of 2023, a municipality shall spend or allocate at least 60 percent of the monies in the reserve fund at the beginning of the year. There are generally two (2) ways in which a municipality may approach this requirement:

- a) Include a schedule are part of the annual treasurer’s statement; or
- b) Incorporate the information into the annual budgeting process.

Based upon the above, Figure 1 and Attachments 1 and 2, set out the format for which annual reporting to Council should be provided. Attachment 3 provides for the schedule for allocating reserve fund balances to projects.

D.2 D.C. Reserve Fund Application

Section 35 of the D.C.A. states that:

“The money in a reserve fund established for a service may be spent only for capital costs determined under paragraphs 2 to 7 of subsection 5(1).”

This provision clearly establishes that reserve funds collected for a specific service are only to be used for that service, or to be used as a source of interim financing of capital undertakings for which a D.C. may be spent.



Figure D-1
City of Richmond Hill
Annual Treasurer's Statement of Development Charge Reserve Funds

Description	Services to which the Development Charge Relates					Total
	Engineering Services	Public Works (Facilities and Fleet)	Fire Protection Services	Parks and Recreation Services	Library Services	
Opening Balance, January 1, _____						0
<u>Plus:</u>						
Development Charge Collections						0
Accrued Interest						0
Repayment of Monies Borrowed from Fund and Associated Interest ¹						0
Sub-Total	0	0	0	0	0	0
<u>Less:</u>						
Amount Transferred to Capital (or Other) Funds ²						0
Amounts Refunded						0
Amounts Loaned to Other D.C. Service Category for Interim Financing						0
Credits ³						0
Sub-Total	0	0	0	0	0	0
Closing Balance, December 31, _____	0	0	0	0	0	0

¹ Source of funds used to repay the D.C. reserve fund

² See Attachment 1 for details

³ See Attachment 2 for details

The City is compliant with s.s. 59.1 (1) of the *Development Charges Act*, whereby charges are not directly or indirectly imposed on development nor has a requirement to construct a service related to development been imposed, except as permitted by the *Development Charges Act* or another Act.



Figure D-2a
City of Richmond Hill
Attachment 1
Annual Treasurer's Statement of Development Charge Reserve Funds
Amount Transferred to Capital (or Other) Funds – Capital Fund Transactions

Capital Fund Transactions	Gross Capital Cost	D.C. Recoverable Cost Share					Non-D.C. Recoverable Cost Share				
		D.C. Forecast Period			Post D.C. Forecast Period		Other Reserve/Reserve Fund Draws	Tax Supported Operating Fund Contributions	Rate Supported Operating Fund Contributions	Debt Financing	Grants, Subsidies Other Contributions
		D.C. Reserve Fund Draw	D.C. Debt Financing	Grants, Subsidies Other Contributions	Post-Period Benefit/ Capacity Interim Financing	Grants, Subsidies Other Contributions					
Engineering Services											
Capital Cost A											
Capital Cost B											
Capital Cost C											
Sub-Total - Engineering Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Parks and Recreation Services											
Capital Cost D											
Capital Cost E											
Capital Cost F											
Sub-Total - Parks and Recreation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Library Services											
Capital Cost G											
Capital Cost H											
Capital Cost I											
Sub-Total - Library	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



Figure D-2b
 City of Richmond Hill
 Attachment 1
 Annual Treasurer's Statement of Development Charge Reserve Funds
 Amount Transferred to Capital (or Other) Funds – Operating Fund Transactions

Operating Fund Transactions	Annual Debt Repayment Amount	D.C. Reserve Fund Draw		Post D.C. Forecast Period			Non-D.C. Recoverable Cost Share		
		Principal	Interest	Principal	Interest	Source	Principal	Interest	Source
<u>Engineering Services</u>									
Capital Cost J									
Capital Cost K									
Capital Cost L									
Sub-Total - Engineering Services	\$0	\$0	\$0	\$0	\$0		\$0	\$0	
<u>Parks and Recreation Services</u>									
Capital Cost M									
Capital Cost N									
Capital Cost O									
Sub-Total - Parks and Recreation	\$0	\$0	\$0	\$0	\$0		\$0	\$0	
<u>Library Services</u>									
Capital Cost P									
Capital Cost Q									
Capital Cost R									
Sub-Total - Library	\$0	\$0	\$0	\$0	\$0		\$0	\$0	



Figure D-3
City of Richmond Hill
Attachment 2
Annual Treasurer's Statement of Development Charge Reserve Funds
Statement of Credit Holder Transactions

Credit Holder	Applicable D.C. Reserve Fund	Credit Balance Outstanding Beginning of Year _____	Additional Credits Granted During Year	Credits Used by Holder During Year	Credit Balance Outstanding End of Year _____
Credit Holder A					
Credit Holder B					
Credit Holder C					
Credit Holder D					
Credit Holder E					
Credit Holder F					



Figure D-4
City of Richmond Hill
Attachment 3
Annual Treasurer's Statement of Development Charge Reserve Funds
Statement of Reserve Fund Balance Allocations

Service:	Water
Balance in Reserve Fund at Beginning of Year:	
60% of Balance to be Allocated (at a minimum):	

Projects to Which Funds Will be Allocated

Project Description	Project Number	Total Growth-related Capital Cost Remaining to be Funded	Share of Growth-related Cost Allocated to Date	Share of Growth-related Cost Allocated - Current Year
Total		\$0	\$0	\$0

Service:	Wastewater
Balance in Reserve Fund at Beginning of Year:	
60% of Balance to be Allocated (at a minimum):	

Projects to Which Funds Will be Allocated

Project Description	Project Number	Total Growth-related Capital Cost Remaining to be Funded	Share of Growth-related Cost Allocated to Date	Share of Growth-related Cost Allocated - Current Year
Total		\$0	\$0	\$0

Service:	Services Related to a Highway
Balance in Reserve Fund at Beginning of Year:	
60% of Balance to be Allocated (at a minimum):	

Projects to Which Funds Will be Allocated

Project Description	Project Number	Total Growth-related Capital Cost Remaining to be Funded	Share of Growth-related Cost Allocated to Date	Share of Growth-related Cost Allocated - Current Year
Total		\$0	\$0	\$0



Appendix E

Local Service Policy



Appendix E: Local Service Policy

This policy sets out the City's General Policy Guidelines on Development Charges (D.C.) and local service funding for Services related to a Highway, Stormwater Management, Watermains, Sanitary Sewers, the Greenway and Open Space Blocks, and Parks and Recreational Trails. The guidelines outline, in general terms, the size and nature of infrastructure that is included in the study as a development charge project, versus infrastructure that is considered as a local service, to be emplaced separately by landowners, pursuant to a development agreement.

The following policy guidelines are general principles by which staff will be guided in considering development applications. However, each application will be considered, in the context of these policy guidelines and subsection 59(2) of the Development Charges Act, 1997, on its own merits having regard to, among other factors, the nature, type and location of the development and any existing and proposed development in the surrounding area, as well as the location and type of services required and their relationship to the proposed development and to existing and proposed development in the area.

General Assumptions

- a) All background information provided by private professional consultants or other agencies is complete and accurate. Although data submitted from external sources was crosschecked, detailed verification of information provided by others was not part of this study.
- b) All growth related services normally provided by the Region of York, such as regional roads, traffic signals at regional road intersections, trunk transmission sewers, trunk transmission watermains, water system storage and trunk pumping facilities, will be included in the appropriate Region of York by-laws, and, therefore, are excluded from the City's cost estimates and the City's local service policy. The cost of certain other works within regional road allowances are the responsibility of the City.



- c) The costs of the services shared by two or more development areas are shared on a pro-rata calculation based on population projections. Industrial and commercial areas are based on “equivalent population”.
- d) Markups of 20% for contingencies, 10% for engineering and should be added to the net construction costs where appropriate.
- e) Construction costs are calculated based on the appropriate unit costs as of November 2023.
- f) All costs estimated prior to November 2023 are to be updated to November 2023 using appropriate inflation factors. In accordance with the index of Statistic Canada Quarterly Construction Price Statistics.
- g) The cost of service connections to individual properties will not be included in the cost.
- h) Detailed analysis of collector road, water supply, and sanitary sewage and storm drainage systems is not part of this study. The size and location of collector roads, trunk watermains, trunk sanitary sewers, trunk storm sewers and appurtenant works for areas without detailed studies, such as master servicing plans, will be estimated on the basis of experience in similar existing areas.

Direct Developer Responsibility – A.S.D.C. Capital Works

It is noted that two A.S.D.C. by-laws are being maintained to facilitate cost sharing for local service works (Headford – Excluding Storm Development Area and Bayview North East Development Area). Where required, the City may facilitate cost-sharing arrangements within these areas for works that are defined in the by-law.

E.1 Services Related to a Highway

A highway and services related to a highway are intended for the transportation of people, and goods via many different modes including, but not limited to passenger automobiles, commercial vehicles, transit vehicles, bicycles and pedestrians. The highway shall consist



of all land and associated infrastructure built to support (or service) this movement of people and goods regardless of the mode of transportation employed, thereby achieving a complete street. A complete street is the concept whereby a highway is planned, designed, operated and maintained to enable pedestrians, cyclists, public transit users and motorists to safely and comfortably be moved, thereby allowing for the efficient movement of persons and goods.

The associated infrastructure to achieve this concept shall include, but is not limited to: road pavement structure and curbs; grade separation/bridge structures (for any vehicles, railways and/or pedestrians); grading, drainage and retaining wall features; culvert structures; stormwater drainage systems; sanitary sewers; watemains; utilities; traffic control systems; signage; gateway features; street furniture; active transportation facilities (e.g. sidewalks, bike lanes, cycle tracks, bike boulevards, and multi-use trails); structures/crossings, transit lay-bys and associated transit facilities; at-grade rail crossing features; traffic calming; roadway illumination systems; boulevard and median surfaces (e.g. sod & topsoil, paving, etc.); street trees and landscaping; parking lanes & lay-bys; and driveway entrances; noise attenuation systems; railings and safety barriers.

E.1.1 Laneways, Local and Collector Roads

Laneways, local and collector roads including those that are identified to support future growth in the City of Richmond Hill's approved policy documents, and studies including, such as The Official Plan, Secondary and Tertiary Plans (inclusive of supporting Transportation Studies), the Transportation Master Plan, and the Urban Master Environmental Servicing Plan, will be considered as follows:

- a) All Laneways including new and existing infrastructure upgrades are considered to be the developer's direct responsibility.
- b) Local roads both new and existing infrastructure upgrades, inclusive of all land and associated infrastructure – direct developer responsibility under s.59 of the D.C.A. as a local service.



- c) Collector roads both new and existing infrastructure upgrades internal to development, inclusive of all land and associated infrastructure – direct developer responsibility under s.59 of the D.C.A. as a local service.
- d) New collector roads external to development, inclusive of all land and associated infrastructure shall be included in D.C. calculation to the extent permitted under s.5(1) of the D.C.A. (dependent on local circumstances).



- e) Upgrades to existing Collector Roads External to Development, inclusive of all associated infrastructure, included in D.C. calculation to the extent permitted under s.5(1) of the D.C.A. (dependent on local circumstances).
- f) If a development results in the accelerated deterioration or failure to pavement infrastructure as a result of construction activities the costs of addressing such failures may be considered a local service requirement when the roadway is internal to a development or directly related to access the development site. If the development impacts are cumulative across an area that result in the failure then a share of the cost of remediation maybe deemed eligible for development charge funding. If post construction traffic volumes are greater than the pre-existing pavement structure can accommodate then a share of the cost of remediation maybe deemed eligible for development charge funding.

E.1.2 Arterial Roads

- a) New, widened, extended or upgraded arterial roads, inclusive of all associated infrastructure: Included as part of road costing funded through D.C.A., s.5(1).
- b) Land acquisition for arterial roads on existing rights-of-way to achieve a complete street: dedication under the Planning Act provisions (s. 41, 51 and s. 53) through development lands; in area with limited or no development is anticipated, and direct dedication is unlikely, the land acquisition is considered to be part of the capital cost of the related DC project. Where property requirements are not identified in the City's Official Plan, requirements may otherwise be defined through the completion of studies and/or environmental assessment.
- c) Land acquisition for arterial roads on new rights-of-way to achieve a complete street: dedication, where possible, under the Planning Act provisions (s. 51 and s. 53) through development lands up to the ROW specified in the Official Plan.
- d) Land acquisition beyond normal dedication requirements to achieve transportation corridors as services related to highways including grade separation infrastructure for the movement of pedestrians, cyclists, included in D.C.'s.



E.1.3 Traffic Control Systems, Signals, Traffic Calming, and Intersection Improvements

- a) On new arterial roads and arterial road improvements unrelated to a specific development: included as part of road costing funded through D.C.'s.
- b) On non-arterial roads, or for any private site entrances or entrances to specific development that are not identified within the Transportation Master Plan: direct developer responsibility under s.59 of D.C.A. (as a local service).
- c) Intersection improvements, new or modified signalization, signal timing & optimization plans, and traffic calming measures, attributed to growth and unrelated to a specific development: included in D.C. calculation as permitted under s.5(1) of the D.C.A.

E.1.4 Streetlights

- a) Streetlights on new arterial roads and arterial road improvements: considered part of the complete street and included as part of the road costing funded through D.C.'s, or in exceptional circumstances, may be direct developer responsibility through local service provisions (s.59 of D.C.A.). Exceptional includes, but not limited to any streetlight infrastructure that exceeds City standards and specifications. In addition, relocation of existing streetlights and/or hydro pole infrastructure may be direct developer responsibility.
- b) Streetlights on non-arterial roads internal to development: considered part of the complete street and included as a direct developer responsibility under s. 59 of the D.C.A. (as a local service).
- c) Streetlights on local roads external to development: considered part of the complete street and included as a direct developer responsibility under s. 59 of the D.C.A. (as a local service).
- d) Streetlights on collector roads external to development: considered part of the complete street and included in D.C. calculation as permitted under s.5(1) of the D.C.



E.1.5 Active Transportation Related Pedestrian and Cycling Facilities

- a) Active transportation facilities including: sidewalks, multi-use paths, cycle tracks, and bike lanes, inclusive of all required infrastructure (including end-of-trip facilities), located within arterial roads, Regional roads and provincial highway corridors: considered part of the complete street and included in D.C., or, in exceptional circumstances, may be direct developer responsibility through local service provisions (s.59 of D.C.A.). Exceptional includes, but not limited to active transportation, and cycling facilities that exceeds the City's specification (e.g. construction material type). In addition, relocation of existing Active Transportation infrastructure and facilities may be direct developer responsibility.
- a) Active transportation facilities including: sidewalks, shared or dedicated cycling facilities (including but not limited to multi- use paths, cycle tracks, bike lanes, and bike boulevards), inclusive of all required infrastructure, located within or linking to non-arterial road corridors internal to development: considered direct developer responsibility through local service provisions (s.59 of D.C.A.).
- b) Sidewalks on local roads external to development: consider direct developer responsibility through local service provision (s.59 of D.C.A.).
- c) Sidewalks on collector roads external to development: consider included in D.C. calculation as permitted under s.5(1) of the D.C.A.
- d) Cycling facilities (including but not limited to multi- use paths, cycle tracks, bike lanes, and bike boulevards) external to development: consider included in D.C. calculation as permitted under s.5(1) of the D.C.A.
- e) Multi-use trails (not associated with a road), inclusive of all land and required infrastructure, including but not limited to bridges along a multi-use trail that go beyond the function of a recreational trail (see Section F), and form part of the municipality's active transportation network for cycling and/or walking: consider included in D.C. calculation as permitted under s.5(1) of the D.C.A.



E.1.6 Noise Abatement Measures

- a) Noise abatement measures external and internal to development where it is related to, or a requirement of a specific development: direct developer responsibility under s.59 of D.C.A. (as a local service).
- b) Noise abatement measures on new arterial roads, and arterial road improvements abutting an existing community, and unrelated to a specific development: consider included in D.C. calculation as permitted under s.5(1) of the D.C.A.

E.1.7 Grade Separation, Bridge Structures and Crossings including Highway 404 Flyovers

- a) Bridge structures and crossings on local roads or laneways direct developer responsibility under s.59 of D.C.A. (as a local service).
- b) Bridge structures and crossings on collector roads internal to development: direct developer responsibility under s.59 of D.C.A. (as a local service). If the need of the structure is partially driven by city-wide growth, then a share of the cost of the structure may be deemed eligible for development charge funding.
- c) Bridge structures and crossings on boundary roads included in D.C. calculation as permitted under s.5(1) of the D.C.A.
- d) Bridge structures and crossings on collector roads external to development: consider included in D.C. calculation as permitted under s.5(1) of the D.C.A. If the need of the structure is partially driven by development, then a share of the cost of the structure may be deemed a direct developer responsibility. For example, a bridge crossing external to a development that is strategically important to facilitate the full development potential. Transportation analysis would be performed to assess costs attributed to the benefiting development vs. City-wide benefit.
- e) Bridge structures and crossing on arterial roads consider included in D.C. calculation as permitted under s.5(1) of the D.C.A.



- f) Regional and City grade separations and mid-block crossings including highway 404 flyovers consider included in D.C. calculation as permitted under s.5(1) of the D.C.A.

Land acquisition for associated to items c) through f) (above) (beyond normal dedication requirements) is considered to be part of the capital cost of the related DC project. Specific property requirements are governed by requirements under the City's Official Plan, or as otherwise may be defined through the completion of studies and/or environmental assessments.

E.1.8 Storm Sewers

- a) A developer will be solely responsible for the cost and implementation of new or upgraded sewer infrastructure, either internal or external, that are required to adequately service a specific development in accordance with applicable City policies, standards and criteria.
- b) If a sewer upgrade is required due to additional flows from the development based on an analysis completed in accordance with all City policies, guidelines, standards and criteria then the developer will be responsible for the cost of the sewer upgrade.
- c) New and upgrade to existing storm sewers inclusive of all associated costs that are identified though the Urban Master Environmental Servicing Plan (UMESP) are included in D.C. calculation as permitted under s.5(1) of the D.C.A.
- d) The gross unit prices for storm sewers used in the cost schedules will include the cost of appurtenances such as maintenance holes. Stream enclosures are not considered as trunk storm sewers and therefore, are not included in the City's estimates.

E.2 Stormwater Management

- a) Stormwater facilities for quality and/or quantity works, including downstream erosion works, inclusive of land and all associated infrastructure, such as landscaping and perimeter fencing, required to service a specific development, either internal or external, are a direct developer responsibility under s.59 of D.C.A. (as a local service).
-



- b) Stormwater quality and/or quantity management works outlined in the Stormwater Management Master Plan, including works recommended from subsequent Environmental Assessment for projects identified in the Stormwater Management Master Plan, are DC projects.
- c) Over-sizing cost of stormwater facilities capacity, excluding land, to accommodate runoff from new, widened, extended or upgraded arterial roads that are funded as a development charges project to be including as part of the road costing funded through D.C.'s.
- d) Erosion works, inclusive of all restoration requirements, related to a development application is a direct developer responsibility under s.59 of D.C.A. (as a local service).

E.3 Watermains

- a) New or expanded local pumping stations, including upgrades identified through a development proposal, servicing a localized area, and needs (specific development) are a local service and a direct developer responsibility.
- b) A developer will be solely responsible for the cost and implementation of new or upgraded sewer infrastructure, either internal or external, that are required to adequately service a specific development in accordance with applicable City policies, standards and criteria.
- c) Connections to transmission watermains, and pumping stations to service specific areas are considered to be a direct developer responsibility.
- d) All other watermains are considered a direct developer responsibility including all required looping to service the development lands.
- e) Watermain projects required for intensification growth or strategic projects that benefit growth beyond the development area will be included in the DC calculation.
- f) New and upgrades to existing watermain and all associated costs that have been identified through the Urban Master Environmental Servicing Plan



(UMESP) are included in D.C. calculation as permitted under s.5(1) of the D.C.A.

- g) The City may, at its sole discretion, deem that a watermain that is internal to development provides an area-wide benefit that may be funded in whole or in part through DCs.

E.4 Sanitary Sewers

- a) A developer will be solely responsible for the cost and implementation of new or upgraded sewer infrastructure, either internal or external, that are required to adequately service a specific development in accordance with applicable City policies, standards and criteria.
- b) If a sewer upgrade is required due to additional flows from the development based on an analysis completed in accordance with all City policies, guidelines, standards, and criteria, then the developer will be responsible for the cost of the sewer upgrade.
- c) New and upgrades to existing sanitary sewers and all associated costs that have been identified through the Urban Master Environmental Servicing Plan (UMESP) are included in D.C. calculation as permitted under s.5(1) of the D.C.A.
- d) A sanitary sewer, of any size, required to connect a specific development to a pumping station to service development, is considered the sole responsibility of a developer.
- e) New or expanded local pumping stations including upgrades identified through a development proposal, to service a specific development in addition to any existing service area, are local service and a direct development responsibility.



E.5 Greenway System (Key Natural Heritage Features, Key Hydrologic Features, Minimum Vegetation Protection Zones (Buffers)) and Open Space Blocks

- a) The costs of developing (i.e. protecting, monitoring, enhancing and/or expanding) the elements of the Greenway System, Open Space blocks and other remnant pieces of land conveyed to the City or other public agency shall be a direct developer responsibility as a local service. Such costs include but are not limited to:
- i. Grading (in Open Space Blocks), sodding, seeding, supplying and spreading of fertile topsoil (to the City's required depth and specification), landscape features, perimeter fencing and related amenities, and all plantings (including naturalization, restoration and/or enhancement plantings in minimum vegetation protection zones to key natural heritage features and/or key hydrologic features).
 - ii. Restoration planting and enhancement projects (as required by the City or authorities having jurisdiction), as a result of the impact of the development.
 - iii. Landscape enhancements provided in support of the City's Interim Growth Management Strategy/Sustainability Metrics program.
 - iv. Perimeter fencing to the City standard located on the public property side of the property line adjacent land uses (residential, or non-residential) as required by the City, or other approval authority.

E.6 Parks and Recreational Trails

E.6.1 Recreation Trails

- a) Recreational trails that do not form part of the City's active transportation network, and their associated infrastructure (landscaping, bridges, trail surface, etc.), are included in the D.C.



E.6.2 Park Development

- a) Park Development for Destination Parks, Community Parks, Neighborhood Parks (Local Parks and Parkettes), Linear Parks, and Urban Squares - direct developer responsibility to provide at base condition as a local service provision including the following as defined in the respective development agreement:
- i. Installation of sediment/erosion control fence around the perimeter of the Park Block as appropriate.
 - ii. No construction materials, debris, machinery, or stockpiling of soil is stored within the Park Block.
 - iii. Installation of the Park Block service connections (all in a central location within 1 meter of the property line) as follows: 50 mm water connection to the property line with curb stop/valve box at street line, electrical connection to the property line (as specified in Appendix A of the Parkland Assumption Procedure), storm sewer catch basin manhole, and (in Community Parks only) a sanitary connection to the property line.
 - iv. Installation of temporary post and wire fencing along the perimeter of the Park Block, where it abuts municipal road allowances, following completion of park grading, service installation and seeding/sodding of the Park Block.
 - v. Installation of a Park Block notice sign on the temporary post and wire fence.
 - vi. Installation of perimeter chain link fencing (within 0.15m of the property line of the Park Block, per OLS Survey) where it abuts private properties, except where the Park Block abuts the common element parking areas, roads and walkways of a condominium development.
 - vii. Removal of ash, hazardous, dead and invasive trees from the Park Block and protection for trees within the park block as appropriate.
 - viii. Grading of the Park Block as approved by the Design and Construction Section (generally grading should result in between two (2%) percent



and five (5%) percent grade differential across the entire block so as to provide proper drainage of the site, and should meet and match grades on abutting properties at property lines). Drainage from adjacent lands should not be directed onto the Park Block.

- ix. Use of appropriate engineered clean fill and backfill material (unfrozen material, free of rocks larger than 75 mm, cinders, ashes, sods, refuse or other deleterious materials) for grading purposes, and compaction of such to City Standards and Specifications (90-95% proctor) in areas of the Park Block where recreational facilities are to be sited.
 - x. Application of a minimum 15 to 20 cm of topsoil on the Park Block in accordance with City Standards and Specifications.
 - xi. Sodding of the Park Block.
 - xii. Confirmation from a qualified professional that the requirements for the geotechnical, hydrogeological and environmental investigations and excess soil management planning as per O. Reg 406/19 and the associated Rules for Soil Management and Excess Soil Quality Standards document issued by the MECP, and satisfy all associated regulatory requirements. The developer / Contractor shall perform the Work in accordance with the requirements of Ontario Regulation 406/19 – On-Site and Excess Soil Management made under the Environmental Protection Act, RSO 1990, c E.19 (O.Reg. 406/19), parts I and II of the “Rules of Soil Management and Excess Soil Quality Standards”, 2019 (the Soil Rules) and OPSS.MUNI 180.
- b) Parkland development in excess of the base condition, as defined in the respective development agreement are included in the D.C.
- c) Program facilities, amenities, and furniture within parkland: are included in D.C.



Appendix F

Asset Management Plan



Appendix F: Asset Management Plan

The recent changes to the Development Charges Act, 1997, as amended (D.C.A.) (new subsection 10 (2) (c.2)) require that the background study must include an asset management plan (A.M.P.) related to new infrastructure. Section 10 (3) of the D.C.A. provides:

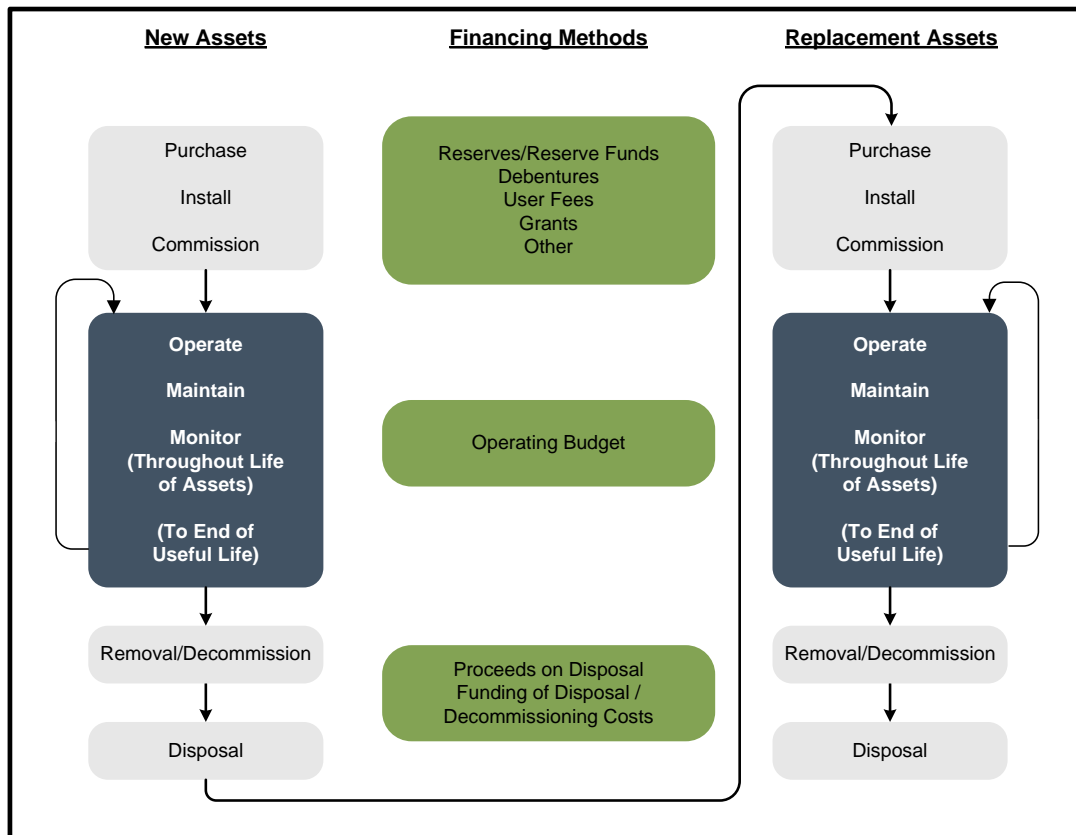
“The asset management plan shall,

- (a) deal with all assets whose capital costs are proposed to be funded under the development charge by-law;
- (b) demonstrate that all the assets mentioned in clause (a) are financially sustainable over their full life cycle;
- (c) contain any other information that is prescribed; and
- (d) be prepared in the prescribed manner.”

In regard to the above, section 8 of the regulations was amended to include subsections (2), (3), and (4) which set out specific detailed requirements for transit (only). For all services except transit, there are no prescribed requirements at this time, thus requiring the municipality to define the approach to include in the background study.

At a broad level, the A.M.P. provides for the long-term investment in an asset over its entire useful life along with the funding. The schematic below identifies the costs for an asset throughout its entire lifecycle. For growth-related works, the majority of capital costs will be funded by the D.C. Non-growth-related expenditures will then be funded from non-D.C. revenues as noted below. During the useful life of the asset, there will be minor maintenance costs to extend the life of the asset along with additional program-related expenditures to provide the full services to the residents. At the end of the life of the asset, it will be replaced by non-D.C. financing sources.

It should be noted that with the recent passing of the *Infrastructure for Jobs and Prosperity Act* (I.J.P.A.) municipalities are now required to complete A.M.P.s, based on certain criteria, which are to be completed by 2022 for core municipal services and 2024 for all other services. The amendments to the D.C.A. do not require municipalities to complete these A.M.P.s (required under I.J.P.A.) for the D.C. background study, rather the D.C.A. requires that the D.C. background study include information to show the assets to be funded by the D.C. are sustainable over their full lifecycle.



In 2012, the Province developed Building Together: Guide for municipal asset management plans which outlines the key elements for an A.M.P., as follows:

State of local infrastructure: asset types, quantities, age, condition, financial accounting valuation and replacement cost valuation.

Desired levels of service: defines levels of service through performance measures and discusses any external trends or issues that may affect expected levels of service or the municipality's ability to meet them (for example, new accessibility standards, climate change impacts).

Asset management strategy: the asset management strategy is the set of planned actions that will seek to generate the desired levels of service in a sustainable way, while managing risk, at the lowest lifecycle cost.

Financing strategy: having a financial plan is critical for putting an A.M.P. into action. By having a strong financial plan, municipalities can also demonstrate that they have



made a concerted effort to integrate the A.M.P. with financial planning and municipal budgeting and are making full use of all available infrastructure financing tools.

Commensurate with the above, the City prepared an A.M.P. in 2022 for its existing assets; however, it did not take into account future growth-related assets for all services included in the D.C. calculations. As a result, the asset management requirement for the D.C. must be undertaken in the absence of this information.

In recognition to the schematic above, the following table (presented in 2023 \$) has been developed to provide the annualized expenditures and revenues associated with new growth. Note that the D.C.A. does not require an analysis of the non-D.C. capital needs or their associated operating costs so these are omitted from the table below. As well, as all capital costs included in the D.C.-eligible capital costs are not included in the City's A.M.P., the present infrastructure gap and associated funding plan have not been considered at this time. Hence the following does not represent a fiscal impact assessment (including future tax/rate increases) but provides insight into the potential affordability of the new assets:

1. The non-D.C. recoverable portion of the projects that will require financing from municipal financial resources (i.e., taxation, rates, fees, etc.). This amount has been presented on an annual debt charge amount based on 20-year financing.
2. Lifecycle costs for the 2023 D.C. capital works have been presented based on a sinking fund basis. The assets have been considered over their estimated useful lives.
3. Incremental operating costs for the D.C. services (only) have been included.
4. The resultant total annualized expenditures are approximately \$130.51 million.
5. Consideration was given to the potential new taxation and user fee revenues which will be generated as a result of new growth. These revenues will be available to finance the expenditures above. The new operating revenues are approximately \$48.15 million. This amount, totalled with the existing operating revenues of approximately \$306.08 million, provides annual revenues of approximately \$354.23 million by the end of the period.



6. In consideration of the above, the capital plan is deemed to be financially sustainable.

City of Richmond Hill
Asset Management – Future Expenditures and Associated Revenues
2023\$

Asset Management – Future Expenditures and Associated Revenues	2041 (Total)
Expenditures (Annualized)	
Annual Debt Payment on Non-Growth Related Capital ¹	9,826,902
Annual Debt Payment on Post Period Capital ²	8,213,909
Lifecycle:	
Annual Lifecycle	\$36,871,262
Incremental Operating Costs (for D.C. Services)	\$75,598,525
Total Expenditures	130,510,598
Revenue (Annualized)	
Total Existing Revenue ³	\$306,078,256
Incremental Tax and Non-Tax Revenue (User Fees, Fines, Licences, etc.)	\$48,154,726
Total Revenues	\$354,232,982

¹ Non-Growth Related component of Projects

² Interim Debt Financing for Post Period Benefit

³ As per Sch. 10 of FIR



Appendix G

Transportation Background Study – HDR Inc.



Appendix G: Transportation Background Study – HDR Inc.

Provided under separate cover.



Appendix H

Summary of Approach for A.S.D.C.s



Appendix H: Summary of Approach for A.S.D.C.s

As part of this D.C. by-law update, six of the existing eight A.S.D.C. by-laws are proposed to be repealed with two by-laws to be updated:

- A.S.D.C. by-laws to be repealed/not updated:
 - Oak Ridges – Lake Wilcox Greenfield Development Area (By-law 41-19);
 - North Leslie West Development Area (By-law 42-19);
 - North Leslie East Development Area (By-law 43-19);
 - West Gormley Development Area (By-law 44-19);
 - Elgin West Development Area (By-law 45-19); and
 - Headford Storm North of Rouge Development Area (By-law 46-19).
- A.S.D.C. by-laws to be updated:
 - Headford – Excluding Storm Development Area (By-law 33-21); and
 - Bayview North East Development Area (By-law 32-21).

The by-laws are being repealed as some of the road infrastructure required supports broader area development for the City (described in Chapter 5). Other required infrastructure is highly localized and is now incorporated into the local service policy requirement. In addition, the City will be utilizing the balances in the Reserve Funds to fund some of the infrastructure.

The two by-laws that are to be updated will allow the City to facilitate cost-sharing between the developing landowners. These will be provided through separate background studies.

The following sections provide a summary of the approaches in repealing/updating the by-laws and how certain works are to be incorporated into the City-wide D.C. calculations.

H.1 Oak Ridges – Lake Wilcox Greenfield Development Area

The following provides the approach related to the Oak Ridges – Lake Wilcox Greenfield Development Area Specific D.C. by-law:



- Outstanding capital works still to be completed that are to be funded with existing A.S.D.C. reserves:
 - Watermains & Appurtenances (\$1.95 million):
 - Coons Road;
 - Yonge Street Crossing; and
 - King Road
 - Sanitary Sewers and Appurtenances (\$0.38 million):
 - North Lake Road
 - Storm Sewers and Appurtenances (\$0.72 million)
- Outstanding works benefiting one landowner (Baif) – considered to be direct developer responsibility as per the local service policy (\$5.16 million):
 - Watermains and appurtenances; and
 - Storm sewers and appurtenances.
- City contributions not recovered (\$0.18 million). The current reserve fund balance is not sufficient to provide repayment for the City’s contribution and will not be recovered.

The existing by-law is proposed to be repealed.

H.2 North Leslie West Development Area

The following provides the approach related to the North Leslie West Development Area Specific D.C. By-law:

- All infrastructure needs, other than boundary roads, have been constructed and delivered by developers through developer cost-sharing agreements.
- Outstanding works related to boundary roads are to be included in City-wide D.C. (\$3.21 million)
 - Leslie Street – West Side;
 - 19th Avenue – North and South Side; and
 - Bayview Avenue – East Side.
- Reserve fund balance related to boundary road works to be transferred to City-wide Engineering D.C. reserve fund (\$0.56 million).
- The City provided a \$1.24 million contribution related to external trunk sewer oversizing works. The current reserve fund balance is not sufficient to provide repayment for the City’s contribution and will not be recovered.



The existing A.S.D.C. by-law is proposed to be repealed.

H.3 North Leslie East Development Area

The following provides the approach related to the North Leslie East Development Area Specific D.C. By-law:

- All infrastructure needs, other than boundary roads, have been constructed and delivered by developers through cost-sharing agreements.
- Outstanding works related to boundary roads are to be included in City-wide D.C. (\$0.74 million).
- Reserve fund balance related to boundary road works to be transferred to City-wide Engineering D.C. reserve fund (\$50,000).

The existing A.S.D.C. by-law is proposed to be repealed.

H.4 West Gormley Development Area

The following provides the approach related to the West Gormley Development Area Specific D.C. By-law:

- All infrastructure needs, other than boundary roads, have been constructed and delivered by developers through cost-sharing agreements.
- Outstanding works related to boundary roads are to be included in the City-wide D.C. (\$2.67 million).
- Reserve fund balance related to boundary road works to be transferred to City-wide Engineering D.C. reserve fund (\$0.52 million).

The existing A.S.D.C. by-law is proposed to be repealed.

H.5 Elgin West Development Area

The following provides the approach related to the Elgin West Development Area Specific D.C. By-law:

- Outstanding capital works still to be completed that are to be funded with existing A.S.D.C. reserves:



- Watermains & Appurtenances (\$0.33 million):
 - Yonge Street from Gamble to Nottingham Drive.
- Outstanding works benefiting one landowner (Yonge MCD lands) – considered to be direct developer responsibility as per the local service policy (\$0.23 million):
 - Storm sewers and appurtenances.
- Land component of works related to collector roads in order to meet City standards are to be acquired through the development application process (\$0.29 million).

The existing A.S.D.C. by-law is proposed to be repealed.

H.6 Headford Storm North of Rouge Development Area

The following provides the approach related to the Headford Storm North of Rouge Development Area By-law:

- There are three major landowners within this area. All outstanding works included in this by-law are to be considered on a consolidated level with the Headford – Excluding Storm A.S.D.C. by-law.

The existing A.S.D.C. by-law is proposed to be repealed.

H.7 Headford – Excluding Storm Development Area

The following provides the approach related to the Headford – Excluding Storm Development Area By-law:

- Outstanding works related to boundary roads are to be included in the City-wide D.C. (\$0.52 million):
 - Major Mackenzie Drive.
- Collector roads to be included in the City-wide D.C. calculation (\$0.54 million):
 - Vogell Road
- Reserve fund balance related to boundary road and collector road works to be transferred to City-wide Engineering D.C. reserve fund (\$0.46 million).
- Vogell Bridge and associated active transportation infrastructure (\$17.20 million):



- Given that these works provide a City-wide benefit, the City-wide benefiting portion of these costs are to be incorporated into the City-wide D.C. calculation, with the remaining costs to be provided through the local service policy as direct developer responsibility:
 - City-wide D.C. portion: \$3.90 million
 - Direct developer responsibility: \$13.30 million
 - Note: the reserve fund balance of \$1.46 million related to Vogell bridge will be utilized to fund these works, resulting in a net cost of \$11.84 million, which will be direct developer responsibility.
- Outstanding capital works still to be completed that are to be funded with existing A.S.D.C. reserves:
 - Watermains and appurtenances (\$0.27 million):
 - Leslie Street; and
 - Major Mackenzie Drive.

This by-law is proposed to be updated in order to facilitate cost-sharing among developers related to the construction of outstanding works benefiting this area.

H.8 Bayview North East Development Area

The following provides the approach related to the Bayview North East Development Area By-law:

- Outstanding works related to boundary roads are to be included in the City-wide D.C. (\$0.99 million):
 - Leslie Street; and
 - Major Mackenzie Drive.
- Reserve fund balance related to boundary road works to be transferred to City-wide Engineering D.C. reserve fund (\$0.11 million).
- Outstanding capital works still to be completed that are to be funded with existing A.S.D.C. reserves:
 - Collector Roads (\$1.04 million):
 - Two traffic signals.
- Outstanding works benefiting one landowner (Urbacon lands) – considered to be direct developer responsibility as per the local service policy (\$4.06 million):



- Storm sewers and appurtenances.
- D.C. Credits to be transferred through private landowner agreement (\$6.30 million)
 - Barker Business Park

The existing A.S.D.C. by-law will be updated to facilitate the cost sharing agreements.



H.9 Summary

The following table provides a summary of the above with respect to the treatment of outstanding works/reserve fund balances in the A.S.D.C. by-laws:

Table H-1
City of Richmond Hill
Summary of Approach for A.S.D.C.s

Existing A.S.D.C. By-law	Capital Works to be Included in City-Wide D.C.	Reserve Fund Balance to be Transferred to City-wide Engineering D.C. Reserve Fund for Works to be Included in City-wide D.C.	Capital Works to be Funded with Existing A.S.D.C. Reserve Fund	Direct Developer Responsibility as part of Local Service Policy	Subdivision/Site-Plan Requirements
By-law 41-19 Oak Ridges - Lake Wilcox (Greenfield) Development Area	-		3,050,000	5,160,000	
By-law 42-19 North Leslie West Development Area	3,210,000	560,000			
By-law 43-19 North Leslie East Development Area	740,000	50,000			
By-law 44-19 West Gormley Development Area	2,670,000	520,000			
By-law 45-19 Elgin West Development Area	-		330,000	230,000	290,000
By-law 46-19 Headford Storm North of Rouge Development Area					
By-law 32-21 Bayview North East Development Area	990,000	110,000	1,040,000	4,060,000	
By-law 33-21 Headford - Excluding Storm Development Area	4,960,000	460,000	270,000	11,840,000	
Total	12,570,000	1,700,000	4,690,000	21,290,000	290,000

Note: Capital works to be included in the City-wide D.C. and the associated reserve balances for these works have been included in the engineering capital listing found in Section 5.3.1 of this report.



Appendix I

Proposed D.C. By-law



Appendix I: Proposed D.C. By-Law

To be provided under separate cover.